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Addressing the Barriers to Bicycling: A Bike Access Program in Lewiston and Auburn, ME

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**Addressing the Barriers to Bicycling:
A Bike Access Program in Lewiston and Auburn, ME**

Prepared for the Complete Streets Committee of Lewiston and Auburn

**Produced by:
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Executive Summary

Efforts by municipalities and advocacy groups to encourage biking for transportation and recreation has been associated with improvements in emissions reductions, economic development, public health, and social equity (Gardner and Gaegauf 2014, 2013). The aim of this project was to identify barriers to biking in the towns of Lewiston and Auburn. Given this aim, the primary objective was to determine a strategy to overcome these barriers in the form of a bike access program. There are many methods that support biking as a viable form of transportation, including bicycling infrastructure (parking and bike lanes), promotional events, and educational initiatives. The primary focus of our group, however, was to determine the viability of some form of a “bike access” program in Lewiston and Auburn. In order to determine what an equitable bike access program might look like, we sought community feedback from local businesses and residents through interviews and surveys, discussed the project with government officials in both Lewiston and Auburn, consulted operators of other bike access programs in Maine and across the US, and identified some local leaders to champion this program. Such conversations and outreach provided a thorough understanding of the primary barriers to bicycling, the specific locations where people want access to bikes, and the existing bicycling culture of town. Additionally, our conversations with traditional bikeshare operators and other Maine bike access programs helped us gain a better understanding of the costs of these programs, as well as the logistics of implementation and maintenance. Our findings indicated a large interest in bicycling for both recreational and transportation purposes, as well as general interest in a program that would allow for greater access to bikes in the downtown Lewiston and Auburn areas. From an economic and equity standpoint, we found that a traditional ‘bikeshare’ program would be too costly and too much of an infrastructural investment. Rather, our outreach and research lead us to conclude that a ‘bike library’ or other type of public bike access program would be more effective at promoting ridership. A bike access program also serves as a proof of concept. If such a program is successful for a pilot period, perhaps it will generate support for a more comprehensive bikeshare program in the future. For the time being, energy and funding should be concentrated on developing and implementing a bike access program. We recommend developing bike access programs out of the public libraries at both Lewiston and Auburn, in which users can check out a bicycle for free, and in exchange for collateral that they will get back at the end of their rental. While users are free to take the bikes wherever they wish, we also recommend establishing a safe route that leads cyclists on low-stress paths away from car traffic where they are supported with signage and infrastructure. Such a route enables users to freely travel between the two libraries, thereby gaining confidence travelling on a bicycle. Encouraging bicycle transportation on one specific route is likely to result in a significantly safer bicycling environment due to the phenomenon of “Safety in Numbers” (Jacobsen, 2003). Once this route is established and the program gains some visibility and credibility in the community, there is the possibility that this could extend to other venues. In its initial implementation, though, we suggest starting with just two locations with a protected “safe route”.

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Introduction

In 2017, both Lewiston and Auburn, ME adopted an city-wide ordinance that established the Complete Streets Committee. This committee was established with a threefold purpose, first to support multi-modal transportation through the development of public infrastructure. Secondly, the Complete Streets Committee aims to initiate this process with the development of policies that support multi-modal transportation, and finally, offer advice and suggestions to municipal departments on how to match infrastructure projects to the best practices for enhancing safety for all users as well as spurring community and economic development.

In order to create a public infrastructure system that allows for the multi-modal transportation, the Complete Streets Committee is tasked with making non-motorized transportation safer for all Lewiston Auburn residents. Thus far, their work to this end has included redesigns of dangerous intersections, the addition of bike lanes to major roads, and increasing the visibility of pedestrians through education and crosswalk enhancement. In this way, their work has focused on changing the environmental conditions that act as a significant barrier to bicycling in order to make L/A to be more ‘bike-friendly’. This work is consistent with other municipal approaches to increase rates of cycling, that often focus on reducing the dominance of car-centric infrastructure. While these efforts have proven to be effective, with an increase of bike infrastructure significantly increasing accessibility for pedestrian activity (Zahabi et. al. 2016), it is important to recognize that adding more bike lanes alone is not enough to single handedly increase ridership. This is because several other barriers to cycling exist including the expense of owning, maintaining and storing a bicycle, and safety concerns due to motor traffic (Community Cycling Center, 2012). The installation of a bikeshare or bike-loan

program has the possibility to address these barriers by eliminating the need for the upfront cost, individual maintenance and storage of a bike. This type of program has precedent in both Maine and Lewiston, suggesting the need for further research into the feasibility of another bike share program and its intended form and function.

This project aimed to work with the joint Complete Streets Committee to evaluate the feasibility of instituting a bikeshare in Lewiston and Auburn. To do this we sought to build upon the work done by the Complete Streets Committee by evaluating bike accessibility for Downtown Residents. This occurred through “community conversations” with local businesses, residents, large city-wide employers, and community organizations. Other community feedback was obtained through intercept surveying in Lewiston and Auburn with the principal goal of assessing interest in increased access to biking in Lewiston and Auburn, and the present barriers that inhibit residents from currently using utilitarian biking as a means to achieve some part of their daily activities. Both of these objectives worked to inform our recommendations to the Complete Streets Committee on the feasibility of instituting a bikeshare or bike access program between the two communities. Included are also recommendations of different forms, and models that a community bike access program could take without the influence of a traditional bikeshare operator. Throughout these recommendations, we seek to highlight the cultural, educational, economic, and physical considerations that must be made in potentially implementing these recommendations. This is especially important, as drawing upon the scholarly literature has emphasized the importance of community input in any bike share program, and therefore aim to have our final feasibility assessment be entirely community driven.

Methodological Approach

Our approach to this project from the beginning sought to make the results of this study be entirely community driven. We sought to ask questions to a diverse array of individuals occupying various roles in the community. Each question that we asked worked to answer one or several of our guiding questions for this project. These included:

What are the barriers to cycling and what strategies can address these barriers?

What are the barriers to biking in Lewiston and Auburn?

What strategies can address these barriers in Lewiston and Auburn?

What is the current biking culture in Lewiston and Auburn?

To do this, we identified six umbrella categories of ‘community’ in Lewiston and Auburn, and talked to each group (with varying depth) about bike accessibility and use in Lewiston and Auburn. However, we recognize that our focus and the types of questions we asked changed throughout the course of the semester; as the focus of our project shifted, the questions we asked changed in response. In this section, we define the confines of each community group, and summarize the types of questions that we asked them.

A large part of our outreach in the beginning of the project focused on local businesses and organizations in Lewiston and Auburn. The aim with this portion of our outreach was to speak with champions and leaders of the community to gain a better understanding of cycling culture, demographics, commuter habits and other potential barriers to cycling within Lewiston and Auburn. As stated previously, the questions we asked and direction of our conversations changed and evolved as our outreach progressed. Additionally, the ‘businesses’ included in our

outreach varied greatly. The questions we asked during our conversation with the Hilton Garden Inn were different than those asked in our conversation with the Lewiston Public Library. In total, we spoke with 11 different businesses. Our questions revolved around gaining an understanding of the current status of cycling in the towns of Lewiston and Auburn from the perspective of the business. For example, in our conversation with Judy Meyer at the Lewiston Sun Journal, we talked about prior initiatives to celebrate cycling in Lewiston: *What sort of cycling events are hosted in Lewiston? Does the Sun Journal cover them?* We also asked more general questions, especially in terms of understanding how people commute to work and around the city: *How many of your employees bike to work? How close do they live to the office? Where do they go for lunch or on breaks?* During our conversation with the Lewiston Public Library, the aim of our questions was similar, but the questions changed slightly: *Do people bike to the library? Have any patrons expressed interest in having more access to bikes? Demographically speaking, who seems to be riding bikes the most? How would a bike access program affect the state of cycling and community in general?*

In sum, the exact questions we asked each business varied slightly based on who we were talking to. But the ideas behind the questions were uniform throughout: *What sort of cycling culture already exists in Lewiston and Auburn? Is this population interested in cycling? What are the largest barriers to cycling in Lewiston-Auburn? How would a bike access program address some of these barriers?*

The next focus of our outreach was on different parts of the Lewiston and Auburn municipal governments. We spoke with both the Public Works Department and Planning Department of Lewiston and the Economic Development Department of Auburn. Our

community partner for the project was David Das and the Complete Streets committee, which also served as a source for contacts and information. Our conversations with parts of Lewiston and Auburn government were centered around a view of the barriers to cycling that we identified at the beginning of the project: Addressing car-centric infrastructure and pedestrian safety.

Questions during these conversations included: *What sort of momentum is there behind policy that would make cycling easier and safer? How could a bike access program fit into this existing narrative? Where would the most advantageous places be to establish cycling infrastructure?*

Additionally, these conversations served to remind us of the more pragmatic aspects of establishing a bike access program in Lewiston and Auburn. *How much would it cost to establish different types of bike access programs? Would it generate any revenue? What about sponsors?*

So in addition to gaining an understanding at how infrastructure and education serve as barriers to cycling in Lewiston Auburn, we also aimed to understand how establishing a public bike access program would actually work in regards to the cities themselves.

The final portion of our Lewiston-Auburn based outreach was conducting an intercept survey of Lewiston residents (see appendix, Bicycling for Lewiston/Auburn). The survey questions were designed to gauge residents' opinions on bike transportation and overall desire to have more access to bikes. Questions on the survey included: *Are you interested in having access to a bike? What are the the most significant barriers to you biking more? If you were to have access to a bike for a very low cost- where would you bike to?* Not only were these questions designed to illustrate demand for bikes amongst residents, but also to provide insight on where a bike access program would be most effective.

The intercept survey was conducted over two days. Surveys were handed out next to the Lewiston Public library on the first day, then in Kennedy Park the second day. In total, 23 survey were completed.

The primary focus of our outreach outside the Lewiston-Auburn areas centered around existing bikeshare operators. Earlier in the project, our group pursued the possibility of a traditional bikeshare program in Lewiston and Auburn. Thus, to meet the requests from the Complete Streets committee, and to assist in our continuing community outreach, we spoke with a number of bikeshare operators concerning costs, implementation, approaches to outreach and feasibility studies. We spoke primarily with three traditional bikeshare operators: Gotcha, JUMP, and Zagster. Questions during these conversations included: *What was the process leading up to the implementation of bike shares in various cities? How extensive was the outreach? Focus groups, surveys, canvassing? What are the costs to your bikeshare program and who are the typical stakeholders?* These conversations with bikeshare operators also provided us with a great source of reverse inquiry. For example, after one bikeshare operator explained how payment methods typically require a credit or debit card and bikes are typically managed with smartphone applications, we had a conversation with the Lewiston Public Library to figure out how a cash based bikeshare system would work. Our conversations with these bikeshare operators helped us identify barriers we had not previously thought of, as well as tactics to outreach and synthesizing information. Our group then reached out to existing bike access programs in the state of Maine that do not use a third party operator or organizer. The towns of Norway and Machias were the two examples we focused on. After our project evolved

away from a more traditional bikeshare program, we reached out to both of these existing Maine bike loan programs to get a better understanding of operating a program in this state.

Looking back at our outreach schematic, we were able to contact and have meaningful conversations with each group, save one: potential sponsors. Some of our conversations with local businesses certainly involved aspects of potential sponsorship and funding interests. However, a notable gap in our outreach is any specific conversations concerning concrete sponsorship opportunities.

Results and Discussion

After compiling the results of our intercept surveying and informal interviews with community members, we were left with both qualitative and quantitative data. Each of these data sets include a few key conclusions that help to guide and inform and shape the rest of our results for next steps. In this section we will articulate both categories of our results to the extent that they answered our initial conceptual questions before discussing how our findings interact to inform our recommendations for next steps.

What are the barriers to cycling and what strategies can address these barriers?

Across the United States, the single occupancy vehicle is the dominant mode of commuting to work. In 2013, 86 percent of American workers drove to work, and 3 out of 4 of these commuters drove alone. The percentage of pedestrian and bicycle commuters is paltry in comparison, as 2.1 percent of individuals walk and only 0.6 percent bike to work (Mckenzie, 2015). In Lewiston, Maine, the trend is very similar. 76 percent of residents drive to work alone, while 10 percent carpool (City of Lewiston Comprehensive Plan 2017). The percentage of bicycle commuters is paltry in comparison, as 1.9 percent of individuals use either a taxi, motorcycle, bicycle, or other mode of transportation to get to work. This disparity occurs despite the well established economic, ecological, and social benefits of increasing rates of bicycle use for transportation purposes. Economically, individuals are more likely to stop and patronize a business from a bicycle than a car, and a bicycle also does far less damage to roads than cars do (Gardner and Gaegauf 2014, Dunn 2016). Ecologically, the bicycle provides a transportation

option which contributes no noise or air pollution, both of which have negative health consequences for city residents (Lee et al. 2014). Finally, bicycle use encourages physical activity, thereby improving public health (Hartog et al. 2010).

Given all these benefits, one would expect city planning departments to engage in massive infrastructural projects to incentivize bicycle use. However, such investments must be carefully considered, and it is difficult to discern how exactly to change people's modal choice for commuting. In effort to discern these most effective strategies, work has been across the United States to identify the primary barriers to biking among commuters. A study in Portland, Oregon identified the major barriers to bicycle use to be safety concerns due to motor traffic, as well as the cost, expertise, and space required to purchase, maintain, and store a private bicycle (Community Cycling Center, 2012).

To overcome these barriers, numerous strategies have emerged through the work of municipal governments and community organizations. Featured below are two conceptual diagrams that illustrate several significant barriers to cycling and the associated strategies that seek to address them. The first diagram (Fig. 1) includes color-coated connecting lines that illustrate the connection of barriers to strategies. The second diagram highlights the barriers addressed by the last listed strategy, a bike-access program (Fig.2).

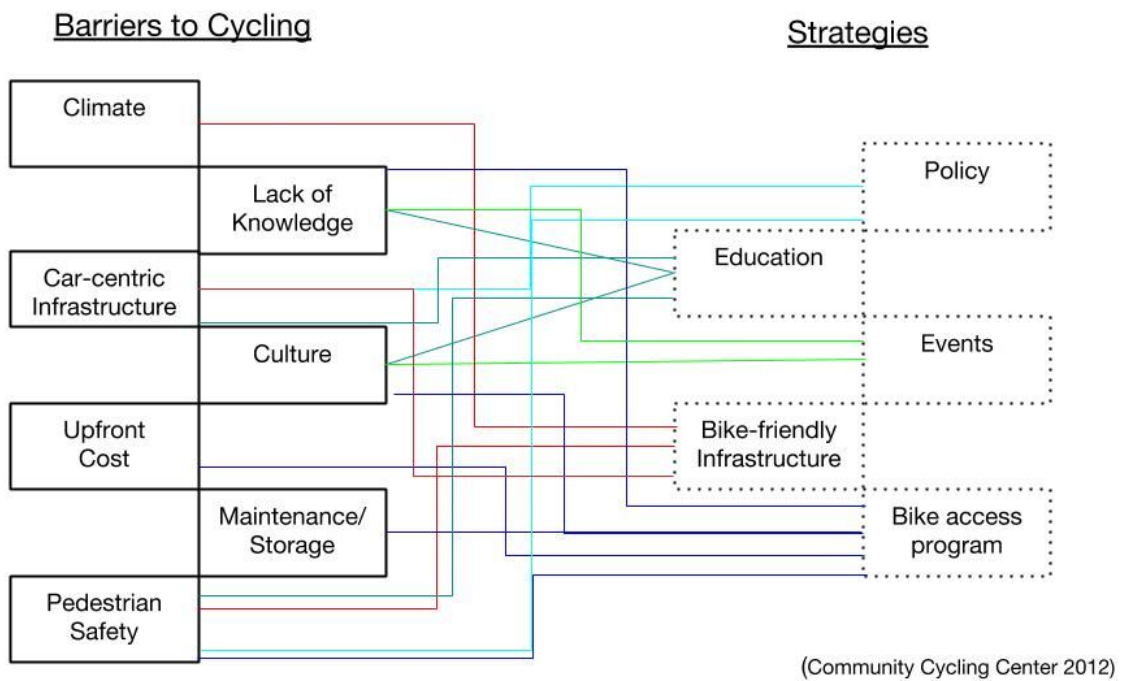


Figure 1. Barriers to cycling and strategies employed to address them.

As evident by the above figure and the overlapping and intersecting lines, multiple strategies can be employed to address the same barrier, and in the same vein, multiple barriers can be addressed by the same strategy. We found this nuance to be especially important given that it highlights the interdependence of these strategies among each other. For instance, the implementation of public policy that aims to institute bike safety programs in local schools can create and further the goals of the “education” strategy while addressing the barriers of lack of (bike) knowledge and culture. Similarly, if policy is passed to enhance pedestrian and bike-friendly infrastructure, the creation of the “bike-friendly infrastructure” seeks to address the dominance of “car-centric infrastructure”, a widespread and significant barrier to cycling in many communities. While it is important to highlight the mutually-reinforcing nature of these strategies, it is perhaps equally important to recognize that there is no necessary order of

implementation for these strategies to be effective. For example, the implementation of bike-friendly infrastructure and the hosting of bike-related event such as a community ride, can happen simultaneously or chronologically. While the end results of the two-timing scenarios may differ from each other slightly, the overall effect will likely be the same in that there is a decrease in the lack of knowledge about biking and perhaps a small change in the dominance of car culture.

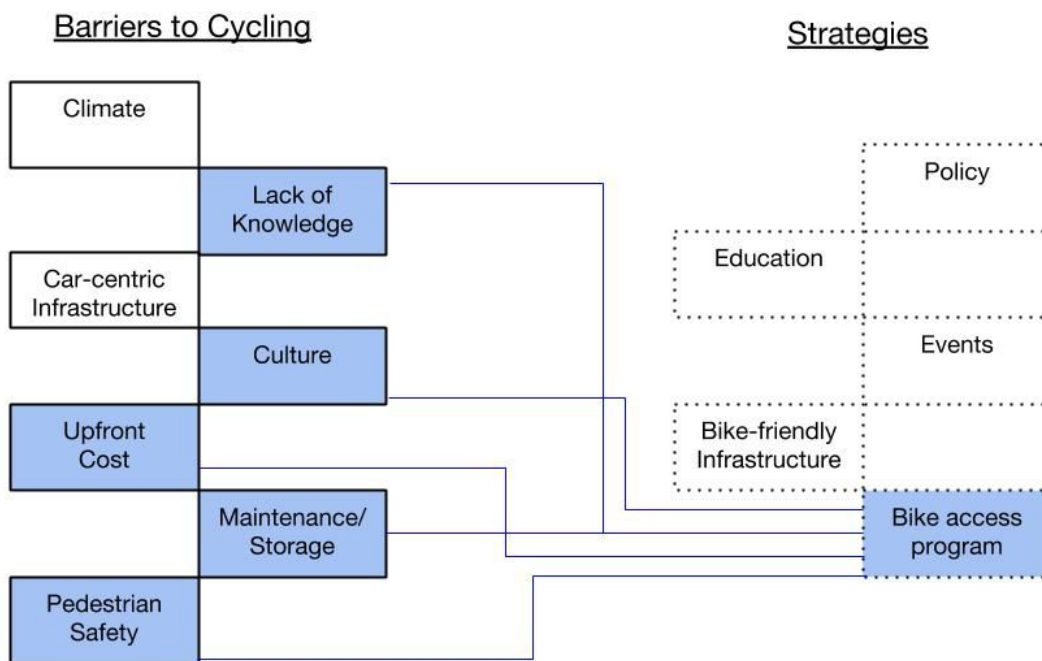


Figure 2. Barriers to cycling that can be potentially addressed by the implementation of a bikeshare in a community.

To overcome some these barriers, bikeshare has emerged as a popular and effective tool, wherein a municipality can partner with a private bike share operator to make bicycles publically available for short trips (<1 hour). Bike share memberships are less expensive than private bicycle ownership for users, and demand zero expertise on the side of the user other than the

knowledge of how to ride a bicycle. This is key to address the barriers of education and culture as it opens up biking for everyone, not just the recreationalists or cycling experts. Furthermore, individuals using a bike share experience reduced injury and fatality rates when compared private bicycle users, so bikeshare also addresses safety concerns (Martin et al. 2016).

Given how effective and holistic the effects of bikeshare implementation in a community can be, we initially reached out to those who have experience planning and implementing these programs. As mentioned in our methods, we were in contact with several bikeshare operators over the duration of this project. Our contact with JUMP and Gotcha were the most extensive and the most meaningful, each for different reasons. We spoke to Kristen Moreau, a bikeshare planner from JUMP. Moreau has designed bikeshare programs for multiple cities across the country including New Orleans, LA and Chicago, IL. Her experience developing programs for each of these locations made it clear that a great deal of background work is necessary to develop a bikeshare that can cater to the exact needs of the community. This reaffirmed our community approach to the project. However, it was also clear from this discussion that operators such as JUMP are accustomed to working with large metropolitan areas with high population density and have little experience working with small cities like Lewiston and Auburn. Later conversations with planners at Gotcha, a company that works with smaller cities such as Burlington Vermont seemed a better fit. That sentiment remained true until we recognized that working with any bikeshare operator in the installation and management of a bikeshare introduces other obstacles that communities must face, especially at a small scale.

From our discussions with Gotcha, we found it important to note, that while bikeshares can do a lot for a community by reducing several barriers to cycling, they also carry with them

several barriers to entry. These barriers primarily arise due to most bikeshares dependence on smartphone and credit access (Mcneil et. al, 2018). In order for community residents to become apart of bikeshare, they must also have access to a computer, smartphone, and have an established debit or credit card. Each of these are used in the purchase of a membership or for an individual ride. These requirements can be quite inhibitive when trying to target populations of potential riders who may be using some other low-cost form of transportation such as carpooling or bus-riding. In addition, bikeshares across the country are run by bikeshare operators, Gotcha, Zagster and JUMP, to name a few. While these operators are equipped to manage and run a bikeshare in large metropolitan centers, areas that can sustain bikeshares nearly by population alone, many companies have less experience working in small to mid-size cities with pressing demographic constraints and in effect, are less flexible in working under specific environmental and social conditions (Mcneil et. al, 2018).

Principally for this reason, before deciding to implement a bikeshare in whatever form it may take, thorough community input from Lewiston and Auburn must be acquired. Bike share is subject to criticisms of gentrification when longtime community residents' opinions are ignored. Before distributing any bicycles or physical infrastructure, there must first be thorough outreach to understand community transportation needs, existing perceptions of bicycling and bike share, and potential interest in such a program, with a particular focus on residents in the downtown area. We are sensitive to the particularities of Lewiston and Auburn, and understand that any sort of bike share program must arise out of community enthusiasm and feedback, instead of being imposed on neighborhoods by city government. For this reason, we chose to let the results and recommendations of our study be entirely community driven. With this, we entered our

community conversation open to the fact that a bikeshare in its original form may not be desired in Lewiston and Auburn, and sought to think creatively about how to best address the needs of these two communities.

What is the current biking culture in Lewiston and Auburn?

There are a few crucial relationships to describe in discussing the existing bicycle culture in Lewiston and Auburn. Much of these relationships operate on a volunteer basis, both in the form of volunteer labor and in donated items. The first community group that has been active in promoting bicycling is the Lewiston Police Department (LPD). The LPD has proven itself to be a supporter for bicycling transportation in that they participate in helmet giveaways in the fall to provide children with helmets, and the LPD also donates confiscated bikes to St. Mary's Nutrition Center as a transportation tool for participants of the Lots to Garden Program. The Lots to Gardens Program, run by Sarah Ullman who is the Youth Program Coordinator of the Nutrition Center, functions as a service corps position for high school students. Students work in gardens managed by the St. Mary's Nutrition Center and receive a small stipend at the end of their time in the program. While they are in the program, they are gifted a bicycle for transportation purposes, although students also use the bikes recreationally.

The issue is that the confiscated bikes given to the Lots to Gardens program are not all in sufficient condition. In order to make sure the bikes are adequate for riding, members of the Rainbow Bicycles staff will volunteer to fix them. In addition to providing free labor for the Lots to Gardens program, the Rainbow Bicycles staff is also active in ensuring that community

members in need have adequate transportation. John Grenier, the Owner of Rainbow Bicycles, informed us of a program in which low-income individuals are able to acquire bicycles at a reduced cost if they are for utilitarian purposes. In our conversations with Grenier, he also explained that he had been trying to establish a bicycle library program with Marcela Peres, the Director of the Lewiston Library, although further steps have not been taken on this initiative. This is largely where the idea for the bicycle library came from, as a continuation of this idea between Grenier and Peres.

In terms of other models of bike access programs in Maine, we turned to Norway, Maine. In Norway, the Center for Ecology Based Economy (CEBE) runs a program in downtown Norway, South Paris, and the Oxford area. Instead of a traditional bike share model with GPS and docking stations, CEBE sources bikes from the local police station and sent out a request on social media calling for donated bikes. Once they acquire these bikes, CEBE relies on volunteer labor to get them fixed up, painted green, and mounted with an orange crate to carry cargo. One crucial partnership that CEBE formed was with the nearby school, Hebron Academy, where students and adults alike came from to help repair damaged bikes.

While the program is free for users, everyone must register for the program and provide collateral for the duration of their bike rental in the form of an ID as well as 10 dollars. The program is advertised with a brochure, has a registration checklist, a chart of program updates, and a registration form that every user must fill out.

In terms of the spatial layout of the program, there are three stations: one at community concepts, one at the hospital, and one at the CEBE office. However, users must drop the bike off

from where they picked it up, and are also required to stay within a particular zone of operations, shown below.



Figure. 3 Center for Ecology Based Economy Bikeshare boundaries, 2018.

In this regard, it differs from a traditional bike share in which members can pick up a bike and then drop it off at a different station. Despite this limitation, Zizi Vlaun, one of the owners of CEBE, reports that the program has been an overwhelming success. Furthermore, she explains how the program facilitated connection with other members of the community. She says:

“The program put us in proximity, in relationship, with a lot of lower income people because they are the ones that either do not have transport or lost their license and they need to get to a job interview or to work. When we started the program, we did not realize that that was going to

be part of the deal. That gave us the opportunity to have conversations with people we would not realize we would be able to touch.”

This is a crucial benefit that accompanies developing a community bike access program rather than striving to attract a bikeshare operator to develop such a program. A community access program builds on an existing bicycle culture, and facilitates conversations with different members of the community. This was another crucial element of the bikeshare program that Vlaun stressed: long conversations about community trust. While such bike loan programs do not formally exist in Lewiston or Auburn presently, there is somewhat of a precedent for them in the form the St. Mary’s Lots to Gardens bike loan program as well as the potential library rental program discussed by Grenier and Peres.

What are the barriers to biking in Lewiston and Auburn?

The answers we received to this question were two-fold. Some answers came from our qualitative questions held with community leaders, while the other body of responses was created through our discussion with Lewiston and Auburn Residents. From the community leader’s perspective, an answer to this question came in the first discussions we had with Marcela Peres, Director of the Lewiston Public Library and Moira Foley, Director of Operations at Tree Street Youth. In their mind's eye, the most restrictive barriers to cycling were 1) the upfront cost of purchasing a bicycle and 2) the perceived safety of the Lewiston and Auburn roads, especially in the winter. Both Peres and Foiley agreed that these barriers were exacerbated

when bike access is expanded beyond the individual to providing cycling capability for the entire family. In both cases, an individual would be responsible for purchasing each family member their own bike. For a family of 6 in Lewiston, who is interested in active transit, in Peres's opinion, this cost is insurmountably prohibitive. The same trend was apparent in Foiley's reasoning as she highlighted the difficulty of one resident learning and following the rules of the road while navigating natural and infrastructure barriers present in all seasons (specifically in winter, she highlighted the danger of snow piles blocking bike and fog lanes, and potholes during the rest of the year). Subsequent conversations with Shanna Cox from Project Tipping Point and Dave Hediger from the Lewiston Planning office offered similar concerns with biking and bike access in both cities.

The perceptions of present barriers in Lewiston and Auburn we surmised from our community leader discussions were enhanced and reinforced by the results of our intercept surveying in Lewiston and Auburn. To begin these conversations, we felt it necessary to first establish interest in the prospect of having more access to biking in Lewiston and Auburn (see appendix, question 2). The results of our Lewiston surveying, yielded an overwhelmingly positive response to increase bike access in Lewiston with 19 of the 21 respondents of this surveying expressing interest in increased bike accessibility (Fig. 4). It should be noted that out of 20 respondents to these same surveys, 11 declared already having dependable access to a bike. However, we still deem this supportive majority to hold true; that there is a desire in Lewiston for greater bike accessibility.

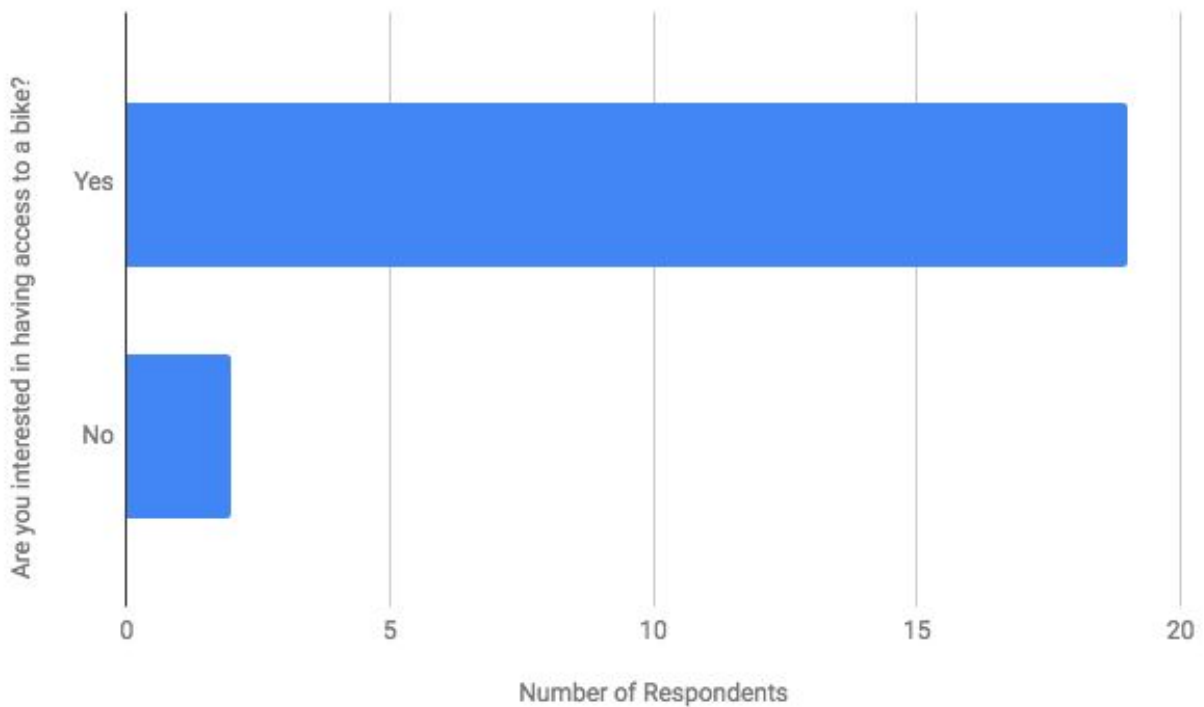


Figure 4. Responses from Lewiston residents when asked “Are you interested in having access to a bike?” (n=21).

In an attempt to distill the barriers to biking felt by Lewiston and Auburn residents, we indirectly asked “What stops you from wanting to bike more?” (Fig. 5). This question was preceded by our attempt to quantify how often people in Lewiston and Auburn have biked within the past week, month, or year (see appendix, question 3). We created this question by offering several options for respondent to choose from/ Each option related to barrier that the installation of a bike access program could specifically address. However, we did include an “other” option, in an attempt to allow for the incorporation of other barriers felt by Lewiston and Auburn residents that require further strategies beyond what a bike access program can accomplish. As seen below (Fig. 5), this option was the most selected (33.3 percent), yielding new barriers

including the impediment of physical ailments, the great distance for some residents between home and work, the hilly topography of Lewiston and Auburn, and the perceived safety of roads and lack of bike lanes. Second to this category, the barrier of bike expense (20 percent) and lack of access to bike storage (23.3 percent) were the most heavily selected. This suggests that the upfront cost of not only purchasing but also maintain a bicycle is a major barrier to Lewiston and Auburn residents (Fig. 5). The lack of bike maintenance knowledge also poses as a significant barrier to residents as illustrated by the red wedge (13.3 percent) below.

What stops you from wanting to bike more?

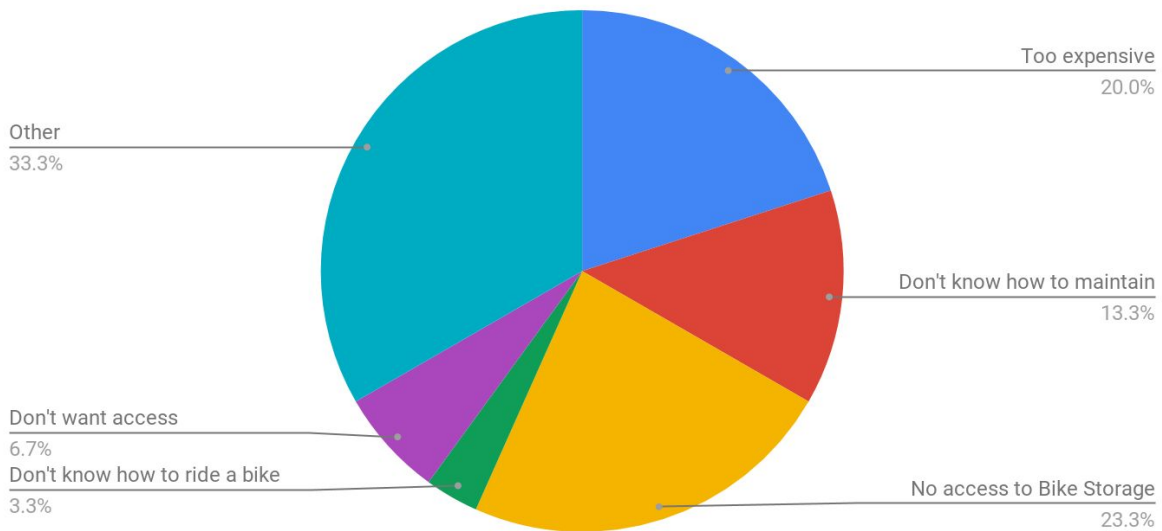


Figure 5. Responses from Lewiston when asked “What stops you from wanting to bike more”. Multiple responses could be selected by individuals (n=23).

While each of these barriers selected are significant, nearly all of them (excluding physical ailments and the topography of each city) can be addressed by a bike access program (see Fig. 2). These results suggested to us that perhaps a bike access program could be beneficial to the Lewiston and Auburn communities. However, we were left wondering whether or not a

system like this would actually be used in either city. To answer this question, we worked to identify several locations where a potential “bike library” or stock of bikes that would be of use to residents. The results of this question will be explored in the following paragraphs.

The identification of these dominant barriers within our community leader discussion and intercept surveys also revealed more subtle, but no less important secondary barriers to biking in Lewiston and Auburn. Nearly across the board, traditional bikeshare programs rely on a basic level of computer or smartphone literacy and access a credit card and bank account. This is because most bikeshares function through a smartphone app, online account, and digital transactions. Without access to one of these three, an interested bikeshare user is at a significant disadvantage.

To avoid this situation, Peres recommended that a cash-transfer option or membership card be available to residents who don’t have access to one or all of these necessities. Peres envisioned a system facilitated by the library in which community members could continuously refill a membership card with cash, thereby allowing them to have a pseudo-credit card. In these initial conversations, it appeared that working with a bikeshare operator that functioned under a credit card system would work as long as there would be a cash-transfer option in place. However, as the discussion continued, specifically with John Grenier at Rainbow Bicycles, it became clear to us that the cost barrier included the upfront cost of purchasing a bicycle, but also to the cost of participating in a pseudo-bikeshare program. From this discussion with Grenier, we surmised that from his experience working with the Lewiston Auburn community, even a few dollars a month spent on bike access might be too great an expense. This reasoning was the primary motivation for our shift in focus away from examining the feasibility of instilling a

traditional bikeshare program under the confines of the bikeshare operators business model, to developing and designing a bike access program that address the present barriers to biking in Lewiston and Auburn.

What strategies can address these barriers in Lewiston and Auburn?

As discussed above, an important result of our intercept surveying yielded perceptions of barriers to cycling in Lewiston and Auburn. More importantly, these results suggested that the implementation of a bikeshare, in theory, could work to address some of these barriers. However, before immediately jumping to that conclusion, we were interested in uncovering whether people were interested in having increased access to a bike, and if so, what locations would they bike to (see appendix, question, 7). The results of this inquiry are illustrated below in Figure 6.

Where would you bike to?

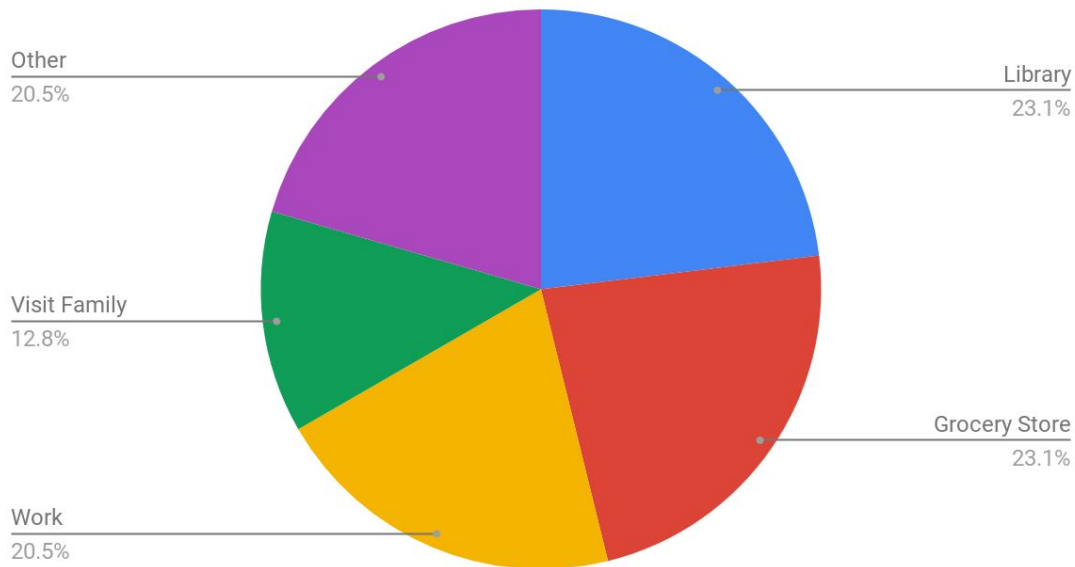


Figure 6. Responses from Lewiston residents when asked “If you were to have access to a bike for a very low cost, where would you bike to?”. Multiple responses could be selected by individuals (n=23).

Using this data, we can interpret that Downtown Lewiston residents are interested in having more dependable bike access to visit the library or the grocery store (23.1 percent). These results corresponded to our previous discussion with Peres and Cox who both highlighted the importance of the library as a downtown center of community. They also both spoke to the necessity of increasing access for Lewiston and Auburn residents to fresh healthy food. This is an issue of increasing concern for Lewiston and Auburn especially given the high number of single-parent households in the former, and the lack of proximal supermarkets (greater than 0.5 km away i.e. within walking distance) from their home. A 2016 study found that of the nearly 1,600 single-parent households in Lewiston, 23 percent of them lived within 1 km away from a

supermarket (Gatrell and Ross, p 235, 2016). This highlights the need for Lewiston to increase transportation efforts to members of the community who are in the most need.

The third most selected category of biking locations of interest, to work, suggests the existence of a potential bike commuting population in Lewiston. This finding was of great interest to us as it suggests that a proposed bike share could potentially promote and increase in active work transit among Lewiston residents. In coordination with efforts by the Complete Streets Committee to increase pedestrian safety through policy and infrastructure implementation, a bike access program that seeks to attract Lewiston residents in need of transportation assistance to and from work, could be a mutually beneficial partnership.

In order for a bike access program to be effectively used by the communities residents, the bikes need to be located in areas that are both convenient and accessible. Many traditional bikehares place their bike stores in frequently visited public areas such as city plazas and proximal to transportation hubs. For example, stations of Capital Bikeshare (CaBi), the bikeshare program operating in Washington D.C can be found on the national mall, and within neighborhoods (“Capital Bikeshare”, 2017). The effects of these convenient station locations has manifested in bikeshare trips replacing those previously made by public transportation or walking (Buck et. al, 2013). Applying this theory to Lewiston and Auburn (see appendix, question 12), we found residents of Lewiston to be most interested in having bike stations located in the downtown area (39 percent), in their neighborhood (17.1 percent), or close to the library (14.6 percent). Recommendations for “other” locations include by schools, the hospital, or hotels (Fig. 7).

Where should a bike facility be located?

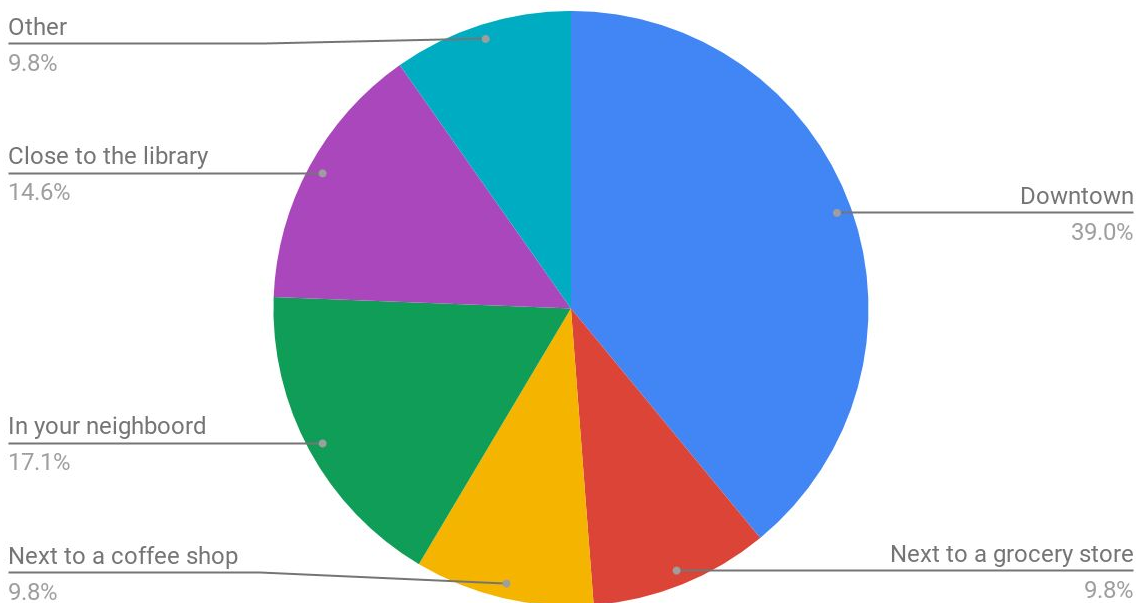


Figure 7. Responses from Lewiston residents when asked “Where do you think are the most useful places for bike share facilities to be located?”. Multiple responses could be selected by individuals (n=23).

These responses can be particularly helpful in future steps taken by the Complete Streets Committee or a partner organization in their work to put bikes on the ground. In our conversation with David Jones from the Lewiston Public Works office, the process of putting bike racks or bike stations would include site surveying and conversations with the land owners. Jones, identified this as a project that could be easily conducted and implemented with appropriate funding and planning. From this discussion we deemed, municipal support for the future implementation of bike-infrastructure in addition to past and future activities by the Complete Streets Committee. Installing this infrastructure could also serve the benefit of cyclists in Lewiston and Auburn who already commute or recreate throughout the year. As Bob Rand, an established bike commuter noted, the current lack of bike racks is a major obstacle in both cities

(Personal Communication, 2018). To this end, installing infrastructure for a bike access program could have benefits for both communities beyond its regular users.

The results of our surveying helped our study to distill areas of importance for potential bike stations around Lewiston, the barriers that residents of both cities currently face, and the locations they would bike to if those barriers were either eliminated or reduced. As previously stated, the results of our surveying efforts were echoed by many our community conversations that both preceded and following our surveying efforts. However, we recognize that the results of our surveying was both incomplete due to our relatively small sample size, and due to the confines of a quantitative survey. To this end, we see great value in opinions that cannot be captured by numbers alone. For this reason, we will conclude this discussion of our results with two anecdotes, one from Moira Foley of Tree Street Youth and one from the resident bike commuter, Bob Rand. In our opinion, these two testimonies highlight the potential benefits of the implementation of a bike access program in Lewiston and Auburn beyond what we could capture with our surveying efforts. In Foley's own words :

“People walk in Lewiston- there are bus stops throughout the city but they can only get to you to a certain part of the community- bikes could help bridge those gaps.”

“I bought a bike after using a citibike (in D.C) for a year. They were heavy, clunky, and only had 3 gears, but I loved riding so much I have own bike (with more gears) now”

From Foley's opinions, we recognize two major themes including how an increase in rates of cycling can lead to more diverse transportation options for Lewiston Auburn residents, and open up the possibility for residents to begin cycling more in their own lives. Similarly, our conversation with Bob Rand highlighted the benefits that increased rates of biking can have on personal and community health:

"I have managed to lose 50 lbs and avoid taking medications for high blood pressure, diabetes and cholesterol."

His words also emphasize an intangible benefit of biking: that it can help to either emphasize or instill a sense of place in a community.

"I love riding through the various neighborhoods, feeling a part of them. Instead of driving my metal box through them, I interact with neighbors walking their dogs and kids playing."

Data Limitations

With these final testimonies underlining the importance of increasing rates of biking in a community like Lewiston and Auburn, we do recognize that our results have several limitations that should be considered in this interpretation. Due to numerous bike feasibility reports citing the necessity of including city-wide employers as bikeshare allies, we initially sought to establish contact with Central Maine Medical Center (CMMC), St. Mary's Hospital, and TD Bank. However, there was a lack of reciprocal communication on each employer's end till the

final stages of this project. Only recently did we receive word from CMMC who indicated they would entertain a proposal for such a project. This limitation speaks to the larger issue we faced in attempting to contact potential sponsors for such a project. Once we recognized that moving forward with a bikeshare operator might not be in the best interest of both communities, our group wasn't able to find meaningful or confirmed financial support.

Finally, we recognize that while the installment of a bike access program could address several barriers, it isn't able to tackle the lack of bike education in Lewiston and Auburn. It was clear from many of our community conversations and interviews that there is concern over the safety of the roads in Lewiston and Auburn. We interpret this concern to be two-fold. First, we see it as a result of pedestrian accidents across both cities, but also from a lack of education about how to safely bike through town. We reached out to Community Resource Officers in both Lewiston and Auburn several times with the intent of discussing bike education in schools, but are still waiting for responses. Despite this lack of response, we still deem the implementation of bike education to be of vital importance to addressing the barriers of car culture, and perceived safety of the Lewiston and Auburn roads.

Despite these limitations, we are able to make suggest several recommendations for reducing barriers to cycling in for Lewiston and Auburn residents. However, we urge that whichever party continues the work of this project be mindful of the shortcomings we encountered. Our recommendations for this future planning can be found in the following section, "recommended next steps".

Recommended Next Steps

Given the results of our community outreach, conversations with national bikeshare planners and with community bike access programs in Maine, we have identified three potential bike access programs for the towns of Lewiston and Auburn (Fig. 8). The first option is a bike loan program, in which bikes are stationed outside of Lewiston Public Library and are available for short term rental of two to three hours. Users must register for the program and provide collateral in the form of an ID and a small monetary fee that they get back after they return the bike. The bicycles would be painted a bright color and would also have a cargo crate on the back to carry the user's items.

The second possible program is nearly identical to the first, except that both Lewiston and Auburn Public Libraries will house programs, and a "safe route" will be identified between the two libraries to facilitate travel between the two communities. While individuals are allowed to go to other places beyond the "safe route", such a route could empower individuals that were hesitant to ride because of concerns about car traffic. Such a "safe route" could be supported with certain bicycle infrastructure and adequate signage at the discretion of the Complete Streets Committee. This is the model that we recommend for Lewiston and Auburn. For one, the brightly colored bikes give the bicyclists greater visibility. Furthermore, introducing such a program also contributes to a sort of symbolic visibility of bicycling in town, as existing bicyclists will feel supported by the program and people that currently do not cycle may feel encouraged to cycle more, as many of the barriers to bicycling will be overcome because individuals do not have to take care of the bikes themselves.

The final option is a traditional bikeshare program, which we do not recommend because it seems to be too significant of a step from no bikeshare program to one that could cost tens of thousands of dollars. Rather, if the bike library program works well, it can be justified as a proof of concept for a more technologically advanced system. Once people are comfortable using bikes through the library loan program, perhaps there will be demand for a traditional bikeshare program. This could be revisited after a six month or year long pilot program of the bike library system.

Three Bike Access Programs

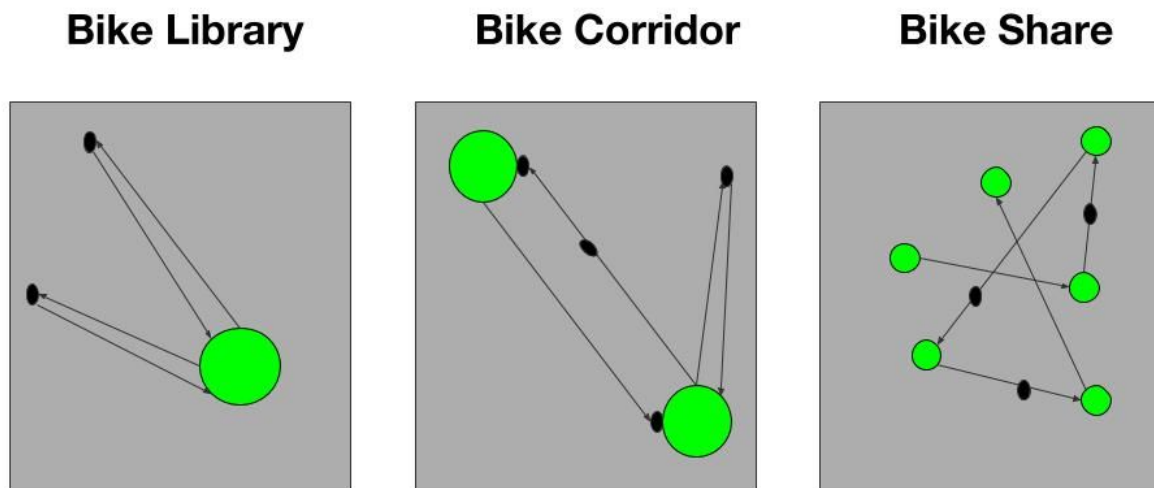


Figure 8. Conceptual Diagrams of 3 potential bike access programs in Lewiston and Auburn, ME.

Our outreach laid a solid foundation of information to base decisions concerning a bike access program in Lewiston, and provide some sort of recommendation to the Complete Streets committee. However, there are a number of ways in which our outreach can be expanded. To begin, our outreach to organizations and businesses, as well as our surveying, focused almost

exclusively on Lewiston. Of the eleven businesses included in our outreach, only one significant conversation was with an Auburn organization. Our surveying was done in front of the Lewiston Public Library and in Kennedy Park, both Lewiston locations. Our recommendation to the Complete Streets committee was a bike access program that included both cities. Moving forward with this project, it seems essential that Auburn is included as a voice in how this program is shaped.

As discussed briefly in our discussion of data limitations, another gap in our outreach was with potential sponsors for the program. Looking back at our outreach schematic, one of the six groups in our targeted categories was sponsors for the program. Our conversations with local businesses never took the form of discussion about sponsorship or funding. Particularly if the bike access program were to resemble a more traditional bikeshare, sponsorship is an important dimension. Places like Hannaford's, Wal-Mart and other large employers were of particular focus in our outreach, but no meaningful conversations ever materialized.

Along the same lines as lacking conversations with potential sponsors, our group was not able to contact either Central Maine Medical Center or St. Mary's Hospital. As two of the largest employers in Lewiston/Auburn, the hospitals are an important piece of this community and institutions that are mandatory to speak with before a program like this would be launched. In addition to being potential sponsors, the hospitals could provide information on commuting practices as well as potentially advertise and promote cycling and the program.

As far as the project as a whole is concerned, there are a number of decision points at this stage in the process. Per the recommendation by the Complete Streets Committee, the first step in advancing this project is to reach out to the Community Development Block Grant Program.

This grant is funded by the Maine Department of Housing and Urban Development, and focuses on local projects that advance community development. The \$5,000-\$8,000 range suggested for the bike access program in Lewiston-Auburn is well within the fiscal constraints of the grant.

While grant proposals for this summer were completed this past December, grant proposals for projects beginning in 2019 are accepted this summer. One suggestion by the Complete Streets Committee is to not only gather information about funding, but the logistics of branding the bicycles, storage and maintenance. These are all areas that the grant may cover, or could provide insight on.

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Appendices

Questions for Lewiston Residents:

Bicycling Survey for Lewiston-Auburn

1. Do you currently have dependable access to a bike? [YES/NO]
2. Are you interested in having access to a bike? [YES/NO]
3. What are the most significant barriers you have to biking more?
 - a. Too expensive [1]
 - b. I don't know how to maintain it [2]
 - c. No access to bike storage [3]
 - d. Don't know how to ride a bike [4]
 - e. Don't want to have access [5]
 - f. Other [6]
4. How often have you biked in the past [NUMBERS]
 - a. Week?
 - b. Month?
 - c. Year?
 - d. If at all what type? (recreational [1], or commute [2])
5. Do you have any interest in using biking as a means to achieve some of your daily activities? [YES/NO]
6. Would you be willing to pay to be part of a bike loan program?
 - a. How much?
 - i. Per week:
 - ii. Per month:
 - iii. Per year:
7. If you were to have access to a bike for a very low cost- where would you bike to?
 - a. Library [1]
 - b. Grocery store [2]
 - c. Work [3]
 - d. To visit family [4]
 - e. Other [5]

8. What currently stops you from biking to any of those locations? [QUALITATIVE]
9. What stops you from using a bike for transportation? [QUALITATIVE]
10. Have you heard of bike share? [YES/NO]
 - a. Would you like to know more about it? [YES/NO]
11. What have you heard about bike share or bike loan programs? [QUALITATIVE]
12. Where do you think are the most useful places for bike share facilities to be located?
 - a. Downtown [1]
 - b. Next to a grocery store [2]
 - c. Next to a coffee shop [3]
 - d. In your neighborhood [4]
 - e. Close to the library [5]
 - f. Elsewhere? [6]
13. Would you like to suggest where a bike share station should be?
14. Are you interested in learning further about this project to develop a bike access program? [YES/NO]

Questions for Lewiston and Auburn businesses:

1. If you could guess, do most of your customers live and or work in Lewiston?
2. Do you know how far your employees live from work?
 - a. How many of them live in Lewiston?
3. Do you know how your employees get to work?
4. Do you know if you have any bike commuters?
5. What potential benefits do you think there could be from your employees or customers having increased access to low cost bikes?
6. Have you heard of a bike share?

Testimony from Bob Rand:

I did want pass along an observation from my bike seat that pertains to your project. One big issue you will find if people do start riding bikes to get around Lewiston and Auburn is the lack of bike racks. It isn't something that gets noticed but it is so frustrating to always be looking for a tree or pole to lock up to. There are a few, but not many. Even for a recent meeting at Bates I had to lock up to a handrail. As you talk to people and begin to understand what destinations might be popular, we need to figure out the bike rack issue.

Of course if you have any follow up questions or new questions for me please let me know. And if you and your project partners ever want a tour of L A on bike please let me know. I'll show you all my secrets and shortcuts. But maybe when the snowstorms are over.

What is your commute? (In the distance, point-point location, and miles)

If I go straight point-to-point my commute is about 2 miles each way. With the good weather I have a personal goal to ride 50 commuting miles a week so my routes daily

How many months of the year do you commute by bike?

I commute on my bike 12 months a year, regardless of the weather.

Do you own a car?

My wife and I do own one car. She commutes to Augusta every day so I pretty much spent my time between 6 AM and 6 PM without a car so everything is done on by bike.

How long have you been a bike commuter for?

This is tough for me to answer. There is not a point in time that I started commuting on a bike. I think it was early in 2009 that I bought a bike and started commuting to work now and then. It was after riding in the first Dempsey Challenge in the fall of 2009 that I started riding more seriously which included commuting as much as I could. It was probably about 6 years ago that started riding daily. We completely gave up on a 2nd car about 4 years ago.

Why did you decide to start biking to work?

I started when both of my children reached the point of getting their driver's license and permit. My my wife worked in Augusta so I had to chauffeur them around. I got tired of having to leave work early to taxi them between sports, music, school and home. So I decided that instead of buying a third car for them I would spend a lot less on a bike and they could figure out how to get to all the places they needed to go.

What are the three biggest benefits you experience from commuting by bicycle?

- 1) *Community - I love riding through the various neighborhoods, feeling a part of them. Instead of driving my metal box through them, I interact with neighbors walking their dogs and kids playing.*
- 2) *Health - I have managed to lose 50 lbs and avoid taking medications for high blood pressure, diabetes and cholesterol.*
- 3) *Fun - I get to ride a bike, with 12 ft of blinking Christmas lights at least twice a day!*

What are the three biggest challenges or disadvantages to commuting by bicycle?

- 1) *Speeding and distracted motorists - Unfortunately it is dangerous. There isn't a day I don't have some kind of close call with a car or truck.*
- 2) *Lack of real bike infrastructure - Even though we have bike lanes and sharrows, they are afterthoughts so it is common to have to move into a travel lane because I have to avoid cars parked in the bike lane, potholes or manhole covers. And the bike lanes we have do not start and end at destinations.*
- 3) *Logistics - I can't just get to places quickly and whatever I might need I need to make sure I can carry it. I have to plan travel time. And I need to account for changes in the weather.*

What advice would you give to someone who aspires to bicycle more but is fearful of navigating traffic?

This has really become my passion when it comes to bicycling. By far the number 1 reason for not riding their bike of the people I talk to is fear of being on the road. There is only one way I respond because honestly it is dangerous. My answer is to offer to ride with them, anytime, anywhere, and show them what it is like, to answer their questions, and to "protect" them so they can see that it can be done safely. Each summer I offer weekly beginner rides (rides last no more than an hour) one evening a week. I ride each week, whether anyone shows up or not so people don't feel required, but they know I'll be there if they want to give it a try.

Where else do you bike to?

If I have to be somewhere, anywhere, between the hours of 6AM and 6PM I get there on my bike. That includes work meetings, doctors appointments, dentist appointments, Complete Streets meetings. I even put my bike on the bike rack, drive my wife's car to the mechanic and ride my bike home when it needs to be inspected or the tires changed. If I have to get somewhere less than 10 miles from home I ride my bike.

What is your sense of the bike community in Lewiston and Auburn / To what extent do you feel connected to other bicyclists in town?

There is a pretty noticeable number of cyclists in L/A, however they are primarily recreational and tend to be older. I don't encounter anyone else commuting regularly on bike in the area.

There are a few others but I don't encounter them. A lot of the recreational cyclist are members of the local cycling club. And I know of a number of other groups people ride with. I enjoy riding alone. Cyclists tend to be cliquish so there is an intimidation factor for people wanting to try biking, feeling like they have to have the special shorts and expensive bikes that keep them away.

Are there any events or organizations related to bicycling that you participate in?

There are a lot of organized rides I have participated in, and some I have organized. My first, and still favorite is the Dempsey Challenge. I rode the first year and every year since. Along the way I got involved with the Bicycle Coalition Of Maine, becoming a member of their Board of Directors for 3 year so I have done all their rides. They offer a Women's Ride (which I was a volunteer), the Lobster Ride in Rockland and for the last seven years they put on a week long supported ride to different parts of Maine called BikeMaine. I've ridden that ride 3 times. I sit on the state committee of the East Coast Greenway organized a ride to promote the Greenway for three years. There is a Lighthouse ride in South Portland that I ride when I can.

Are you also a recreational rider? Do you like to bike for exercise?

Hopefully it's obvious that the answer to both questions is yes. I'm very much a recreational rider. Including my commuting miles I ride between 4000 and 5000 miles a year. Four years ago I started taking weeklong unsupported solo bike trips. I back up my bike with a tent, food, cook stove and clothes and head out for week, riding about 50 miles a day exploring different parts of Maine and New Hampshire so far. It is really a lot of fun. I don't ride specifically for exercise. No spinning or stationary bike for me. Exercise is cherry on top of the fun of riding all the time.

Potential Bike Access Program Structures

Table 1. Program structure considerations of 3 potential bike access programs in Lewiston and Auburn, ME.

	Bike Library	Bike Corridor	Bike Share
Number of Bikes	5-10	10-20	50
Time Limit	2-3 hours	2-3 hours	1 hour
Rider support	Library staff	Library Staff	Bike Share Operator (phone)
Rebalancing	n/a	n/a	Bike Share Employees
Maintenance and repairs	Maine Cycling Club + Rainbow Bicycles	Maine Cycling Club + Rainbow Bicycles	Bike Share Employees
Storage	In front of library	In front of library	TBD
User Cost	Free	Free	~\$30/year

Center for Ecology Based Economy Literature:

Ditch your car!

CEBE BikeShare is an effort to reduce carbon emissions by offering alternative transportation for utilitarian riders in the area. By offering free use of bikes, CEBE promotes a healthier, more sustainable mode of transport. CEBE BikeShare helps to support the local economy by providing transportation for community members to shop, run errands, and get exercise.

Join us in creating a sustainable program:

- Grab a bike, instead of getting in your car
- Donate money to keep the program going
- Donate bikes in decent shape
- Help repair and paint bikes
- Promote bike riding and driver awareness

As part of the BikeShare you can help keep an eye on bikes being used throughout the community, learn how to repair and retrofit bikes, move bikes around to bike racks as needed, help people register for the program, promote bike safety and driver awareness, and help CEBE grow a sustainable program.



Norway, South Paris, Oxford Business Area

BikeShare bikes can be used within this general area with a limit of 2-3 hours. Please lock the bikes when not in use and return them to a CEBE BikeShare rack. Join us at a SkillShare to keep bikes road worthy and safe. Call CEBE for the SkillShare bike repair schedule. Learn how to fix a flat or paint a bike!



CENTER FOR AN ECOLOGY-BASED ECONOMY (CEBE)

Western Maine is uniquely suited to build a new and vital economy based on local and renewable resources—an economy that will function within the ecological balance of our bioregion and the planet.

The present economy of our region is dependent on increasingly scarce non-renewable resources. Furthermore, our extensive consumption of fossil fuels contributes to the increasing load of greenhouse gases in the atmosphere that are inducing climate instability.

The Center for an Ecology-Based Economy is dedicated to the conservation, revitalization, and sustainable management of Western Maine's renewable resources and the development of resilient, thriving and sustainable economies that our children and grandchildren will inherit and thrive in.

CEBE MISSION

To engage the community in developing practical, ecological solutions in the areas of food, shelter, energy, and transportation.

Our goal is local community sustainability, health, and resilience in response to climate instability and resource depletion.

CEBE is a 501(c)(3) non-profit organization.



How do I sign up?

- Register at CEBE
- Monday-Friday from 10am-4pm (hours vary)
- If we are not there, email info@ecologybasedeconomy.org

You will be given a short orientation to the program, proper use of the bikes, and safety guidelines. If you registered previously, you will need to come into CEBE to review the waiver, update and sign your registration form annually.

Does it cost anything?

No, not if you are a trusted friend of the program. Donations and participation in SkillShares are always encouraged.

What if I'm new to the Bikeshare?

- \$10 deposit and photo ID to leave,
- A monetary donation on a sliding scale, starting at \$1
- Participation in our monthly SkillShares where we work together to rehab and maintain the bikes (no experience or skill necessary) so that we can get to know you.

What can the bikes be used for?

Anything that you would normally jump into your car and drive quickly to get to, such as errands to local businesses, to job interviews, to buy groceries, to the Norway Lake or Roberts Farm Preserve for a lunch break. The bikes are not for off-road recreational use.

Where do I get a bike?

Once you have been registered and oriented to the bikes, you can pick up a bike at the CEBE bike rack on Main Street in Norway. We change the combinations on the bikes often, so come in to get the latest.

How long can I use it for at any one time?

Out of respect for other CEBE BikeShare users, please limit use to 2-3 hours at a time. If you need to use the bike for a longer period of time, please contact us to make arrangements.

Do I have to wear a helmet?

Bike helmets are not mandatory in Maine, but we strongly encourage you to wear one. Helmets can be purchased at Green Machine Bike Shop or other area businesses.



Grab a bike!



CEBE's Community BikeShare April 1st - December 1st

CENTER FOR AN
ECOLOGY-BASED ECONOMY
Resilient Communities Restoring the Earth

ECOLOGYBASED.ORG/BIKESHARE
INFO@ECOLOGYBASEDECONOMY.ORG
447 MAIN STREET, NORWAY, MAINE 04268

207-739-2101

Where can I ride?

CEBE's Bikeshare program has a triangle of use that we ask all users to stay within. The boundaries include Pennesseewassee Park in Norway, Market Square intersection in South Paris, and New Balance on Route 26 in Oxford. (See map)

Please ride with traffic in the road, not on the sidewalk. Wearing brightly colored clothing helps drivers see riders and avoid accidents. Please do not ride at night unless you have front and rear lights.

What do I do when I'm done with the bike?

Always lock your bike with the CEBE bike lock whenever you are temporarily leaving it. The lock should be threaded through the wheel, around the frame, and to an object that will allow it to stand up (preferably a bike rack). When you are finished using the bike, please return it to a CEBE BikeShare rack.

What if something breaks or isn't working on the bike?

If the bike isn't working properly, please discontinue riding it and call CEBE at 739-2101 to let us know or leave a message. If a tire is flat, please do NOT continue to ride it as the wheel and tube can become damaged. If you are able to return the bike to CEBE, please do so and we will repair it. Otherwise, we can pick it up.

What is the "In Use" Tag for?

If you are temporarily leaving the bike because you are at your destination and still intend to use it for the return ride, clip the "In Use" Tag around the lock so that another registered user will know the bike is still being used and is not available to take. We don't want you to be left stranded!

FMI, visit us on the CEBE website:

ecologybased.org/bikeshare.html





Community BikeShare | REGISTRATION CHECKLIST

- 1.) Ask new participant to read and fill out registration form and waiver.
- 2.) Ask if they have any questions.
- 3.) **Determine what type of user they are? If new user, \$10 deposit or picture ID required. Keep with registration until bike is returned.**
- 4.) Ask for a donation if possible, starting at \$1 or if they can participate in SkillShares.
- 5.) Highlight/Review Specifics:
 - a.) Inquire as to participant's **level of experience** with riding
 - b.) Help participant choose a bike and adjust the seat so it will fit them well. **Show how to raise/lower the seat.**
 - c.) **Review ABCs.** (Air in tires; check brakes and review Right/Rear, Left/Front; check chain by rotating pedals to make sure it moves smoothly) If not working, please notify CEBE.
 - d.) **Show how to shift** the bike and where the best place is to leave the gears.
 - e.) **Demonstrate how to lock the bike** (through tire and around frame to rack)
 - f.) Recommend use of **helmet** while riding.
 - g.) **Riding Commands/Safety Rules:** Hand Signals for Stop (left arm bent at elbow with fingers point down and palm facing back), Right Turn (pointing to the right), Left Turn (pointing to the left).
 - h.) Review **general rules of the road.** Obey all traffic laws as if you were a car: stop at stop signs, follow lights.
 - i.) Please keep CEBE bikes off of sidewalks, take the lane on Main Street in Norway or if uncomfortable doing this, take bike lane on Beal Street.
 - j.) Please wear bright reflective clothing for riding at night. **Do you have lights?**
 - k.) **2-3 hour limit on riding. No trail riding**
 - l.) Tell them to **return bikes every day** to designated CEBE racks and lock bike.
 - m.) Hand out **Oxford County Moves** pamphlet along with the **BCM pamphlet for Bike Safety.**
 - n.) Hand out **CEBE BikeShare Brochure** with bike map with "Triangle of Use"
 - o.) Share combination for 2017 - look on **CEBE bulletin board**
 - p.) **Offer to ride with registrant down Main Street if they wish**
- 6.) Gather data on **BikeShare Data Sheet** (see BikeShare Clipboard)
 - a.) Time of use?
 - b.) Length of time of use?
 - c.) Destination?
 - d.) Reason for use?
 - e.) Time of return?
 - f.) Mode of transportation replaced?
- 7.) **Additional FAQs are on our website at <http://ecologybasedeconomy.org/bikeshare.html>**



CEBE Community BikeShare Registration

Name: _____ Today's Date: _____

Mailing Address: _____

Phone #: _____ - _____ - _____

Email: _____

How did you hear about CEBE's BikeShare program?

Signature: _____

Center for an Ecology-Based Economy's BikeShare Guidelines

- 1.) **Cable Lock:** The cable lock should be wound through the front tire and up and around the frame before being locked. Combination numbers should be turned to ensure that locking takes place.
- 2.) **Helmets:** While not required, the wearing of helmets is **strongly encouraged**. Helmets can help mitigate some of the risks involved in cycling. Helmets are available locally.
- 3.) **Usage:** We ask that you are mindful that the bikes are for the community's use and should only be used to fulfill errands, go to meetings, and for short rides around town. Please return **and lock** to the bike rack in front of CEBE or other BikeShare racks. Please limit use to 1-2 hours at any one time. *Please let us know if you request an exception to this guideline.*
- 4.) **In Use:** The "In Use" tag can be used when locking and leaving a bike while completing an errand or attending a meeting so that others know not to use it.
- 5.) **ABC's:** Before borrowing a bike, please check the tires for air, check the brakes, and check the chain to make sure it moves freely and smoothly. *If there are problems, please let us know.*
- 6.) **Review the Bike Safety Rules:** Know how to indicate stop, right and left turn, and general rules of the road for cyclists.
- 7.) **Bike Rack Locations:** Please refer to the BikeShare Map.
- 8.) **Distance:** The zone for use of these Bike Share bikes is in a triangle formed by Penesseewassee Park in Norway, to Market Square in South Paris, to the New Balance Outlet in Oxford. Bike use should remain within the perimeter of these landmarks. *Please let us know if you request an exception to this guideline.*

