

Viking Bikes

A bike rental program available to all at Western

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Executive Summary

The issue our project is addressing is increasing the sustainability of commuting to Western's campus. In a survey done of staff and faculty transportation in 2017 3541 metric tons of carbon were emitted as a result of commuting (CTR survey). In working to combat this problem we are want to lay the groundwork to institute a bike rental program. Last year a pilot project called Viking E-Bikes was instituted, with a fleet of six bikes that were rotated around the departments and also available to students but it concluded in June of 2018. This project should be revitalized with a larger fleet, and a mix of electric and regular bikes available. These bikes would be available for rent to students, faculty, and staff on either a weekly or quarterly basis. There would be an option available to buy the bike (if it is not an electric bike) out of the program for a lower price. This rental program would be run by the Outdoors Center, while the bikes would be housed in a container at the Recycling Center as there is no space for them in the Outdoors Center itself. To keep costs down the

regular bikes would be sourced from campus itself, reusing abandoned bikes that have been impounded by the University Police and remain unclaimed.

Introduction

Statement of Need:

Globally there's a problem with emissions, and a lack of sustainable transportation options available. These emissions are impacting our quality of life, the health of our environment, and the future of our planet. Here at Western there is a lack of incentive to ride the bus or bike/walk as opposed to driving single occupancy vehicles to class. There is also a lack of education for students commuting from areas with little to no public transportation about what alternative resources are available here in Bellingham and on campus. This bike rental program would address this lack of incentive by providing an affordable and low-barrier introduction to bikes, making them available to those who otherwise perhaps would not participate.

Project Goals:

For this project we would like to see drive alone trips to campus reduced to 15% for students and 55% for employees. While also wanting to see bike ridership raise to 5% for students and 10% of the transportation uses for employees. This will help keep Western on the front edge of green universities and should help free up our campus from vehicle traffic making commuting to Western more enjoyable.

Background Research:

As mentioned in the summary there was a previous pilot program which operated with a fleet of six e-bikes. This program ended in June as it only had a small see grant and was unable to find someone to write a grant proposal for more money. At the end of the program the bikes had gone collectively around 7,000 kilometers, with positive comments from many of the riders about how this program had made their commute more enjoyable and also encouraged their bike ridership. This shows interest in this sort of program if it were implemented here.

There were also a variety of surveys done on campus that recorded a variety of information, including parking utilization on campus, and extensive breakdowns of the different methods that both students and faculty/staff used to commute to Western's campus. From this it was shown that parking lots were utilized extensively, with most at 84% utilization and some, such as the Viking Union lots, even reaching 94% utilization (Parking Utilization Study). It also showed that the primary method for people to commute to campus was single occupancy vehicles (CTR Survey). There is room for improvement in the commuting habits of Western's faculty, staff, and students as shown by this data.

Methodology- Interviews

Reasoning:

We decided to interview people around campus that would be important to the implementation and success of this program. Identified in this group was Beth Hartsoch at the Office of Survey and Research, Stephen Magnuson at the Outdoor

Center and University Police. Beth Hartsoch was extremely helpful because she was a major contributor in the original Viking eBike program, she had experience with what worked well in the original program and what didn't as well as the infrastructure issues surrounding a bike rental program. We also conducted an interview with Stephen Magnuson who is the program director at the Outdoor Center. The Outdoor Center is really important to the success of this program so it was a great relief when he said that they would be interested in housing this program if we could figure out storage and how involved the Outdoor Center would be. We also tried to get ahold of Campus Police to see if there were enough abandoned bikes to run this, what they do with abandoned bikes and their policies surrounding all of this; but after phone calls, emails and a visit there we still haven't talked to anyone that could tell us anything regarding these questions. We also wanted to use interviews in order to get a broader view of the policy/methods already in place on the university's side of things. Data about students and faculty isn't useful without knowledge of the pre-existing policies and their current functionality. These interviews gave us an overall idea of the viability of starting and maintaining this program.

Results

We conducted a series of interviews with people we identified that had information about the viability of a bike rental program on campus, from past experience with similar programs or future involvement.

Beth Hartsoch:

Beth Hartsoch is one of the main figures involved with the original Viking E-Bikes program.

1. What sort of advertising was done for the original Viking E-bikes program?

Campus bike educator, interviews with western front + video. Jeff Bates (AS publicity) to talk to. Trike.

2. Why e-bikes as opposed to regular bikes?

Wouldn't buy bikes with battery mounted over back wheel. Poor design, puts battery weight up high off back of bike makes bike more difficult to handle. Jasmine Goodnell has the bikes now. Research on micro-adventures low carbon tourism. Uses electric bike tours for new faculty orientation want to use them.

3. Were the bikes utilized by students or faculty more?

Every term it was different. Prioritized having diversity of people and offices with access to bikes. Always one student rider. Always one at the Department of Sustainable Transportation. The other five bikes were assigned to various people/departments. People would apply, educator built scoring system to rank people who applied. Focusing on diversity. Men, women, different ethnicities, and different levels of experience.

4. What were general criticism if any from the participants in the program?

Somebody slipped on ice, somebody crashed into a mailbox. No real criticisms that didn't just come from riding bikes.

5. Where were the bikes housed/how were they checked out?

Tried to never keep them, as soon as they got in Earls bike shop picked them up to service them. Tried to never have them stored, one here was just kept at sustainable transportation offices.

6. How much money would be needed to pay you or someone else to write a larger scale grant for funding?

State ethics laws, you can only use state resources for personal use if your covering the entire cost. Project was small enough scale that project didn't have economies of scale (too expensive) instead used it as a research project. Either had to charge entire cost or nothing at all.

7. Issue is who's going to own bikes/use them.

Sustainable transportation department owned pilot but there was no effort to continue the project. Fleet services/facilities management. John Foreman. Matters that peoples have allies Jason Sprinkles, wants electric bikes. After budget cuts about ten years ago, fleet became decentralized all vehicles on campus are owned by individual departments/facilities. Outsourced maintenance which was pretty inexpensive (Earls Bike Shop).

8. What loan terms for the bikes are available?

Term checkouts/week long check outs. Bikes had an outlook calendars.

Varied from a week to just a couple of hours.

Stephan Magnuson:

Stephen Magnuson is the Program Coordinator at the Outdoor Center here at Western.

1. Would you be interested in housing a bike rental program in the Outdoor Center?
 - a. Yes, but there's no space to store them here.
2. Can you think of any other barriers to setting up this program here?
 - a. The staff here aren't trained to work on electric bikes so that work would have to be outsourced.
3. What do you think the best way would be to set this up?
 - a. In regards to storage we had the same problem with our kayaks and we solved this by relocating them to a shipping container at the Recycling Center when they aren't in use. For the rest of the program a few things I can think of right away is who's going to perform maintenance(Outdoor Center or people renting bikes) and how are we they going to be rented out so that they are at the Outdoor Center only when necessary.(Quarterly Orientation)

Recommendations

To start this bike program we are going to collect any bikes abandoned on campus after they have been held for the appropriate time by University Police. We could also ask the police for any bikes that they currently have impounded and possibly set up a long-term program for transfer of these bikes. Once we have these bikes they would be given to the Outdoor Center to service and make ready for sale or rent, the Outdoor Center would service these bikes in order to get them ready but then once rented the renter will be responsible for regular maintenance such as inner tubes or brakes. These would then be stored in their shipping container until rented. Participants will sign up online on a waiting list with their Western ID for either electric or regular bikes and will be positioned first come first serve. There will be a quarterly orientation the weekend before each quarter starts where people from the waiting lists will be invited to the Outdoor Center to retrieve their bike, helmet and lock and take a quick course on bike safety and maintenance. It is our hope that the program will need very little support in the way of money once it is going because it will be self-sustaining for the most part. Other than ebikes the bikes will be sourced inexpensively or for free and not much more will be needed to do then to perform upkeep upon already owned bikes and providing users with helmets and locks. If the bike is not returned the participant will be charged through their Western account every day for a week and then after that they will have to pay for the bike as if buying it from the program. It is important that this program is offered to all students, staff and faculty and that it is advertised in a way that all people at this school will know about it.

Monitoring and Evaluation

Project success will be tracked by reviews from participants in the bike rental program. Data from follow-up surveys can also be used as well as installing odometers onto bikes to measure the distances bikes are being ridden. All of this will be handled by the Office of Survey Research here at Western on a biannual basis. From these resources there will be information on if the bikes are being utilized and how happy people are with the program overall. This will also help the program change as it grows and address any concerns that individuals might have.

Budget

Year 1

Upfront ebike price- $\$2700 \times 6 = \16200

\$100 yearly maintenance x 12 ebikes = \$1200

Regular bikes free from impound

\$50 yearly maintenance x 20 bikes = \$1000

Helmets- \$15 per helmet

Locks- \$10 per lock

Shipping Container- \$2000

Outdoor Center employees- \$1500

Advertising- \$1500

Misc.- \$800

Total: \$25000

Following Years

Ebike maintenance- \$1200

Regular bike maintenance- \$1000

Outdoor Center- \$1500

Advertising- \$1500

Misc.- \$800

Total: \$6000

Conclusion

Transportation is a large sector of emissions in every city in the United States and especially in a city like Bellingham that attracts many people from the surrounding area. Western has a unique opportunity with this bike program to help better it's image while also helping the city reach their transportation goals and helping our planet as a whole. This would also show that Western is on the leading edge of sustainable schools in the nation. As shown by the e-bike pilot, if bikes are available for people here they will be used and appreciated. This would provide an inexpensive sustainable transportation option for all people at this school while also working to lower our carbon footprint and limit the emissions involved with commuting to and from campus.

Citations

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