Nice Ride Minnesota Program Evaluation

BEMIDJI BIKE RENTAL SYSTEM

Prepared by:

Jessica Schoner[1]
Greg Lindsey[2]
David Levinson[1]

[1]Department of Civil, Environmental, and Geo- Engineering
[2]Humphrey School of Public Affairs
University of Minnesota

Submitted to:
CENTER FOR PREVENTION AT BLUE CROSS AND BLUE SHIELD OF MINNESOTA
NICE RIDE MINNESOTA

March 2015

Executive Summary

The Nice Ride Minnesota bike rental system in Bemidji, Minnesota opened for its first season in June 2014, providing an opportunity to observe and measure travel behavior and physical activity as the system grew. This report presents findings from an evaluation of the Nice Ride Minnesota bike rental program in Bemidji, Minnesota.

Bemidji had a strong foundation for cycling before Nice Ride's arrival. Bicycle commuting more than doubled from the 2000 Census to the 2005-2009 American Community Survey estimates (0.36% to 0.99%). Local agencies and advocacy groups have been involved in programming bicycle events, investing in infrastructure, and monitoring bicycle traffic throughout the city.

Use of the new Nice Ride system has been modest, with 587 rentals during the 2014 season. Survey results and usage statistics show three distinct markets: tourists, students, and local residents. Tourists appear to dominate system use now. The local resident discount program provides two free hours of rental on weekdays (Monday through Thursday); 43% of weekday rentals (24% of rentals overall) had $0 in revenue, suggesting that a majority of rentals may be from non-residents. Saturday was the most common day for rentals. The station at the Hampton Inn and Suites had the most rentals, followed by the Bemidji Visitor Information Center. Over half of all Saturday rentals occurred at the Hampton Inn station.

The system is too new and data too sparse to measure specific effects of Nice Ride on bicycling in Bemidji, though qualitative evidence suggests the system is fitting into the broader culture of active living. Nice Ride's arrival was a catalyst for new types of bicycle-related programming in the city. Bike Bemidji planned the first annual Loop the Lake festival as part of Nice Ride's grand opening weekend. Participation and sponsorship were stronger than expected, and a second Loop the Lake festival is being orchestrated for the 2015 season.

Future evaluation can build on the data and methods established in this study to learn more about Nice Ride's relationship with the community and with travel behavior. Evaluation strategies targeting the three sub-markets could identify each group's needs to better serve the local resident and student groups. Additionally, monitoring system users' local or tourist status with each rental will demonstrate how the system is integrating with the local community over time. Monitoring and data collection efforts will continue to be important.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

The Nice Ride Minnesota bike rental system in Bemidji, Minnesota opened for its first season on June 21st, 2014, providing an opportunity to observe and measure travel behavior and physical activity as the system grew. What effects does this new model of Greater Minnesota bike rental have on bicycle use in the Bemidji area? What effect does Nice Ride Bemidji have on social norms related to active living?

This report presents findings from an evaluation of the Nice Ride Minnesota bike rental program in Bemidji, Minnesota. The Bemidji evaluation was conducted in parallel with an evaluation of the Nice Ride Minnesota bike share system in the Minneapolis–St. Paul Metropolitan Area (Twin Cities).

1.1 Study Purpose and Goals

This study aims to evaluate the relationship between the new Nice Ride system and local culture of active living in Bemidji.

The three principal goals for the Bemidji evaluation are to:

1. Characterize bicycle use in Bemidji with respect to the new bike rental system

2. Describe the relationship between social norms related to active living and the Nice Ride Minnesota bike rental system

3. Identify future evaluation strategies

In addition, this study identifies strategies that Nice Ride managers may wish to consider as they change and develop the new system.

1.2 Structure of Report

The report is structured as follows. Chapter 2 describes the approach, methods, and data sources used in the evaluation. The results are presented in Chapters 3, 4, and 5, corresponding to each of the three principal goals identified in Section 1.1.

Chapter 2

Approach and Methods

This evaluation uses a mixed methods approach, including key informant interviews, a survey of Bemidji-area residents, and analysis of external data about rates of cycling in the region to identify common themes. Data about Nice Ride and cycling in Bemidji, especially historical data, are sparse, precluding the use of statistical hypothesis tests. We look for convergent validity across qualitative methods to obtain insights and draw conclusions about bicycle use, social norms related to active living, and future evaluation and implementation strategies.

2.1 Key Informant Interviews

Interviews provide qualitative data that adds context to other research and evaluation outcomes. Local experts (key informants) are interviewed about the organizations and communities they are immersed in to help interpret results. Interviews follow a semi-structured instrument that allows for deeper exploration of important topics as they emerge.

The researchers targeted people working or volunteering at organizations involved in programming or promoting active living (e.g., nonprofits, interest groups, public agencies, etc.). Eight people were interviewed over the weekend of 6/20/2014: Nice Ride Minnesota's Bemidji manager, two public agency employees representing Headwaters Regional Development Commission (HRDC) and Minnesota Department of Health (MDH), three people affiliated with bicycle-related nonprofits and activist groups, and two local business or nonprofit owners in related industries (see Table 2.1). The Nice Ride manager participated in a follow-up interview toward the end of the season (9/6/2014).

The interview instrument focused on the history of active living culture and bicycling in Bemidji, what trends and actions led to Nice Ride coming to Bemidji, what they think Nice Ride means for Bemidji's residents and future, organizational, political, and planning structures (including funding and public/private partnerships) related to these topics, and operations/pricing of the new system. The instrument allowed for flexibility to draw on each subjects expertise. Since

Table 2.1: Key Informant Interview Subjects

Sector	Organization	Role
Nonprofit	Nice Ride Minnesota	Manager
Public	HRDC	Development Specialist
Public	MDH Statewide Health Improvement Program (SHIP)	Public Relations
Nonprofit	Bike Bemidji/Loop the Lake	Organizer
Nonprofit	Bike Bemidji/Loop the Lake	Volunteer
Nonprofit	Shifting Gears	Owner/Founder
Nonprofit	B-Well	Owner/Founder
Private	Local Business & Property	Owner

subjects were being interviewed about programs and policies rather than *themselves*, the interviewees are not considered "human subjects" and Institutional Research Board (IRB) review was not needed.

2.2 Surveys of Bemidji-area residents

2.2.1 Main Evaluation Survey

A snowball convenience sample of Bemidji-area residents were surveyed to explore attitudes and behaviors with respect to Nice Ride, cycling, active living, and travel. Convenience sampling is an efficient way to collect exploratory data that provides useful insights, but because participants are not selected randomly, participants are not representative of the city or region's population and results cannot be generalized. The results reflect answers and opinions of only those individuals in the sample.

Recruiting postcards with a short description and a survey URL were given to local businesses, Nice Ride rental stations, and Nice Ride Bemidji program staff for wider distribution. An example of the recruiting materials is available in Appendix A.2. Distribution channels were selected to cover a range of geographies (e.g., neighborhoods), built environments (e.g., suburban or urban), and population groups (e.g., students). The recruiting materials included a specific instruction that respondents do not need to be bicyclists or Nice Ride users to participate. The URL on the recruiting postcards used a customized parameter to track which distribution channel each response came from. As an incentive to follow the URL and complete the survey, respondents were eligible to enter a drawing for one of ten $50 gift card prizes. Table 2.2 documents the locations and sources targeted for survey distribution.

Table 2.2: Bemidji Snowball Sample Distribution Channels

Sample ID	Description
1	Visitor center, BSU, and Hampton Inn Nice Ride station hosts
2 - 3	Downtown
5	Isthmus
6	Uptown
8 - 9	Nice Ride program staff
10	State park Nice Ride station host

The survey instrument was developed based on past Nice Ride surveys and current evaluation and research needs. Some of the Bemidji survey instrument content overlapped with the survey used in the Minneapolis Nice Ride Bike Share evaluation[1]. Bemidji-specific questions were developed to ask respondents about their perceptions of bicycling and active living in Bemidji before and after the start of the Nice Ride program. The Bemidji survey used an abbreviated version of a travel diary that sampled two to three trips based on random times from the day prior to the respondent taking the survey. A copy of the survey instrument is available in Appendix A.1. The survey

[1] Cite Minneapolis evaluation report when completed

and distribution plan were designed specifically for this evaluation, not generalizable research, and therefore did not require IRB oversight. The Bemidji survey instrument was included in the Twin Cities IRB exemption application, which was approved on 11/24/2014 (Appendix B).

Eight people (29.6%) completed the survey within the first week of administration. An additional 11 people (40.7%) responded during the second week. The survey was closed on December 1, 2015, with a total of 27 respondents. The small number of responses limits both the choices of analysis methods available and level of confidence we can place in the survey results alone. Alongside the other data sources used in the evaluation, themes that emerged from the survey data contribute to an analysis based on convergent validity across methods.

A response report generated by the online survey package is available in Appendix D. Preliminary results from the Bemidji survey are available in Appendix E.

2.2.2 Nice Ride Minnesota Bemidji Survey

Nice Ride Minnesota conducted their own survey of Bemidji-area bicyclists and Nice Ride users. They surveyed 149 people through a combination of trail intercept surveys and other methods. Like the snowball sample survey, Nice Ride's survey used nonrandom sampling and the results only reflect those included in the sample. Nice Ride shared their data with the research team to supplement this evaluation's survey data collection. The survey instrument is available in Appendix A.3. Selected results from the survey are shown to describe social norms in Bemidji related to cycling and active living more generally.

2.3 Secondary analyses of related data (observation counts, Census, Nice Ride system data)

Data about bicycling in Bemidji were collected from several sources, summarized in Table 2.3. Data from the US Census and American Community Survey provide an aggregate measure of bicycle commuting at the census tract level that is consistent over time and across geographies. Observational counts of bicyclists, pedestrians, and vehicles at selected locations throughout the city were collected from Minnesota Department of Transportation (MnDOT) and HRDC to explore the engagement in and visibility of active transportation. Both manual and automated counting methods are represented in these data. Nice Ride Minnesota provided system-generated data about all rentals during Bemidji's 2014 season.

Table 2.3: Summary of Bemidji Evaluation External Data Sources

Source	Year(s)	Units	Measurement
US Census	2000, SF3	Tract & CDP	P030: Means of transportation to work for workers 16 years and over
ACS	2006 - 2012, 1yr 2007 - 2012, 3yr* 2009 - 2012, 5yr*	County County Tract & CDP	B08301: Means of transportation to work *Multi-year estimates *end* in the year specified. E.g., 2012 5-year estimates span 2008-2012.
MnDOT & Bemidji	2011/12	Location	Bike/ped counts
Nice Ride MN	2014	Individual	Survey responses

2.3.1 US Census and American Community Survey

The US Census Bureau included a question about commute mode in the 2000 Census long form and in the ongoing American Community Survey (ACS). The "Journey to Work" series of questions ask respondents to report the mode they used most frequently for commuting over the week prior to completing the survey (among other commute characteristics). The 2000 Census was administered on April 1st, 2000. The ACS is administered on a rolling basis throughout the year, with estimates published annually in 1-, 3-, and 5-year aggregations (e.g., 2008-2012 5-year estimates), with 1- and 3-year aggregations only available for geographies with greater than 20,000 and 65,000 residents, respectively[9].

Journey to work commute mode data were downloaded at the census tract level and Census Designated Place (CDP) level from the 2000 census and the 5-year ACS estimates for periods ending in 2009, 2010, 2011, and 2012. Tabular data were downloaded from the US Census Bureau's

American Factfinder website [11, 12, 13, 14, 15, 16]. In the 2000 census, the journey to work commute mode variable was named `P030`. The commute mode variable in subsequent ACS datasets was named `B08301`. Spatial datasets with the census tract boundaries were downloaded from the US Census Bureau's Topically Integrated Geographic Encoding and Referencing (TIGER) program[10].

The US Census Bureau's estimates of commute mode share are the most consistent measures of bicycling across geographies within the United States over time. However, the data has a few notable limitations. The measure only captures commuting, and provides no information about other utilitarian or recreational cycling. Additionally, the question's recall period (1-week) and emphasis on a single commute mode systematically undercount occasional or part-time users of a mode[8, 7, 2]. For example, a person who bicycles to work twice per week and drives the remaining three days would have a primary commute mode of driving based on the variable parameters. Therefore, this measure of cycling should be interpreted as a lower bound for the amount of cycling that occurs.

2.3.2 Manual Bicyclist and Pedestrian Counts

The City of Bemidji participated in the Minnesota Bicycle and Pedestrian Counting Initiative through MnDOT, which "develop[ed] general guidance and consistent methods for counting bicyclists and pedestrians in Minnesota" [4]. Manual bicycle and pedestrian observation counts were conducted as part of this program during September of 2012. The HRDC conducted another round of counts during September of 2014. These datasets were collected from the HRDC to explore spatial trends in active travel.

Table 2.4 lists the 13 locations counted in both 2012 and 2014. Figure 2.1 maps these locations relative to the Nice Ride bike rental stations.

Weekday counts were scheduled for Tuesday, Wednesday, and Thursday from 4:00 to 6:00 PM. The city also counted nonmotorized traffic the following Saturday, from 10:00 AM to 12:00 PM in 2012, and from 10:00 AM to 4:00 PM in 2014. In both years, counts were scheduled for the second week of September to coincide with nonmotorized traffic counts throughout the state.

Weather affects rates of cycling and walking. Daily weather summaries were downloaded from the National Oceanic and Atmospheric Administration (NOAA) to provide context for interpreting manual count results in 2012 and 2014. Table 2.5 summarizes the NOAA weather data for count days. The data were downloaded using using NOAA's NOAA Online Weather Data (NOWData) tool for the Cass Lake, MN weather station [5, 6]. Additionally, the HRDC employee who coordinated manual counts provided a descriptive comparison of local weather conditions during both counts (see Appendix C).

Both the NOAA data and the HRDC development specialist's qualitative analysis depict colder, wetter, and windier conditions in 2014 than 2012. The 2014 count scheduled on Tuesday, September 9th was postponed by one week to September 16th due to forecasted potential storms. The

Bemidji area (Cass Lake) received 0.06 inches of rain on Wednesday, 9/10/2014.

Table 2.4: Bemidji, MN Manual Count Locations

	2012 Location		2014 Location	
Map ID	ID	Description	ID	Description
1	1	Birchmont Beach Rd @ DNR Headquarters Driveway	1	Birchmont Beach Rd (West of County Club Road NE)
2	2	Birchmont Dr NE & 23rd St NE	2	Birchmont Dr NE (South of 23rd St NE)
3	3	Lake Blvd @ 12th St NE	3	Lake Bvld NE @ 12 St NE
4	4	15th St NW @ Minnesota Ave	4	15th St NW @ Minnesota Ave
5	5	Birchmont Dr NE @ 15th St NE	5	Birchmont Dr NE @ 15th St NE
6	6	Irvine Ave @ 8th St NW	6	Irvine Ave NW @ 8th St NW
7	7	Beltrami Ave @ 3rd St NW	7	Beltrami Ave @ 3rd St NW
8	8	30th St NW @ Ridgeway Ave NW	8	30th St NW @ Ridgeway Ave NW
9	9	23rd St NW @ Ridgeway Ave NW	9	23rd St NW west of Ridgeway Ave NW
10	10	Paul Bunyan Dr @ Paul Bunyan Mall	10	Paul Bunyan Dr NW @ Paul Bunyan Mall
11	12	North side of Paul Bunyan Trail Bridge over Paul Bunyan Dr	12	North entrance to Paul Bunyan Trail Bridge @ Paul Bunyan Dr.
12	11.1	Paul Bunyan Dr @ Mississippi River (NE)	15	Paul Bunyan Dr NE @ Mississippi River
13	11.2	Paul Bunyan Dr @ Mississippi River (SW)	11	City Trail @ Mississippi River

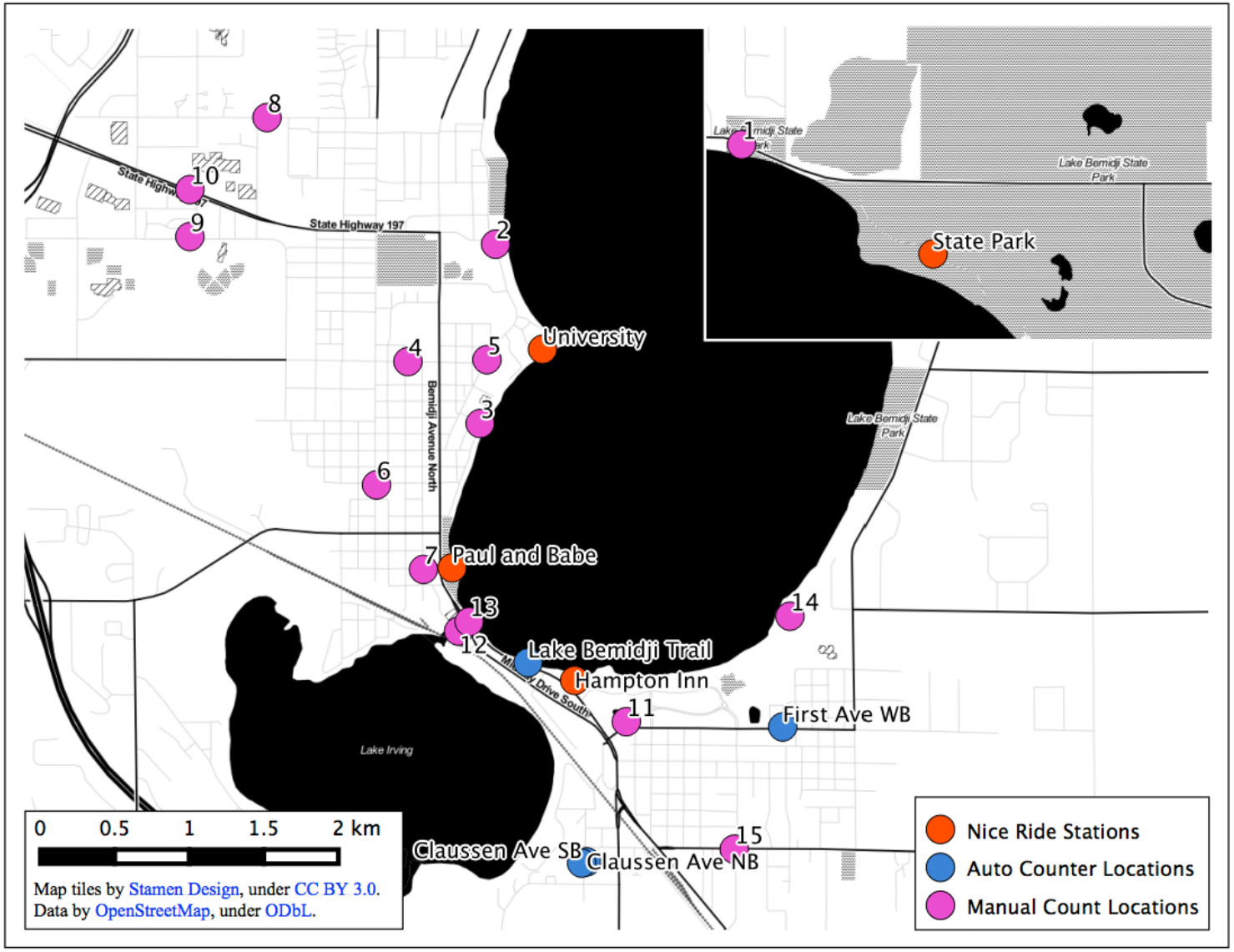


Figure 2.1: Bemidji Manual and Automated Count Locations

Table 2.5: Weather on Manual Count Days at the Cass Lake, MN Weather Station

	2012				2014			
	Tue 9/11	Wed 9/12	Thu 9/13	Sat 9/15	Tue 9/16	Wed 9/10	Thu 9/11	Sat 9/13
Max Temp ($^\circ F$)	82	83	70	70	61	56	54	50
Min Temp ($^\circ F$)	57	53	36	35	43	44	42	30
Avg Temp ($^\circ F$)	69.5	68	53	52.5	52	50	48	40
Departure ($^\circ F$) from average	11.2	10.1	-4.4	-4	-4	-8.7	-10.3	-17.4
Precipitation (inches)	0	0	0	0	0	0.06	0	0

Data downloaded from weather.gov. Accessed 2/1/2015.

2.3.3 Automated Bicyclist Counts

Automaded counters were deployed as part of a related research project. Locations were selected based on input from local planners, Nice Ride station placement, and historical manual count locations.

The University of Minnesota, in collaboration with MnDOT, monitored bicycle and pedestrian traffic at three locations in Bemidji in October 2014 (Table 2.6):

1. The Lake Bemidji Trail, south of Paul Bunyan Park, across Paul Bunyan Drive (Rt. 197) from the Ace Hardware Store, 670 Paul Bunyan Drive;

2. Claussen Avenue (both northbound and southbound traffic), between Roosevelt and Rako Streets; and

3. First Street westbound, west of Gould Avenue.

Both bicycle and pedestrian traffic were monitored on the Lake Bemidji Trail using a Chambers Radio Beam counter (Figure 2.2). On both directions of Claussen Avenue, Metrocount pneumatic tube counters were used to monitor bicycle traffic (Figures 2.3 and 2.4). Metrocount pneumatic tubes also were deployed on First Street westbound; no picture is available. Both the Chambers and Metrocount devices were installed according to the manufacturers specifications. On-site validation was conducted to confirm the counters were working.

2.3.4 Nice Ride Minnesota Bemidji System Data

Nice Ride Minnesota's Bemidji system operates as a walk-up bicycle rental program. Operation differs from the Twin Cities' and other bike *share* systems in a number of ways: bicycles must be returned to the origin station. Bike rentals come with a lock. Checking out a bicycle involves an online reservation followed by collecting a key from the staffed station host site during their business hours. The program provides a discount to local residents for $12 off a rental (equivalent to 2 free hours) on Monday through Thursday.

Nice Ride Minnesota exported records of all rentals from their database, including the date the bicycle was retrieved, the rental station, and Nice Ride's net income from the rental. The data did not specify whether the local resident discount coupon was used for each rental. As a proxy for rentals using the local resident discount coupon, trips were classified by their revenue value: exactly $0 versus greater than $0. This is an imperfect proxy because it does not account for trips longer than two hours that had a $12 discount from the local resident coupon but still generated revenue. It also does not distinguish trips for which the rental fee was waived due to problems with the online rental system interface or other issues. The local discount program is only valid on weekdays (Monday through Thursday), so weekend (Friday through Sunday) rentals with $0 revenue do not represent participation in the local discount program.

Figure 2.2: Chambers Radio Beam Counter, Lake Bemidji Trail, Bemidji MN

Table 2.6: Bemidji, MN Count Locations: Site Data

Location	Description	Counter	Coordinates	Road Description
Lake Bemidji Trail	Across from 670 Paul Bunyan Drive SE	Chambers: bike & ped		
Claussen Ave, northbound	Between Roosevelt and Rako (east travel lane)	MetroCount: bikes, vehicles	47° 27’ 3” N 94° 51’ 35”W	Travel lane: 11.5’ Fog line to curb: 7’ Total: 18.5’ Road width: 37’ Residential street with marked parking, bike lane connects segments of trail.
Claussen Ave, southbound	Between Roosevelt and Rako (east travel lane)	MetroCount: bikes, vehicles	47° 27’ 3” N 94° 51’ 35”W	Travel lane: 11.5’ Fog line to curb: 7’ Total: 18.5’ Road width: 37’ Residential street with marked parking, bike lane connects segments of trail.
First street, westbound	West of Gould Avenue, NE (north travel lane)	Metrocount: bikes, vehicles	47° 28’ 24” N 94° 51’ 20” W	Travel lane: 12’ Fog lane to curb: 11.5’ Total: 23.5’ Road width: 47’ Arterial, bike lane, connects lanes where no sidewalk exists.

Figure 2.3: Metrocount Pneumatic Tube Counter, Claussen Ave. SE, northbound traffic.

Figure 2.4: Metrocount Pneumatic Tube Counter, Claussen Ave. SE, southbound traffic.

Chapter 3

Characterizing bicycle use

Over the past decade, bicycle use in Bemidji has grown, though shorter term trends are difficult to discern due to year-to-year variation. ACS estimates of bicycle commute share and automated bicyclist and vehicle counts converge at a bicycle mode share of approximately 3%. This is an increase over the US Census bicycle commute mode share in 2000 of approximately 0%. Survey respondents self-report bicycling, engaging in more physical activity, and observing bicyclists more often after Nice Ride opened than the previous summer (2013).

3.1 Survey

Respondents were asked about their general bicycling and travel behavior, as well as questions about attitudes, preferences, and perspectives on Nice Ride and bicycling in their community. 25 respondents (93%) reported having rode a bicycle within the past 12 months, and 17 (63%) rode within the past 7 days. 8 respondents (30%) have used the Nice Ride bike rental system in Bemidji. One respondent has used the Nice Ride bike share system in Minneapolis. 23 (86%) own a personal bicycle.

Figure 3.1 shows how much respondents exercise, walk, bike, drive, and observe cyclists while driving during summer 2014, relative to before Nice Ride opened in summer of 2013 on a scale from (1) A lot less now to (5) A lot more now. The average scores for exercise, bicycling, and walking suggest a modest self-reported increase (3.4 to 3.5, versus 3.0 indicating no change). People report driving slightly less than the previous summer (2.7), and observing bicyclists more often while driving (3.9).

Figures 3.2 and 3.3 show the same data, but grouped by whether the respondent has bicycled within the past 7 days, and whether the respondent has ever used Nice Ride in Bemidji, respectively. For all groups, the average scores for exercising, bicycling, walking, and observing cyclists while driving are greater than 3.0, suggesting they are constant or increasing. The scores for driving are all 3.0 or lower, suggesting that rates of driving are constant or decreasing. People who

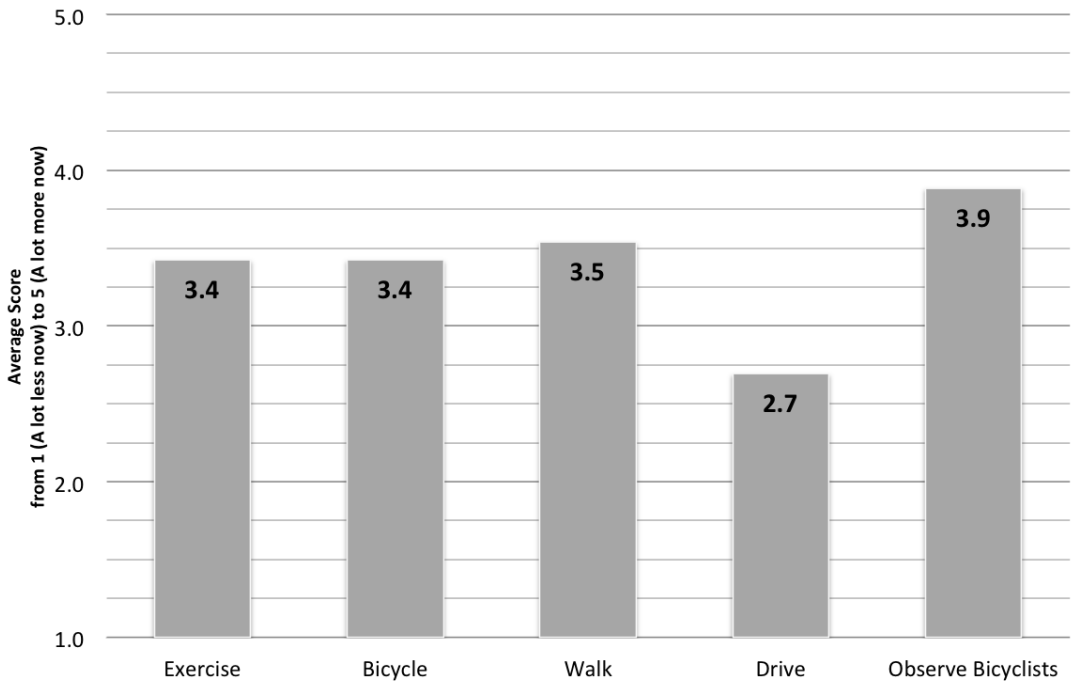


Figure 3.1: Change in Activity Since Nice Ride Opened

bicycled within the past 7 days scored higher on bicycling and observing cyclists and lower on exercising and walking than people who did not. People who have used Nice Ride scored higher on all categories except walking than people who did not.

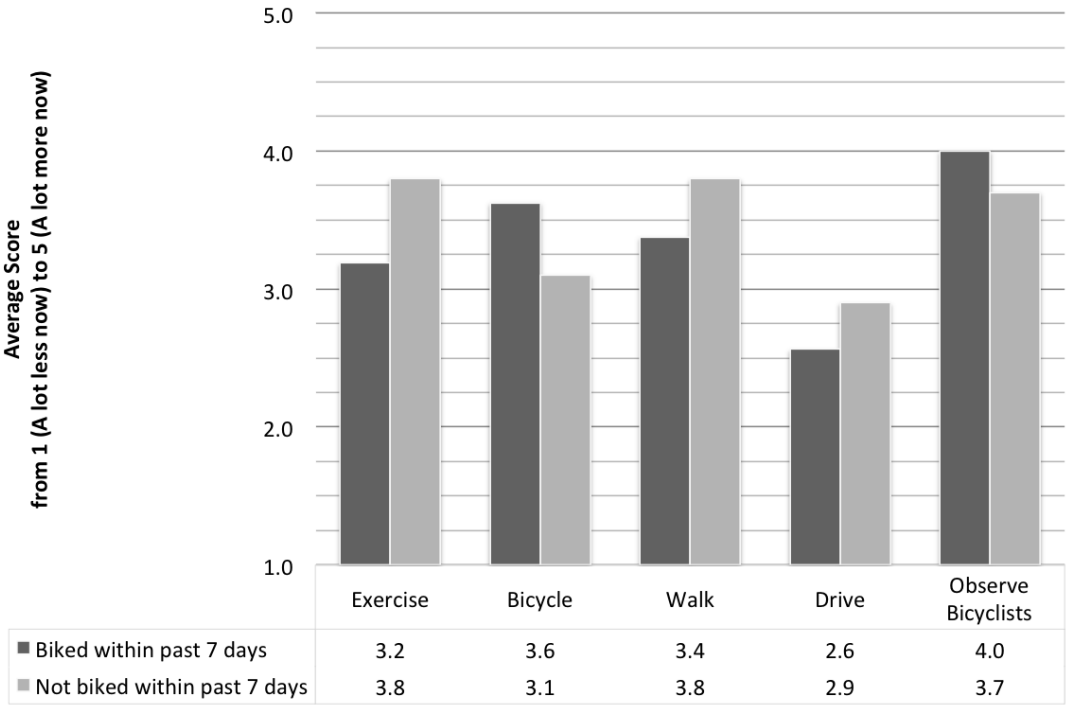


Figure 3.2: Change in Activity Since Nice Ride Opened, Grouped by Past 7 Days Bicycling

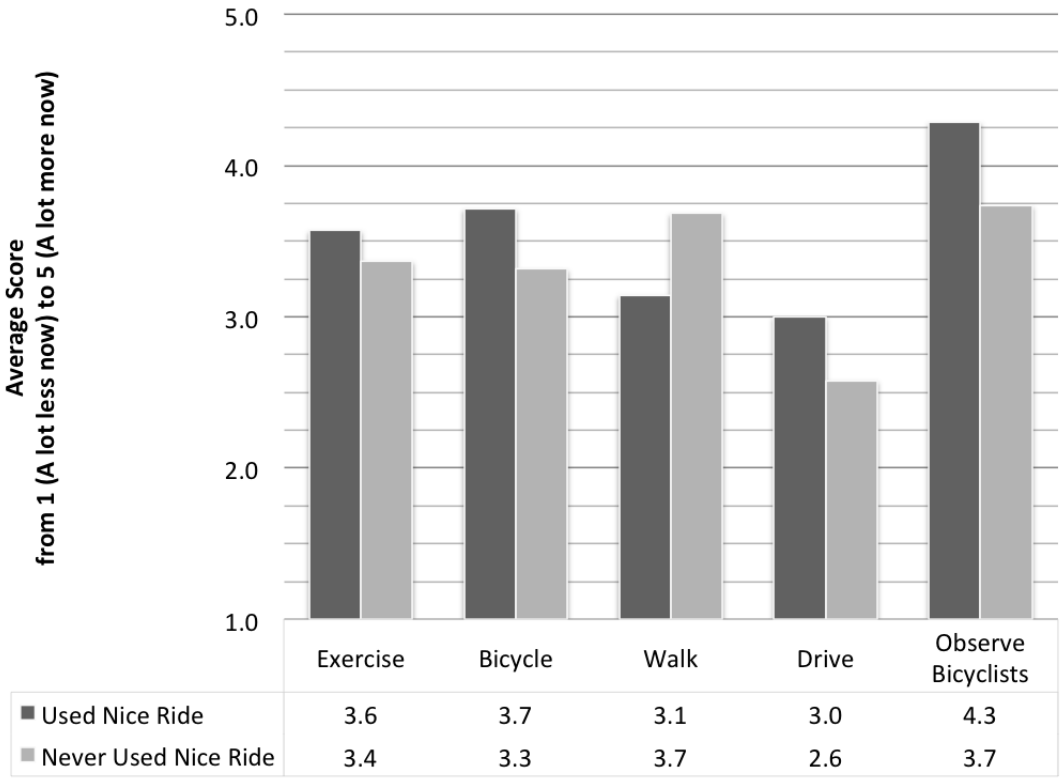


Figure 3.3: Change in Activity Since Nice Ride Opened, Grouped by Nice Ride Use

3.2 Census and ACS Survey Results (2000, 2009-2012)

Figure 3.4 shows the bicycle commute mode share in census tracts in and around Bemidji, Minnesota from the 2000 Census and the ACS 5-year estimates ending in 2009, 2010, 2011, and 2012. Table 3.1 displays the same data in tabular form, and includes an overall measure for the City of Bemidji (Bemidji CDP). The heavy black outline shows the Bemidji city boundaries. In the Bemidji CDP, the bicycle mode increased nearly three-fold from 0.36% in 2000 to the 2005-2009 ACS estimate (0.99%). Low sample sizes in the ACS introduce uncertainty in the measurements[1], but the 2000 bicycle commute share is still smaller than the lower bound of a 90% confidence interval around the 2006-2010 and more recent measures. No clear pattern emerges in the 5-year estimates spanning 2005 to 2013, though all of these estimates are larger than the 2000 Census measure.

Table 3.1: Bicycle Commute Mode Share in Bemidji, MN

	Census	American Community Survey 5-year Estimates					
Geography or Tract ID	2000	2005 – 2009	2006 – 2010	2007 – 2011	2008 – 2012	2009 – 2013	
Bemidji CDP	0.36%	0.99%	1.69%	2.59%	2.16%	1.76%	
4506	0.86%	0.95%	1.08%	1.44%	1.00%	0.44%	
4507.01*	0.00%	0.79%	2.20%	1.78%	1.70%	2.72%	
4507.02*	0.00%	0.79%	1.13%	3.86%	2.93%	2.45%	
4501	0.07%	0.33%	0.30%	0.35%	0.45%	1.27%	
4502	0.04%	0.32%	0.97%	0.91%	0.59%	0.32%	
4503	0.00%	0.00%	0.00%	0.09%	0.09%	0.53%	

*This was part of tract 9507 in the 2000 Census and 4507 in the 2005-2009 ACS 5-year estimates. The tract was split into 4507.01 and 4507.02 starting with the 2006 ACS estimates. Percentages in gray are estimates from the original consolidated tract.

[1]The Census long form in 2000 is sample-based, but it is a larger sample than ACS estimates and margins of error are not provided with the data.

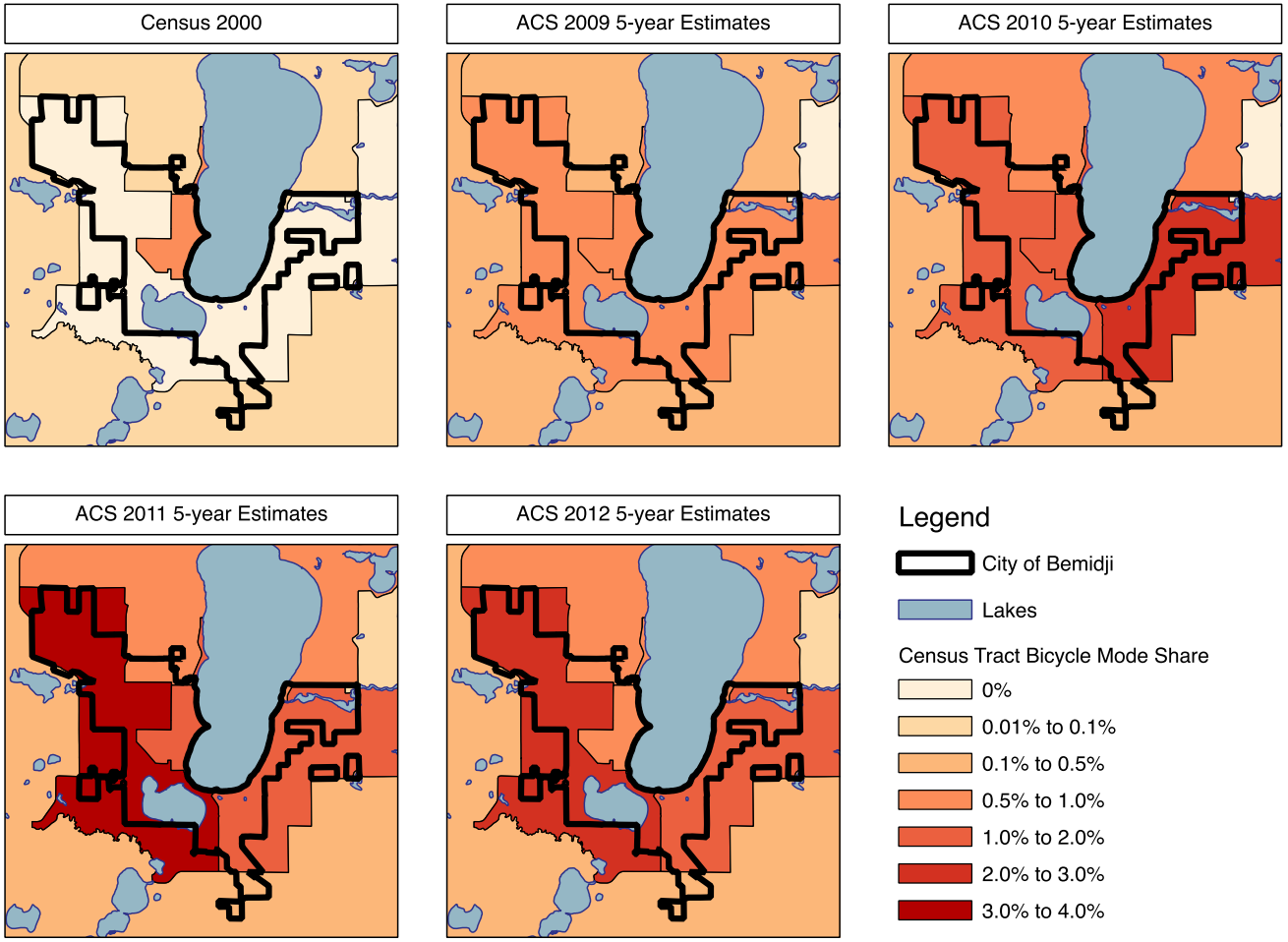


Figure 3.4: Bicycle Commute Mode Share in Bemidji, MN

3.3 Manual field counts

Tables 3.2 and 3.3 summarize the manual counts conducted in Bemidji in 2012 and 2014 by location, day of the week, and time of day. Figure 3.5 maps the weekday (Tuesday, Wednesday, Thursday) average count volumes in 2012 and 2014. On all count days, most count locations had more observed cyclists in 2012 than 2014. Much of this is likely attributable to weather differences between the two count weeks. As described in Section 2.3.2, the temperatures in 2014 were much cooler than in 2012, and there was a small amount of rain on Wednesday, 9/10/2014. The Tuesday count in 2014 was postponed by one week due to weather, as described in Section 2.3.2 and Appendix C. Two locations had higher counts in 2014 than in 2012 on two different weekdays: Locations 4 (15th Street NW at Minnesota Avenue on the way to Uptown) and 7 (Beltrami Ave at Third Street NW in Downtown).

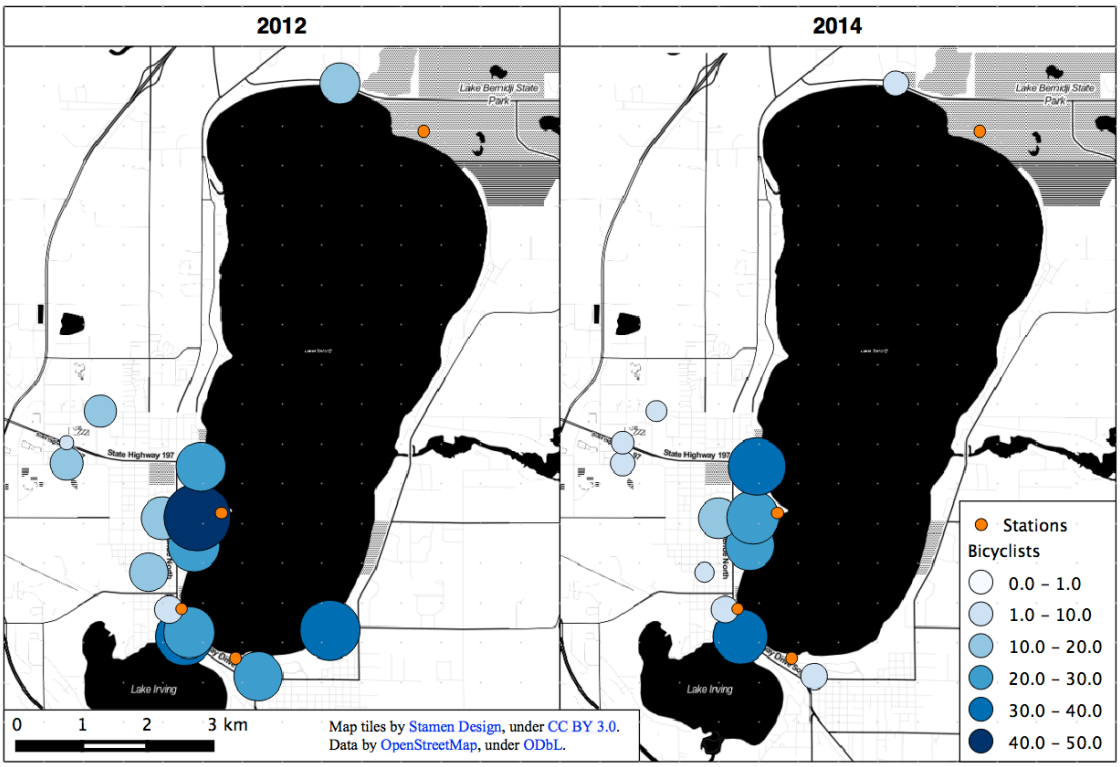


Figure 3.5: Weekday Average Bicycle Volumes from Manual Counts in 2012 and 2014

Table 3.2: Bemidji Manual Count Summary - Weekdays 4:00 - 6:00 PM

		Tuesday		Wednesday		Thursday		Weekday Average	
ID	Location	2012	2014	2012	2014	2012	2014	2012	2014
1	Birchmont Beach Rd at DNR Headquarters	15	.	20	7	17	7	17	7
2	Birchmont Dr NE at 23rd St NE	.	49	32	.	20	21	26	35
3	Lake Blvd at 12th St NE	36	38	19	15	32	25	29	26
4	15th St NW at Minnesota Ave	37	10	20	26	0	15	19	17
5	Birchmont Dr NE at 15th St NE	60	34	33	27	49	28	47	30
6	Irvine Ave at 8th St NW	27	7	10	5	11	1	16	4
7	Beltrami Ave at 3rd St NW	7	0	5	8	14	16	9	8
8	30th St NW at Ridgeway Ave NW	16	6	8	.	9	3	11	5
9	23rd St NW at Ridgeway Ave NW	13	5	8	3	14	11	12	6
10	Paul Bunyan Dr NW at Paul Bunyan Mall	.	5	2	6	.	5	2	5
11	Paul Bunyan Trail Bridge at Paul Bunyan Dr	42	11	14	.	20	4	25	8
12	Paul Bunyan Dr NE at Mississippi River	50	39	23	30	32	26	35	32
13	City Trail at Mississippi River	29	18	31	16	25	14	28	16
14	Paul Bunyan Trail at Sanford Center	46	.	39	.	30	.	38	.
15	Roosevelt Rd SE at Grant Ave SE	2	.	6	.	5	.	4	.

. indicates no data

Gray indicates no data for one or both years

Table 3.3: Bemidji Manual Count Summary - Saturdays

		2012	2014		
	From:	10:00 AM	10:00 AM	12:00 PM	2:00 PM
	To:	12:00 PM	12:00 PM	2:00 PM	4:00 PM
1	Birchmont Beach Rd at DNR Headquarters	24	.	.	.
2	Birchmont Dr NE at 23rd St NE	35	.	21	.
3	Lake Blvd at 12th St NE	27	10	19	.
4	15th St NW at Minnesota Ave	8	.	.	.
5	Birchmont Dr NE at 15th St NE	23	.	6	.
6	Irvine Ave at 8th St NW	19	.	.	.
7	Beltrami Ave at 3rd St NW	16	7	24	15
8	30th St NW at Ridgeway Ave NW	1	.	.	.
9	23rd St NW at Ridgeway Ave NW	14	.	.	.
10	Paul Bunyan Dr NW at Paul Bunyan Mall	11	2	2	4
11	Paul Bunyan Trail Bridge at Paul Bunyan Dr	.	.	.	.
12	Paul Bunyan Dr NE at Mississippi River	.	11	28	24
13	City Trail at Mississippi River	.	11	12	13
14	Paul Bunyan Trail at Sanford Center	47	.	.	.
15	Roosevelt Rd SE at Grant Ave SE	8	.	.	.

. indicates no data

Gray indicates no data for one or both years

3.4 Automated bicycle counts (Fall 2014)

3.4.1 Lake Bemidji Trail

Monitoring results for the Lake Bemidji Trail are presented in Table 3.4. Monitoring (complete, 24-hour days) occurred from October 3 through October 21, 2014. Although daily bicycle traffic volumes appear plausible, the monitoring results for pedestrian traffic do not, and it must be assumed that the pedestrian monitor malfunctioned. With the exception of a count of 65 pedestrians on October 4, the values for the remaining 18 days are either 0, 5, or in excess of 460 (two days). It is highly unlikely that there was no pedestrian traffic at this site on 11 days, or that pedestrian traffic on 4 days was precisely five. The estimates of pedestrian traffic should be considered invalid.

The bicycle counts are obtained with a different radio beam, and the daily volumes, which range from 0 to 104 seem plausible (Table 3.4). The mean daily traffic volumes on weekdays and weekend days were comparable: 56 and 54, respectively. Figure 3.6 presents the proportion of bicycle traffic that occurred during each hour of both weekday and weekend days. On weekdays, peak hour traffic occurs between 4:00 and 5:00 p.m.; approximately 18% of all weekday bicycle traffic occurred during this time. Given weekday bicycle traffic volumes (mean = 56), the peak hour traffic volumes are approximately 10, or one cyclist every 6 minutes. On weekend days, bicycle traffic was spread more consistently through the day, with peak hours (12% of traffic) occurring at noon and 2:00 p.m. These patterns (late afternoon peak traffic on weekdays and more even traffic volumes on weekends) are consistent with patterns seen on other recreational trails in Minnesota. Based on trail traffic monitoring in Minneapolis, it is expected that summertime bicycle volumes (e.g., June August) would be higher than those monitored in October.

3.4.2 Claussen Avenue

Bicycle traffic monitoring results for October 3 through October 21 for Claussen Avenue northbound and southbound traffic are presented in Tables 3.5 and 3.6, respectively. Northbound average weekday and weekend daily bicycle traffic volumes were 7.5 and 5.5 bicycles, respectively. Southbound average weekday and weekend daily bicycle traffic volumes were comparable, 6.2 and 5.8 bicycles, respectively. Summing traffic in both directions, average daily weekday bicycle traffic was between 13 and 14 bicycles; average weekend daily totals were slightly lower, approximately 12 bicycles per day. Figure 3.7 illustrate bicycle traffic by hour-of-day for Claussen Avenue Southbound. The peak hour for bicycle traffic is 4:00 p.m.; weekend bicycle traffic is spread more evenly throughout the day.

A useful feature of the Metrocount counters is that they also provide estimates of total vehicular traffic volumes so that bicycle mode share can be computed. Bicycle mode share for Claussen Avenue southbound was 2.9% and 2.8%, respectively, for weekdays and weekends. Bicycle mode share for Claussen Avenue northbound was slightly higher, 3.8% and 3.1%, respectively, for week-

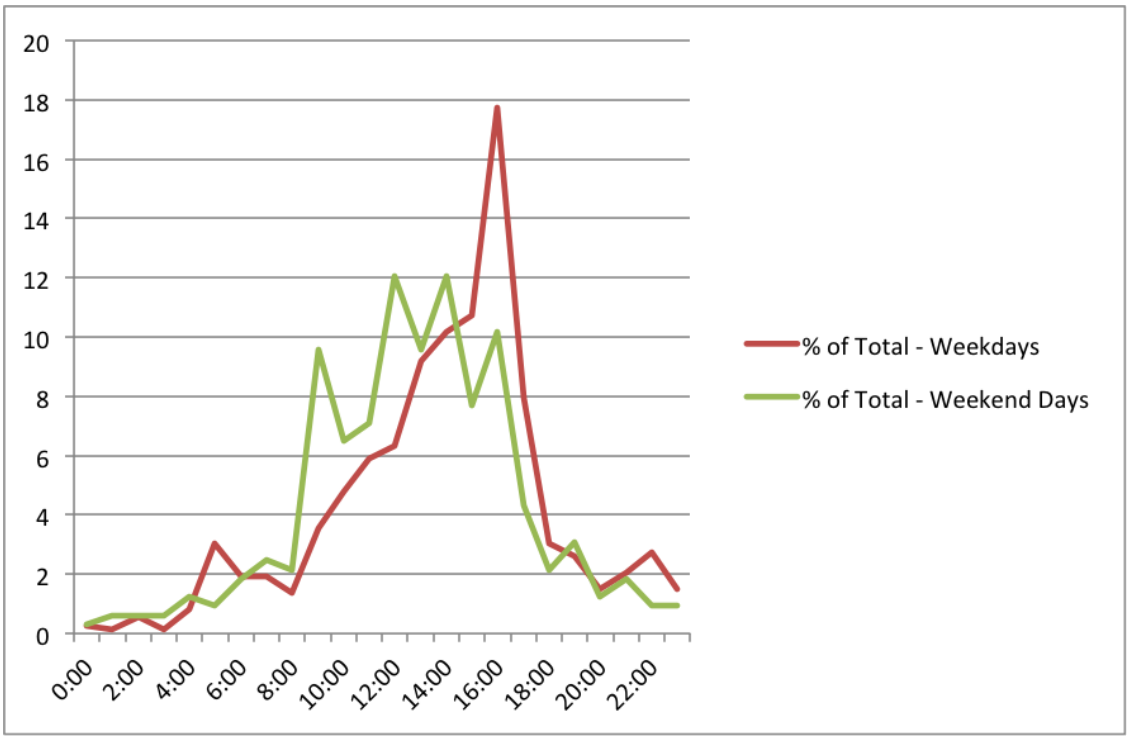


Figure 3.6: Percentage of bicycle traffic by hour of day, weekdays and weekend days, Lake Bemidji Trail.

days and weekends.

Local professionals selected the Claussen Avenue location for monitoring because Cssen Avenue is the route designated for connecting two trails. The results indicate that Claussen Avenue experiences modest levels of bicycle traffic.

3.4.3 First Avenue Westbound

Bicycle traffic monitoring results for October 3 through October 5 for First Avenue westbound are presented in Table 3.7. Monitoring results are available for only three days because the tubes were damaged sometime on October 6 and ceased to collect traffic data. Bicycle traffic on First Avenue was very low: 3 bikes on one weekday and an average of six bikes per day for the two weekend days. Vehicular traffic on First Avenue was fairly high; bicycle mode share for the three days of monitoring was very low, less than two-tenths of one percent.

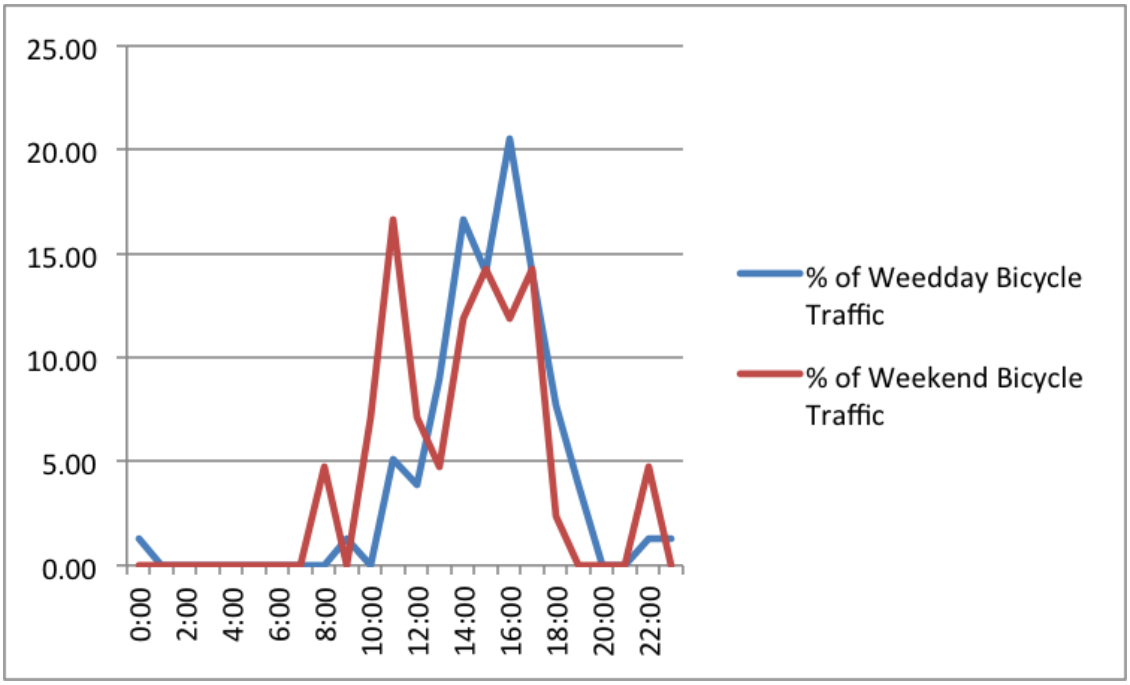


Figure 3.7: Percentage of bicycle traffic by hour of day, weekdays and weekend days, Claussen Avenue, Southbound.

Table 3.4: Lake Bemidji Trail Monitoring Results.

		Counts			Mode %		Distribution over sample		
Date	Day	Bike	Ped	Total	Bike	Ped	Bike	Ped	Total
10/03/14	Fri	16	0	16	100.0%	0.0%	2.1%	0.0%	0.9%
10/04/14	Sat	39	65	104	37.5%	62.5%	5.1%	6.3%	5.8%
10/05/14	Sun	26	0	26	100.0%	0.0%	3.4%	0.0%	1.4%
10/06/14	Mon	56	0	56	100.0%	0.0%	7.4%	0.0%	3.1%
10/07/14	Tue	36	0	36	100.0%	0.0%	4.7%	0.0%	2.0%
10/08/14	Wed	0	5	5	0.0%	100.0%	0.0%	0.5%	0.3%
10/09/14	Thu	44	0	44	100.0%	0.0%	5.8%	0.0%	2.4%
10/10/14	Fri	59	495	554	10.7%	89.4%	7.8%	47.6%	30.8%
10/11/14	Sat	73	460	533	13.7%	86.3%	9.6%	44.2%	29.6%
10/12/14	Sun	53	5	58	91.4%	8.6%	7.0%	0.5%	3.2%
10/13/14	Mon	52	0	52	100.0%	0.0%	6.8%	0.0%	2.9%
10/14/14	Tue	100	10	110	90.9%	9.1%	13.2%	1.0%	6.1%
10/15/14	Wed	104	0	104	100.0%	0.0%	13.7%	0.0%	5.8%
10/16/14	Thu	102	0	102	100.0%	0.0%	13.4%	0.0%	5.7%
10/17/14	Fri	35	0	35	100.0%	0.0%	4.6%	0.0%	1.9%
10/18/14	Sat	60	5	65	92.3%	7.7%	7.9%	0.5%	3.6%
10/19/14	Sun	73	5	78	93.6%	6.4%	9.6%	0.5%	4.3%
10/20/14	Mon	67	0	67	100.0%	0.0%	8.8%	0.0%	3.7%
10/21/14	Tue	57	0	57	100.0%	0.0%	7.5%	0.0%	3.2%
Total		1052	1050	2102	50.0%				
Weekday Total		728	510	1238	58.8%				
Weekend Total		324	540	864	37.5%				
Mean		55.4	55.3	110.6					
Weekday Mean		56.0	39.2	95.2					
Weekend Mean		54.0	90.0	144.0					

Pedestrian counts invalid - indicated in red

Table 3.5: Claussen Avenue, northbound, monitoring results: daily bicycle traffic (ARX Cycle Classification).

		Counts			Mode %		Distribution over sample		
Date	Day	Bike	Auto	Total	Bike	Auto	Bike	Auto	Total
10/03/14	Fri	2	163	165	1.2%	98.8%	2.1%	6.3%	6.1%
10/04/14	Sat	4	146	150	2.7%	97.3%	4.1%	5.6%	5.5%
10/05/14	Sun	2	151	153	1.3%	98.7%	2.1%	5.8%	5.7%
10/06/14	Mon	3	193	196	1.5%	98.5%	3.1%	7.4%	7.2%
10/07/14	Tue	2	230	232	0.9%	99.1%	2.1%	8.8%	8.6%
10/08/14	Wed	5	184	189	2.6%	97.4%	5.2%	7.1%	7.0%
10/09/14	Thu	7	167	174	4.0%	96.0%	7.2%	6.4%	6.4%
10/10/14	Fri	9	211	220	4.1%	95.9%	9.3%	8.1%	8.1%
10/11/14	Sat	12	210	222	5.4%	94.6%	12.4%	8.1%	8.2%
10/12/14	Sun	4	184	188	2.1%	97.9%	4.1%	7.1%	7.0%
10/13/14	Mon	12	187	199	6.0%	94.0%	12.4%	7.2%	7.4%
10/14/14	Tue	12	214	226	5.3%	94.7%	12.4%	8.2%	8.4%
10/15/14	Wed	9	181	190	4.7%	95.3%	9.3%	6.9%	7.0%
10/16/14	Thu	14	187	201	7.0%	93.0%	14.4%	7.2%	7.4%
10/17/14	Fri	4	185	189	2.1%	97.9%	4.1%	7.1%	7.0%
10/18/14	Sat	4	165	169	2.4%	97.6%	4.1%	6.3%	6.2%
10/19/14	Sun	10	154	164	6.1%	93.9%	10.3%	5.9%	6.1%
10/20/14	Mon	11	185	196	5.6%	94.4%	11.3%	7.1%	7.2%
10/21/14	Tue	7	184	191	3.7%	96.3%	7.2%	7.1%	7.1%
Total		97	2608	2705	3.6%				
Weekday Total		75	1917	1992	3.8%				
Weekend Total		22	691	713	3.1%				
Mean		6.9	186.3	193.2					
Weekday Mean		7.5	191.7	199.2					
Weekend Mean		5.5	172.8	178.3					

Table 3.6: Claussen Avenue, southbound, monitoring results: daily bicycle traffic (ARX Cycle Classification).

		Counts			Mode %		Distribution over sample		
Date	Day	Bike	Auto	Total	Bike	Auto	Bike	Auto	Total
10/03/14	Fri	3	188	191	1.6%	98.4%	3.5%	6.6%	6.5%
10/04/14	Sat	2	174	176	1.1%	98.9%	2.4%	6.1%	6.0%
10/05/14	Sun	5	182	187	2.7%	97.3%	5.9%	6.4%	6.4%
10/06/14	Mon	2	207	209	1.0%	99.0%	2.4%	7.3%	7.1%
10/07/14	Tue	4	254	258	1.6%	98.4%	4.7%	8.9%	8.8%
10/08/14	Wed	1	205	206	0.5%	99.5%	1.2%	7.2%	7.0%
10/09/14	Thu	5	183	188	2.7%	97.3%	5.9%	6.4%	6.4%
10/10/14	Fri	7	233	240	2.9%	97.1%	8.2%	8.2%	8.2%
10/11/14	Sat	10	242	252	4.0%	96.0%	11.8%	8.5%	8.6%
10/12/14	Sun	6	190	196	3.1%	96.9%	7.1%	6.7%	6.7%
10/13/14	Mon	10	179	189	5.3%	94.7%	11.8%	6.3%	6.4%
10/14/14	Tue	6	197	203	3.0%	97.0%	7.1%	6.9%	6.9%
10/15/14	Wed	12	207	219	5.5%	94.5%	14.1%	7.3%	7.5%
10/16/14	Thu	12	213	225	5.3%	94.7%	14.1%	7.5%	7.7%
10/17/14	Fri	4	206	210	1.9%	98.1%	4.7%	7.2%	7.1%
10/18/14	Sat	9	186	195	4.6%	95.4%	10.6%	6.5%	6.6%
10/19/14	Sun	10	164	174	5.7%	94.3%	11.8%	5.7%	5.9%
10/20/14	Mon	8	202	210	3.8%	96.2%	9.4%	7.1%	7.1%
10/21/14	Tue	4	196	200	2.0%	98.0%	4.7%	6.9%	6.8%
Total		85	2854	2939	2.9%				
Weekday Total		62	2066	2128	2.9%				
Weekend Total		23	788	811	2.8%				
Mean		6.1	203.9	209.9					
Weekday Mean		6.2	206.6	212.8					
Weekend Mean		5.8	197.0	202.8					

Table 3.7: First Avenue Westbound, bicycle traffic monitoring results.

		Counts			Mode %		Distribution over sample		
Date	Day	Bike	Auto	Total	Bike	Auto	Bike	Auto	Total
10/03/14	Fri	3	3552	3555	0.1%	99.9%	20.0%	42.3%	42.3%
10/04/14	Sat	5	2675	2680	0.2%	99.8%	33.3%	31.9%	31.9%
10/05/14	Sun	7	2166	2173	0.3%	99.7%	46.7%	25.8%	25.8%
Total		15	8393	8408	0.2%				
Weekday Total		3	3552	3555	0.1%				
Weekend Total		12	4841	4853	0.2%				
Mean		5.0	2797.7	2802.7					
Weekday Mean		3.0	3552.0	3555.0					
Weekend Mean		6.0	2420.5	2426.5					

3.5 Nice Ride System Data

Nice Ride's Bemidji bike rental system had 581 single-day rentals during the 2014 season, not including grand opening weekend activities (Figures 3.8 and 3.9). There were 6 additional rentals that spanned multiple days. These were excluded from the analysis. 142 rentals (24%) had $0 net revenue (Figure 3.10). Saturday had the highest volumes, with 22% (127 trips) of all rentals (Figure 3.9). Over half (78) of Saturday rentals were at the Hampton Inn and Suites station. Tuesday was the most common day for $0 revenue trips, with 39% (55 trips) of the season's free trips. 94% of free trips occurred on valid days for the local discount program (Monday through Thursday). A majority of weekend rentals from the Bemidji State University station (57%) were free trips (Figure 3.10), but this is attributable to the small number of weekend rentals (7 rentals) from this station overall.

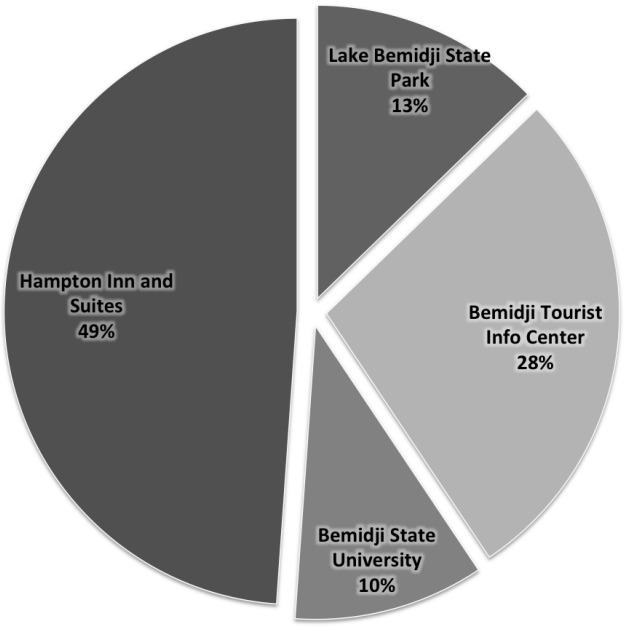


Figure 3.8: Distribution of rentals by location

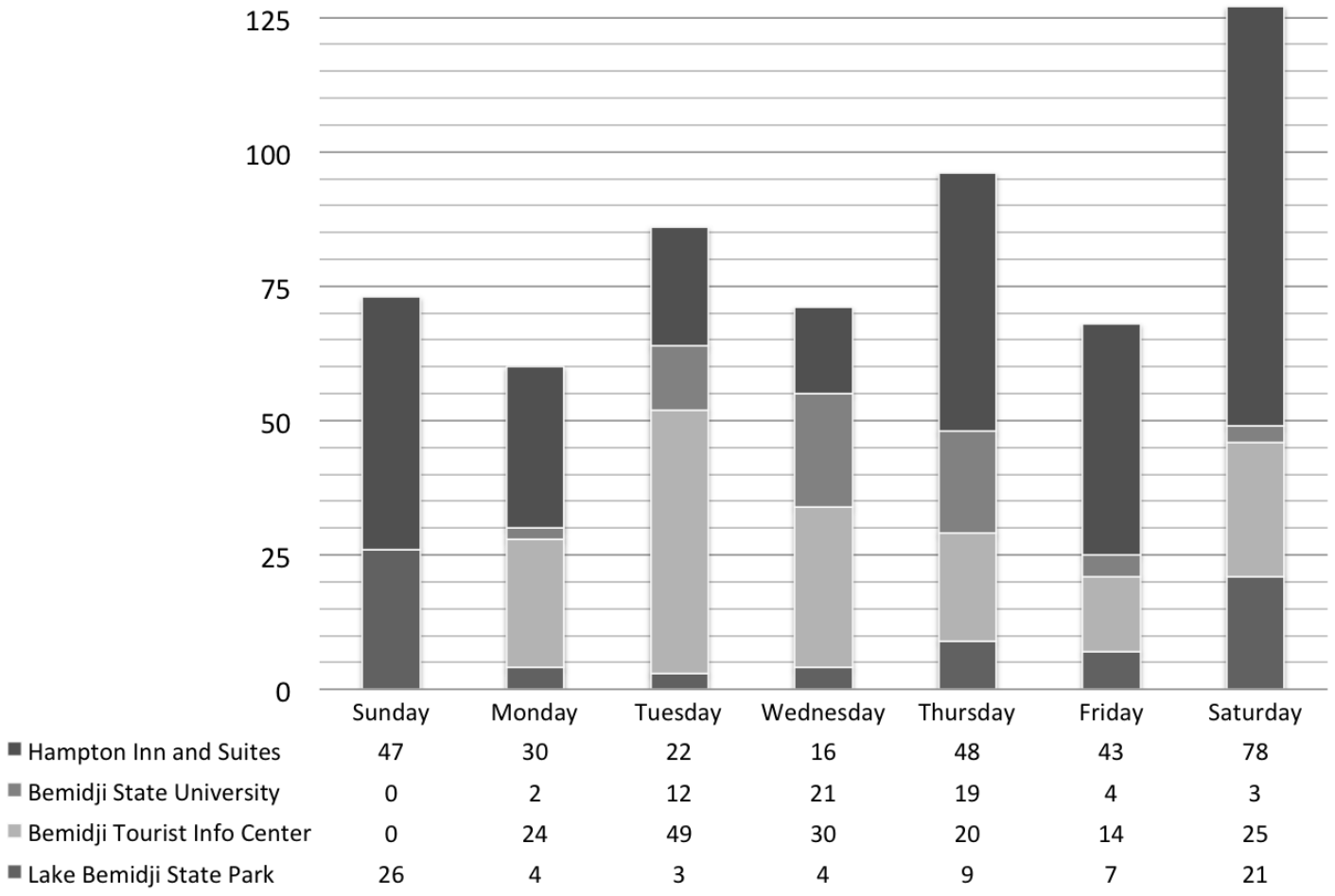


Figure 3.9: Number of rentals by location and weekday

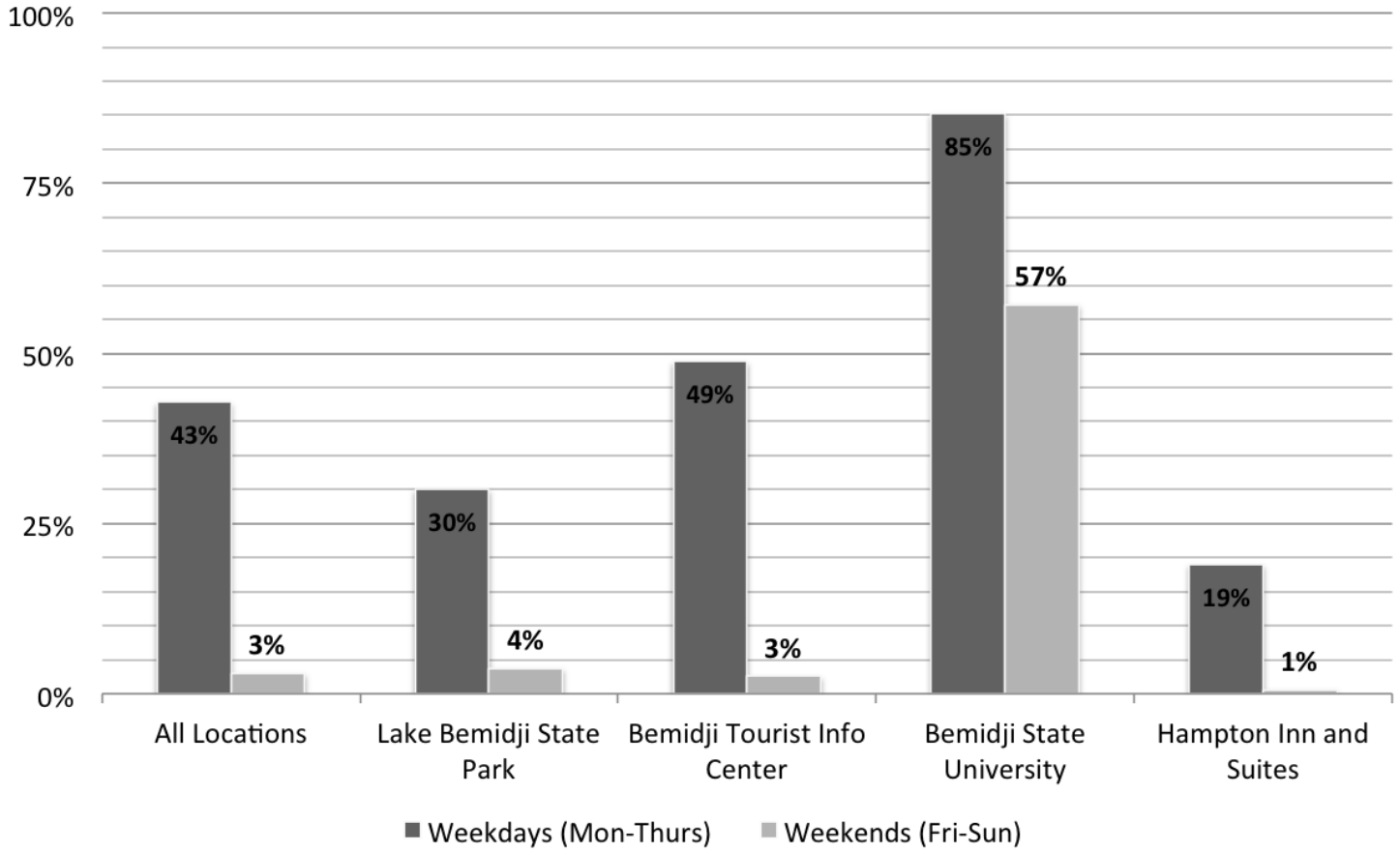


Figure 3.10: Percent of rentals that are free by location and weekday/weekend

Chapter 4

Describing social norms related to active living

Social norms refer to shared beliefs by individuals or groups within a community about a topic or issue of interest (e.g., bicycling). With that definition, evidence from observed behavior (cycling) and shared perspectives (surveys, interviews) suggests that people believe bicycling is good for Bemidji, and some groups in Bemidji are committed to spending time, resources, and money to strengthen opportunities for cycling in Bemidji.

Bemidji's bicycle culture is integrated throughout the city and community. Bicycle parking and bicycle-themed sculptures are prevalent in the downtown district (Figures 4.1 and 4.2). Bike messengers deliver orders from food trucks throughout town (Figure 4.3).

The arrival of Nice Ride focused additional attention and energy into Bemidji's bicycle culture, even in areas not typically associated with cycling. The Uptown district is an auto-oriented area on the west side of the city, along Paul Bunyan Drive NW / MN-197. A regional bank branch in this part of town updated their electronic variable message sign to celebrate Nice Ride's arrival and the Bike Bemidji ride over the opening weekend (Figure 4.4).

Nice Ride's arrival served as a catalyst for bicycle-related community events and private sector sponsorship. Bike Bemidji, a local advocacy group, coordinated the Loop the Lake festival as part of Nice Ride's grand opening weekend (Figure 4.5). The 2014 inaugural event had X sponsors, including two that contributed last-minute in the days preceding the event to address higher than anticipated participation from the community. The 2015 event had 40 sponsors, including many with no direct association with cycling (e.g., plumbing, restaurants, realty) [1].

Figure 4.1: Nice Ride bicycles parked outside Bemidji Brewing Company on June 21, 2014

Figure 4.2: Bike wheel sculpture by a public parking lot in Downtown Bemidji

Figure 4.3: Foiled Rotten, a local food truck, partners with a bike messenger company, Wheel Fast Delivery, to add delivery service to their menu

(a) “CELEBRATE BIKE BEMIDJI!” (b) “JUNE 22nd - GREET NICE RIDE”

Figure 4.4: Deerwood Bank in the Uptown district with Bicycle and Nice Ride messaging on June 21, 2014

(a) A navigation sign for Loop the Lake participants

(b) Loop the Lake start/finish line

Figure 4.5: Bike Bemidji's 2014 Loop the Lake festival

4.1 Interviews

Collectively, the interviews portrayed a strong and growing bicycle culture in Bemidji.

Diane Pittman is a central figure in Bemidji's bike culture. Every person interviewed mentioned her contribution to the growing prevalence of cycling in Bemidji. Merattributed the Bike Bemidji organization and concept to Diane: "Diane *is* the original Bike Bemidji".

In 2002, Pittman started Shifting Gears, an organization that refurbishes bicycles for low income residents and teaches people cycling and bicycle maintenance skills. The organization has grown, and now has its own warehouse adjacent to the Rail River Folk School, an incubator space for nonprofit organizations.

Pittman described a cultural shift around 2010 and 2011 that attracted Nice Ride to Bemidji. The Minnesota Bike Alliance developed a statewide vision for cycling, and sent League of American Bicyclist instructors throughout the state to train League Certified Instructors (LCIs), including Pittman. The League of American Bicyclists awarded Bemidji with a bronze-level "Bike Friendly Cities" certification in 2012[3].

Mer, a Bike Bemidji volunteer and coordinator for the Loop the Lake festival, said that Nice Ride had requested the event, and it had great reception from the community. The 2014 event had 355 riders, 105 more than their goal of 250. She prefers this model of community engagement over an OpenStreets-style festival because it's a direct strategy to encourage people to "just get out and do it [bike]". Nice Ride was the "impetus" or "catalyst" for the event, but "the foundation was already there". Mer attributes some of the recent momentum to having a city engineer who "gets it". She commented on a recent repaving project where the bicycle lane was re-striped before the centerline as an example of prioritizing bicycling.

Melinda Neville, the manager for Nice Ride Bemidji, described the program's goal to "get butts on bikes" (Figure 4.6). Their vision for the local discount program is for people to make short trips across or around town via Nice Ride.

Figure 4.6: Nice Ride Bemidji manager Melinda Neville gives away Nice Ride helmets at the 2014 Loop the Lake festival

4.2 Survey

Respondents generally agreed to a statement that Nice Ride has made bicycling in Bemidji more popular (Figure 4.7). On a scale from 1 to 100, the average score was 74%. The average was higher among people who have used Nice Ride than those who haven't (80% and 71% respectively).

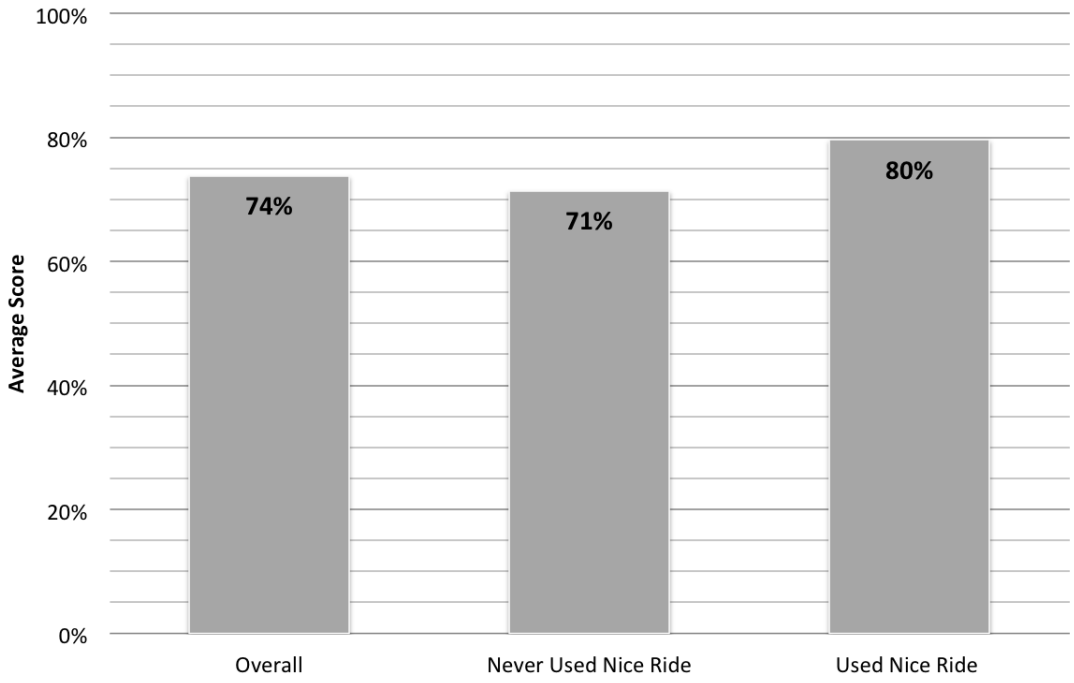
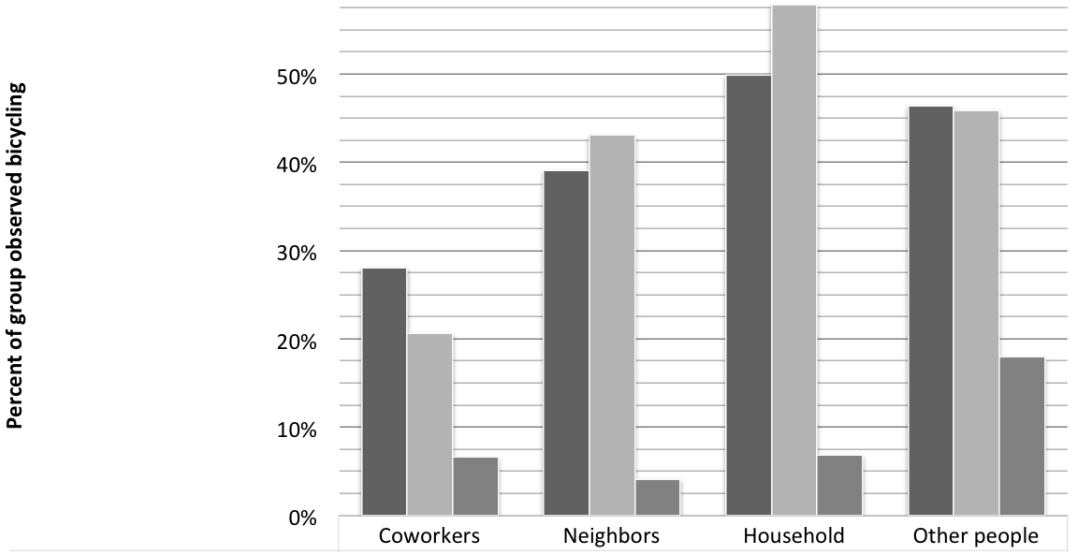


Figure 4.7: Extent to Which Respondents Agree: Nice Ride has Made Bicycling in Bemidji More Popular

Figure 4.8 shows the percentage of respondents' coworkers, neighbors, household members, and other people they know who they observed bicycling during summer 2013 (pre-Nice Ride) and summer 2014 (after Nice Ride opened). Respondents reported observing their neighbors and household members bicycle more during the summer in which Nice Ride opened than the summer prior. They observed less bicycling among their coworkers. Rates of observed *Nice Ride* bicycling were low overall.

Figures 4.10 and 4.9 show the average scores on a scale from 1 to 100 for a set of 11 statements about why they do (Figure 4.9) or do not (Figure 4.10) use Nice Ride. Results are shown for the full sample, and grouped by respondents who have not or have used Nice Ride, respectively. Respondents who had indicated using Nice Ride previously were asked in reference to their experience with the Nice Ride system, and respondents who had not previously used Nice Ride were asked about their observations of the system.

People who had used the Nice Ride system in Bemidji gave higher ratings to the statements,



	Coworkers	Neighbors	Household	Other people
Last summer (personal bicycle)	28%	39%	50%	46%
This summer (personal bicycle)	21%	43%	58%	46%
This summer (Nice Ride)	7%	4%	7%	18%

Figure 4.8: Rate of Observed Bicycling Among Respondents' Peers

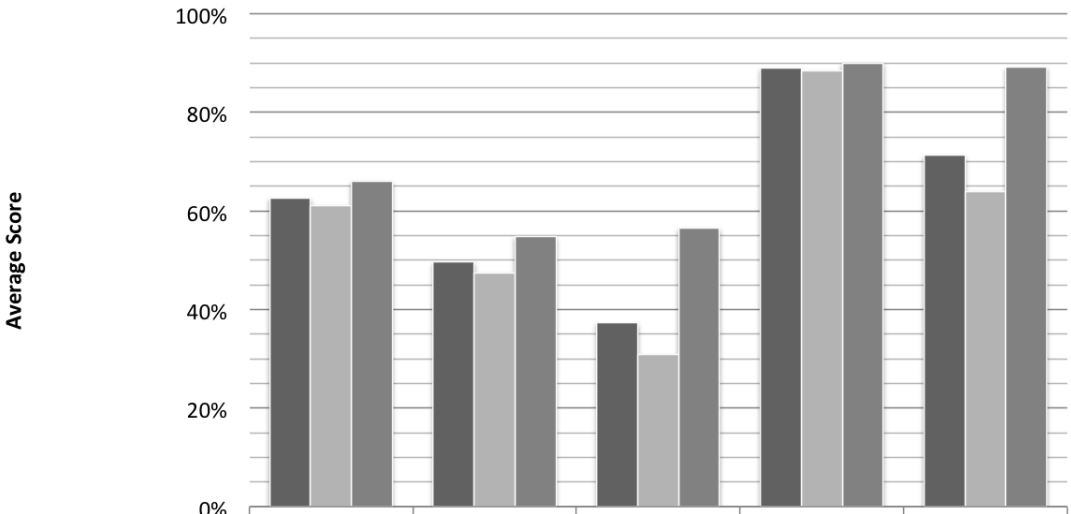
"Nice Ride is fun to use" and "I could/do save money by using Nice Ride" than people who had not. They gave lower scores to "I already have a bike, so I do not use Nice Ride" and "I do not understand how Nice Ride works". Nice Ride users agreed more strongly that "Nice Ride station locations are not convenient for me" than people who had never used the system, although the overall scores are low for both groups (21% for nonusers and 26% for users).

Each respondent ranked the four existing Nice Ride station locations on a four-point scale from most convenient to least. Figure 4.11 shows the average rank for each station. The visitor center station (Paul & Babe) scored highest, with an average rank of 3.3 out of 4. The Lake Bemidji State Park station scored lowest, at 1.86. Figure 4.12 shows the frequencies of rankings for each station. Paul & Babe had the largest share of top choice responses (57%).

Respondents were also asked to propose a new station location on a map of the Bemidji area with the four existing stations labeled. Figure 4.13 shows a heat map of the 14 responses to this question. The largest grouping of responses is in the Uptown area of Bemidji, near the large shopping area at the intersection of Paul Bunyan Drive (Highway 197) and Highway 71.

4.2.1 Open-ended Feedback

At the end of the survey, respondents were invited to share feedback about "bicycling, Nice Ride, or active living in Bemidji" in an open-ended text box. Eight people responded to this question



	Convenient to use	Facilitates daily exercise	Saves money	Good for the environment	Fun to use
Overall	63%	50%	37%	89%	71%
Never Used Nice Ride	61%	47%	31%	89%	64%
Used Nice Ride	66%	55%	57%	90%	89%

Figure 4.9: Bicycling and Nice Ride Statements - Positive

with a wide range of commentary.

Three people expressed positive sentiments toward Nice Ride. For example, one said "I applaud the initiatives to increase active living in Bemidji, and I'm pleased to have Nice Ride as an option here." Two of these respondents specifically referenced their experiences actually *using* the system.

Two people indicated that they would refer other people to the system. One said, "...I will be bringing more of my clients along as well". Another mentioned that Nice Ride is a good resource for when relatives visit.

Utilitarian travel came up as a theme in three responses. One respondent requested baskets on the bikes for shopping. Another said the bikes were useful when the respondent's partner had their shared vehicle. A third respondent said there was a need for bicycles for the students at Bemidji State University and Northwest Technical College.

Five responses contained requests or complaints, oftentimes qualified with praise. The previously described comment about adding baskets to the bikes also contained a request for an option for small children. One respondent said the seats were uncomfortable and lack shocks, but added that their experience overall was great. One person critiqued the check-out system, including the use of a key instead of a code, checking out the bicycle directly from a staff person, and the limited hours of staffing. They expressed concern for potentially lost revenue from people checking out a bicycle shortly before a station closes, and keeping it longer than their original reservation. Two comments included geographic requests, including the aforementioned student comment and one

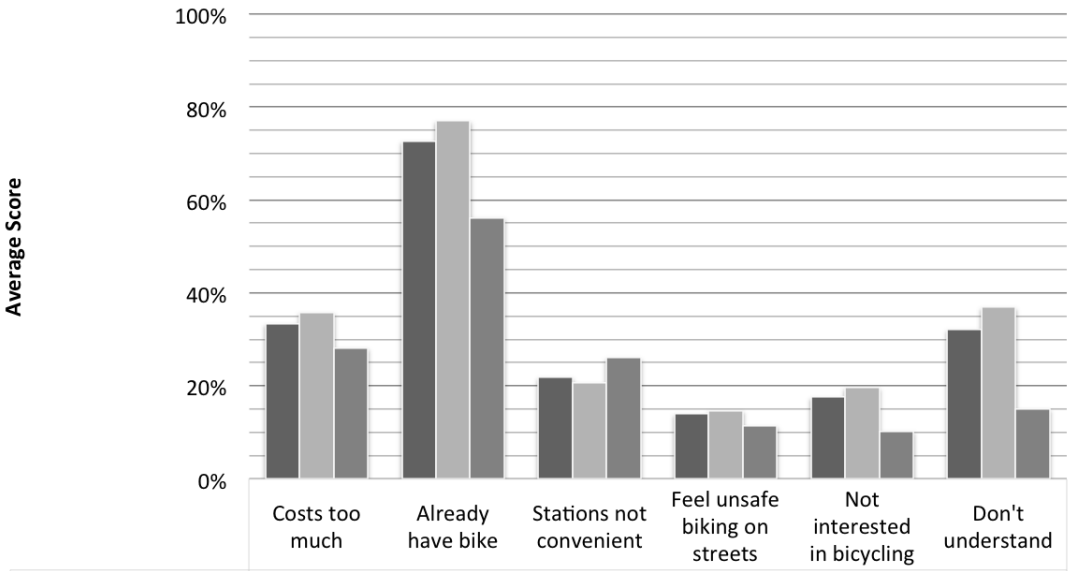


Figure 4.10: Bicycling and Nice Ride Statements - Negative

requesting a station in the southern portion of Bemidji (“Lueken’s South”).

One respondent focused on bicycling in Bemidji in general, and in particular, requested additional bike lanes within the city. They expressed a safety concern about cycling alongside autos in the street with no dedicated infrastructure, and said they rode on residential streets and the trail for most of their commute.

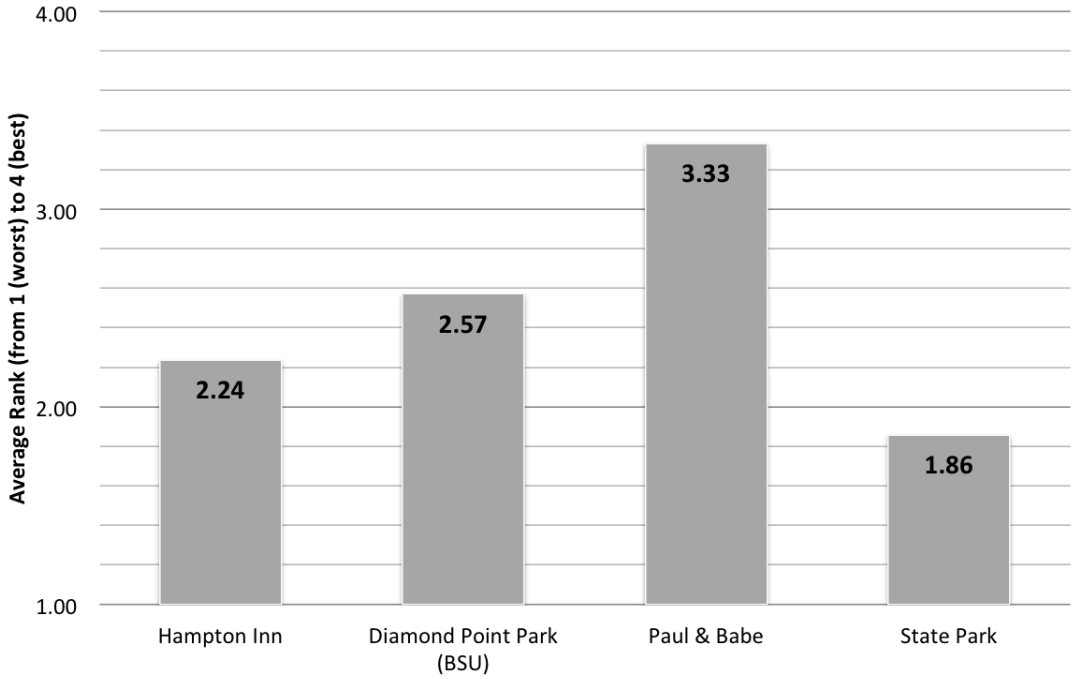


Figure 4.11: Station Rank Average

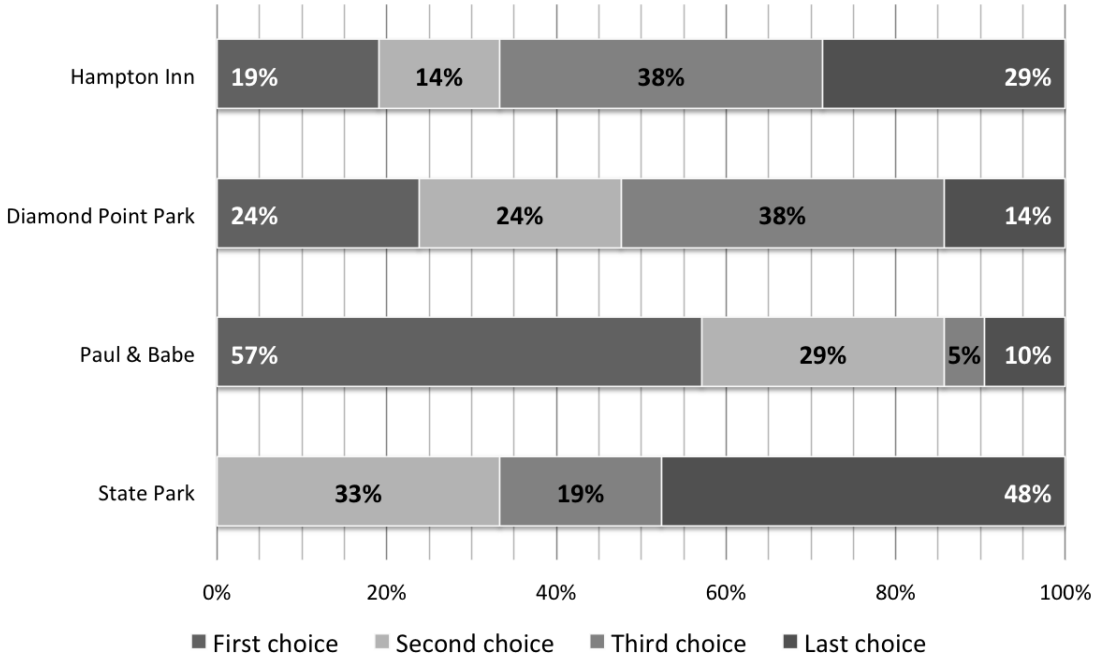


Figure 4.12: Station Rank

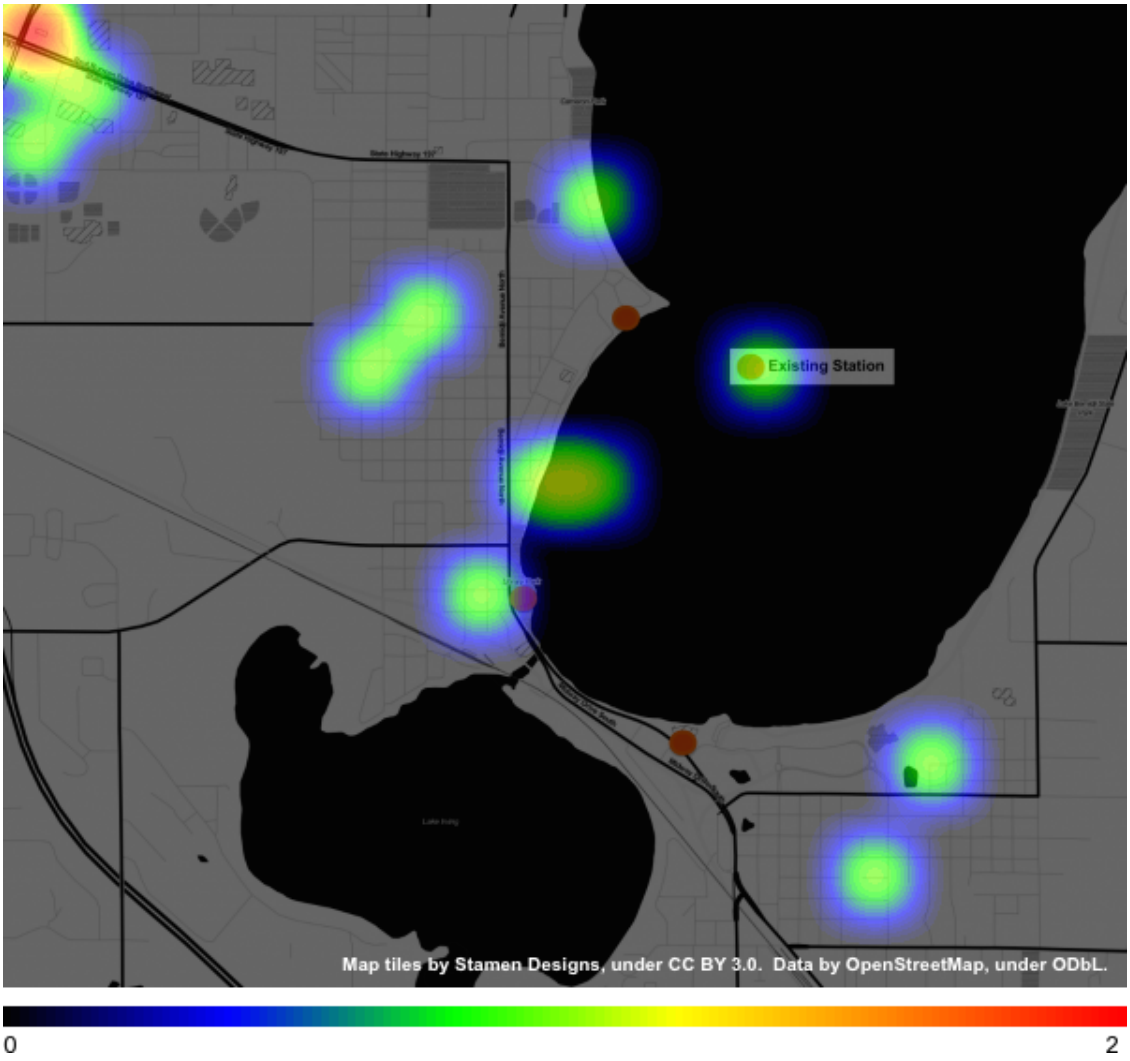


Figure 4.13: Proposed New Station Locations

4.3 Manual Bicycle and Pedestrian Counts

Bemidji's participation in MnDOT's Bicycle and Pedestrian Counting Initiative demonstrates how active living is integrated into the city's culture and policy. Of the 43 cities that participated in the 2012 counting initiative, Bemidji had the most enthusiastic record of participation. They counted bicyclists and pedestrians at more locations (16) and for more hours (114) than any other city in the study, and more than double the number of hours in the next-most active city (Two Harbors, 56 hours).

4.4 Nice Ride's Survey

Nice Ride's Bemidji survey asked respondents who have not used Nice Ride under what conditions they might use the system. The open-ended text responses were coded and five themes were identified. These themes, summarized in Table 4.1 highlight what role people envision Nice Ride playing in the community.

72% of responses contained a positive remark. 28% of responses were negative. One response contained both positive and negative content. The most commonly expressed potential use for Nice Ride bicycles was special occasions or outings, with 24% of responses containing this theme. In particular, respondents said they would use Nice Ride when friends or family were visiting from out of town, or when they themselves were visiting without a bicycle (from a non-resident). From this perspective, Nice Ride's benefits are shared between local residents and tourists by enabling residents to take their guests for a bike ride without the effort of procuring extra bicycles.

15% of respondents indicated that they might use Nice Ride if their bicycle were unavailable for some duration. One student reported that they were considering leaving their personal bicycle at home when returning to Bemidji for spring semester. Other respondents mentioned being out in town without their bicycle and needing to run an errand, or wanting or needing to ride while their bicycle was in a repair shop. While these comments focused largely on utilitarian trips, the underlying benefit in these comments is the same as the "Friends, Family, and Occasions" theme: reliability. Nice Ride provides a reliable option for cycling that people can access easily and spontaneously as needed.

The remaining positive responses covered recreational (22%) and utilitarian (12%) uses, as well as general positive remarks (19%). The general positive remarks expressed positive affect for the system but no clearly defined use or intention to use it. For example, if the respondent lived in Bemidji, or if the respondent did not already have a personal bicycle. The "Negative Situational" theme (9%) also includes responses about already having a bicycle, but these comments did not include the additional positive sentiment (e.g., "I would use it if…").

19% of responses were negative *without* providing a situational or mitigating reason (e.g., already having a personal bicycle or disinterest in cycling). Two of these responses mentioned cost. For example:

> It's too expensive. $6 an hour is cost prohibitive for MANY Bemidji residents. Most locals I've talked to feel like it's here just for wealthy tourists.

These suggest potentially a lack of awareness in the local discount program that provides Bemidji residents with a $12 coupon (equivalent to two free hours) valid on Mondays through Thursdays.

Two comments complained about bicycle availability and the rental process. One person wanted the bicycles to be available at all hours, requiring only a credit card to rent rather than an in-person transaction. Another described the online process as cumbersome and time-consuming.

They were attempting to ride in the evening, and the rental experience consumed “at least half an hour” of their remaining daylight hours.

Table 4.1: Themes about Nice Ride's Role in Bemidji

Theme	Example	N	Pct*
Friends, Family, and Occasions	Family in town for the weekend	16	24%
Exercise and Recreation	Bike ride on a break or after work	15	22%
Vague Positive Sentiments	If I lived in Bemidji	13	19%
Negative Complaints	Complaints about system hours or rental process	13	19%
Bicycle Reliability or Replacement	If their bike is at home or in the shop when they want to ride	10	15%
Utilitarian Trips	Biking around town or running errands	8	12%
Negative Situational	Already have own bike, don't or can't bicycle	6	9%
Any positive comment		48	72%
Any negative comment		19	28%

**Based on 67 respondents to survey question*

Some responses contained multiple themes, so these percentages do not sum to 100%.

Chapter 5

Identifying future evaluation strategies

This chapter synthesizes results from Chapters 3 and 4 to make recommendations for ongoing evaluation. We revisit the originally stated study purpose and goals to assess how well we were able to measure each concept, and what revisions may be appropriate given the information learned during the study. Key measures used or attempted in this evaluation are summarized and classified by the expected utility of repeating these measures over time, with comments about measurement technique and recommended changes in measurement protocol.

5.1 Study Purpose and Goals Revisited

Through this study the research team attempted to evaluate the relationship between the new Nice Ride system and local culture of active living in Bemidji. The three principal goals for the Bemidji evaluation were to:

1. Characterize bicycle use in Bemidji with respect to the new bike rental system
2. Describe the relationship between social norms related to active living and the Nice Ride Minnesota bike rental system
3. Identify future evaluation strategies

The evaluation was limited by weak historic data (a common theme in bicycle research) and the newness of the Nice Ride system. Continued evaluation over time is necessary to understand the full impacts of Nice Ride on the local culture of active living in Bemidji.

5.2 Measurement Strategy

Collecting data that will be comparable over time is necessary to evaluate changes in the system and whether changes in the community are associated with the system.

5.2.1 Level of bicycling activity

The level of bicycling activity in Bemidji can be assessed in a number of ways. These methods are consistent with data already collected for the first season:

- US Census and American Community Survey measures of bicycle commuting
- Bicyclist and pedestrian counts during September count week, repeated at the same set of locations
- Bicycle mode share on a sample of streets or corridors (e.g., automated count results on Claussen)
- Self-reported survey responses

Monitoring these over time may show whether Nice Ride's arrival in Bemidji was associated with a change in cycling behavior over time.

5.2.2 Nice Ride use

Monitoring the way in which Nice Ride bikes are used in Bemidji will show how integrated Nice Ride is into the community.

- Ratio of local resident users to tourist/out of town users over different time periods: season-to-season,
- Repeated use among individuals
- Ratio of weekday to weekend traffic
- Ratio of paid to coupon use among locals
- Ratio of Nice Ride bikes to personal bicycles observed during manual counts

The ratio of local to nonlocal users could not be measured directly due to the dataset provided by Nice Ride's database system. An approximation using $0-revenue rentals suggests around 24% of rentals overall and 43% of weekday rentals may have been local users, with possible variation in either direction due to locals taking trips longer than 2 hours or tourists/nonlocals receiving free rentals due to system glitches. Monitoring the data about use of the local resident discount coupon in addition to the other rental attributes (date, rental station, revenue) will provide a better indicator of local engagement with the Nice Ride system.

The local discount program only applies on weekdays, but respondents to Nice Ride's survey in Bemidji mentioned weekends frequently as a time when they might consider using Nice Ride. If

feasible, Nice Ride might consider monitoring residential location separately from coupon use so local versus out-of-town users can be identified for weekend rentals. Monitoring ratios of resident to visitor users over time and for different time periods (e.g., holiday versus shoulder weekends) will provide a clearer indicator of how Nice Ride fits into local active living culture and when it serves the local tourism industry.

5.2.3 Perspectives and Attitudes

Survey responses from people who do not necessarily bicycle or who have not yet rented a Nice Ride bike provided valuable data in this evaluation about what Nice Ride offers the city. For example, people who had not used Nice Ride at the time of the survey were much less likely to agree with a statement about Nice Ride saving money, and some survey respondents mentioned the system's cost to use as barriers. Continuing to monitor perceptions and attitudes from a cross-section of all residents, cyclists and non-cyclists alike, will help demonstrate slow cultural shifts that may be difficult to observe by directly measuring behavior.

Key questions to continue asking residents are:

- How often residents observe friends, neighbors, coworkers, and other residents bicycling, including while the respondent is driving (both as an indicator of the level of cycling and of driver awareness of properly sharing the roadway with cyclists/safety implications)
- Whether residents are aware of the system's facilities and how local discount programs work
- For what purposes residents think the system can be used for (e.g., recreational, utilitarian, reliability, etc.)

References

[1] Bike Bemidji (2015). "Bike Bemidji Event Sponsors." URL http://www.bikebemidji.com/sponsors.html, 2015-09-03.

[2] Heinen, Eva; Maat, Kees; and van Wee, Bert (2011). "Day-to-Day Choice to Commute or Not by Bicycle." *Transportation Research Record*, **2230**: 9–18. doi:10.3141/2230-02.

[3] League of American Bicyclists / Bicycle Friendly America (2012). "City of Bemidji — Bronze." URL http://bikeleague.org/bfa/profile?url=http://apply.bikeleague.org/bfc-award-p151104-formId-222-id-72, 2015-03-09.

[4] Lindsey, Greg; Hankey, Steve; Wang, Xize; and Chen, Junzhou (2013). *The Minnesota Bicycle and Pedestrian Counting Initiative: Methodologies for Non-motorized Traffic Monitoring*. Technical report.

[5] National Oceanic and Atmospheric Administration / Applied Climate Information System (2012). "Daily data for September 2012, Cass Lake, MN." *NOWData - NOAA Online Weather Data*.

[6] National Oceanic and Atmospheric Administration / Applied Climate Information System (2014). "Daily data for September 2014, Cass Lake, MN." *NOWData - NOAA Online Weather Data*.

[7] Schoner, Jessica E. and Lindsey, Greg (2015). "Differences Between Walking and Bicycling Over Time: Implications for Performance Management." *TRB 94th Annual Meeting Compendium of Papers*, 1–21.

[8] US Census Bureau. "Place of Work and Journey to Work." URL http://www.census.gov/acs/www/about_the_survey/place_of_work_journey_to_work_questions/, 2015-03-05.

[9] U.S. Census Bureau (2008). *A Compass for Understanding and Using What General Data Users Need to Know*. U.S. Government Printing Office, Washington, D.C.

[10] US Census Bureau (2014). "TIGER/Line Shapefiles and TIGER/Line Files." URL http://www.census.gov/geo/maps-data/data/tiger-line.html, january 1, 2015.

[11] US Census Bureau / American Factfinder (2000). "P030: Means of Transportation to Work for Workers 16 Years and Over." *2000 Census*.

[12] US Census Bureau / American Factfinder (2009). "B08301: Means of Transportation to Work." *2005-2009 American Community Survey*.

[13] US Census Bureau / American Factfinder (2010). "B08301: Means of Transportation to Work." *2006-2010 American Community Survey*.

[14] US Census Bureau / American Factfinder (2011). "B08301: Means of Transportation to Work." *2007-2011 American Community Survey*.

[15] US Census Bureau / American Factfinder (2012). "B08301: Means of Transportation to Work." *2008-2012 American Community Survey*.

[16] US Census Bureau / American Factfinder (2013). "B08301: Means of Transportation to Work." *2009-2013 American Community Survey*.

Appendices

Appendix A

Bemidji Survey and Interview Instrument

A.1 UMN Survey Instrument

This survey was administered by the University of Minnesota (UMN) research and evaluation team.

Consent Form

Dear Bemidji Resident or Visitor:

Welcome to the Bemidji-Area Active Living Survey!

You are invited to help Nice Ride and the University of Minnesota learn about active living and travel in Bemidji, Minnesota.

About the survey

Nice Ride Minnesota, the University of Minnesota, and Blue Cross Blue Shield are conducting a survey to better understand personal travel and active living.

Your response to this survey will help Nice Ride better understand Bemidji and Greater Minnesota's travel and activity needs.

Who can participate

ALL Bemidji-area residents and visitors/tourists over 18 years old are invited!

You do NOT need to be a Nice Ride user or a bicyclist to participate. We want to hear from all different perspectives.

Voluntary and confidential participation

Your participation is completely voluntary, and it should take about 20 to 30 minutes to complete.

Your responses will be kept completely confidential. You may skip any questions that you do not wish to answer, and you may quit the survey at any time. Reports will present information in aggregate form so that no survey participant may be identified.

Prize for completion

To thank you for your participation, every person who completes this survey will be entered into a drawing for one of 10 $50 gift card prizes.

Winners will be selected randomly from all survey respondents who enter before the deadline on October 1, 2014.

If you wish to enter the drawing, you will be invited to enter your name and e-mail address at the end of the survey. Please complete your survey before October 1, 2014 to be entered into the drawing.

Contact and More Information

If you have any questions about the study, please contact Jessica Schoner, the University of Minnesota research assistant managing survey distribution, at schon082@umn.edu.

Thank you very much for participating in this study!

Sincerely,

Dr. David Levinson, University of Minnesota
Dr. Greg Lindsey, University of Minnesota

Survey Consent and Eligibility

Do you wish to take the survey?

- I have read the consent and information letter (above) and agree to take the survey.
- I do not wish to take the survey.

Are you at least 18 years old?

- Yes
- No

Have you spent time in Bemidji in 2014?

- Yes - I live in the City of Bemidji
- Yes - I have visited Bemidji at least once in 2014
- No - I have not spent any time in Bemidji in 2014

Your Experience with Bicycles

Have you used a bicycle within the past 12 months?

- Yes
- No

Have you used a bicycle within the past 7 days?

- Yes
- No

Have you ever used Nice Ride in Bemidji (orange bicycles)?

- Yes
- No

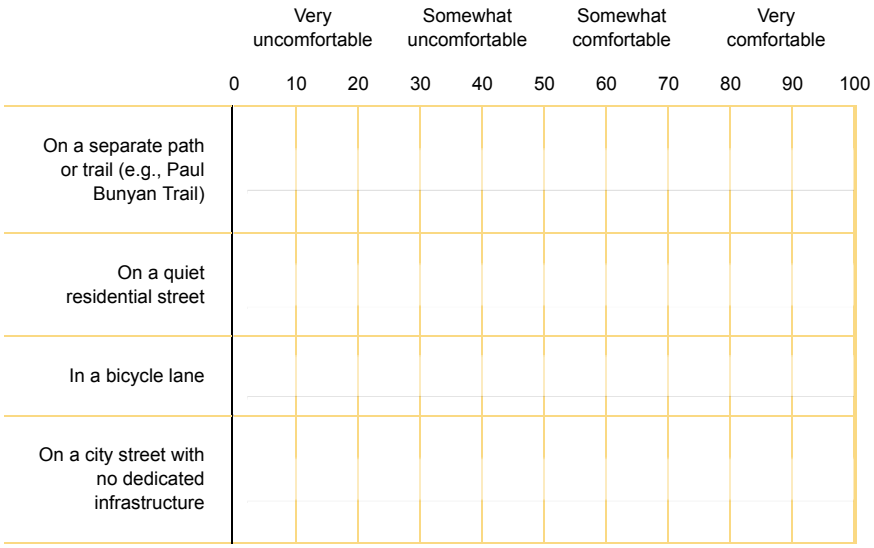
Have you ever used Nice Ride in the Twin Cities (green bicycles)?

- Yes
- No

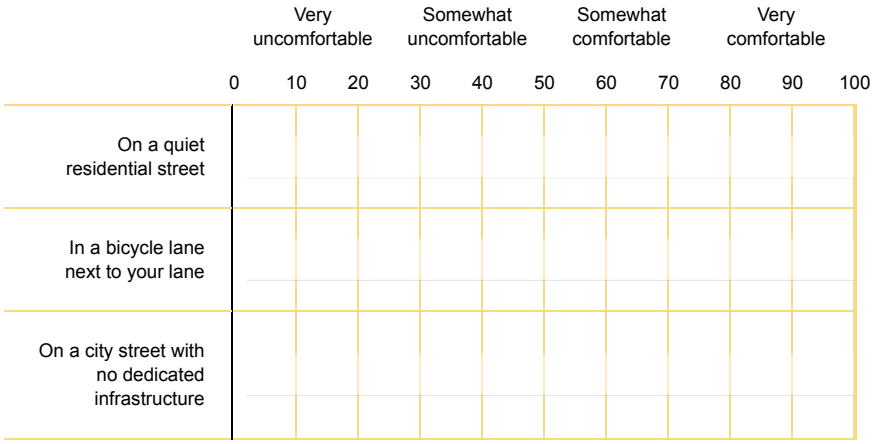
Do you own a personal bicycle?

- Yes
- No

How comfortable do you feel riding a bicycle...

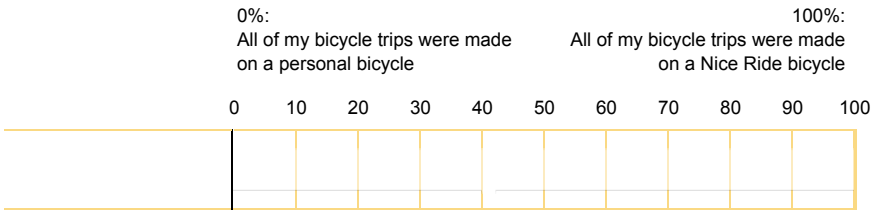


When you are driving a car, how comfortable do you feel sharing the road with a bicyclist...



Your Experience with Nice Ride

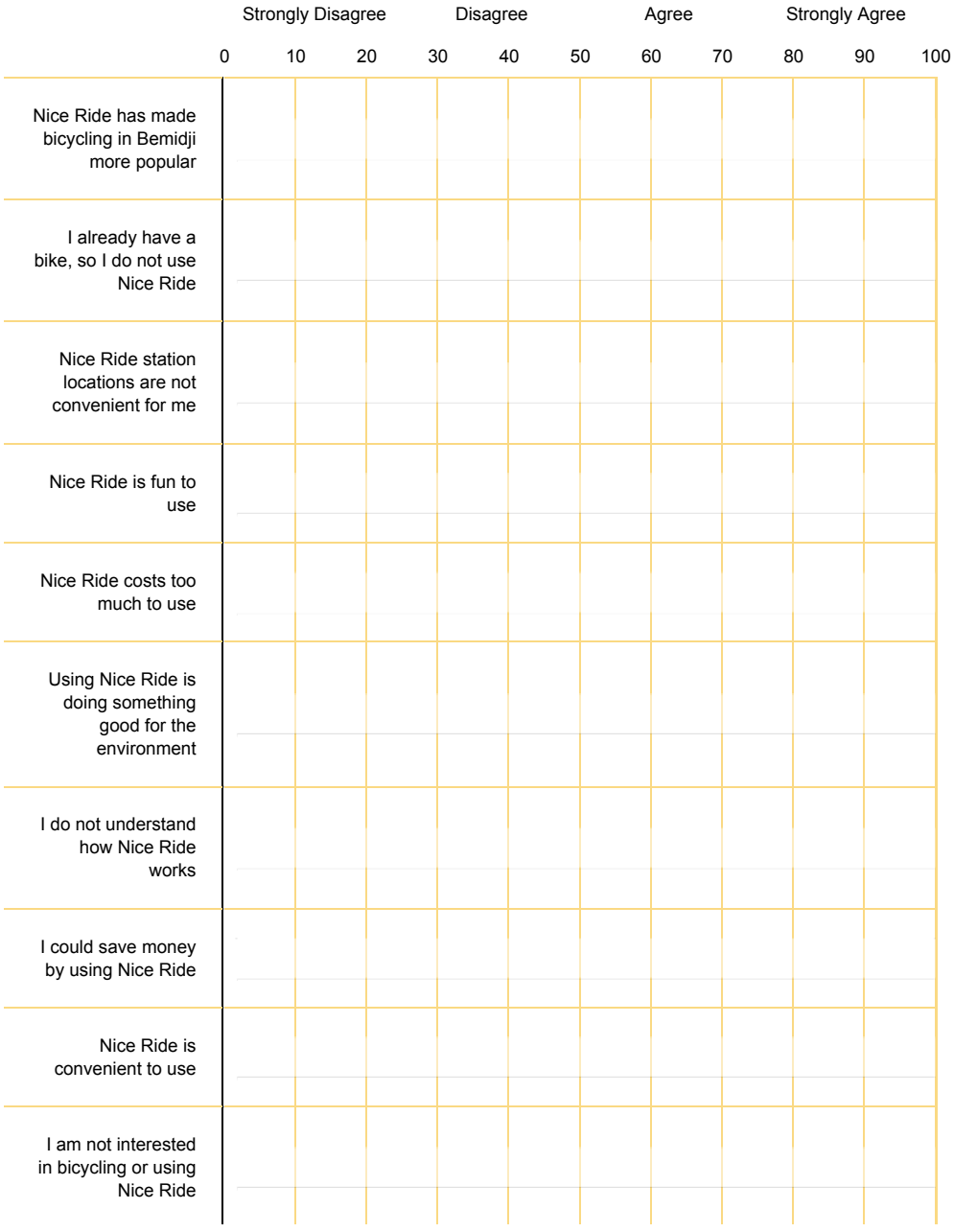
Think about ***all of your bicycle trips*** made by any type of bicycle (including Nice Ride) over the past 7 days. What percentage of them were made by a Nice Ride bicycle versus a personal bicycle?



Please answer the following questions about your travel since Nice Ride opened this summer, compared to last summer, even if you have never used Nice Ride or do not live in Bemidji.

	A lot less now	A little less now	About the same	A little more now	A lot more now
How much exercise do you get now, compared to last summer?	○	○	○	○	○
How much do you bicycle now, compared to last summer?	○	○	○	○	○
How much do you walk now, compared to last summer?	○	○	○	○	○
How much do you drive now, compared to last summer?	○	○	○	○	○
Whenever you are driving a car, how often do you observe people bicycling now, compared to last summer?	○	○	○	○	○

Based on your observation of the new Nice Ride program in Bemidji, to what extent do you agree or disagree about each of these statements about Nice Ride?



Please rank the four Bemidji Nice Ride stations in order of how convenient you think each location would be for you, even if you haven't used it, from 1 (most convenient) to 4 (least convenient).

Diamond Point Park/BSU

Lake Bemidji State Park

Hampton Inn

Bemidji Tourist Information Center/Paul & Babe

If you could choose where to install a new Nice Ride station in Bemidji, where would you put it?

Click on the map to indicate your selection. (If your recommendation is not on this map, skip to the next question.)

Tell us more about this place.

Name

Street address or street and nearest cross street

What do you like about this location?

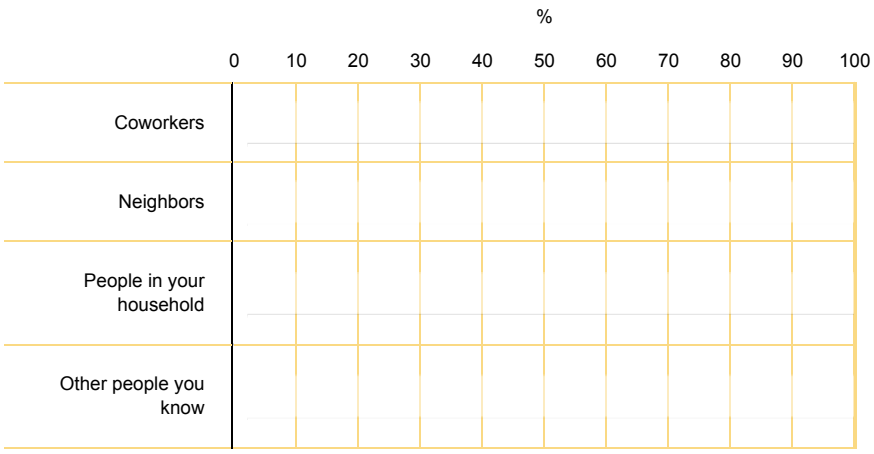
Who do you think would use a station at this location?

Which of these two Nice Ride stations would be more convenient for you?

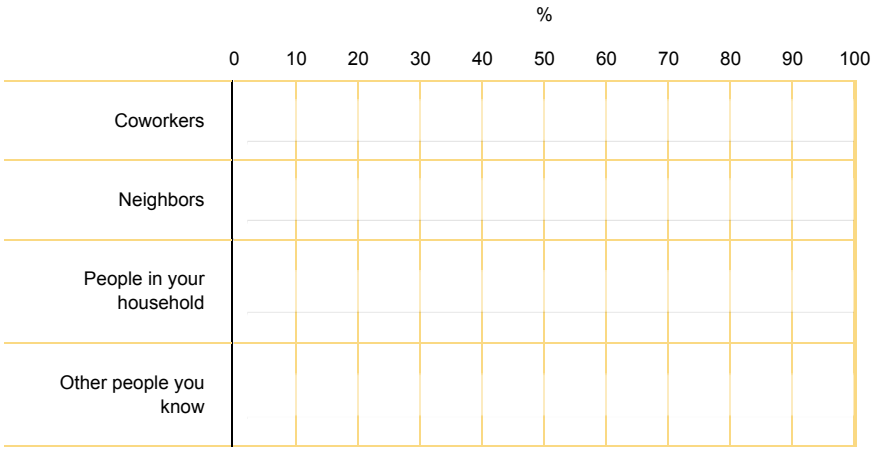
- ${q://QID463/ChoiceGroup/ChoiceWithLowestValue}
- Your new location
- An existing station (specify)

Bicycling and Nice Ride Among Peers

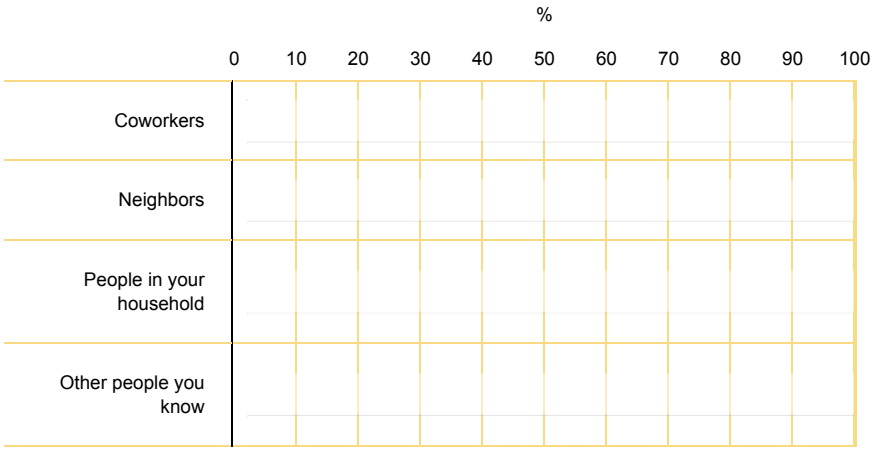
What percentage of these groups of people did you **observe using a personal bicycle** in Bemidji any time **last summer (2013)**?



What percentage of these groups of people did you **observe using a personal bicycle** in Bemidji any time **this summer since Nice Ride opened in June 2014**?



What percentage of these groups of people have you **observed using Nice Ride** in Bemidji?



About You

In what year were you born?

What is the highest level of school you have completed or the highest degree you have received?

- Some grade school or high school
- High school diploma or equivalent (GED)
- Some college (no degree)
- Associate's degree or technical degree/certificate
- Bachelor's degree
- Master's degree
- Professional degree
- Doctoral degree

What is your current employment status?

- Full time
- Part time
- Not employed
- Retired

Are you a student?

- Yes, full-time
- Yes, part-time
- No

What is your approximate annual household income?

What language(s) do you primarily speak at home? (Check all that apply)

- English
- Spanish
- Hmong
- Somali
- Other
- Prefer not to answer

What is your gender?

- Male
- Female
- Other
- Prefer not to answer

About Your Household

Please tell us about your time in the City of Bemidji.

When was your last visit to the City of Bemidji? Please specify the date. If you can't remember, it is okay to estimate.

About how many days did you spend in the City of Bemidji before June 21, 2014?

About how many days did you spend in the City of Bemidji since June 21, 2014?

How many working bicycles does your household have?

How many working automobiles does your household have?

Including yourself if applicable, how many people in your household are licensed drivers?

Describe your level of access to your personal automobiles:

- I have access any time I want
- I have access if I plan for it
- I rarely have access

Please describe the vehicle you use most frequently

Make	
Model	
Year	

How many children under the age of 18 are in your household, in the following ages:

Younger than 6	0
6 to 11 years old	0
12 to 15 years old	0
16 to 17 years old	0
Total	0

Including yourself, how many adults in your household are:

18 to 24 years old	0
25 to 29 years old	0
30 to 39 years old	0
40 to 49 years old	0
50 to 59 years old	0
60 to 69 years old	0
Age 70 or greater	0
Total	0

Household, Continued

What level of responsibility do you have for the children under age 18 in your household?

- I am their primary caretaker
- I share responsibilities equally with another adult
- Someone else is their primary caretaker
- I have no responsibilities for them (e.g., non-related roommate)

Think about the other adults in your household age 18 or older (excluding yourself).

Over the past 7 days, did any adults in your household (excluding yourself) do any of the following activities for at least 30 minutes in one day?

	Yes	No
Bike (using Nice Ride)	○	○
Bike (using a personal or non-Nice Ride bicycle)	○	○
Walk	○	○

Trip Diary

This section asks about some of the trips you made ***yesterday***, by any mode of travel. Please recall your trips from yesterday as best you can.

Please complete this diary ***even if you were not in Bemidji yesterday***, and ***even if you did not bicycle or use Nice Ride yesterday***. Your honest response helps us understand people's overall travel needs and active living.

We aggregate the data for analyzing, and the details of your travel diary are never shared.

For this study, a "trip" is defined as a one-way segment of travel between two places where you stopped for any specific reason, ***even if the stop was very brief*** (e.g., quick stops for coffee or gas, dropping off or picking up someone, or a drive thru window). Waiting for travel (e.g., traffic jam, waiting for the bus, etc.) do not count as stops.

Trip Example 1: "I drove from home to work. Along the way, I dropped my child off at school and got coffee from a drive thru window."

This counts as three separate trips: One from home to the child's school, a second from school to the drive thru restaurant, and a third from the drive thru to work.

Trip Example 2: "I walked from home to a bus stop, waited for the bus, and rode the bus to the library."
This counts as one trip from home to the library because waiting for the bus is part of travel, not a deliberate stop.

Trip Example 3: "I biked around the lake just for fun, with no specific stops. I started and ended my trip at home."
This counts as one trip from home to home, assuming this person made no other stops (e.g., stopped for coffee along the way).

Please think about all the places you visited yesterday. Where were you at each of the following times yesterday? (E.g., "Home", "Work", "Traveling", etc.)

6:00 AM	
8:00 PM	

Please tell us more about where you were at 6:00 AM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street	
City	
State	
Zipcode	

What was your primary activity at this location?

Did you leave this location at all for the rest of the day?

- Yes
- No

What time did you leave this location ***after 6:00 AM***?

	Departure Time HH:MM	AM/PM AM	PM
		○	○

Including yourself, how many of your household members were on this trip?

What type(s) of transportation did you use after you left this location?

Please check all that apply (up to three modes). For example, if you drove to the Bemidji Tourist Information Center/Paul & Babe, rented a Nice Ride bike, and then biked to Bemidji Lake State Park, select both "Personal auto" and "Nice Ride bicycle".

- ☐ Personal auto
- ☐ Car share (e.g., Car2Go, Hourcar, or Zipcar)
- ☐ Public bus
- ☐ Light rail (Blue Line or Green Line)
- ☐ Commuter rail (Northstar train)
- ☐ Personal bicycle
- ☐ Nice Ride bicycle
- ☐ Skateboard or scooter
- ☐ Walk
- ☐ School bus
- ☐ Traditional taxi
- ☐ Uber or Lyft taxi
- ☐ Dial-a-ride or private bus (Paul Bunyan Transit)
- ☐ Other
- ☐ Not applicable - Didn't leave

Please tell us more about where you went after 6:00 AM: ${q://QID394/ChoiceTextEntryValue/5}

Were you the driver or passenger?

- ○ Driver
- ○ Passenger

Please indicate whether any of the household members accompanying you on this trip (excluding yourself) were in the following age ranges.

- ☐ Age 0 to 5
- ☐ Age 7 to 11
- ☐ Age 12 to 15
- ☐ Age 16 to 17
- ☐ Adults ages 18 and over

Approximately how far did you travel from your starting location to your destination?

Enter either miles or blocks.

Miles	
Blocks	

What time did you arrive at your destination?

HH HH:MM	AM	PM
	○	○

Please describe your destination.

Give this location a name	
Street address or street and nearest cross street	
City	
State	
Zipcode	

Did you have to pay for parking for your private auto at your destination?

- Yes, I paid for parking for this trip
- Yes, I used a long-term parking pass that I paid for previously
- Yes, but my employer or someone else paid
- No

If you had used a private auto for this trip instead of how you actually traveled, would you have had to pay for parking at your destination?

- Yes
- No
- I don't know

What was your primary activity at your destination?

Please tell us more about where you were at 8:00 AM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street	
City	
State	
Zipcode	

Please tell us more about where you were at 10:00 AM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street	
City	
State	
Zipcode	

Please tell us more about where you were at 12:00 PM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street	
City	
State	
Zipcode	

Please tell us more about where you were at 2:00 PM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street	
City	
State	
Zipcode	

Please tell us more about where you were at 4:00 PM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street

City

State

Zipcode

Please tell us more about where you were at 6:00 PM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street

City

State

Zipcode

Please tell us more about where you were at 8:00 PM: ${q://QID394/ChoiceTextEntryValue/5}

Street address or street and nearest cross street

City

State

Zipcode

What was your primary activity at this location?

Did you leave this location at all for the rest of the day?

- Yes
- No

What time did you leave this location...

	Departure Time HH:MM	AM/PM AM	PM
after 8:00 AM?			
after 10:00 AM?			
after 12:00 PM?			
after 2:00 PM?			
after 4:00 PM?			
after 6:00 PM?			
after 8:00 PM?			

Including yourself, how many of your household members were on this trip?

What type(s) of transportation did you use after you left this location?

Please check all that apply (up to three modes). For example, if you drove to the Bemidji Tourist Information Center/Paul & Babe, rented a Nice Ride bike, and then biked to Bemidji Lake State Park, select both "Personal auto" and "Nice Ride bicycle".

- Personal auto
- Car share (e.g., Car2Go, Hourcar, or Zipcar)
- Public bus
- Light rail (Blue Line or Green Line)
- Commuter rail (Northstar train)
- Personal bicycle
- Nice Ride bicycle
- Skateboard or scooter
- Walk
- School bus
- Traditional taxi
- Uber or Lyft taxi
- Dial-a-ride or private bus
- Other
- Not applicable - Didn't leave

Please tell us more about where you went after 8:00 AM: ${q://QID394/ChoiceTextEntryValue/7}

Please tell us more about where you went after 10:00 AM: ${q://QID394/ChoiceTextEntryValue/9}

Please tell us more about where you went after 12:00 PM: ${q://QID394/ChoiceTextEntryValue/11}

Please tell us more about where you went after 2:00 PM: ${q://QID394/ChoiceTextEntryValue/14}

Please tell us more about where you went after 4:00 PM: ${q://QID394/ChoiceTextEntryValue/16}

Please tell us more about where you went after 6:00 PM: ${q://QID394/ChoiceTextEntryValue/18}

Please tell us more about where you went after 8:00 PM: ${q://QID394/ChoiceTextEntryValue/20}

Were you the driver or passenger?

- ○ Driver
- ○ Passenger

Please indicate whether any of the household members accompanying you on this trip (excluding yourself) were in the following age ranges.

- ☐ Age 0 to 5
- ☐ Age 7 to 11
- ☐ Age 12 to 15
- ☐ Age 16 to 17
- ☐ Adults ages 18 and over

Approximately how far did you travel from your starting location to your destination?

Enter either miles or blocks.

Miles	
Blocks	

What time did you arrive at your destination?

Arrival Time HH:MM	AM	PM
	○	○

Please describe your destination.

Give this location a name	
Street address or street and nearest cross street	
City	
State	
Zipcode	

Did you have to pay for parking for your private auto at the end of this trip?

- ○ Yes, I paid for parking for this trip
- ○ Yes, I used a long-term parking pass that I paid for previously
- ○ Yes, but my employer or someone else paid
- ○ No

If you had used a private auto for this trip instead of how you actually traveled, would you have had to pay for parking at your destination?

- Yes
- No
- I don't know

What was your primary activity at your destination?

Did you make any bicycle trips yesterday?

- Yes
- No

You indicated that you made at least one bicycle trip yesterday. Please tell us about the ***first*** trip you made yesterday by bicycle.

Where did your ***first*** bicycle trip yesterday ***start***?

Give this location a name	
Street address and street or nearest cross street	
City	
State	
Zipcode	

What was your primary activity at this location?

What time did you depart this location on your **first bicycle trip** yesterday?

	Departure Time HH:MM	AM	PM
		○	○

Including yourself, how many of your household members were on this trip?

On this bicycle trip, did you use a personal bicycle or a Nice Ride bicycle?

- ○ Personal bicycle
- ○ Nice Ride bicycle
- ○ Other (please explain)

What other modes did you use in addition to bicycling on this trip? Please check all that apply (up to three modes).

☐ Personal auto	☐ Commuter rail (Northstar train)	☐ School bus	☐ Dial-a-ride or private bus
☐ Car share (e.g., Car2Go, Hourcar, or Zipcar)	☐ Skateboard or scooter	☐ Traditional taxi	☐ Other
☐ Public bus	☐ Walk	☐ Uber or Lyft taxi	☐ Not applicable - Didn't leave
☐ Light rail (Blue Line or Green Line)			

Please tell us more about the **first bicycle trip** that you made yesterday.

For the portion of the trip where you used a private auto, were you the driver or passenger?

- ○ Driver
- ○ Passenger

Please indicate whether any of the household members accompanying you on this trip (excluding yourself) were in the following age ranges.

- ☐ Age 0 to 5
- ☐ Age 7 to 11
- ☐ Age 12 to 15
- ☐ Age 16 to 17
- ☐ Adults ages 18 and over

Approximately how far did you travel by bicycle from your starting location to your destination?

Enter either miles or blocks.

Miles	
Blocks	

What time did you arrive at your destination?

Arrival Time HH:MM	AM	PM
	○	○

Please describe your destination.

Give this location a name	
Street address or street and nearest cross street	
City	
State	
Zipcode	

Did you have to pay for parking for your private auto at the end of this trip?

- Yes, I paid for parking for this trip
- Yes, I used a long-term parking pass that I paid for previously
- Yes, but my employer or someone else paid
- No

If you had used a private auto for this trip instead of how you actually traveled, would you have had to pay for parking at your destination?

- Yes
- No
- I don't know

What was your primary activity at your destination?

Prize drawing2

Is there anything else you would like to share about bicycling, Nice Ride, or active living in Bemidji?

Do you have any feedback on this survey?

To thank you for your participation, every person who completes the survey has the option to be entered into a drawing for one of 10 $50 gift card prizes. Winners will be selected randomly from all survey respondents who enter.

If you wish to enter the drawing, you will be invited to enter your name and e-mail

address on the next page. Entering the drawing is optional.

Would you like to enter the drawing for one of X $Y gift card prizes?

- ○ Yes, please enter me into the drawing. (Provide contact information on the next page)
- ○ No, I do not wish to enter. Please submit my survey now.

To enter the prize drawing, please enter your contact information. This information is only used to contact the prize winners.

First name	
E-mail address	
Phone number	

A.2 UMN Survey recruiting postcard

Bemidji Bicycling and Travel Survey

Nice Ride, the University of Minnesota, and Blue Cross and Blue Shield of Minnesota want to hear from ***Bemidji residents and visitors like you***. Our goal is to make it possible for residents and tourists in Bemidji to use bicycles to get around town easily and safely.

Participation in the survey is ***voluntary*** and ***completely confidential***, and it takes about 20 minutes to complete. To thank you for your time, participants will be entered into a ***drawing to win one of 10 $50 gift card prizes***.

Whether you're an avid cyclist or haven't biked in a decade, we want to hear from you. ***Share your opinion so we can make bike-share work for you.***

Shortened URL with recruit location parameter

Visit http://z.umn.edu/bemidji1 today!

Bemidji Bicycling and Travel Survey

UNIVERSITY OF MINNESOTA

BlueCross BlueShield Minnesota

Center for Prevention

Blue Cross® and Blue Shield® of Minnesota and Blue Plus® are nonprofit independent licensees of the Blue Cross and Blue Shield Association

Shortened URL with recruit location parameter

Visit http://z.umn.edu/bemidji1 today!

A.3 Nice Ride Survey Instrument

Nice Ride Minnesota administered a survey to Bemidji-area residents, and data was provided to the UMN research and evaluation team for further study. This data collection template shows all questions contained in the survey.

Nice Ride Bemidji Survey

1. Was this survey an intercept?

- Yes
- No

2. During the 2014 season, did you ride a Nice Ride Bemidji bike?

- Yes
- No

If yes, how many times did you ride?

3. If you haven't ridden a Nice Ride Bemidji bike, how and when might you ride one?

4. What social rides might you be interested in joining?

- A ride around the lake
- Birding by bike
- Naturalist program
- Bike commuting and safety basics
- Sculpture tour

Are there other rides that would interest you?

5. How far is your commute to work?

- Under a mile
- 1 - 3 miles
- 3.1 - 5 miles
- more than 5 miles

6. Do you live or work downtown?

- Yes I live downtown
- Yes I work downtown
- I live AND work Downtown
- I neither live nor work downtown

7. If you rode a bike this summer, what was the purpose of your rides?

- I rode to work
- I rode to the store
- I rode to a restaurant, bar, or coffee shop
- I rode for exercise
- I rode to enjoy the outdoors

Please tell us if you rode for another reason(s)?

8. If you don't currently ride a bike to work or shop, what would have to change in Bemidji for you to do so?

9. If using a Nice Ride Bemidji bike for commuting was subsidized by your employer, would that encourage you to ride?

- Yes
- No

10. What would it take to get you to ride a Nice Ride bike to work or for shopping?

11. If either of the following longer term rentals to Bemidji area residents would appeal to you, please rank them.

	First choice	Second choice
One year for $100		
One month for $40		

Please explain your answer

12. Please tell us your gender.

- Female
- Male
- I don't wish to answer

13. Please tell us your age.

- under 20
- 21 - 35
- 36 - 50
- 51 - 65
- over 65
- I don't wish to answer

14. I live:

- In the Bemidji area
- Outside of the area

15. Additional Comment

Done

Appendix B

IRB

Subject: 1408E53171 - PI Levinson - IRB - Exempt Study Notification
From: irb@umn.edu
Date: Mon, 24 Nov 2014 10:43:25 -0600 (CST)
To: schon082@umn.edu

TO : levin031@umn.edu, linds301@umn.edu, woywo001@umn.edu, schon082@umn.edu,

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2 SURVEYS/INTERVIEWS; STANDARDIZED EDUCATIONAL TESTS; OBSERVATION OF PUBLIC BEHAVIOR.

Study Number: 1408E53171

Principal Investigator: David Levinson

Title(s):
Nice Ride Minnesota Program Evaluation

This e-mail confirmation is your official University of Minnesota HRPP notification of exemption from full committee review. You will not receive a hard copy or letter.

This secure electronic notification between password protected authentications has been deemed by the University of Minnesota to constitute a legal signature.

The study number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

Research that involves observation can be approved under this category without obtaining consent.

SURVEY OR INTERVIEW RESEARCH APPROVED AS EXEMPT UNDER THIS CATEGORY IS LIMITED TO ADULT SUBJECTS.

This exemption is valid for five years from the date of this correspondence and will be filed inactive at that time. You will receive a notification prior to inactivation. If this research will extend beyond five years, you must submit a new application to the IRB before the study?s expiration date.

Upon receipt of this email, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

You may go to the View Completed section of eResearch Central at http://eresearch.umn.edu/ to view further details on your study.

The IRB wishes you success with this research.

We value your feedback. We have created a short survey that will only take a couple of minutes to complete. The questions are basic, but your responses will provide us with insight regarding what we do well and areas that may need improvement. Thanks in advance for completing the survey.
http://tinyurl.com/exempt-survey

Appendix C

Bemidji Weather Data

Personal e-mail correspondence with Kurt Wayne, Development Specialist, Headwaters Regional Development Commission, on 2/17/2015.

> [T]he count days in 2014 were cold and windy, except for our Tuesday make-up date. This may be an indicator that a measurable chunk of our cyclists are fair-weather bikers. The temperatures on those 2014 dates dont tell the whole story...
>
> September 9th 2014 started like a summer day (80°?), then a front moved in. There was a threat of storms, so I cancelled the count. It ended up raining, but not much. The 10th and 11th seem fine from the temps, but I remember some counters staying in their cars with the windows rolled up to count. It was breezy both days. That Saturday morning got so chilly and breezy, the Worldwide Day of Play event (happening simultaneously to our counts) saw very few families come out. The Tuesday the 16th count had great weather.

Appendix D

Bemidji Survey Data Report

1. Have you spent time in Bemidji in 2014?

#	Answer	Bar	Response	%
1	Yes - I live in the City of Bemidji		21	75%
2	Yes - I have visited Bemidji at least once in 2014		7	25%
3	No - I have not spent any time in Bemidji in 2014		0	0%
	Total		28	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.25
Variance	0.19
Standard Deviation	0.44
Total Responses	28

2. Have you used a bicycle within the past 12 months?

#	Answer	Bar	Response	%
1	Yes		25	93%
2	No		2	7%
	Total		27	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.07
Variance	0.07
Standard Deviation	0.27
Total Responses	27

3. Have you used a bicycle within the past 7 days?

#	Answer	Bar	Response	%
1	Yes		17	63%
2	No		10	37%
	Total		27	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.37
Variance	0.24
Standard Deviation	0.49
Total Responses	27

4. Have you ever used Nice Ride in Bemidji (orange bicycles)?

#	Answer	Bar	Response	%
2	Yes		8	30%
49	No		19	70%
	Total		27	

Statistic	Value
Min Value	2
Max Value	49
Mean	35.07
Variance	478.30
Standard Deviation	21.87
Total Responses	27

5. Have you ever used Nice Ride in the Twin Cities (green bicycles)?

#	Answer	Bar	Response	%
1	Yes		1	4%
2	No		26	96%
	Total		27	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.96
Variance	0.04
Standard Deviation	0.19
Total Responses	27

6. Do you own a personal bicycle?

#	Answer	Bar	Response	%
1	Yes		23	85%
2	No		4	15%
	Total		27	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.15
Variance	0.13
Standard Deviation	0.36
Total Responses	27

7. How comfortable do you feel riding a bicycle...

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	On a separate path or trail (e.g., Paul Bunyan Trail)	55.00	100.00	92.56	14.32	27
3	In a bicycle lane	9.00	100.00	77.44	27.56	27
5	On a quiet residential street	40.00	100.00	86.44	17.81	27
6	On a city street with no dedicated infrastructure	0.00	100.00	54.89	33.47	27

8. When you are driving a car, how comfortable do you feel sharing the road with a bicyclist...

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
3	In a bicycle lane next to your lane	9.00	100.00	73.26	27.29	27
5	On a quiet residential street	29.00	100.00	81.19	19.18	27
6	On a city street with no dedicated infrastructure	0.00	100.00	46.41	31.66	27

9. Think about all of your bicycle trips made by any type of bicycle (including Nice Ride) over the past 7 days. What percentage of them were made by a Nice Ride bicycle versus a personal bicycle?

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1		0.00	100.00	15.44	34.24	16

10. Please answer the following questions about your travel since Nice Ride opened this summer, compared to last summer, even if you have never used Nice Ride or do not live in Bemidji.

#	Question	A lot less now	A little less now	About the same	A little more now	A lot more now	Total Responses	Mean
1	How much exercise do you get now, compared to last summer?	1	3	12	8	3	27	3.33
2	How much do you bicycle now, compared to last summer?	2	2	13	5	5	27	3.33
3	How much do you walk now, compared to last summer?	1	2	14	4	6	27	3.44
5	How much do you drive now, compared to last summer?	5	4	15	2	1	27	2.63
6	Whenever you are driving a car, how often do you observe people bicycling now, compared to last summer?	1	0	8	13	5	27	3.78

Statistic	How much exercise do you get now, compared to last summer?	How much do you bicycle now, compared to last summer?	How much do you walk now, compared to last summer?	How much do you drive now, compared to last summer?	Whenever you are driving a car, how often do you observe people bicycling now, compared to last summer?
Min Value	1	1	1	1	1
Max Value	5	5	5	5	5
Mean	3.33	3.33	3.44	2.63	3.78
Variance	0.92	1.23	1.10	1.01	0.79
Standard Deviation	0.96	1.11	1.05	1.01	0.89
Total Responses	27	27	27	27	27

11. Based on your observation of the new Nice Ride program in Bemidji, to what extent do you agree or disagree about each of these statements about Nice Ride?

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	Nice Ride is convenient to use	0.00	100.00	61.13	36.24	16
2	Nice Ride could help make exercise part of my daily routine	0.00	100.00	47.38	42.12	16
3	I could save money by using Nice Ride	0.00	100.00	30.83	29.20	18
4	Using Nice Ride is doing something good for the environment	51.00	100.00	88.50	16.92	18
5	Nice Ride is fun to use	0.00	100.00	64.00	31.11	17
6	Nice Ride costs too much to use	0.00	100.00	35.77	31.91	13
7	I already have a bike, so I do not use Nice Ride	0.00	100.00	77.00	35.85	19
8	Nice Ride station locations are not convenient for me	0.00	60.00	20.67	18.74	18
9	I do not feel safe biking on streets, so I do not use Nice Ride	0.00	51.00	14.69	19.04	16
10	I am not interested in bicycling or using Nice Ride	0.00	99.00	19.61	28.55	18
11	I do not understand how Nice Ride works	0.00	100.00	36.89	38.98	18
12	Nice Ride has made bicycling in Bemidji more popular	8.00	100.00	71.35	24.77	17

12. Based on your experience using the new Nice Ride program in Bemidji, to what extent do you agree or disagree about each of these statements about Nice Ride?

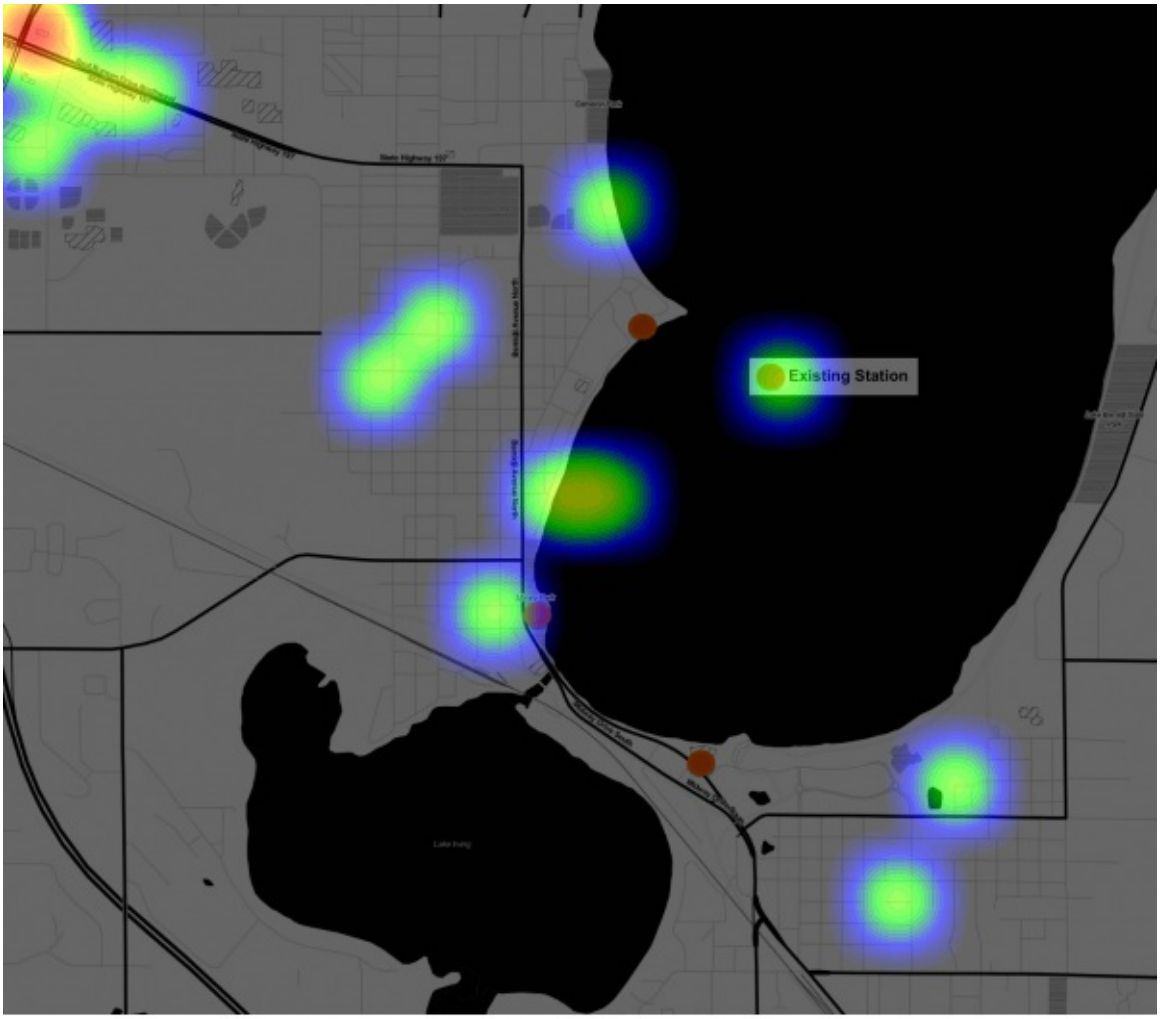
#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	Nice Ride is convenient to use	2.00	100.00	61.88	31.32	8
2	Nice Ride could help make exercise part of my daily routine	0.00	100.00	54.13	38.46	8
3	I could save money by using Nice Ride	0.00	100.00	53.43	34.96	7
4	Using Nice Ride is doing something good for the environment	32.00	100.00	82.75	24.97	8
5	Nice Ride is fun to use	30.00	100.00	81.75	25.40	8
6	Nice Ride costs too much to use	9.00	40.00	29.00	10.77	7
7	I already have a bike, so I do not use Nice Ride	1.00	100.00	50.33	42.99	6
8	Nice Ride station locations are not convenient for me	0.00	80.00	26.67	30.22	6
9	I do not feel safe biking on streets, so I do not use Nice Ride	0.00	40.00	13.67	15.65	6
10	I am not interested in bicycling or using Nice Ride	0.00	54.00	17.50	23.18	6
11	I do not understand how Nice Ride works	0.00	60.00	16.67	23.13	6
12	Nice Ride has made bicycling in Bemidji more popular	25.00	100.00	72.75	26.21	8

13. Please rank the four Bemidji Nice Ride stations in order of how convenient you think each location would be for you, even if you haven't used it, from 1 (most convenient) to 4 (least convenient).

#	Answer	1	2	3	4	Total Responses
1	Hampton Inn	5	3	8	6	22
2	Diamond Point Park/BSU	5	5	8	4	22
3	Bemidji Tourist Information Center/Paul & Babe	12	7	1	2	22
4	Lake Bemidji State Park	0	7	5	10	22
	Total	22	22	22	22	-

Statistic	Hampton Inn	Diamond Point Park/BSU	Bemidji Tourist Information Center/Paul & Babe	Lake Bemidji State Park
Min Value	1	1	1	2
Max Value	4	4	4	4
Mean	2.68	2.50	1.68	3.14
Variance	1.27	1.12	0.89	0.79
Standard Deviation	1.13	1.06	0.95	0.89
Total Responses	22	22	22	22

14. If you could choose where to install a new Nice Ride station in Bemidji, where would you put it?Click on the map to indicate your selection. (If your recommendation is not on this map, skip to the next question.)



0 2

Statistic	Value
Total Responses	14

15. Tell us more about this place.

Name	Street address or street and nearest cross street	What do you like about this location?	Who do you think would use a station at this location?
Nymore Park		Close to my home. Many lower income people live in Nymore and maybe they could use the bikes in their daily lives	
old jack stop gas station	15th street and jefferson ave	it has a parking lot, it's old and ugly and if it were turned into a nice ride location with maybe a bike shop, it would be awesome. close to town, only about .5 miles from the trail start, but access to riding out of town too. the country roads out toward becida are beautiful.	locals
Target		Lots of people around. Can get to a lot of places on that side of town.	
Mall	Paul Bunyan Drive	busy/lots of people	varies
Lueken's	Paul Bunyan Drive and Ridgeway Akve	Near two hotels, AmeriInn and Holiday Inn Express	Visitors/tourists
Downtown Bemidji		I think this is an area in Bemidji that doesn't get used as often as it shoudl, the old downtown bemidji is great and hopefully bringing in a nice ride would help people want to go there	students, locals, visitors
downtown Bemidji	4th and America Ave. W.	It is by my house, library, and post office	everyone
Paul and Babe Area	Paul Bunyan Drive	It's in a nuetral location where many tourist and locals go	everyone
Paul Bunyan Mall	Paul Bunyan Drive	People shop here a lot	Students and others who normally walk
Downtown	Beltrami Ave.	Close to a lot of businesses.	Customers
The cabin	3rd and beltrami	central location	cyclists
Sanford Conference Center	Near Lake Avenue	Large parking lot, easy for people from outskirts to come in, park, hop on a bike and ride into town on the trail	Those who live to the NE, E of Lake Bemidji

Statistic	Value
Total Responses	12

16. Which of these two Nice Ride stations would be more convenient for you?

#	Answer	Bar	Response	%
1	Your new location		7	30%
2	${q://QID463/ChoiceGroup/ChoiceWithLowestValue}		14	61%
3	An existing station (specify)		2	9%
	Total		23	

An existing station (specify)
OPC/Diamond Point
Hampton Inn and Suites of Bemidji

Statistic	Value
Min Value	1
Max Value	3
Mean	1.78
Variance	0.36
Standard Deviation	0.60
Total Responses	23

17. What percentage of these groups of people did you observe using a personal bicycle in Bemidji any time last summer (2013)?

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	Coworkers	0.00	99.00	33.53	35.68	19
2	Neighbors	0.00	100.00	40.36	30.60	22
3	People in your household	0.00	100.00	55.70	41.86	20
4	Other people you know	0.00	100.00	47.32	32.18	22

18. What percentage of these groups of people did you observe using a personal bicycle in Bemidji any time this summer since Nice Ride opened in June 2014?

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	Coworkers	0.00	98.00	24.05	32.76	19
2	Neighbors	0.00	100.00	45.24	35.60	21
3	People in your household	4.00	100.00	67.21	37.45	19
4	Other people you know	0.00	100.00	46.09	34.00	22

19. What percentage of these groups of people have you observed using Nice Ride in Bemidji?

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	Coworkers	0.00	80.00	10.00	22.73	15
2	Neighbors	0.00	80.00	7.83	22.92	12
3	People in your household	0.00	80.00	11.00	23.03	14
4	Other people you know	0.00	100.00	22.78	33.53	18

20. In what year were you born?

Recoded to age and summarized in Excel:

mean	46.3
sd	14.8
min	21.0
25th %ile	36.0
33rd %ile	40.0
50th %ile	47.5
67th %ile	57.0
75th %ile	57.8
max	68.0

Statistic	Value
Total Responses	22

21. What is the highest level of school you have completed or the highest degree you have received?

#	Answer	Bar	Response	%
1	Some grade school or high school		1	4%
2	High school diploma or equivalent (GED)		0	0%
3	Some college (no degree)		5	21%
4	Associate's degree or technical degree/certificate		3	13%
5	Bachelor's degree		9	38%
6	Master's degree		4	17%
7	Professional degree		1	4%
8	Doctoral degree		1	4%
	Total		24	

Statistic	Value
Min Value	1
Max Value	8
Mean	4.67
Variance	2.32
Standard Deviation	1.52
Total Responses	24

22. What is your current employment status?

#	Answer	Bar	Response	%
1	Full time		12	50%
2	Part time		5	21%
3	Not employed		1	4%
4	Retired		6	25%
	Total		24	

Statistic	Value
Min Value	1
Max Value	4
Mean	2.04
Variance	1.61
Standard Deviation	1.27
Total Responses	24

23. Are you a student?

#	Answer	Bar	Response	%
1	Yes, full-time		3	13%
2	Yes, part-time		1	4%
3	No		20	83%
	Total		24	

Statistic	Value
Min Value	1
Max Value	3
Mean	2.71
Variance	0.48
Standard Deviation	0.69
Total Responses	24

24. What is your approximate annual household income?

#	Answer	Bar	Response	%
1	Less than $5,000		1	5%
2	$5,000 but less than $10,000		1	5%
3	$10,000 but less than $15,000		2	10%
4	$15,000 but less than $20,000		0	0%
5	$20,000 but less than $25,000		1	5%
6	$25,000 but less than $30,000		3	14%
7	$30,000 but less than $35,000		2	10%
8	$35,000 but less than $40,000		0	0%
9	$40,000 but less than $45,000		2	10%
10	$45,000 but less than $50,000		1	5%
11	$50,000 but less than $60,000		1	5%
12	$60,000 but less than $75,000		5	24%
13	$75,000 but less than $100,000		0	0%
14	$100,000 but less than $125,000		1	5%
15	$125,000 but less than $150,00		0	0%
16	$150,000 but less than $200,000		1	5%
17	$200,000 but less than $250,000		0	0%
18	$250,000 or more		0	0%
	Total		21	

Statistic	Value
Min Value	1
Max Value	16
Mean	8.33
Variance	17.53
Standard Deviation	4.19
Total Responses	21

25. What language(s) do you primarily speak at home? (Check all that apply)

#	Answer	Bar	Response	%
1	English		24	100%
2	Spanish		0	0%
3	Hmong		0	0%
4	Somali		0	0%
5	Other		0	0%
6	Prefer not to answer		0	0%

Other

Statistic	Value
Min Value	1
Max Value	1
Total Responses	24

26. What is your gender?

#	Answer	Bar	Response	%
1	Male		7	29%
2	Female		17	71%
3	Other		0	0%
4	Prefer not to answer		0	0%
	Total		24	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.71
Variance	0.22
Standard Deviation	0.46
Total Responses	24

27. How many working bicycles does your household have?

Summarized in Excel

mean	3.6
sd	3.0
min	0.0
25th %ile	1.0
33rd %ile	2.0
50th %ile	3.0
67th %ile	4.0
75th %ile	5.3
max	11.0

Statistic	Value
Total Responses	24

28. How many working automobiles does your household have?

Summarized in Excel

mean	2.1
sd	0.8
min	1.0
25th %ile	2.0
33rd %ile	2.0
50th %ile	2.0
67th %ile	2.0
75th %ile	2.0
max	4.0

Statistic	Value
Total Responses	24

29. Including yourself if applicable, how many people in your household are licensed drivers?

Summarized in Excel

mean	2.2
sd	0.8
min	1.0
25th %ile	2.0
33rd %ile	2.0
50th %ile	2.0
67th %ile	2.0
75th %ile	2.3
max	4.0

Statistic	Value
Total Responses	24

30. Describe your level of access to your personal automobiles:

#	Answer	Bar	Response	%
1	I have access any time I want		20	83%
2	I have access if I plan for it		3	13%
3	I rarely have access		1	4%
	Total		24	

Statistic	Value
Min Value	1
Max Value	3
Mean	1.21
Variance	0.26
Standard Deviation	0.51
Total Responses	24

31. How many children under the age of 18 are in your household, in the following ages:

#	Answer	Min Value	Max Value	Average Value	Standard Deviation
1	Younger than 6	0.00	2.00	0.12	0.44
2	6 to 11 years old	0.00	3.00	0.20	0.71
3	12 to 15 years old	0.00	1.00	0.04	0.20
4	16 to 17 years old	0.00	2.00	0.08	0.40

32. Including yourself, how many adults in your household are:

#	Answer	Min Value	Max Value	Average Value	Standard Deviation
5	18 to 24 years old	0.00	4.00	0.40	1.04
6	25 to 29 years old	0.00	2.00	0.12	0.44
7	30 to 39 years old	0.00	2.00	0.24	0.52
8	40 to 49 years old	0.00	2.00	0.32	0.56
9	50 to 59 years old	0.00	2.00	0.52	0.77
10	60 to 69 years old	0.00	2.00	0.44	0.77
11	Age 70 or greater	0.00	0.00	0.00	0.00

33. What level of responsibility do you have for the children under age 18 in your household?

#	Answer	Bar	Response	%
1	I am their primary caretaker		2	40%
2	I share responsibilities equally with another adult		3	60%
3	Someone else is their primary caretaker		0	0%
4	I have no responsibilities for them (e.g., non-related roommate)		0	0%
	Total		5	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.60
Variance	0.30
Standard Deviation	0.55
Total Responses	5

34. Think about the other adults in your household age 18 or older (excluding yourself). Over the past 7 days, did any adults in your household (excluding yourself) do any of the following activities for at least 30 minutes in one day?

#	Question	Yes	No	Total Responses	Mean
1	Bike (using Nice Ride)	2	17	19	1.89
2	Bike (using a personal or non-Nice Ride bicycle)	10	9	19	1.47
3	Walk	19	1	20	1.05

Statistic	Bike (using Nice Ride)	Bike (using a personal or non-Nice Ride bicycle)	Walk
Min Value	1	1	1
Max Value	2	2	2
Mean	1.89	1.47	1.05
Variance	0.10	0.26	0.05
Standard Deviation	0.32	0.51	0.22
Total Responses	19	19	20

35. Is there anything else you would like to share about bicycling, Nice Ride, or active living in Bemidji?

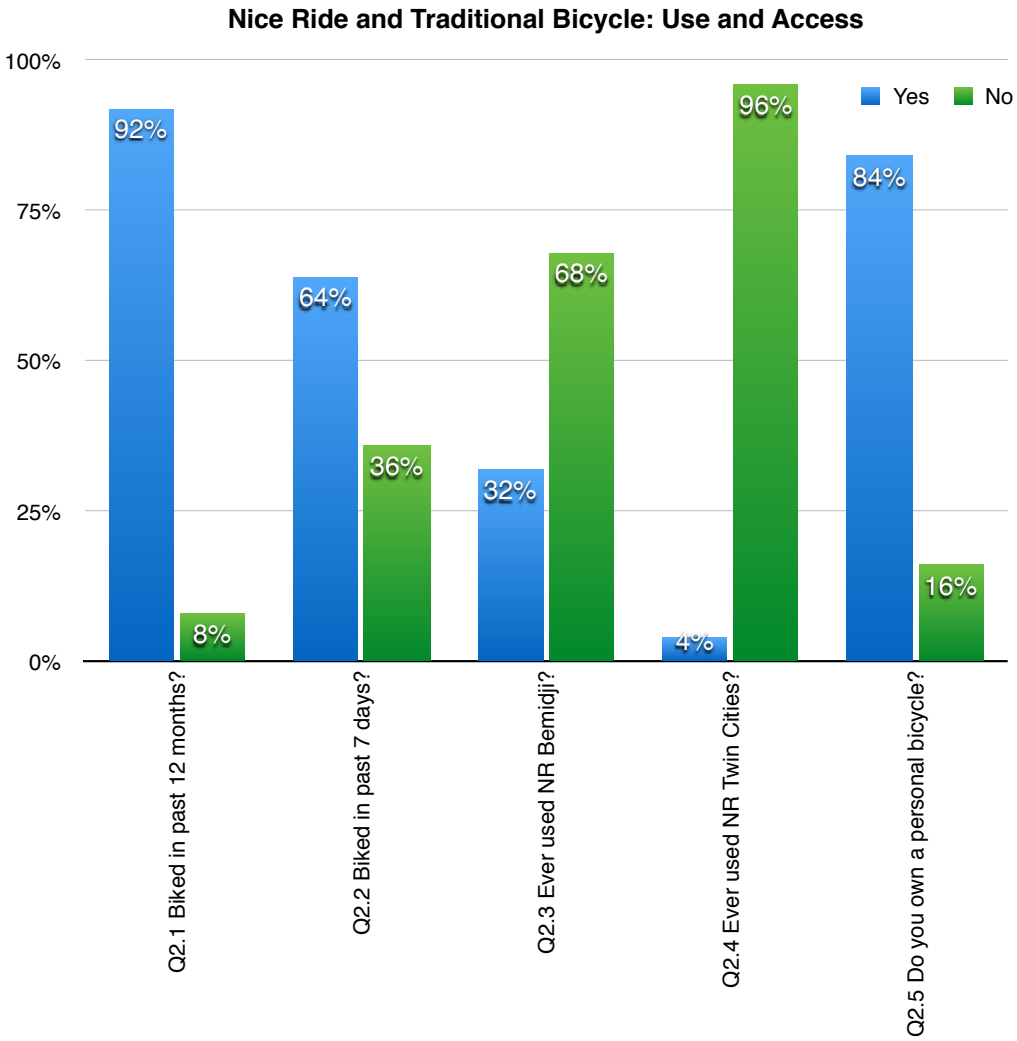
Text Response
It would be nice if the bikes had baskets for shopping and if they offered something for small children.
I bike to work 3-4 days out of the week. Bemidji needs more bike lanes. I'm lucky enough to be able to bike on residential streets and the bike trail for most of the trip. But when I do have to bike in the streets, people in cars are scary. I fear for my safety. Bikes are the future.
The seats are a little bit uncomfortable and when you hit bumps it feels like there aren't much for shocks..but other than that, it was a great experience. I will definitely be using this service again and I will be bringing more of my clients along as well.
I was surprised to find out that a physical key had to be checked out from a physical person when I reserved the bike. I thought I would get a code and enter it into the bike rack and it would unlock the bike for me. When I returned the bike, I thought it would electronically calculate the amount of time I spend on the bike and charge me accordingly. Having to check-out a key from a live person means having to schedule bike rentals around when places of business are operating. That doesn't seem very convenient or efficient. For example, if I check-out the bike at the Visitors Center at 3 pm there is nobody there to check the bike back in. If I wanted to keep the bike for a few more hours, the system wouldn't know and therefore, the system is not getting that revenue.
I have seen people on the Paul Bunyan State Trail using Nice Ride bicycles, just not people I know. This is my week of vacation, so not a typical time to answer questions about what I did yesterday. :)
There is a large need for bikes for the college students at BSU and at NW Tech
I applaud the initiatives to increase active living in Bemidji, and I'm pleased to have Nice Ride as an option here.
I love the fact that we have Nice Ride, which is a great resource when we have friends come to visit us and also, when I find myself in town without a car or my husband and I need to car share. I also wonder if you may have considered the South area of Bemidji - ie. Lueken's South as a place for bikes?

Statistic	Value
Total Responses	8

Appendix E

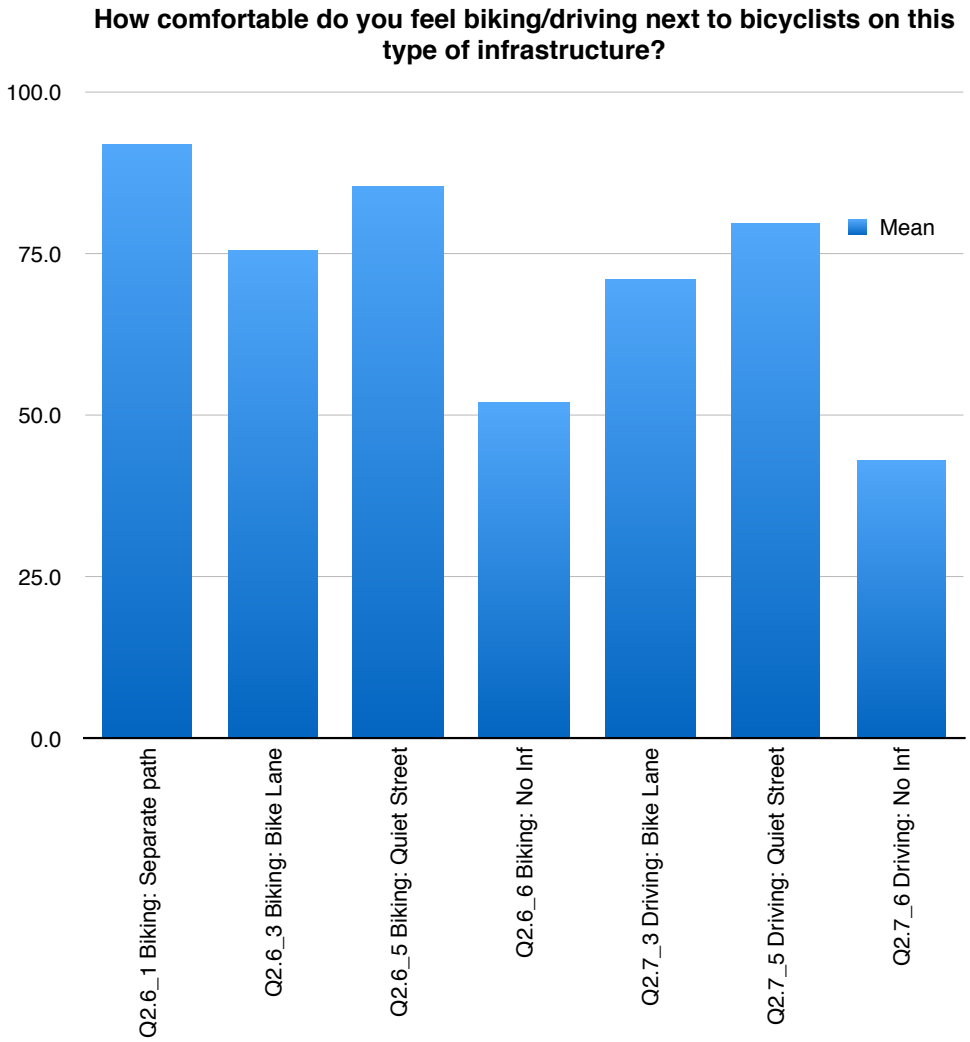
Preliminary Bemidji Survey Findings

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25



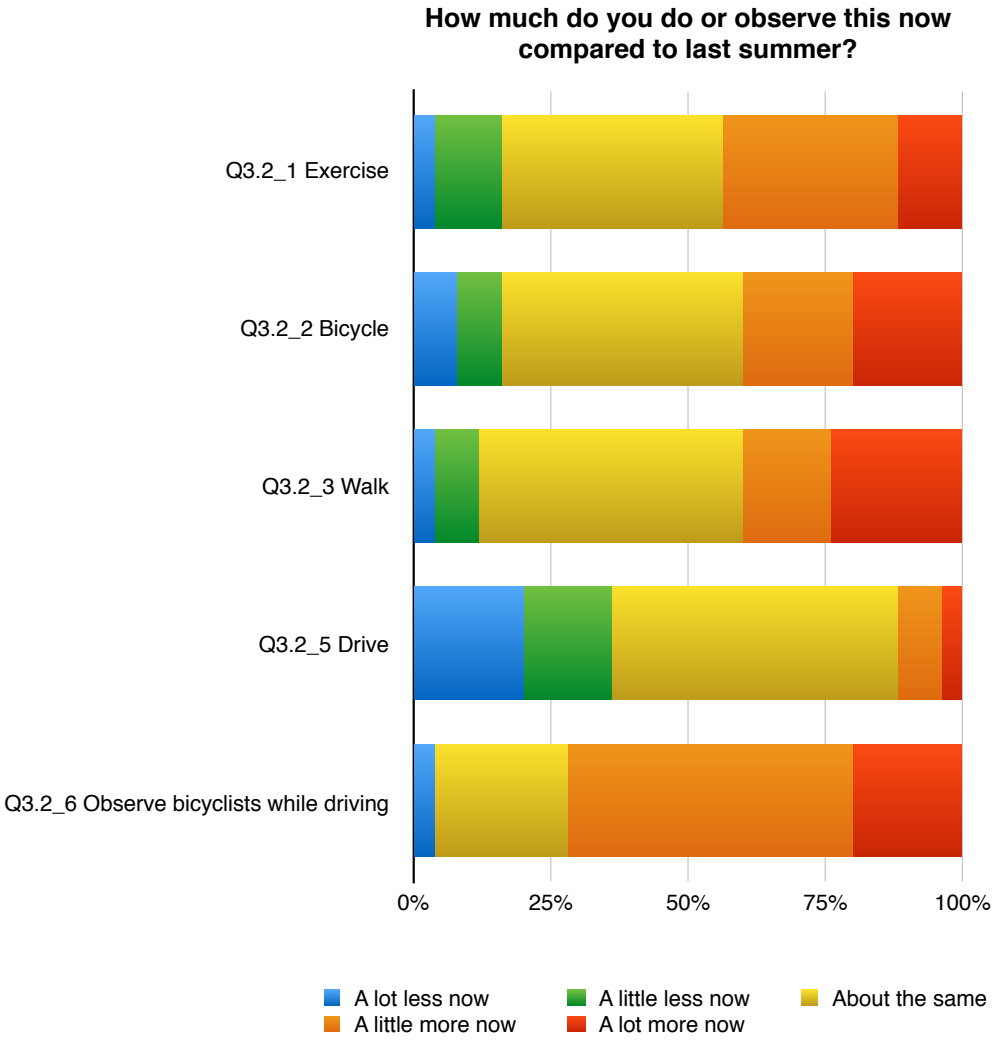
A large majority of respondents own a personal bicycle and have bicycled within the past year. Only 1/3 of respondents have used Nice Ride in Bemidji. Only one respondent has used Nice Ride in the Twin Cities.

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25



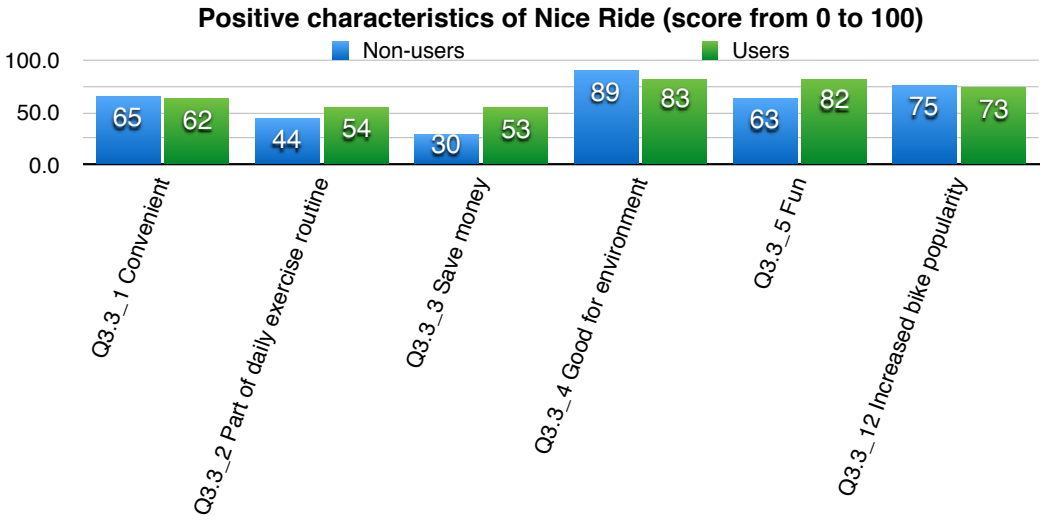
Bicyclists and drivers prefer to share the road on quiet streets.

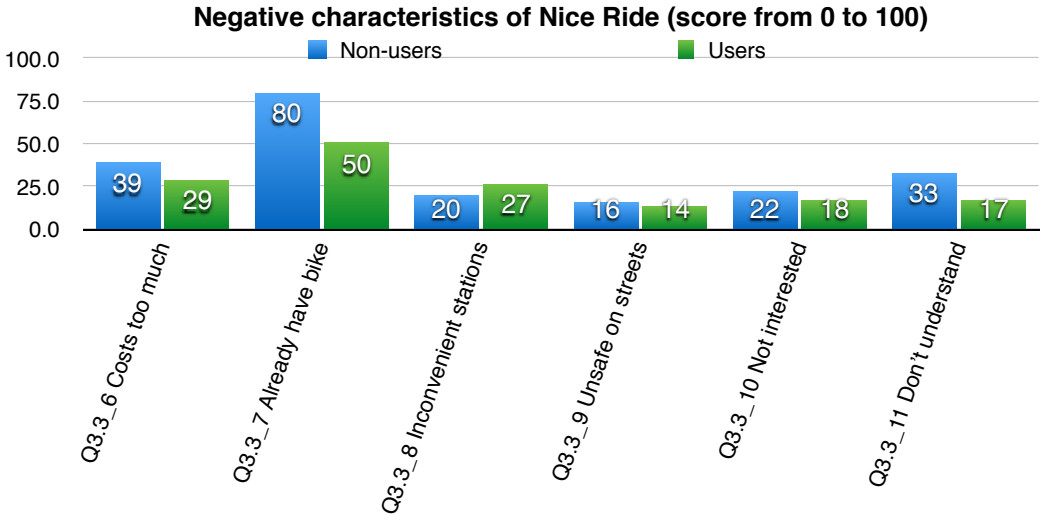
21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25



75% of respondents observe more bicyclists while driving (either due to increased rates of bicycling or increased awareness of bicyclists). Respondents indicate an increase in their own exercise, bicycling, and walking compared to last summer, and a decrease in driving.

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25

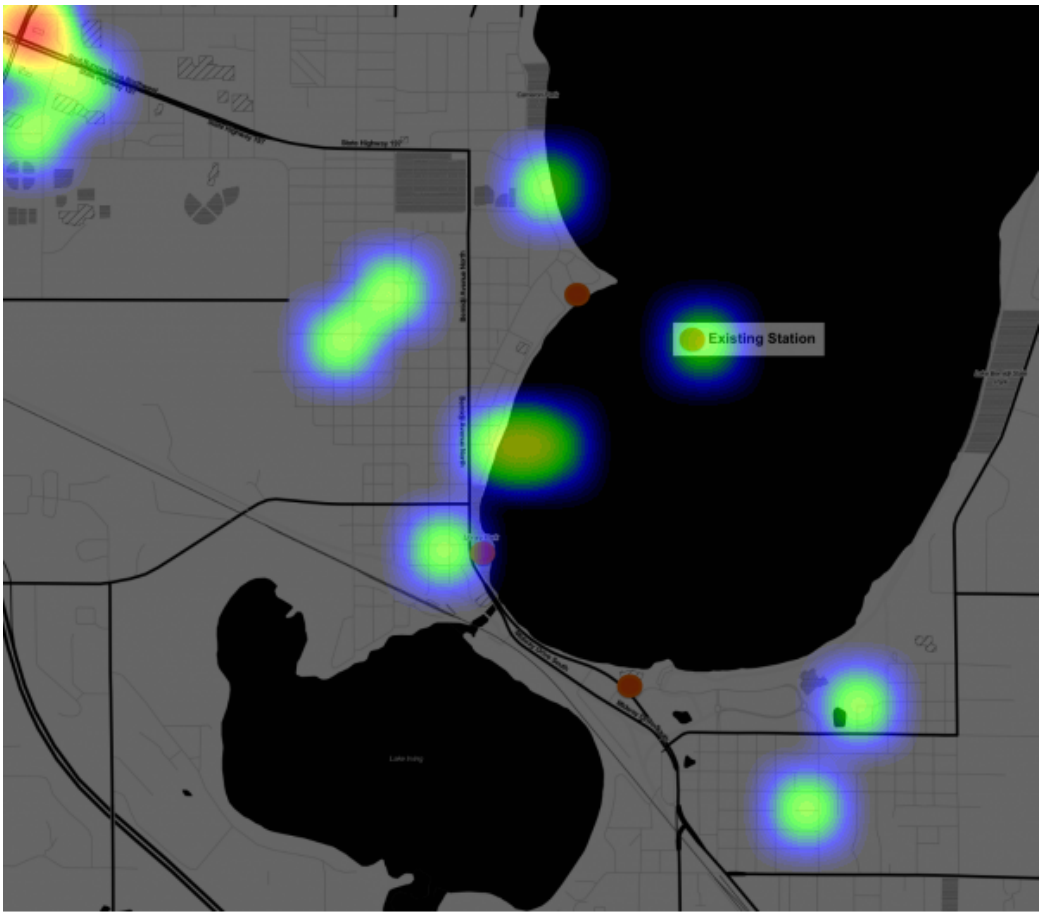




People who have used Nice Ride respond more favorably to statements such as "Nice Ride could help make exercise part of my daily routine", "Nice Ride could help me save money", and "Nice Ride is fun to use". Non-users are more likely to report cost, already having a bike, and not understanding how to use the system as deterrents. Users and non-users alike report that Nice Ride increased the popularity of bicycling.

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25

Heat map of respondent suggestions for a new station location (13 clicks)



There is a cluster of clicks in the Uptown area. See next page for respondent descriptions of locations.

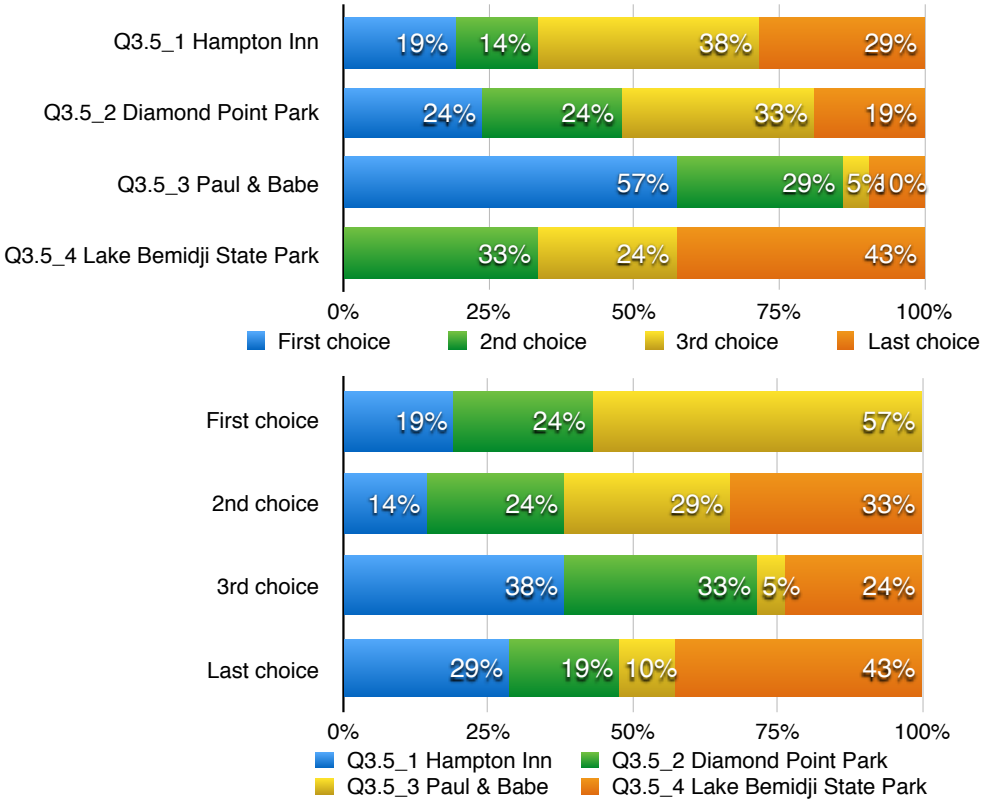
21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25

Respondent Descriptions of Station Recommendations

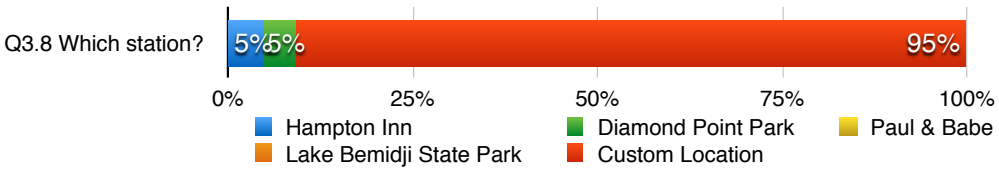
Place Name	Location	What do you like about this location?	Who do you think would use this station?
Nymore Park		Close to my home. Many lower income people live in Nymore and maybe they could use the bikes in their daily lives	
old jack stop gas station	15th street and jefferson ave	it has a parking lot, it's old and ugly and if it were turned into a nice ride location with maybe a bike shop, it would be awesome. close to town, only about .5 miles from the trail start, but access to riding out of town too. the country roads out toward becida are beautiful.	locals
Target		Lots of people around. Can get to a lot of places on that side of town.	
Mall	Paul Bunyan Drive	busy/lots of people	varies
Lueken's	Paul Bunyan Drive and Ridgeway Akve	Near two hotels, AmeriInn and Holiday Inn Express	Visitors/tourists
Downtown Bemidji		I think this is an area in Bemidji that doesn't get used as often as it shoudl, the old downtown bemidji is great and hopefully bringing in a nice ride would help people want to go there	students, locals, visitors
downtown Bemidji	4th and America Ave. W.	It is by my house, library, and post office	everyone
Paul and Babe Area	Paul Bunyan Drive	It's in a nuetral location where many tourist and locals go	everyone
Paul Bunyan Mall	Paul Bunyan Drive	People shop here a lot	Students and others who normally walk
Downtown	Beltrami Ave.	Close to a lot of businesses.	Customers
The cabin	3rd and beltrami	central location	cyclists
Sanford Conference Center	Near Lake Avenue	Large parking lot, easy for people from outskirts to come in, park, hop on a bike and ride into town on the trail	Those who live to the NE, E of Lake Bemidji

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25

Rank the four existing locations by how convenient you think it is



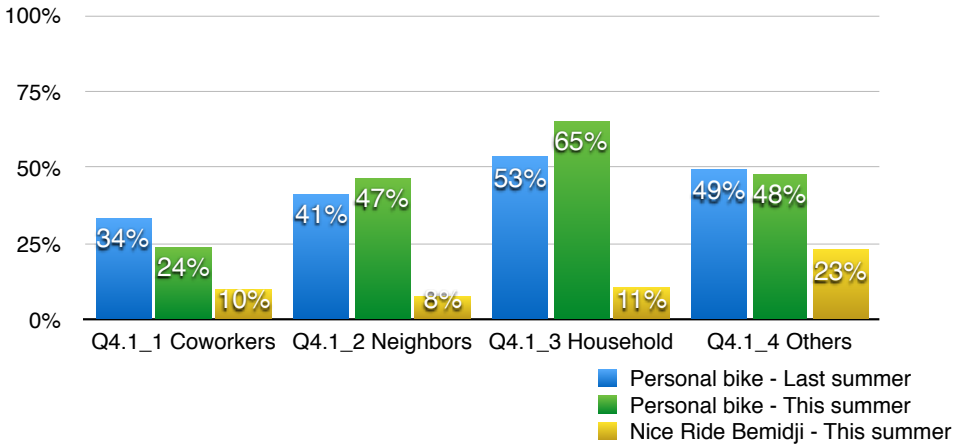
Rank which station is most convenient for you (after selecting a "new" location on the map)



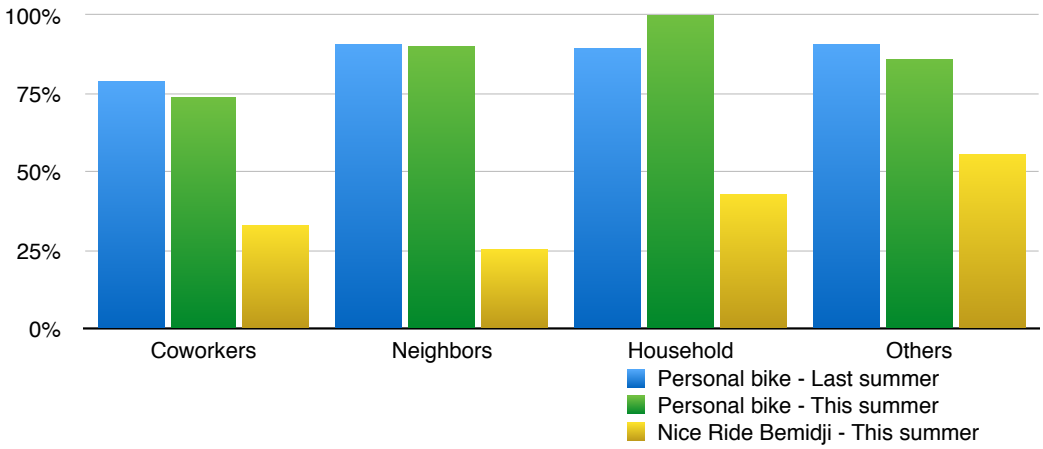
Respondents find the Paul & Babe station most convenient.

21 October 2014
Preliminary Bemidji Survey Data
schon082@umn.edu
N=25

What percent of people in each of these groups during this time period did you observe biking?



Percent of respondents who observed 1 or more person biking during this time period



Respondents observe more neighbors and household members using a personal bicycle this summer than last summer. They observed fewer coworkers using a bicycle this summer compared to last summer. At least 25% of respondents observed a coworker, neighbor, household member, and another person using Nice Ride.