

# Master of Public Health Field Experience Report

## ***FIELD EXPERIENCE AT RILEY COUNTY K-STATE RESEARCH AND EXTENSION***

by

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submitted in partial fulfillment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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## Summary

My field experience at Riley County K-State Research and Extension began in late February of 2016 and lasted until the end of June, 2016. During this time, I completed two hundred and forty hours of experience under the direction and supervision of Virginia (Ginny) Barnard. Ginny is a former Kansas State Master of Public Health (MPH) alum, and is currently employed as the Family and Consumer Sciences agent for the Extension Office in Riley County. As a Family and Consumer Sciences agent, she is primarily responsible for issues relevant to health, nutrition, food safety, and indoor environments. In addition to her many responsibilities, Ginny is a member of numerous coalitions and committees, as well as a collaborator with many community organizations and programs. During my time at Riley County K-State Research and Extension, Ginny allowed me to work with some of these committees, programs, and projects. I was assigned one major project to work on while at the Research and Extension office; work with Riley County Extension, the City of Manhattan's Bike/PED Coordinator, and the Bicycle/Pedestrian Advisory Committee (BPAC) to develop, organize, and implement a community-wide educational and promotional program designed to increase community awareness and promote cycling for health, active transportation, and as a family-friendly activity.

**Subject Keywords:** Riley County K-State Research and Extension, Bike Month, Cycling Promotion, Health Promotion

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To my family...Dad, you not only taught me the game I love, but also the game of life. There have been so many life lessons that I fall back on each and every day, but none more important than 'Smile'. No matter what life throws at you, "come with a smile, and leave with a smile". Mom, you were always the first to support me in all of my decisions, including walking away from the only thing I've ever known five years ago. I can't thank you enough for encouraging me, and for teaching me that the most important thing in life is that I find my 'wings'. Allison, for always being my best friend, my role model, and the one who taught me that dreams have no bounds. The title I will forever be most proud to call myself is, "Allison Knutson's little sister".

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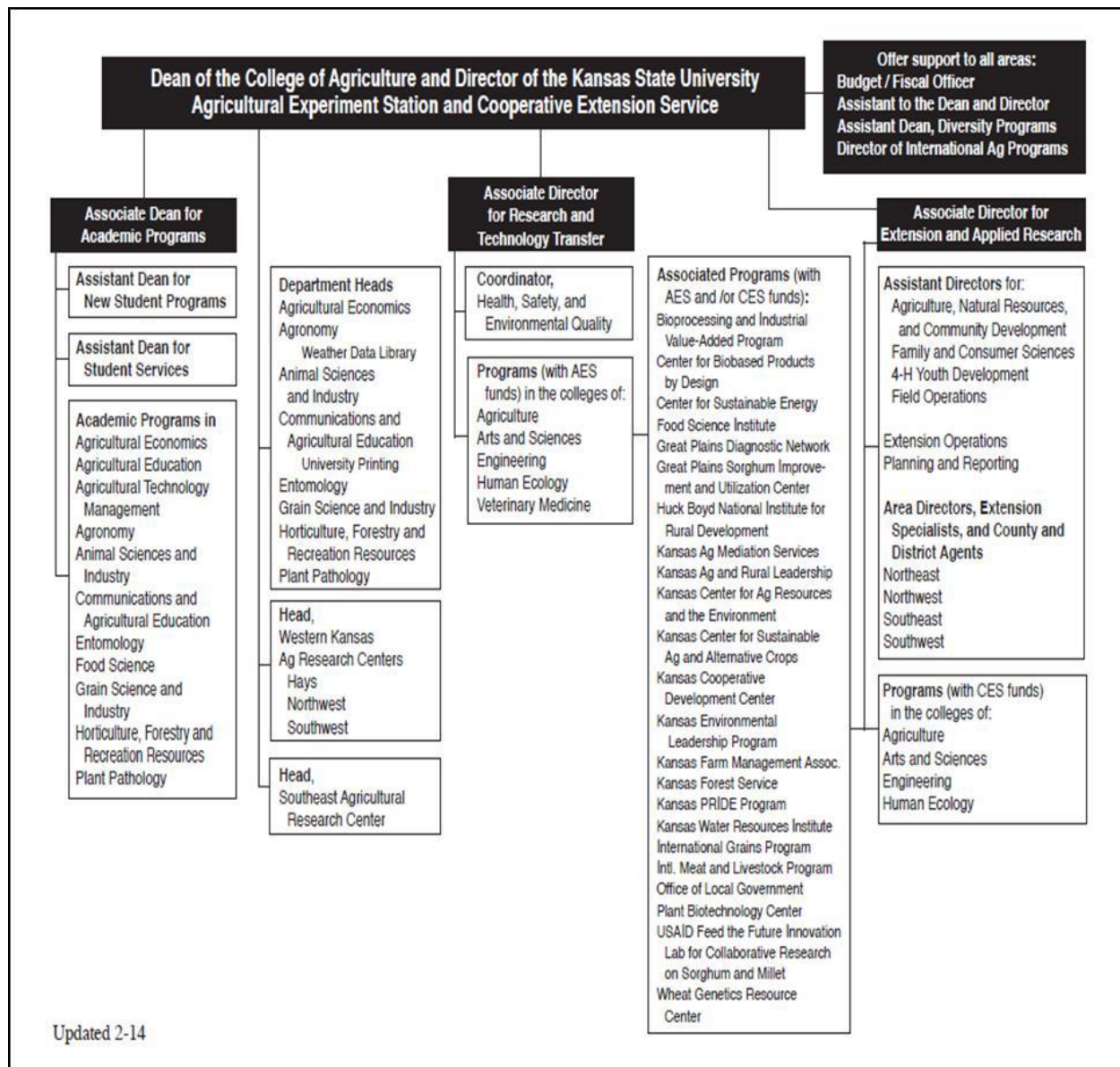
# Introduction

I completed my public health field experience at the Riley County K-State Research and Extension at 110 Courthouse Plaza in Manhattan, KS. A total of two hundred and forty hours were completed between February of 2016 and June of 2016. The Kansas State University Agricultural Experiment Station and Cooperative Extension Service is a part of a national Cooperative Extension program, established in 1914, with the purpose of extending technical expertise and university research findings to help Kansans improve their homes, families, farms, businesses, and communities (Riley County, 2016). Each of the 105 counties in Kansas has their own Extension Cooperative office that is funded by partnerships between the federal, state, and county governments, as well as land-grant universities. In Riley County, the land-grant university that supports the county office is Kansas State University. With the University's support, Riley County K-State Research and Extension is "Dedicated to a safe, sustainable, competitive food and fiber system and to strong, healthy communities, families, and youth through integrated research, analysis and education" (Riley County, 2016). Resources and educational training materials are available in the areas of agriculture, business and economics, family life, youth development, and healthy living.

The organizational chart for Riley County K-State Research and Extension is shown in Figure 0.1. The Riley County office is directed by a county extension director who oversees four extension agents that specialize in the areas of 4-H Development, Horticulture, Family and Consumer Sciences, and Agriculture (Riley County, 2016). I completed my field experience under the direction and supervision of Virginia (Ginny) Barnard who is the Family and Consumer Sciences Agent for Riley County. Ginny specializes in health, nutrition, food safety, and indoor environments. In addition to her responsibilities, Ginny is also a collaborator with

numerous coalitions and groups in the Manhattan community, including working with the City of Manhattan Bicycle/Pedestrian Advisory Committee (BPAC). During my time with Ginny, my project responsibilities closely aligned with activities prior to, during, and following Bike Month in Manhattan. This project was a great fit for my interests and educational background, and I was excited for the opportunity to offer my research and skills to the Manhattan cycling community.

**Figure 1 – Organizational Breakdown of Riley County K-State Research and Extension**





## **Focus and Scope of Work**

When I first arrived at Riley County K-State Research and Extension, I met with Ginny regarding possible project ideas. Following her discussions with several committees and coalition groups, it was decided that I would work with both the Riley County Extension Office, as well as with the City of Manhattan's Bike/Pedestrian Advisory Committee (BPAC) on a community-wide educational campaign to increase community awareness and promote bicycling for health, active transportation, and as a family-friendly activity. The project would closely align with Manhattan's Bike Month throughout the month of May.

### ***Background Evidence: The Public Health Concern***

Physically inactive lifestyles are considered a major public health concern today. In fact, 1 in 4 adults, and more than 80% of adolescents, do not meet the public health recommendations of accumulating 30 and 60 minutes of physical activity per day, respectively (WHO, 2016). Additionally, the Centers for Disease Control and Prevention estimates that 300,000 deaths each year in the U.S. are linked to physically inactive lifestyles and poor nutrition habits (CDC, 2016). As a result, several negative health consequences do exist, such as contributing to a higher occurrence of overweight/obesity, and an increased risk of developing diabetes, coronary heart disease, stroke, and some cancers (Sallis, 2004). In order to combat the issue of physical inactivity, public health officials have sought out solutions to increase physically active lifestyles in hopes of improving the health of populations, as well as reducing health care costs. One such solution agreed upon by both transportation researchers and public health researchers alike, is cycling (Sallis, 2004).

Cycling has a considerable amount of health benefits, including reductions in mortality and diabetes occurrence for regular riders, and lower likelihood of being overweight/obese for commuter cyclists (Rissel, 2010). Additionally, riding a bicycle has a wide-range of benefits that extend beyond health benefits, such as environmental, social, and community benefits (Garrard, 2008). For these reasons, promoting cycling as a means of transportation, as well as health and recreation, is an important way to increase physical activity in communities.

Previous research has looked at several different approaches to both understand and encourage cycling in communities. While most of the research examines the role of infrastructure and the cost-effectiveness of trail development for the promotion of cycling, a few others have looked at more personal factors in the decision to ride a bike (Pucher, 2009; Wang, 2004). One example of the former, is a study that found that Canadians cycle approximately three times more than Americans due to safer cycling conditions, better cycling infrastructure and policies, and an increased availability of cycling training and education programs (Pucher, 2005). In terms of the latter, a more recent study looked at cyclists' perceptions as a way to understand how to promote cycling. In this study, researchers concluded that convenience and restrictions, such as vandalism and facilities, are the most important elements in order to understand attitudes towards cycling (Fernandez-Heredia, 2014). Lastly, there is evidence to suggest that attitudes, awareness, and psychological factors can also influence a person's choice to bicycle (Heinen, 2011). In conclusion, in order to effectively promote cycling as a safe, healthy, and family-friendly method of transportation – we must focus our educational and promotional efforts on several of these factors, as opposed to just one.

### ***Field Experience Project Responsibilities***

My project duties included: (1) conducting a brief literature review and background research on other community bicycle promotion, survey development, and educational programs, (2) helping to organize the Bike Month events, (3) creating promotional videos, radio public service announcements (PSA), marketing materials, and social media campaign posts to promote Bike Month, (4) preparing, collecting, and evaluating data regarding the public perception, education, and awareness of cycling in the community following Bike Month, (5) using data from survey results to develop new educational materials for cycling safety in the community, (6) sharing results of the program and survey with both the City of Manhattan, and the Flint Hills Metropolitan Planning Organization to be used for future programs and city development projects.

Overall, the scope of work for this project fit well with my education and interests and I was able to learn how to implement a community-wide public health program. Additionally, I was successfully able to use what I learned throughout the project with community organizations and members in hopes that the results provided helpful information in future planning projects and programs in Manhattan.

## **Learning Objectives**

Prior to beginning my field experience at Riley County Research and Extension, I worked with Ginny to develop learning objectives for my project. My first learning objective was to understand how to organize and implement a community-wide program to promote bicycling. The goal of this learning objective was to develop ideas and methods to not only educate the public, but also promote cycling for health, active transportation, and as a family-friendly activity. This objective was accomplished through several activities. First, through background research from previous communities' educational and promotional campaigns, I was able to understand how to develop a similar programming to be implemented in Manhattan. Also, with the help of the Manhattan BPAC, I was able to understand what types of programs or activities would be best for promoting cycling in the community. Furthermore, through designing promotional materials and planning Bike Month events, I was able to be involved in all aspects of the educational and promotional campaign.

My next objective was to find background information and research evidence-based methods to promote Bike Month and cycling safety in order to reach a diverse population in Manhattan. These materials and resources were then used to develop the multi-media promotional materials, as well as the Bicycle Perception and Awareness Survey. According to the City of Manhattan Bicycle/Pedestrian Coordinator, Emma Rearick; the majority of current participants during Bike Month are already bicycle 'enthusiasts'. Therefore, in order to make a larger impact on the community, I knew that we would have to promote Bike Month using several methods. By focusing on four categories of riders (new cyclist, families, health/recreational cyclists, and commuters), we were able to determine what promotional

avenue would be best for each category of rider. Promotional materials included: flyers distributed throughout the community, social media, email marketing, videos on the City's website, radio public service announcements (PSA), and word-of-mouth. By increasing the awareness of programs and events, we hoped we would see an increase in participation as a result. Throughout this portion of the project, I felt that I learned several ways to promote the program and educate the public, and we were successfully able to reach a diverse population.

The third objective is closely tied to the second objective; learning to formulate an effective marketing effort for cycling promotion that entailed the creation of materials including flyers, promotional videos, radio, and social media. For the most part, I used previous knowledge and experience to develop flyers and social media posts to promote the program. For the videos, I had an opportunity to work with both Gayle Donaldson (City of Manhattan Communications Specialist) and Jace Mills (City of Manhattan Multimedia Intern) at the City with the purpose of learning how to produce short promotional videos. For the radio PSAs, Ginny first provided me with some materials on how to effectively write scripts and communicate using radio. Then, with Jared Tremblay (City of Manhattan Infrastructure Analyst) and Emma Rearick's help to select the best topics and/or events to promote, I was able to write the radio scripts to be used before and during Bike Month.

My fourth learning objective was to evaluate the public's perception and awareness of bicycling, as well as Bike Month and bike safety topics, in Manhattan following Bike Month in order to develop and support lasting change in the community. This objective is where I feel I learned the most, as well as made the largest impact throughout my field experience project. First, using previous community and national bicycle surveys, I was able to develop my own survey to assess the public's perception and awareness of several cycling topics (City of Mesa,

2015; Corona Insights, 2014; Schroeder, 2013). Next, through the evaluation of the results, I learned that many of the programs and promotional materials we utilized in May worked very well in endorsing Bike Month, while others did not make such a large influence. For example, approximately 63% of respondents identified social media as the way they heard about Bike Month in Manhattan, whereas approximately 14% heard about Bike Month from the utility bill inserts sponsored by the City of Manhattan. Additionally, with the results of the survey, I was able to listen to what the community was aware of in terms of cycling safety and awareness, and create specific educational materials to address those needs. These materials will hopefully continue to be used in future years so as to create lasting changes. Lastly, I was able to share the survey results to both the City of Manhattan, as well as the Flint Hills Metropolitan Planning Organization, for projects and programs in upcoming years.

The final objective of the project was to describe how field experience activities improve public health using a community change framework. I believe this objective was most relevant to attending the Bike Month planning meetings, and through the evaluation and sharing the survey results. It is my hope that the things I learned throughout my entire field experience project will continue to be utilized by the city with the aim of (1) developing and improving access to biker friendly routes and roads, (2) increasing rates of bicycling as a form of physical activity, (3) growing the overall cycling community in Manhattan, and (4) improving bicycle (and motor vehicle) safety in the community.

## Activities Performed

### *Prior to Bike Month*

Throughout my experiences at Riley County Research and Extension, I was given many valuable opportunities directly related to public health and physical activity. Prior to the beginning of Bike Month in May, I met with my project team consisting of Ginny Barnard (Riley County Research and Extension), Emma Rearick (City of Manhattan Bicycle/Pedestrian Coordinator), and Jared Tremblay (City of Manhattan Infrastructure Analyst). During our meetings, we discussed the importance of me attending the Bike Month planning meetings in order to help plan and organize events, as well as network with other cycling community members. Additionally, my project team laid out their ideas and expectations of Bike Month promotional materials they wanted developed.

For the months of February, March, and April, I had numerous responsibilities in order to prepare for the beginning of Bike Month. First off, I attended three Bike Month planning committee meetings. Here we discussed what events to plan, how we would promote the events, and any other topics that arose. Second, I was given the responsibility of creating both promotional videos, as well as radio PSAs, to be used to promote Bike Month. Jace Mills (City of Manhattan Multimedia Intern) and I worked together to create the Bike Month videos following some background research to see what other communities have created in the past. Following multiple brainstorming sessions, we decided to make three short videos with a specific target audience for each video. Using Emma and Jared's input, the audiences we selected were: a novice bike rider, a family, and a cyclist who had been biking for many years (mainly for health reasons). It was then my job to actually get out and recruit members of the community who fit

these roles. Fortunately, a friend and colleague (Chelsey Schlechter, Graduate Student) fit the role of novice bike rider perfectly, with the added bonus of being a semi-frequent bicycle commuter. Jared volunteered to fill the second role with his young daughter, and finally, I contacted the Manhattan Women's Group Ride Facebook page in order to recruit a member for the last role. Once I scheduled everyone for their video interviews and rides, Jace was responsible for the actual filming and editing portion of the videos. After completion of the videos, we used the City's website and social media outlets to distribute our work.

The radio PSAs were a bit more labor-intensive. Ginny provided me with some literature and direction on how to effectively write service announcement scripts. Then, using the input on topics and Bike Month events from Jared and Emma, I began drafting the script. I wrote roughly twenty announcements of varying time lengths (10-30 seconds), and then the project team narrowed the announcements down to eight that would eventually be recorded for broadcast. Following multiple reviews and edits, we selected the final announcements to be read and broadcasted on the radio. All while these activities were being performed, I simultaneously conducted my own short literature review and background research in topic areas including, but not limited to: previous community-wide educational programs that targeted cycling, bicycle friendly communities, bicycle friendly universities, safe routes to school, active transportation, infrastructure and city planning, the promotion of cycling, bicycle safety topics, and cyclist's perception and awareness. This research would then be utilized when I began developing my survey following Bike Month.

The last responsibility I had in the months prior to May was to begin developing marketing materials to be used throughout Bike Month.



### *During Bike Month*

Using background research from previous community-wide educational programs, as well as sources like the League of American Bicyclists, I decided to focus my efforts for promotion on web-based materials. I chose this method because I knew that flyers were already printed and would be distributed to businesses and restaurants in the community, the videos were produced, and radio announcements would also be used during the month. However, from discussions at the Bike Month planning meetings, it seemed as though web-based promotional materials were lacking. Fortunately, I have previous experience in the area. I settled on creating digital infographics, Bike Month daily event posts, and organizing a month-long social media campaign. For the infographics, I used topics that many previous communities focused on when educating the public, such as the health benefits of cycling and the environmental effects of cycling. The Bike Month daily event posts were created essentially to replace a printed form of a flyer and so that members of the community could see what events were happening during the week, or day. Finally, I created a month-long Twitter campaign using the hashtag, #BikeTo\*Location\*. The main purpose was to use community member's (or my own) photos from various locations in the Manhattan community, in order to show how cycling can be a healthy and fun way to get around. In Bike Month's entirety, there were a total of 21 Twitter posts.

The other main activity I performed during Bike Month was continuing to research and develop the Manhattan Bicycle Perception and Awareness Survey to be distributed following all events. The survey development process took several weeks, and I was fortunate enough to use

input and edits from Emma. Once we decided on the final draft of the survey, I then began creating it using the survey software, Qualtrics.

### *Following Bike Month*

After the survey was created and test surveys were taken, I began distributing links. Methods of distribution included primarily emails and social media sites. Fortunately, I had tremendous support and encouragement from community members and organizations such as, the City of Manhattan, The Flint Hills Metropolitan Planning Organization, K-State Recreation Services, Manhattan Women's Group Rides Club, The Pathfinder, Downtown Manhattan Inc., the Bike Manhattan group, and Green Apple Bikes. All of these members and organizations shared and promoted my survey in order to get more results. Additionally, my friends and colleagues at Kansas State, as well as various community members, did their part to spread the word about the survey.

Following 2.5 weeks of survey distribution, results were collected, analyzed, and a final report was created. It should be noted that given there was no comparison, or a pre- and post-assessment for the survey, the strength of conclusions that can be made from the results may be limited and inferences should be avoided. Rather, the results were used to report on the current status of several cycling topics in the community, with the hopes of making improvements for future years to come.

With that said, by using results from the survey, I was able to create a handful of educational flyers titled, 'Manhattan Bicycle Safety Series', in order to better educate the public on bicycle safety topics that were addressed. These were designed with the intent of being used on either the City of Manhattan's website, in printed flyer form, or as digital infographics for upcoming years' Bike Months. The survey results were also shared with both the City of

Manhattan and the Flint Hills Metropolitan Planning Organization for use on city planning projects, Bike Month event planning, and other future projects and programs in the community.

The last activity performed in my field experience project was the final collection of social media analytics from each post from before, during, and after Bike Month. Analytics from the posts will assist in determining the overall impact of social media usage for the promotion of Bike Month.

## **Products Developed**

During the first half of my field experience, a significant portion of my time was spent developing materials and resources to be used to educate the public and promote Bike Month in Manhattan. Starting in February, I began organizing, recruiting, and assisting in the creation of three promotional videos for the City of Manhattan. Although I had a little experience with video production, I learned much more by working with Jace Mills. Furthermore, by working with Jace, I was able to better understand the importance of knowing your target audience beforehand, reaching that target audience, and doing so in the shortest amount of time. All of these things needed to be accomplished in order for our videos to be more effective.

In addition to the videos, I also developed radio scripts to be used during Bike Month. Figure 2 shows the final radio PSA script. This is one product where I did not have any previous experience. After considerable amounts of time researching and writing several drafts, I learned that radio messages need to be tailored differently in order to effectively reach the correct audience. These two promotional materials were vital to the overall project, as well as to Bike Month events in Manhattan.

Following the completion of the videos and radio announcements, I turned my focus to the creation of several digital infographics and posts. The infographics had three purposes: 1) to promote Bike Month events, 2) to educate the public on the health benefits of cycling, and 3) to educate the public on bicycle safety topics. The infographics were used to create social media

posts throughout the month of May and following Bike Month. These are as shown in figures 3 – 23. Social media analytics are shown as appendix 1.

The final product developed in my field experience project was the MHK Bicycle Perception and Awareness Survey; questions are shown in figure 24. The results from the survey are shown as appendix 2. The Manhattan ‘Bicycle Safety Series’ infographics that were developed using the survey results are shown as figures 25 – 27.

In addition to all of the products mentioned, I also sent out several requests for biking images, as well as emails asking for help in sharing the survey in order to reach a larger audience. In conclusion, I was not only able to create materials and resources to be used during this year’s Bike Month, but also in many additional years.

# **MHK Bicycle Perception & Awareness Survey Development and Summary of Findings**

## *Survey Development*

The Manhattan Bicycle Perception and Awareness Survey was created and distributed following Bike Month 2016. The survey was developed using evidence from peer-reviewed literature, as well as examples from previous community, state, and national cycling surveys (The League of American Bicyclists; Schroeder, 2013; City of Mesa, 2015; Corona Insights, 2014). The main purposes of the survey were to (1) assess the public's perception and awareness of several bicycling topics, barriers, and safety issues, and (2) to report on the previous Bike Month programs and events in Manhattan. Therefore, the survey was designed to evaluate what promotional and educational programs that are working well currently, as well as to identify what improvements are needed in the community.

## *Summary of Findings*

(All results from the survey are shown as Appendix 2 at the end of this document).

1. Approximately 13% of respondents identify the bicycle as their primary method of transportation in the Manhattan community.
2. Most residents have a daily commute of less than 15 miles, with 52% of those with a commute of 0-5 miles.
3. Approximately 51% of respondents had ridden a bicycle within the past week, and 17% within the past month.
4. Most cyclists ride for recreation or health/exercise purposes.
5. A majority of cyclists wear a helmet when they ride, and use lights when riding at night.

6. 82% and 77% of respondents stated that more bike friendly trails and more bike-only lanes, respectively, would increase their likelihood of riding or commuting in Manhattan.
7. Many respondents were incorrect, or unsure of, several bicycling and motor vehicle laws of the road.
8. The majority of people were unsure of what a bike sharrow is and whether or not there are any bike sharrows in Manhattan.
9. 60% of respondents were previously aware that May is Bike Month in the community.
10. Approximately 63% of respondents heard about Bike Month from Social Media.
11. Respondents identified more events on the weekends, more family-friendly activities, competitions, and training/education as activities to increase their desire to participate in bike month.

# Figures

**Figure 2 – Radio Public Service Announcements (PSA) Final Script**

*Announcements No. 1-3*

## **Bike Month Radio Public Service Announcements**

### **Announcement No. 1**

**Use:** Beginning of May (prior to Bike to Work Week)

**Length:** ~ 30 seconds (Word Count: 68)

**Title:** Bike to Work Week

**Main Point:** Promotion of Bike to Work Day, focusing on saving gas

"Did you know that a daily 4-mile bike commute to work will save *you* 66 gallons of gas per year?! May 16<sup>th</sup> through the 20<sup>th</sup> is National Bike to Work Week, and May 20<sup>th</sup> is Manhattan's Official Bike to Work Day. Bicyclists have the same rights and responsibilities as other vehicles. Go to [cityofmnhk.com/bikes](http://cityofmnhk.com/bikes) for rules, safety, and ride information, so you can Ride Safe, Ride Happy Manhattan!"

### **Announcement No. 2**

**Use:** Late April (near Bike Month Proclamation)

**Length:** ~ 25 seconds (Word Count: 58)

**Title:** Where will the ride take you?

**Main Point:** General Bike Month Promotion

"Did you know that May is officially Bike Month? Cycling is a safe, healthy, and enjoyable activity. Whether you're riding to work, the grocery store, or on the trails... National Bike Month is a reminder to celebrate the unique power of the bicycle! Visit [cityofmnhk.com/bikes](http://cityofmnhk.com/bikes) to see where the ride can take you. Ride Safe, Ride Happy Manhattan!"

### **Announcement No. 3**

**Use:** Prior to Bike Month Proclamation

**Length:** ~ 25-30 seconds (Word Count: 66)

**Title:** Heart Healthy Commute

**Main Point:** Promotion of Bike Month, focusing on cardiovascular health benefits

"Looking for a way to improve your health but just can't to make it to the gym? Ride your bike to work, school, or even the grocery store to get your heart pumping. Bicycling just 20 miles per week can reduce a woman's risk of heart disease by 50 percent! Go to [cityofmnhk.com/bikemonth](http://cityofmnhk.com/bikemonth) to find Bike Month events and rides this May. Ride Safe, Ride Happy!"



*Announcements No. 4-6*

**Announcement No. 4**

**Use:** Throughout the month of May

**Length:** ~ 30 seconds (Word Count: 61)

**Title:** Bike Safety Tips

**Main Point:** Promoting Bicycle Safety during Bike Month

"Are you biking in Manhattan? Whether you're riding to work, school, or just for fun – remember these safety tips: obey traffic signs and signals, wear a helmet, use lights at night, ride in bicycle lanes if available, and use hand signals when turning. If you're looking for more bike safety skills, check out our website at [cityofmnhk.com/bikes](http://cityofmnhk.com/bikes). Ride safe, Ride Happy!"

**Announcement No. 5**

**Use:** Early May, approximately 1-2 weeks prior to event

**Length:** ~ 25 seconds (Word Count: 52)

**Title:** Progressive Dinner Event

**Main Point:** Progressive Dinner Event Promotion

"May is Bike Month in Manhattan! Plan to join the community celebration by taking part in the Progressive Dinner on Friday, May 20th. This family-friendly bike ride includes stops to eat along the way. To learn more about all the Bike Month events, visit our website at [cityofmnhk.com/bikemonth](http://cityofmnhk.com/bikemonth). Ride safe, Ride Happy!"

**Announcement No. 6**

**Use:** Throughout the month of May

**Length:** ~ 30 seconds (Word Count: 64)

**Title:** Commuting

**Main Point:** Promotion of Bicycle Commuting

"Did you know bicycle commuting burns an average of 540 calories per hour? This May, plan to join the Manhattan community in celebrating Bike Month by switching up your daily commute. Rather than driving your car to work or school, dust off that old bike and start riding! If you'd like to learn more about commuting safely, visit [bikeleague.org/ridesmart](http://bikeleague.org/ridesmart). Ride safe, [ride happy](#) Manhattan!"

## *Announcements No. 7 & 8*

### **Announcement No. 7**

**Use:** Week prior to Bike to School Day, Bike to Work Day

**Length:** ~30 seconds (Word Count: 69)

**Title:** Bike to School, Bike to Work

**Main Point:** Promotion of both events, focusing on health benefits

"80% of bike commuters say they feel healthier and less stressed after their morning commute! You could too! Plan to join the Manhattan community in celebrating National Bike to School Day on Wednesday, May 4<sup>th</sup>, and Bike to Work Day on Friday, May 20<sup>th</sup>! For more information on Bike Month events, as well as safe routes to school, please visit our website at [cityofmnhk.com/bikes](http://cityofmnhk.com/bikes). Ride safe, ride happy Manhattan!"

### **Announcement No. 8**

**Use:** Throughout the Spring/Summer months

**Length:** ~25-30 seconds (Word Count: 59)

**Title:** Vehicle/Bike Safety

**Main Point:** Directed towards motor vehicles

"Did you know that bicycles are legal vehicles that belong on the road? We as motorists have a responsibility to share the road with our fellow cyclists. Remember, leave 3-feet when passing a bike and always use your turning signals. If you're looking for more information on bike laws and safety, visit [cityofmnhk.com/bikes](http://cityofmnhk.com/bikes). Ride safe, and drive safe Manhattan!"

Figure 3 – Social Media Post, May 1st

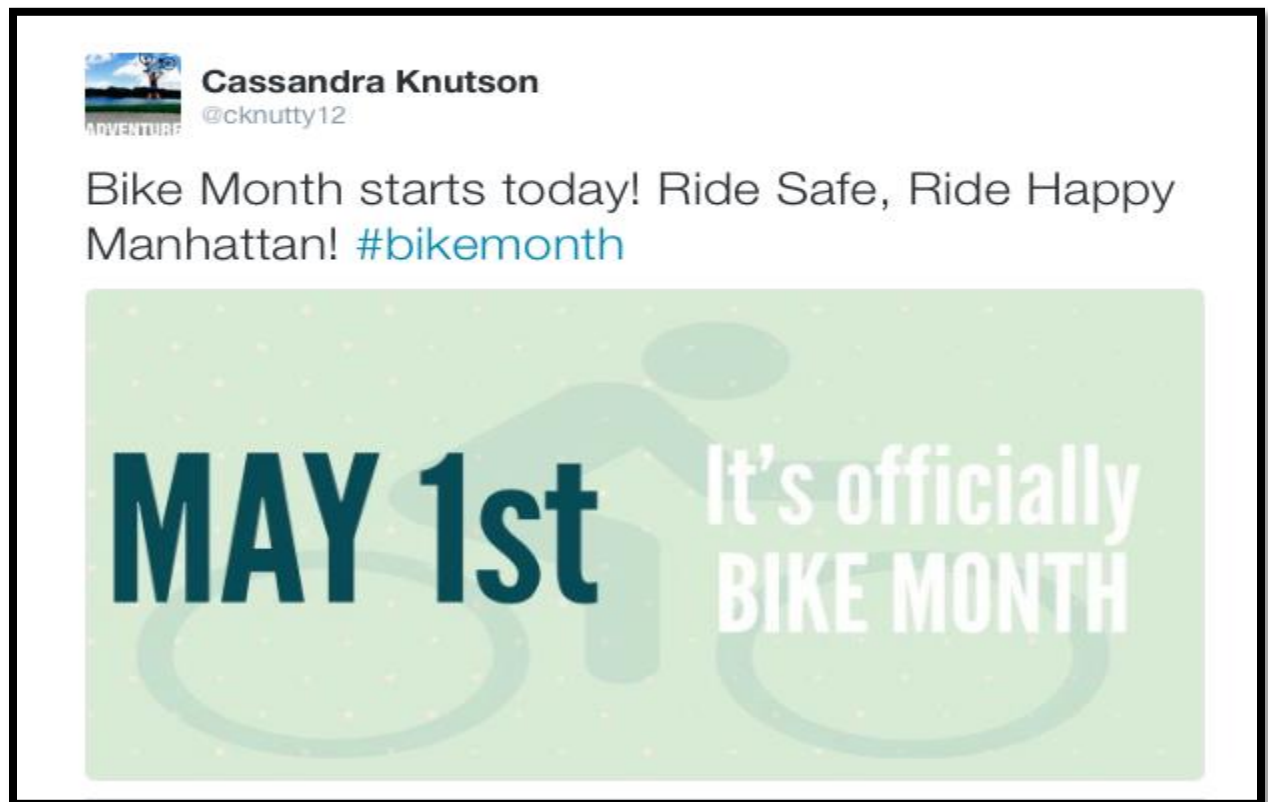




Figure 4 – Social Media Post, Health Benefits of Cycling








**Cassandra Knutson**  
@cknuttty12

Get out and ride during [#BikeMonth](#) in Manhattan. It's good for your health! [#bikemhk](#) [@cityofmhk](#) [@FHMPO](#) [@KStateResExt](#)



## Health Benefits of Cycling

- Increased cardiovascular fitness 
- Decreased stress levels 
- Improved flexibility
- Prevention and management of chronic disease
- Increased muscle strength 
- Reduced anxiety and depression
- Improved bone strength 
- Potential weight loss and reduced body fat
- Improved posture and coordination 
- ... And much more!

Get out and ride during Bike Month! For more information, visit [cityofmhk.com/bikemonth](http://cityofmhk.com/bikemonth)

**Figure 5 – Social Media Post, #BikeToWork**



Photo Courtesy of Dr. Richard Rosenkranz

**Figure 6 – Social Media Post, May 4th**





Figure 7 – Social Media Post, #RideToCicoPark



Photo Courtesy of Evan J. Alderman

**Figure 8 – Social Media Post, #BikeToCampus**



Photo Courtesy of Wendy Schlesener

**Figure 9 – Social Media Post, #RideToParadise**



Photo Courtesy of Manhattan Cycling Community Member



Figure 10 – Social Media Post, May 7th



Figure 11 – Social Media Post, #BikeToBillSnyderStadium



Figure 12 – Social Media Post, #BikeToRec





**Figure 13 – Social Media Post, #BikeToLibrary**



Photo Courtesy of Emma Rearick

Figure 14 – Social Media Post, #BikeToAnneburgPark

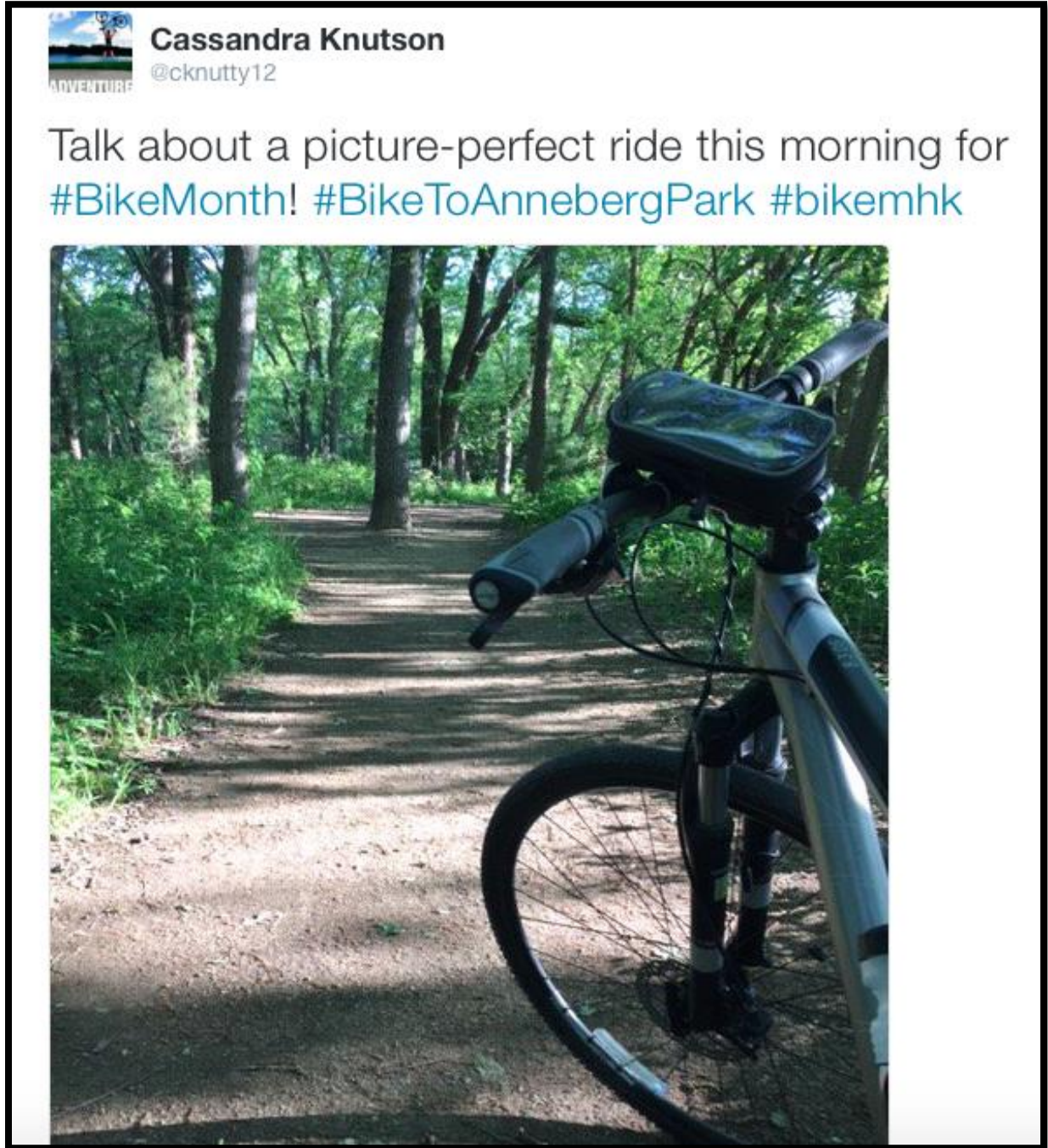


Figure 15 – Social Media Post, May 15th



**Cassandra Knutson**

@cknutt12

#BikeMonth Gravel Ride was this morning. Make sure to send some pictures from your ride!

#bikemhk

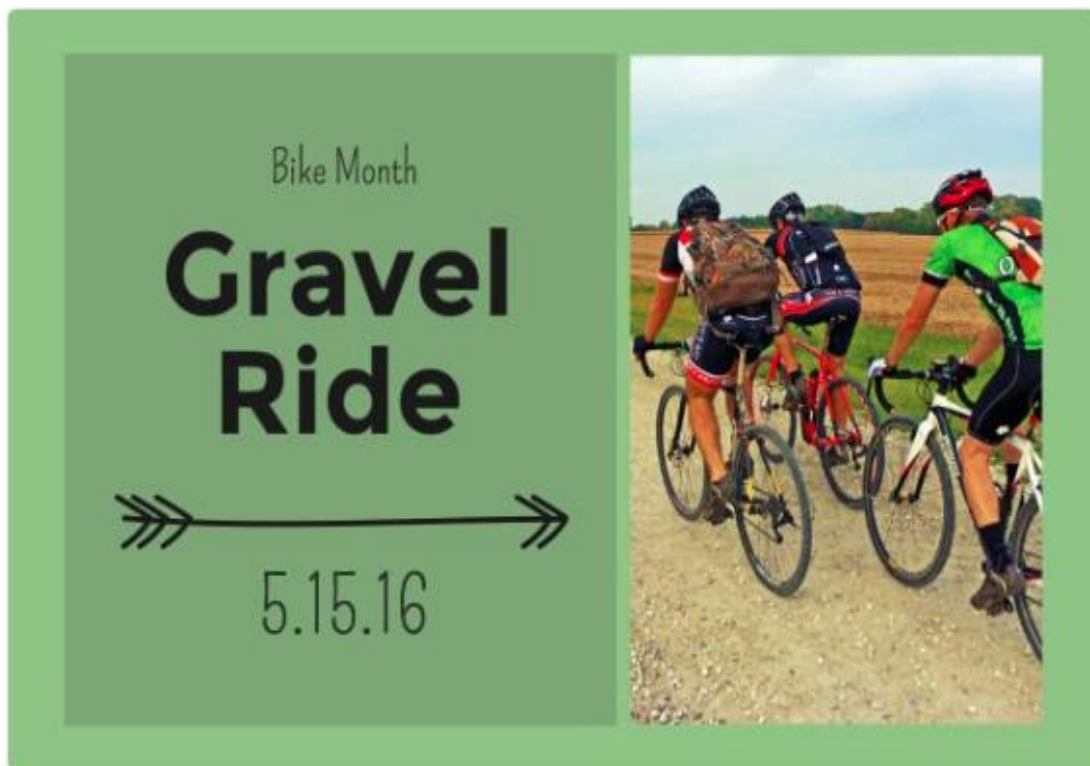




Figure 16 – Social Media Post, Halfway



Figure 17 – Social Media Post, May 20th



**Figure 18 – Social Media Post, #RAGBRAI**



Photo Courtesy of Jeff Knief



Figure 19 – Social Media Post, May 20th



Figure 20 – Social Media Post, May 22nd



**Cassandra Knutson**

@cknuttty12

Check out this [#BikeMonth](#) event today!  
Women's Ride at 1:30, see  
[cityofmhk.com/bikemonth](http://cityofmhk.com/bikemonth) for more details.  
[#bikemhk](#)



Figure 21 – Social Media Post, #BikeToFHDC





Figure 22 – Social Media Post, Biking in Iowa



Figure 23 – Social Media Post, End of Bike Month



**Figure 24 – MHK Bicycle Perception & Awareness Survey Questions**

*Section 1*

**Bicycle Public Perception and Awareness Survey**

*Section 1: Demographic Questions*

1. What is your age?
  - a. < 18 years old
  - b. 19-25 years old
  - c. 26-35 years old
  - d. 36-45 years old
  - e. 46-60 years old
  - f. 60+ years old
2. What is your gender?
  - a. Male
  - b. Female
3. What is the highest level of education you have completed?
  - a. 0-11 years, no diploma
  - b. High school graduate or GED
  - c. Some college, no degree
  - d. Associate's Degree
  - e. Bachelor's Degree
  - f. Graduate Degree
  - g. I prefer not to answer

*Section 2*

*Section 2: Transportation Questions*

4. Do you have access to an automobile for transportation?
  - a. Yes
  - b. No
5. What is your primary mode of transportation?
  - a. Automobile
  - b. Bicycle
  - c. Walking
  - d. Public Transportation (i.e. bus service)
6. Are you responsible for dropping off, or picking up children, at school or daycare?
  - a. Yes
  - b. No
7. Please estimate your daily commute in miles (i.e. to work, school, picking up children, etc.).
  - a. 0-5 miles
  - b. 6-15 miles
  - c. 16-30 miles
  - d. 31-50 miles
  - e. 50+ miles

### Section 3

#### Section 3: Bike-Riding Habits Question

8. When was the last time you rode a bicycle (not including a stationary bike)?
  - a. Within the past week
  - b. Within the past month, but not the past week
  - c. Within the past year, but not the past month
  - d. 1-2 years ago
  - e. 3-5 years ago
  - f. 6 or more years ago
  - g. I have never ridden a bicycle
9. In general, what type of riding do you do? Please select all that apply.
  - a. Primary mode of transportation
  - b. Commuting (to school or work)
  - c. For recreation
  - d. For health and exercise
  - e. Errands around town
  - f. Other:
10. Do you often ride a bicycle in the Manhattan community?
  - a. Yes
  - b. No
11. Which statement best describes why you choose to bike in MHK? Please select all that apply.
  - a. It is the environmentally-responsible thing to do
  - b. It is fun
  - c. It is a healthy activity and a chance for me to get some exercise
  - d. It is relaxing
  - e. It saves money
  - f. It is another way to enjoy the outdoors
  - g. It is the most convenient way for me to get to work (or school)
  - h. I don't own a car
  - i. Other:
12. Do you wear a bicycle helmet when riding?
  - a. Yes
  - b. No
  - c. Sometimes
13. Do you use lights when riding at night?
  - a. Yes
  - b. No
  - c. Sometimes

## Section 4

### *Section 4: Barriers to Bicycling in the Community*

14. In regard to bicycling in the community of Manhattan: Please rate how strongly you agree, or disagree, to each of the factors that may prevent you from bicycling more often.
- a. Scale of strongly disagree, disagree, agree, strongly agree, N/A
  - b. Barriers:
    - i. The convenience of driving to work, school, errands, etc.
    - ii. Worry about road safety (specifically amount of traffic or vehicles on the road).
    - iii. Poor street conditions (i.e. potholes, debris).
    - iv. Not enough lighting on my route.
    - v. Too few bike lanes.
    - vi. Lack of connections (i.e. trails, bike lanes, paths).
    - vii. Too much cargo to take on my bike.
    - viii. Fear of theft or vandalism.
    - ix. Weather (i.e. rain, snow, heat, wind, etc.).
    - x. Too hilly.
    - xi. Must transport children.
    - xii. Can't afford a bike.
15. What options would increase your likelihood of riding, or commuting, in the Manhattan community? Please select all that apply.
- a. More biker friendly trails
  - b. More shared road lanes
  - c. More bike-only lanes
  - d. More bike friendly signage
  - e. Access to bike safety and rules education or training
  - f. Allow bicycles on sidewalks
  - g. Increased traffic enforcement for both vehicle operators and cyclists who do not follow the law
  - h. Other:



## Section 5

### Section 5: Bicycle Safety/Awareness

Please answer questions 15–18 as true, false, or do not know.

16. Bicycles are permitted to ride on the street just as a motor vehicle does. But, roads were designed for cars and cyclists must always ride farthest to the right.
  - a. True
  - b. False
  - c. Do not know
17. Bicycles and motor vehicles have the same rules and laws to follow while operating.
  - a. True
  - b. False
  - c. Do not know
18. Vehicles must pass cyclists with at least a 3-foot distance between them.
  - a. True
  - b. False
  - c. Do not know
19. It is legal for bicycles to be ridden on sidewalks in business districts such as the downtown area, and Aggieville.
  - a. True
  - b. False
  - c. Do not know
20. Are you aware of what a bike sharrow is?
  - a. Yes
  - b. No
21. Do you know of any bike sharrows in the Manhattan area?
  - a. Yes
  - b. No
22. As a cyclist in Manhattan, drivers make me the most nervous about my safety when they: (Please select all that apply).
  - a. Pass me at too close of a distance.
  - b. Fail to slow down for me when the road is narrow and unsafe to pass.
  - c. Drive distracted (texting, or using cell-phone).
  - d. Fail to follow traffic laws.
  - e. Drive too fast.
  - f. Other:

## Section 6

### Section 6: Bike Month Awareness Questions

23. Were you previously aware that May is Bike Month in Manhattan?
- a. Yes
  - b. No
24. How did you hear about Bike Month? Please select all that apply.
- a. Utility bill insert
  - b. Social Media
  - c. Poster or flyer
  - d. Radio advertisement
  - e. City website
  - f. Other:
25. How do you rate your level of knowledge of the services, activities, and information regarding Bike Month in Manhattan?
- a. Rating scale
    - i. 1 (not knowledgeable at all)
    - ii. 5 (very knowledgeable)
26. Are you aware of, or have you ever utilized the city of Manhattan's website ([cityofmnhk.com/bikes](http://cityofmnhk.com/bikes)) to get more information about bicycling in our community?
- a. Yes
  - b. No
27. What type of activities would increase your desire to participate in Bike Month events?
- a. More family-friendly activities
  - b. Competitions (i.e. races, Bike to Work Challenges, etc.)
  - c. Prizes or awards at events
  - d. More scheduled events on weekends
  - e. Training and education on Bike Safety
  - f. Other:

**Figure 25 – Safety Series, Bike Sharrows**

## Bike MHK



Bicycle  
Safety Series

### *What's a Bike Sharrow?*

**Description:**

Bicycle "sharrows", or Shared Lane Markings (SLMs), are road markings used to indicate a shared lane for bicycles and vehicles on the road.

**How do I use it?**

Always ride with traffic. Ride over the markings to position yourself within the lane.

**Remember:**

Obey all traffic signs and signals. Ride your bicycle like the vehicle it is.



## Ride Safe, Ride Happy Manhattan!

Figure 26 – Safety Series, Helmets & Lights

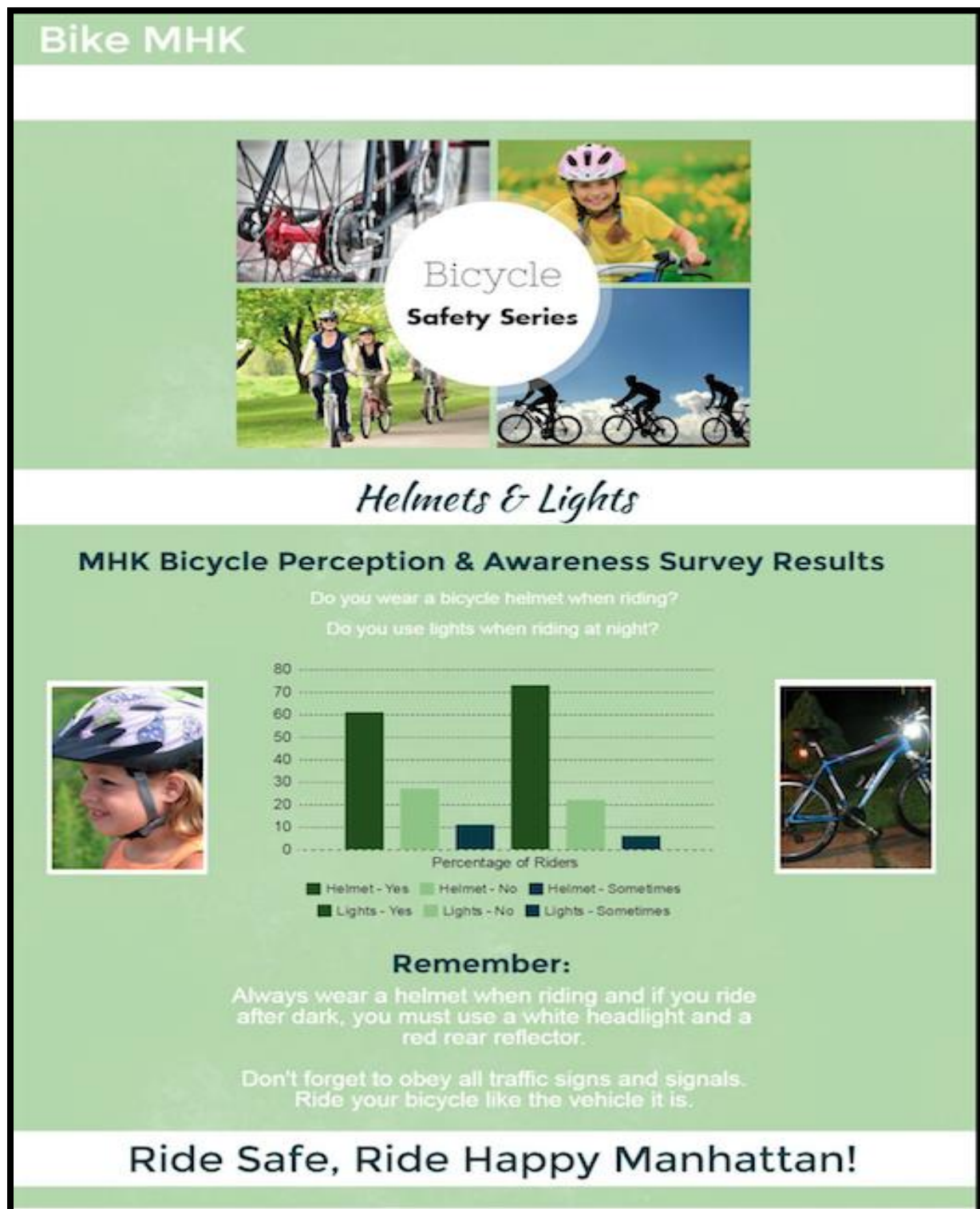


Figure 27 – Safety Series, 3-Foot Pass Law

# Bike MHK



Bicycle  
Safety Series

## *What's the 3-foot passing law?*

### Description:

When motor vehicles pass a bicyclist on the road, they must allow a 'safe distance' between their vehicle and the bicyclist. In Kansas, the minimum required distance between a passing vehicle and a bicycle is 3 feet.



3 Feet to Pass  
**IT'S THE LAW!**

### Remember:

Always ride with traffic. Obey all traffic signs and signals. Ride your bicycle like the vehicle it is.

## Ride Safe, Ride Happy Manhattan!

## **Alignment with Public Health Core Competencies**

Over the duration of my coursework at K-State and my field experience project, I was able to learn about and meet each of the core competencies of public health education.

*Biostatistics:* The first core competency of public health is biostatistics, and I was able to gain valuable knowledge and experience in this area through completing my Biostatistics course and my Regression and Analysis of Variance course, as well as through assisting with research. In our research, and in my field experience project, we utilized several methods to collect and analyze data and information. Furthermore, in my Nutritional Epidemiology class, I learned to critically analyze peer-reviewed evidence to assess research design and statistical measurements. All in all, my statistics knowledge increased considerably as my professors, mentors, and colleagues helped me understand the correct ways to perform data collection and analysis.

*Environmental Health:* The second core competency of public health education is environmental health. I was first exposed to this competency in my Environmental Toxicology class in which I conducted a literature review and research report on arsenic amounts and effects in various fruits. Also, in my Public Health Nutrition course, we touched on several food safety topics and how proper food safety practices can prevent the occurrence of food borne illnesses.

*Epidemiology:* The core competency of epidemiology has been a common theme in many of the courses I have taken at Kansas State, as well as in my research assistant position. Additionally, in my Topics of Human Nutrition course, I used a handful of epidemiological studies in a literature review detailing the primary prevention of cancer in youth and adolescents. These studies allowed me to understand the links between lifestyle behaviors and cancer



outcomes before continuing my review to examine what/if any types of interventions were previously performed in the subject area.

*Health Care Administration:* The fourth core competency is health care administration. Although I was not directly involved with any health services during my time at K-State, I did conduct an interview for my Health Care Administration class with a Manager of Accreditation and Standards for the Commission on Cancer, in the Division of Research and Optimal Patient Care at the American College of Surgeons. In addition to the interview for class, my experience at Riley County Research & Extension allowed me to better understand the importance of how public health professionals, the healthcare industry, and community partners alike contribute to the overall health and well-being of a larger population. Through programs that the extension office runs, as well as other community programs such as Bike Month, this goal was accomplished.

*Social and Behavioral Science:* The final core competency has to do with social and behavioral sciences. In order to complete this competency, one must understand how social and behavioral factors impact the health of both individuals and populations. I accomplished this competency in the following ways: in several of my courses that discussed theories and concepts of human behaviors, my field experience project, and my research assistant position at both the Physical Activity & Nutrition Clinical Research Consortium and the Youth Physical Activity and Nutrition Motivation Lab. In order to be successful in this core competency, I relied on several theories of behavior and lifestyle change in order to assist in the design of interventions to improve the health and wellbeing of target populations.

## **Conclusions**

Throughout my graduate career at Kansas State University, I have established a firm foundation in public health knowledge, research, and application. The education I have gained has been an extremely gratifying, beneficial experience. It has opened my eyes to the importance of public health research, and specifically how research can impact populations as a whole. Additionally, my experiences as a Graduate Research Assistant have taught me that I have a passion for creating environments that support healthy choices to reduce the risk of chronic diseases, as well as for educating and empowering others to facilitate behavior changes that positively affect their overall health and wellbeing. I am eager to translate these passions into practice in my professional public health career. To sum it up, I am genuinely grateful for the opportunities given to me during my graduate career, and for those who mentored me and encouraged me along the way.



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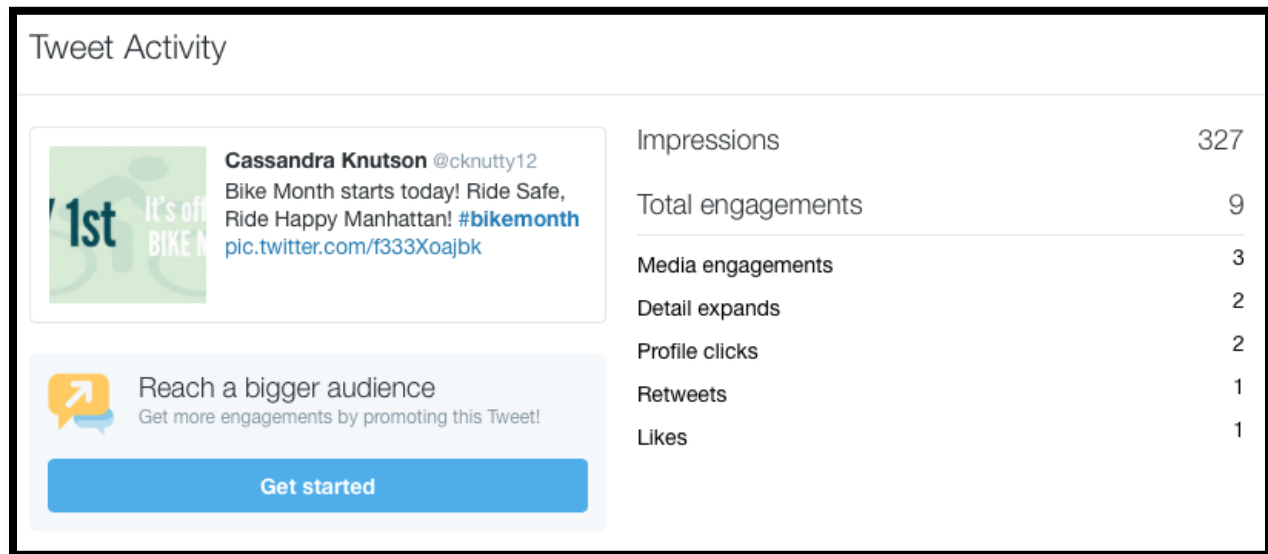
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## Appendix 1 – Social Media Analytics

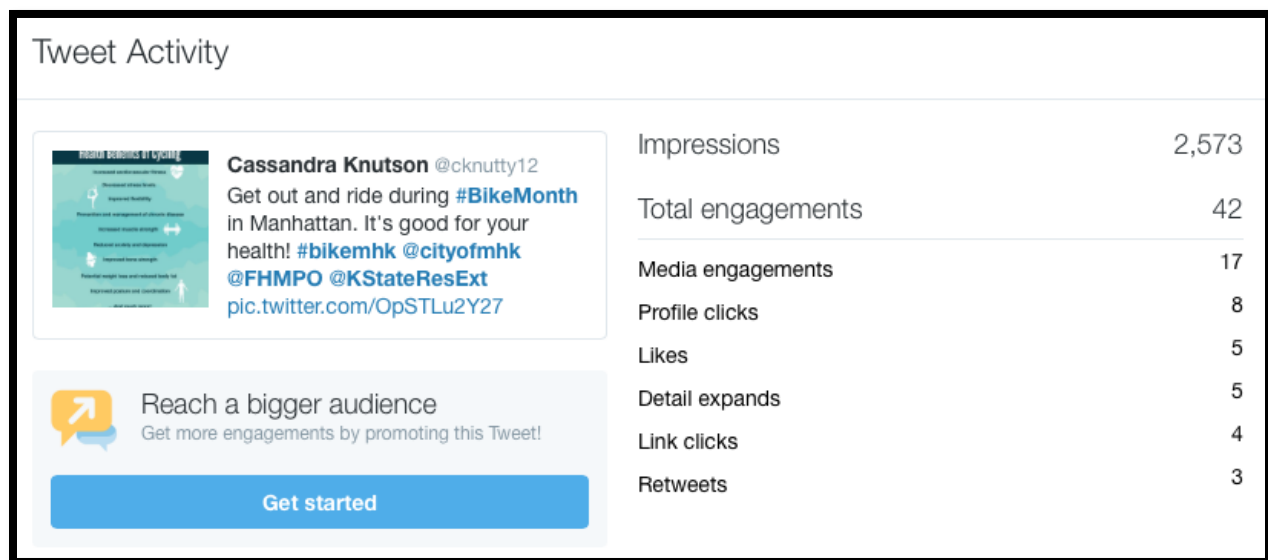
*Table detailing all posts and impressions:*

<b><u>Date</u></b>	<b><u>Event/Topic</u></b>	<b><u>Impressions</u></b>
May 1, 2016	Start of Bike Month	327
May 3, 2016	Health Benefits of Cycling	2,573
May 3, 2016	Ric Tweet, Bike to Work	165
May 4, 2016	Bike to School Day	984
May 5, 2016	Bike to Cico Park	202
May 5, 2016	Wendy, Commuting in MHK	198
May 6, 2016	Bike in Florida	206
May 7, 2016	Bike Sharrow Placement	151
May 8, 2016	Bike to Bill Snyder Stadium	384
May 10, 2016	Bike to the Rec Center	333
May 12, 2016	Bike to MHK Public Library	135
May 13, 2016	Bike to Anneburg Park	228
May 15, 2016	Gravel Ride Event	224
May 17, 2016	Halfway through Bike Month	1,127
May 19, 2016	Bike to Work Day	1,542
May 19, 2016	RAGBRAI	260
May 20, 2016	Bike Month Events	122
May 22, 2016	Women's Ride Event	154
May 24, 2016	Bike to FHDC	148
May 29, 2016	Biking in Iowa	140
June 3, 2016	End of Bike Month	140

*May 1, 2016 – Start of Bike Month Tweet*




*May 3, 2016 – Health Benefits of Cycling Tweet*



*May 3, 2016 – Bike to Work (Ric) Tweet*

### Tweet Activity


**Cassandra Knutson** @cknatty12  
Where will the ride take you Manhattan? [#BikeToWork](#)  
[#BikeMonth](#) [#bikemhk](#)  
<https://twitter.com/trirosenkranz/status/727616518578561024> ...


 Reach a bigger audience  
Get more engagements by promoting this Tweet!  
[Get started](#)

Impressions	165
Total engagements	1
Likes	1

*May 4, 2016 – Bike to School Day Tweet*

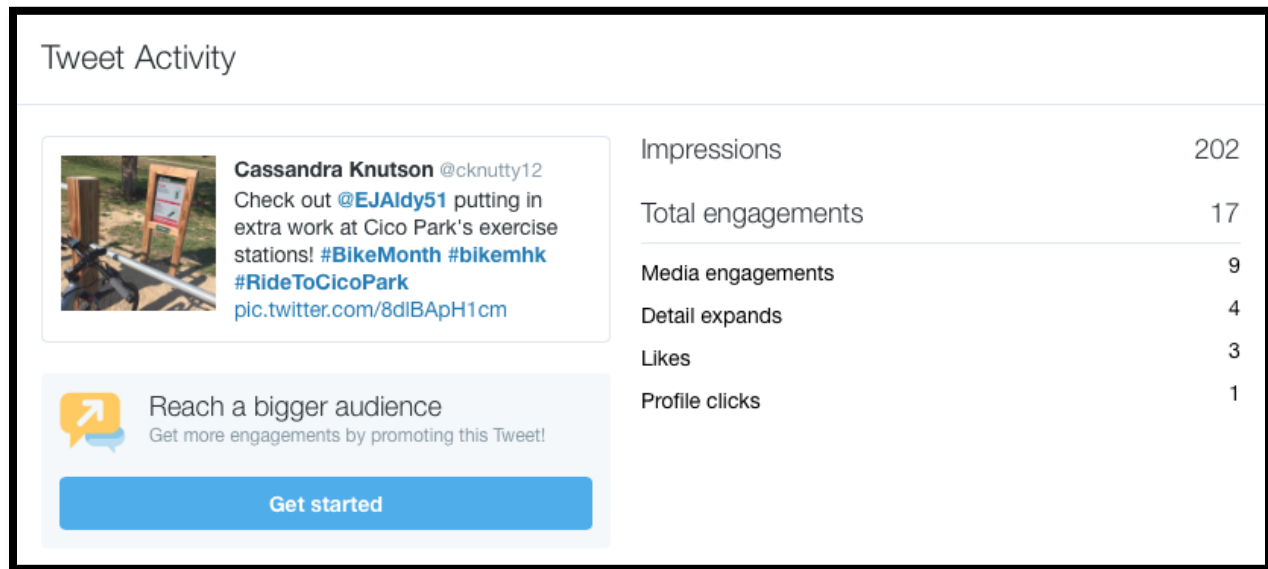
### Tweet Activity

**Cassandra Knutson** @cknatty12  
Happy [#BikeToSchoolDay](#)  
Manhattan! Get out, enjoy the  
weather, and bike with your family!  
[#bikemhk](#) [#BikeMonth](#)  
<pic.twitter.com/s1vGIzddnr>

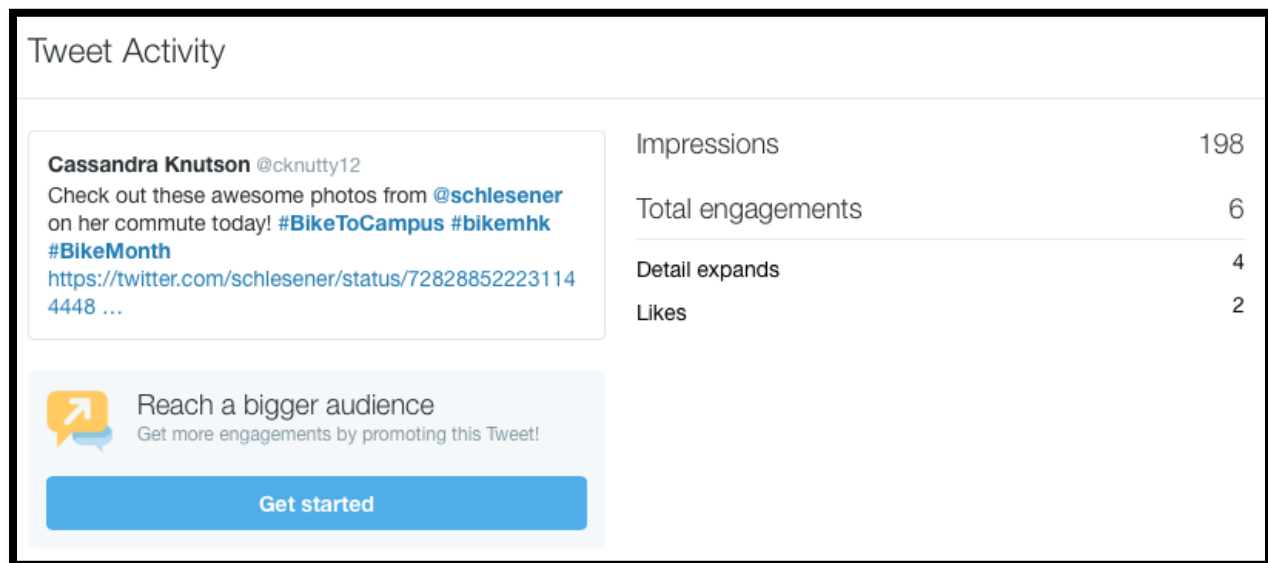
 Reach a bigger audience  
Get more engagements by promoting this Tweet!  
[Get started](#)

Impressions	984
Total engagements	11
Media engagements	5
Retweets	3
Detail expands	2
Profile clicks	1

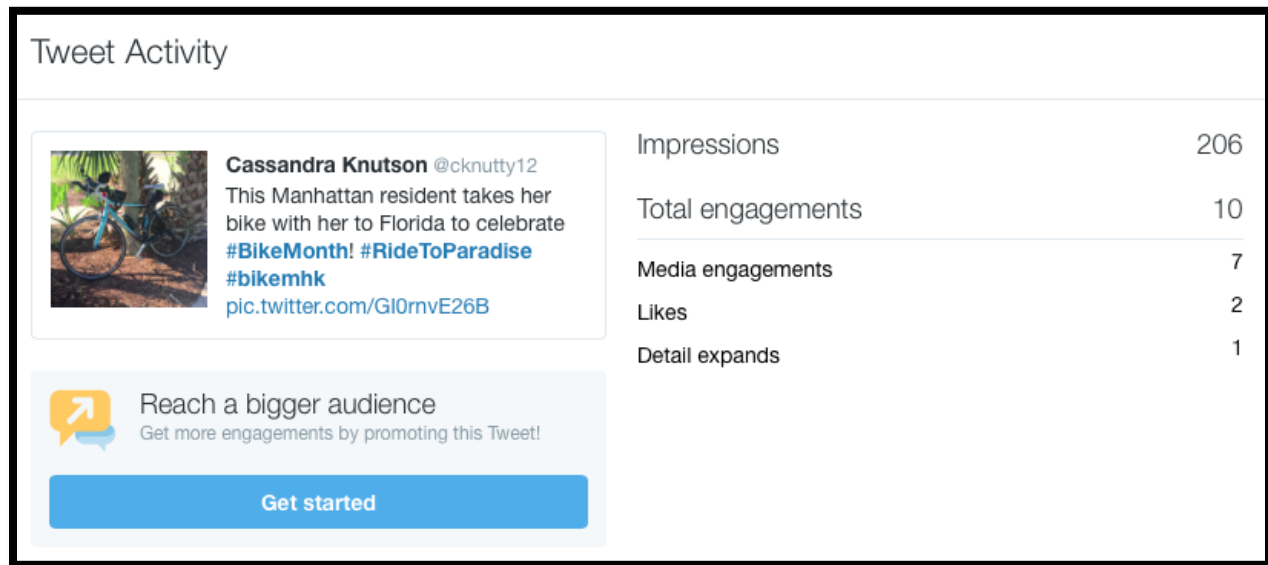
*May 5, 2016 – Bike to Cico Park Tweet*



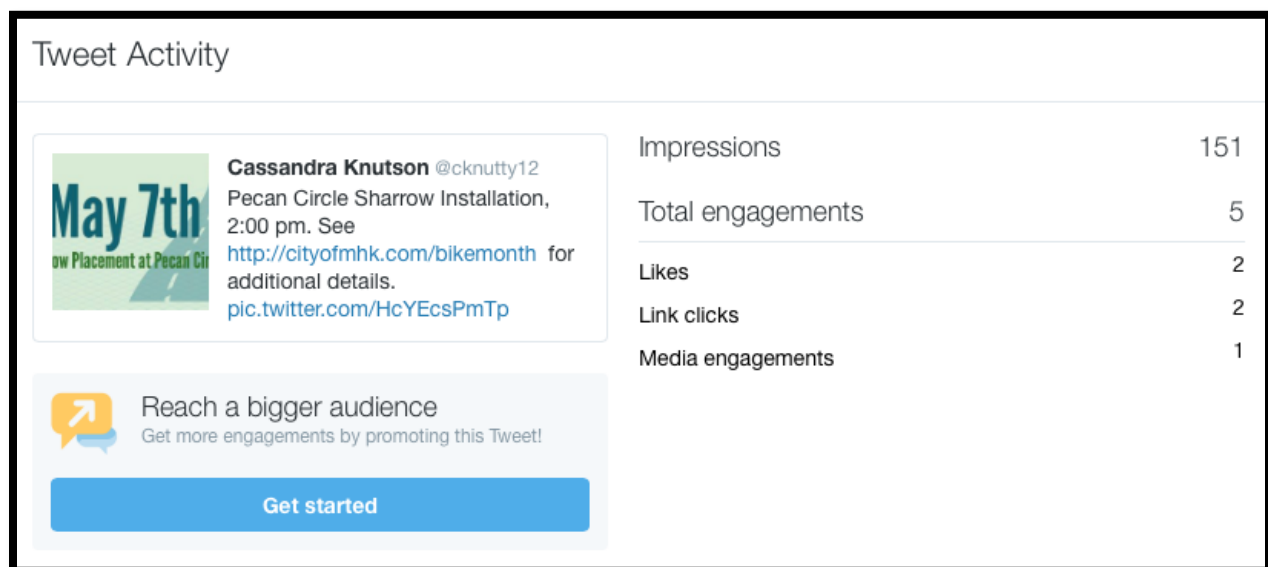
*May 5, 2016 – Bike to Campus Tweet*



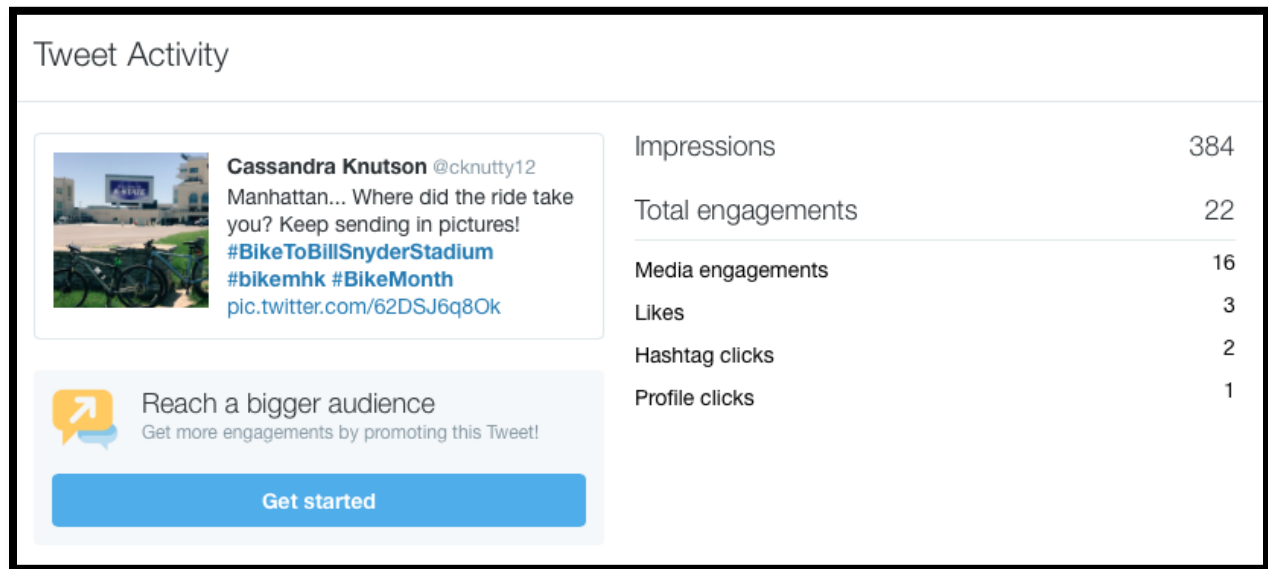
*May 6, 2016 – Biking in Florida Tweet*



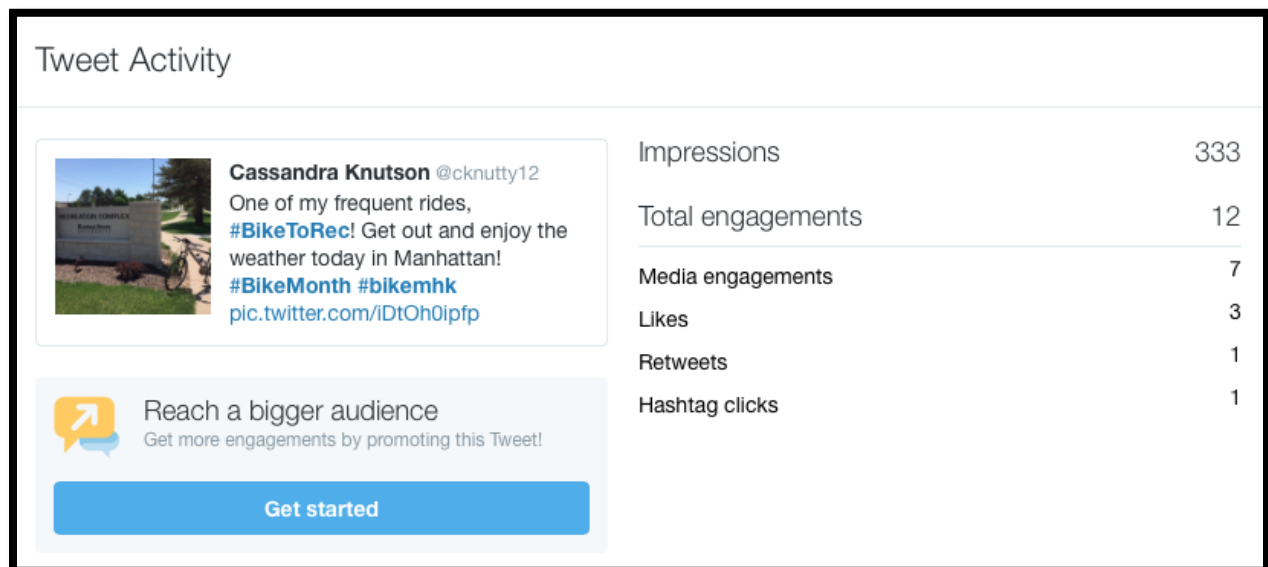
*May 7, 2016 – Bike Sharrow Placement Tweet*



*May 8, 2016 – Bike to Bill Snyder Stadium Tweet*




*May 10, 2016 – Bike to the Rec Center Tweet*






*May 12, 2016 – Bike to Public Library Tweet*

### Tweet Activity



**Cassandra Knutson** @cknutt12  
A little **#TBT** from April's **#BikeMonth** planning meeting.  
**#BikeToLibrary** **#bikemhk**  
[pic.twitter.com/ljhiNI51E0](https://pic.twitter.com/ljhiNI51E0)

Impressions	135
Total engagements	2
Media engagements	2




Reach a bigger audience  
Get more engagements by promoting this Tweet!

Get started


*May 13, 2016 – Bike to Anneburg Park Tweet*

### Tweet Activity



**Cassandra Knutson** @cknutt12  
Talk about a picture-perfect ride this morning for **#BikeMonth**!  
**#BikeToAnneburgPark** **#bikemhk**  
[pic.twitter.com/vSP6xN3ZFY](https://pic.twitter.com/vSP6xN3ZFY)

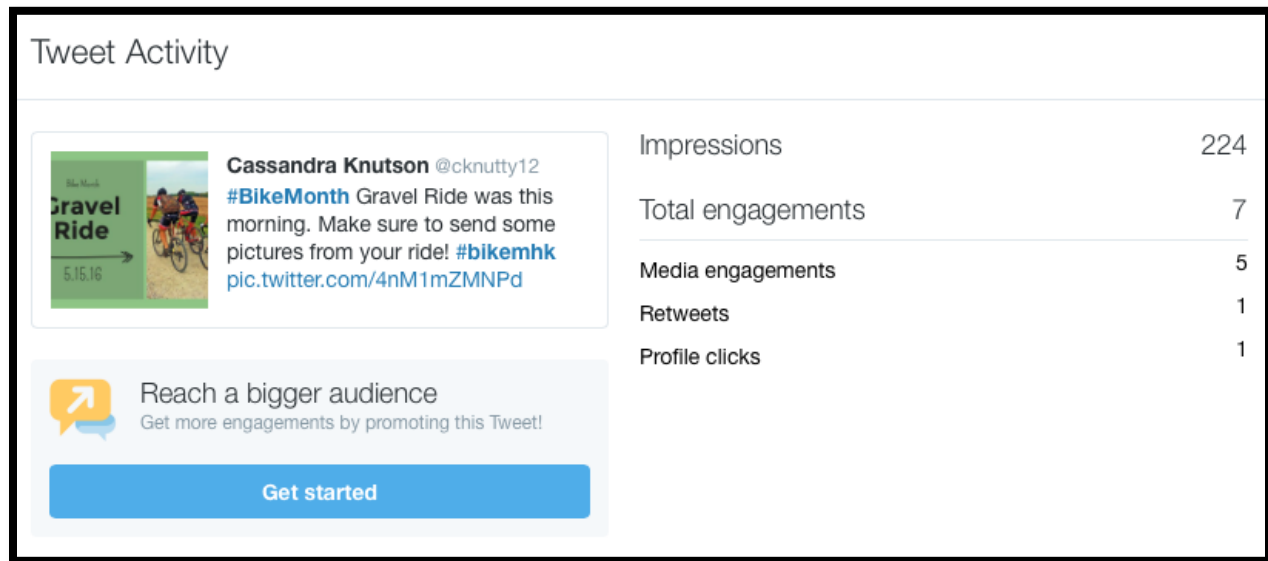
Impressions	228
Total engagements	14
Media engagements	12
Likes	2



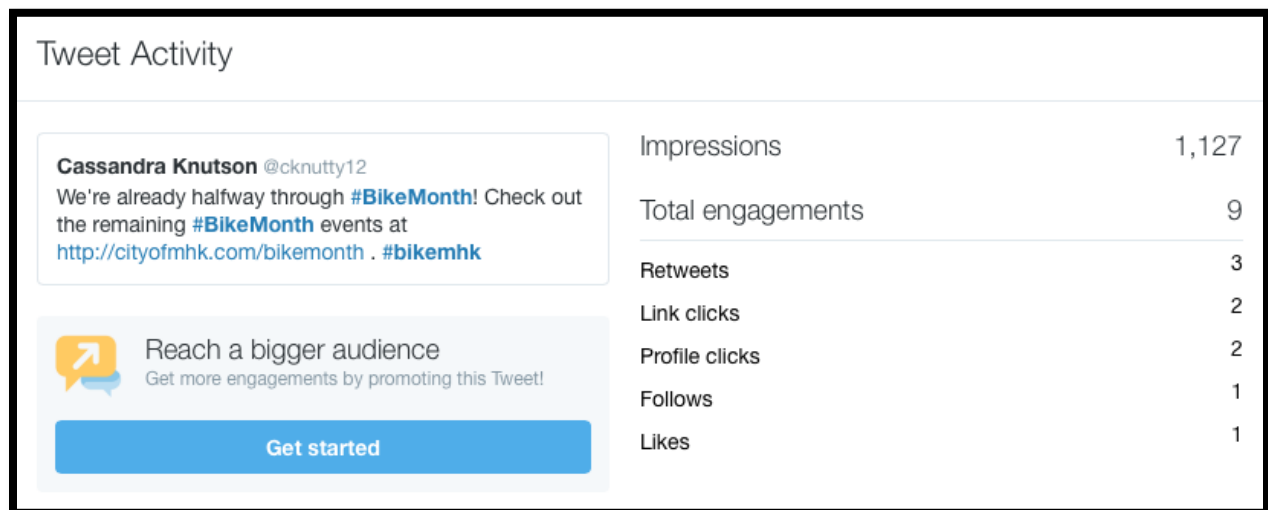
Reach a bigger audience  
Get more engagements by promoting this Tweet!

Get started

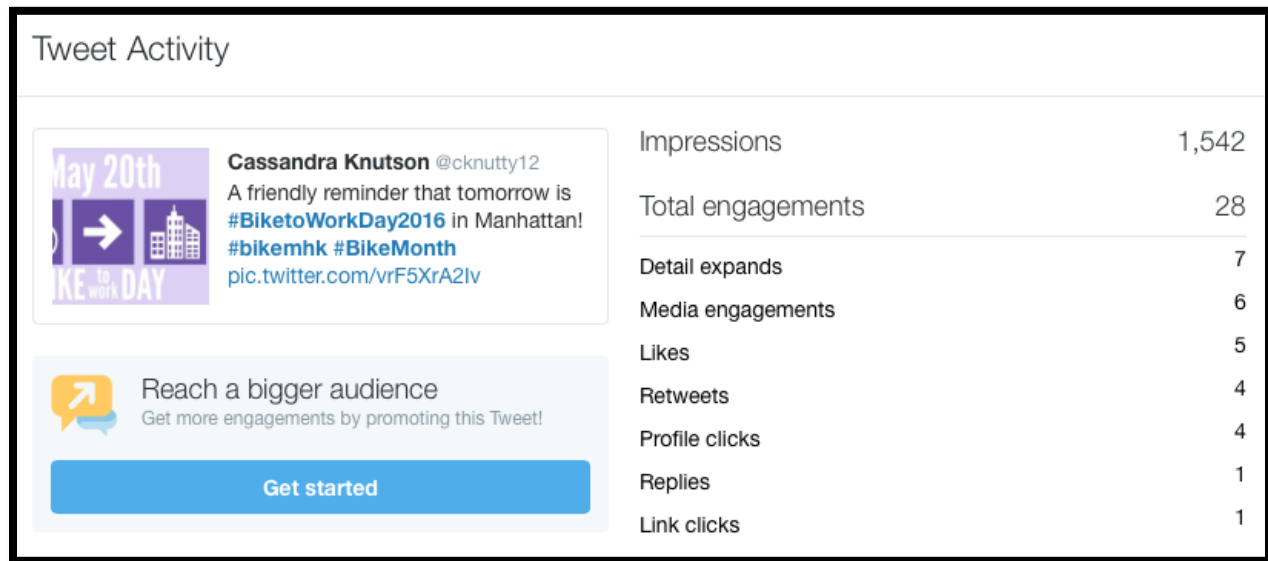
*May 15, 2016 – Gravel Ride Event Tweet*



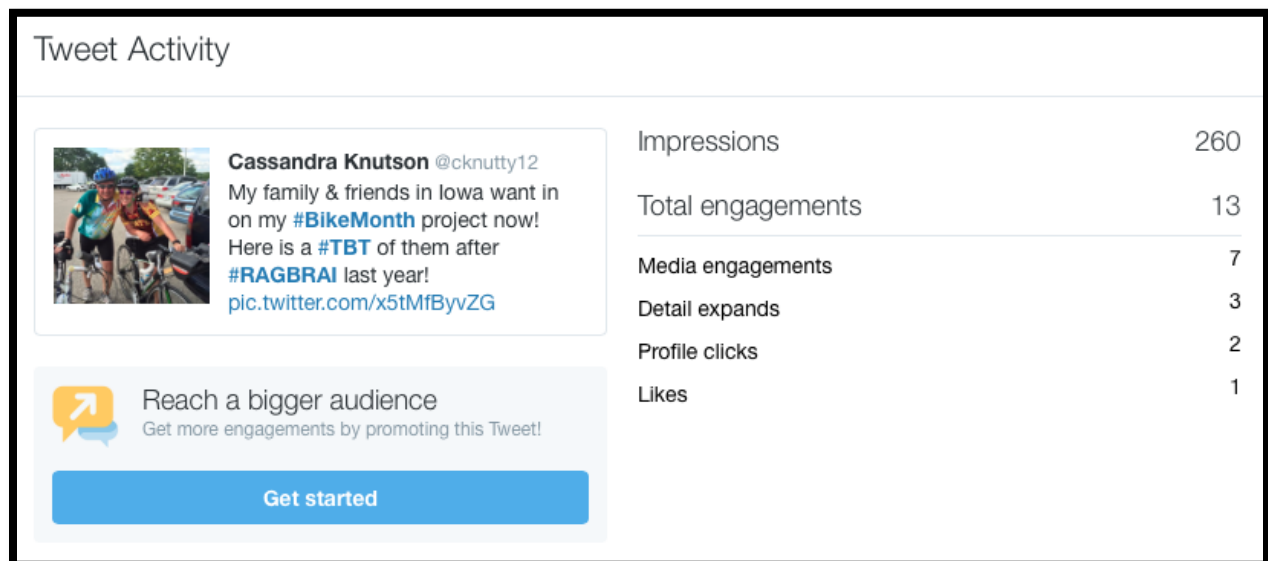
*May 17, 2016 – Halfway through Bike Month Tweet*



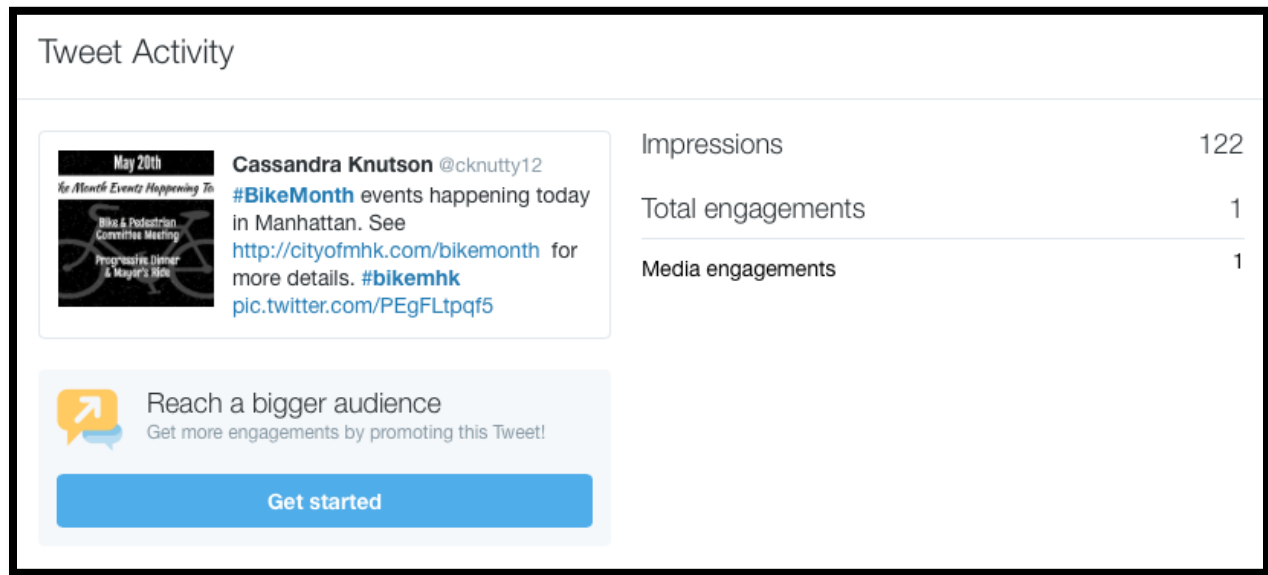
*May 19, 2016 – Bike to Work Tweet*



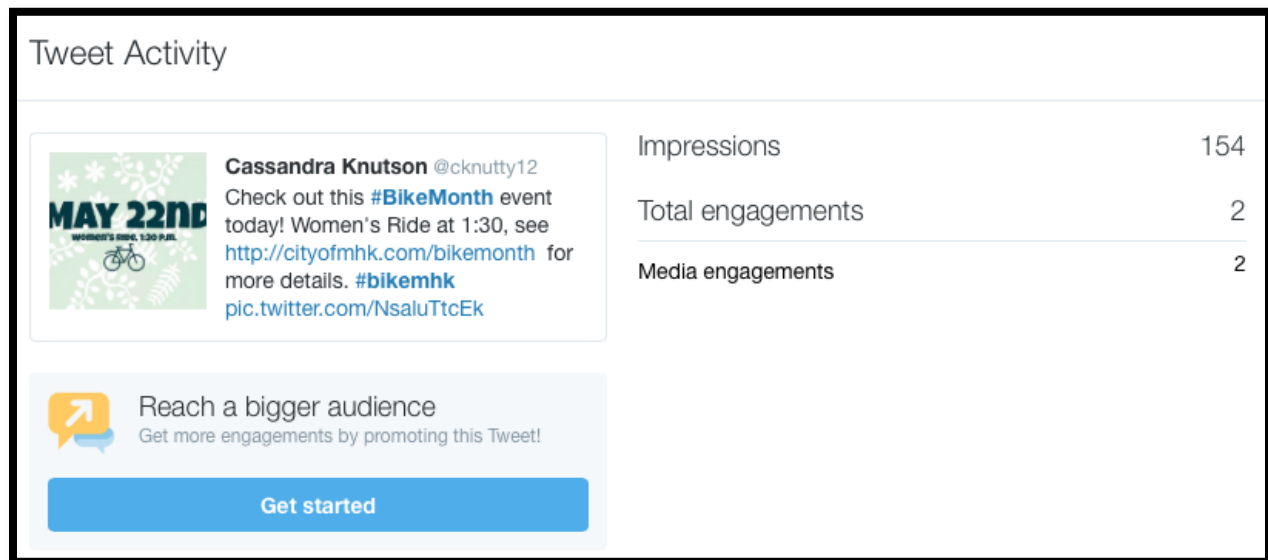
*May 19, 2016 – RAGBRAI Tweet*



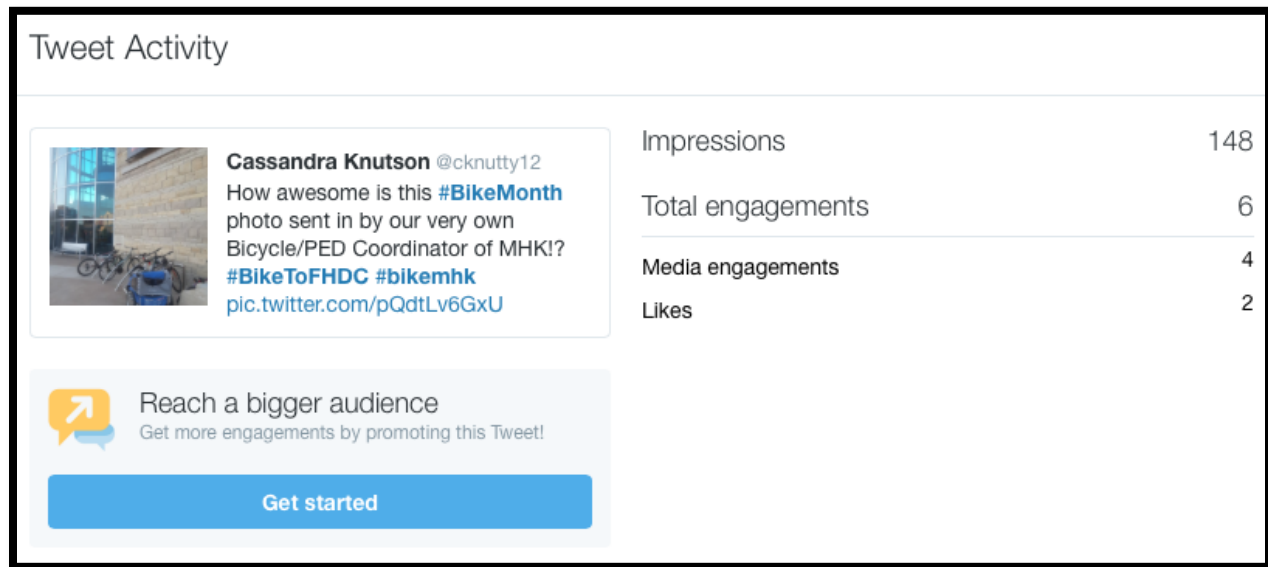
*May 20, 2016 – Bike Month Events Tweet*



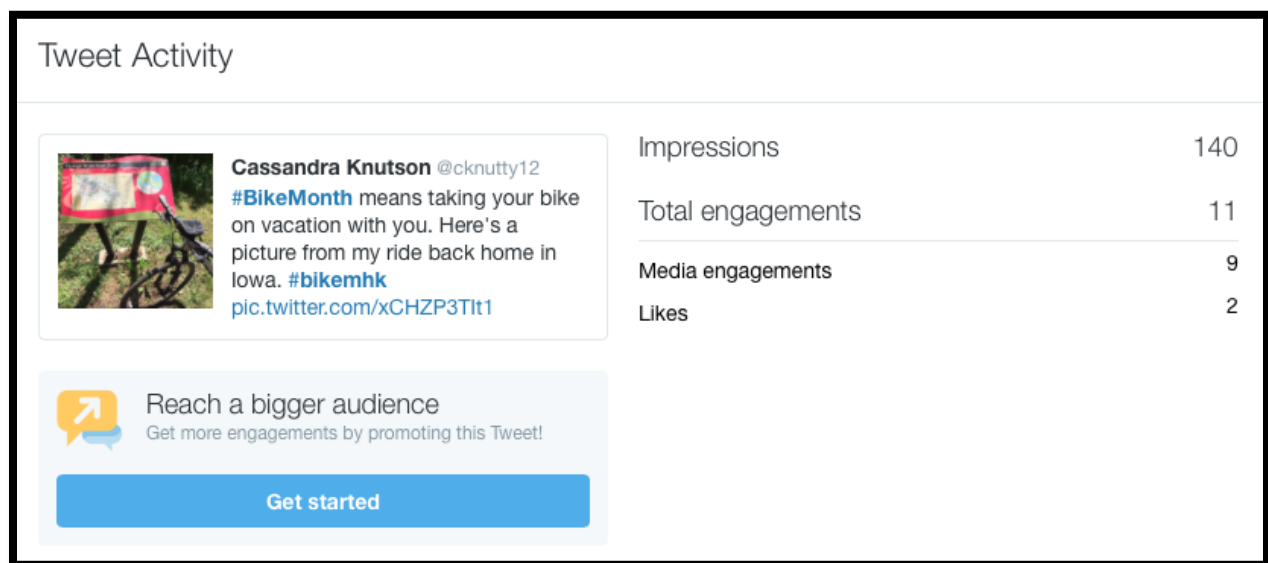
*May 22, 2016 – Women's Ride Event Tweet*



*May 24, 2016 – Bike to Flint Hills Discovery Center Tweet*




*May 29, 2016 – Biking in Iowa Tweet*




*June 3, 2016 – End of Bike Month Tweet*

### Tweet Activity



**Cassandra Knutson** @cknuttty12  
A little late, but I finished  
**#BikeMonth** on a high note!  
**#bikemhk #bikeiowa**  
[pic.twitter.com/ZGLoaG1WA4](https://pic.twitter.com/ZGLoaG1WA4)

Impressions	140
Total engagements	13
Media engagements	10
Likes	3



**Reach a bigger audience**  
Get more engagements by promoting this Tweet!

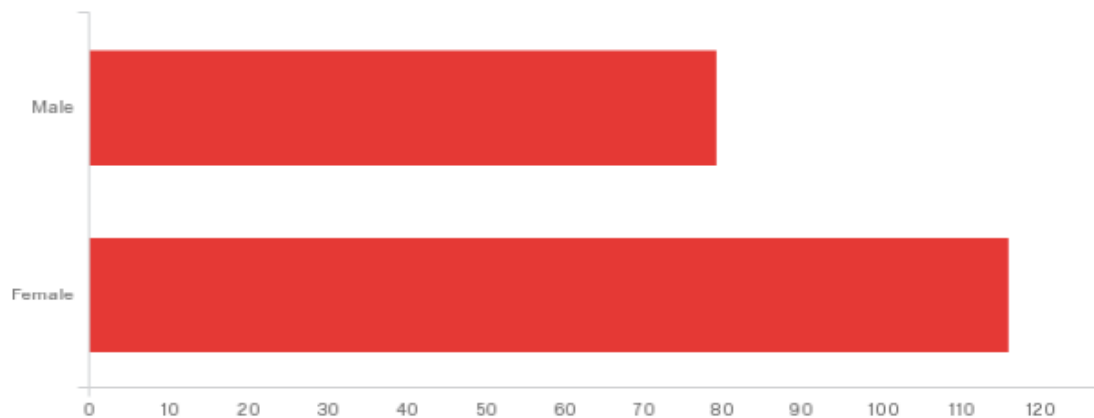
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## Appendix 2 – MHK Bicycle Perception & Awareness Survey Results

### Q1 - What is your age?

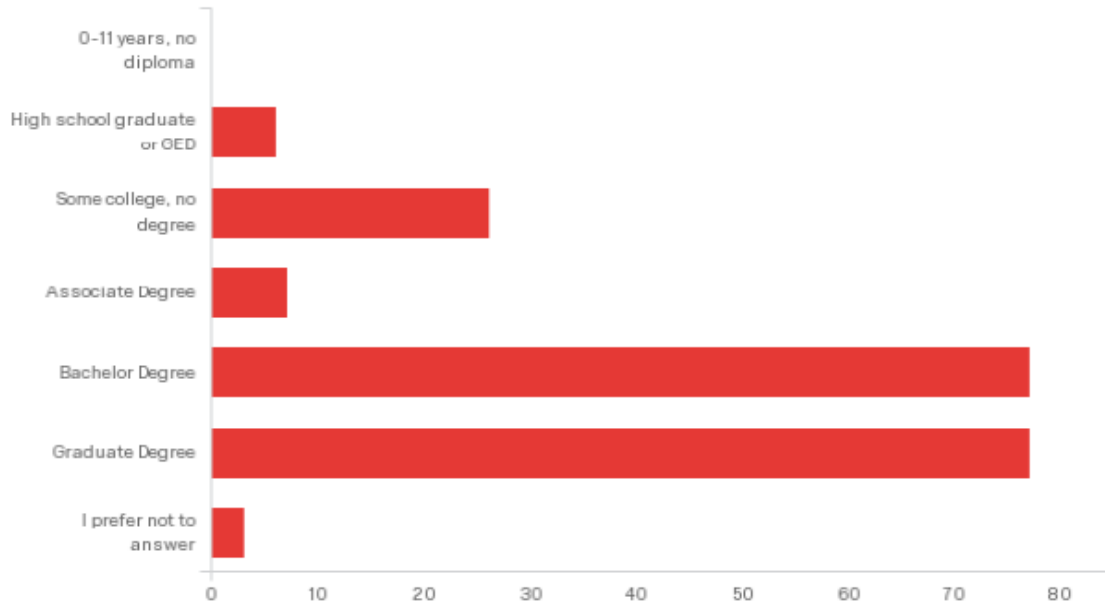
Answer	%	Count
<18 years old	0.00%	0
19-25 years old	15.90%	31
26-35 years old	26.15%	51
36-45 years old	19.49%	38
45-60 years old	24.62%	48
60+ years old	13.85%	27
Total	100%	195

### Q2 - What is your gender?





### Q3 - What is the highest level of education you have completed?



Answer	%	Count
0-11 years, no diploma	0.00%	0
High school graduate or GED	3.06%	6
Some college, no degree	13.27%	26
Associate Degree	3.57%	7
Bachelor Degree	39.29%	77
Graduate Degree	39.29%	77
I prefer not to answer	1.53%	3
Total	100%	196

### Q4 - Do you have access to an automobile for transportation?

Answer	%	Count
Yes	97.92%	188
No	2.08%	4
Total	100%	192

**Q5 - What is your primary method of transportation?**

Answer	%	Count
Automobile	83.51%	162
Bicycle	12.89%	25
Walking	3.09%	6
Public Transportation Service (i.e. bus, taxi)	0.00%	0
Other:	0.52%	1
Total	100%	194

**Q6 - Are you responsible for dropping off, or picking up, children at school or daycare?**

Answer	%	Count
Yes	28.35%	55
No	71.65%	139
Total	100%	194

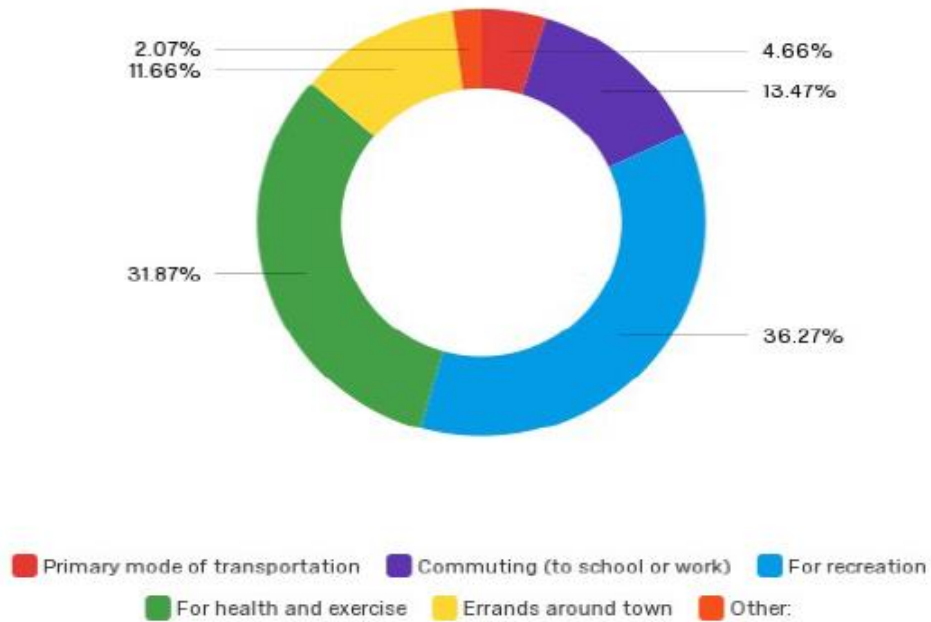
**Q7 - Please estimate your daily commute in miles (i.e. to work, school, picking up children, etc.).**

Answer	%	Count
0-5 miles	52.33%	101
6-15 miles	29.53%	57
16-30 miles	10.88%	21
31-50 miles	4.15%	8
50+ miles	3.11%	6
Total	100%	193

### Q8 - When was the last time you rode a bicycle (not including a stationary bike)?

Answer	%	Count
Within the past week	51.09%	94
Within the past month, but not the past week	16.85%	31
Within the past year, but not the past month	14.13%	26
1-2 years ago	5.43%	10
3-5 years ago	4.89%	9
6 or more years ago	7.07%	13
I have never ridden a bicycle	0.54%	1
Total	100%	184

Q9 - In general, what type of riding do you do? Please select all that apply.



Answer	%	Count
Primary mode of transportation	10.23%	18
Commuting (to school or work)	29.55%	52
For recreation	79.55%	140
For health and exercise	69.89%	123
Errands around town	25.57%	45
Other:	4.55%	8

Q10 - Do you often ride a bicycle in the Manhattan community?

Answer	%	Count
Yes	61.54%	112
No	38.46%	70
Total	100%	182

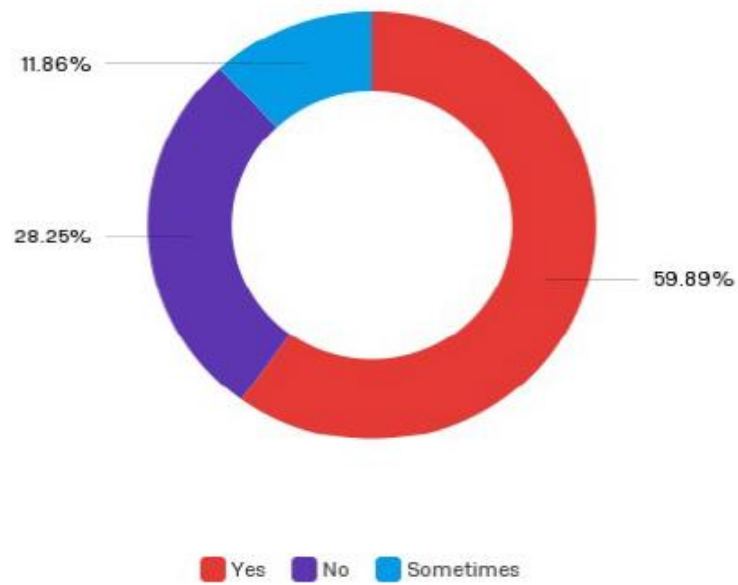
**Q11 - Which statement best describes why you choose to bike in Manhattan? Please select all that apply.**

Answer	%	Count
It is the environmentally-responsible thing to do	37.06%	63
It is fun	58.82%	100
It is a healthy activity and a chance for me to get some exercise	80.59%	137
It is relaxing	58.82%	100
It saves money	38.82%	66
It is another way to enjoy the outdoors	71.76%	122
It is the most convenient way for me to get to work (or school)	17.65%	30
I do not own a vehicle	2.35%	4
Other:	7.06%	12

Other:

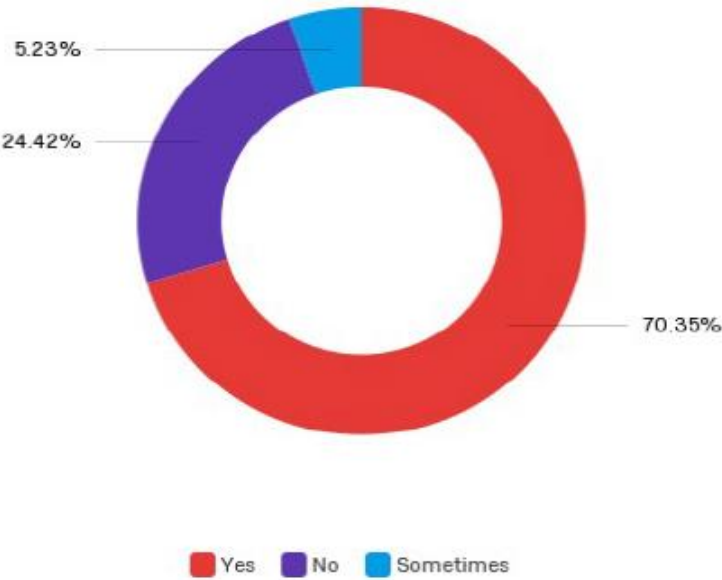
Other:
I don't
camaraderie with other bikers
Dont live in manhattan
Personal philosophy - Good for mind, body, and soul. It also helps cut down of fossil fuel usage. less stress on already bad roads
Did I mention it's fun?
Live and work outside of city limits
See Q10
I don't bike, because I found it too dangerous in this town.
Like to ride with other cyclists.

### Q12 - Do you wear a bicycle helmet when riding?



Answer	%	Count
Yes	59.89%	106
No	28.25%	50
Sometimes	11.86%	21
Total	100%	177

Q13 - Do you use lights when riding at night?



Answer	%	Count
Yes	70.35%	121
No	24.42%	42
Sometimes	5.23%	9
Total	100%	172



**Q14 - In regard to bicycling in the Manhattan community, please rate how strongly you agree, or disagree, to each of the following factors that may prevent you from bicycling more often.**

Question	Strongly agree		Some what agree		Neither agree nor disagree		Some what disagree		Strongly disagree		Total
The convenience of driving to work, school, errands, etc.	25.75 %	43	28.74 %	48	20.96 %	35	15.57 %	26	8.98%	15	167
Worry about road safety (specifically the amount of traffic or vehicles on...	50.89 %	86	31.36 %	53	7.10%	12	7.69%	13	2.96%	5	169
Poor street conditions (i.e. potholes, debris)	21.69 %	36	40.96 %	68	22.29 %	37	10.24 %	17	4.82%	8	166
Not enough	15.48 %	26	25.00 %	42	38.69 %	65	13.69 %	23	7.14%	12	168

h lightin g on my route											
Too few bike lanes	52.38 %	88	27.38 %	46	11.31 %	19	4.76%	8	4.17%	7	168
Lack of connec tions (i.e. trails, bike lanes, paths)	56.29 %	94	23.95 %	40	8.38%	14	8.38%	14	2.99%	5	167
Too much cargo to take on my bike	11.83 %	20	27.22 %	46	29.59 %	50	16.57 %	28	14.79 %	25	169
Fear of theft or vandali sm	5.33%	9	20.71 %	35	30.18 %	51	27.22 %	46	16.57 %	28	169
Weath er (i.e. rain, snow, heat, wind)	16.07 %	27	39.88 %	67	33.33 %	56	7.14%	12	3.57%	6	168
Too hilly	6.59%	11	16.17 %	27	35.93 %	60	22.16 %	37	19.16 %	32	167
Must transp ort childre n	14.02 %	23	7.93%	13	30.49 %	50	7.93%	13	39.63 %	65	164
Cannot afford a bicycle	1.20%	2	0.60%	1	22.29 %	37	15.06 %	25	60.84 %	101	166

**Q15 - What options would increase your likelihood of riding, or commuting, in the Manhattan community? Please select all that apply.**

Answer	%	Count
More bike friendly trails	82.04%	137
More shared road lanes	53.89%	90
More bike-only lanes	77.25%	129
More bike friendly signage	43.71%	73
Access to bike safety and rules education, or training	22.16%	37
Allow bicycles on sidewalks	31.74%	53
Increased traffic enforcement for both vehicle operators and cyclists who do not follow the law	47.31%	79
Other:	11.38%	19

Other:

Other:

there needs to be more barriers between cars and bikes.

Main limits are cargo and weather, but two very important road links would help a LOT.

More trails!

Time for riding

Space for bikes with trailers behind with kids

time off

Greater allowances to feed cyclists to my T-Rex.

Clean bike lanes. I avoid the lanes because they are often full of debris and in worse condition than the street

A way to get out of my neighborhood without riding up that big hill first.

bike lanes \*not\* on major through streets

shower at work :P

Make sure connection network for cycling around town is complete!

More infrastructure would be nice but it doesn't keep me from my recreational/exercise biking

**Q16 - Please answer the following question as true, false, or do not know: Bicycles are permitted to ride on the street just as a motor vehicle does. But, roads were designed for cars, and cyclists must always ride the farthest to the right.**

Answer	%	Count
True	49.70%	84
False	40.24%	68
Do not know	10.06%	17
Total	100%	169

**Q17 - Please answer the following question as true, false, or do not know: Bicycles and motor vehicles have the same rules and laws to follow while operating.**

Answer	%	Count
True	86.47%	147
False	7.06%	12
Do not know	6.47%	11
Total	100%	170

**Q18 - Please answer the following question as true, false, or do not know: Vehicles must pass cyclists with at least a 3-foot distance between them.**

Answer	%	Count
True	80.00%	136
False	1.76%	3
Do not know	18.24%	31
Total	100%	170

**Q19 - Please answer the following question as true, false, or do not know: It is legal for bicycles to be ridden on sidewalks in business districts, such as the downtown area and Aggieville.**

Answer	%	Count
True	11.24%	19
False	73.96%	125
Do not know	14.79%	25
Total	100%	169

**Q20 - Are you aware of what a bike sharrow is?**

Answer	%	Count
Yes	43.79%	74
No	56.21%	95
Total	100%	169

**Q21 - Do you know of any bike sharrows in the Manhattan area?**

Answer	%	Count
Yes	44.91%	75
No	55.09%	92
Total	100%	167

**Q22 - As a cyclist in Manhattan, drivers make me the most nervous about my safety when they: (Please select all that apply).**

Answer	%	Count
Pass me at too close of a distance	80.25%	130
Fail to slow down for me when the road is narrow and unsafe to pass	69.75%	113
Drive distracted (i.e. texting, or using cell-phone)	86.42%	140
Fail to follow traffic laws	66.67%	108
Drive too fast	64.81%	105
Other:	16.67%	27

Other:

Other:

turn right without looking

The road conditions are so poor that it is often difficult for bikes to ride on the sides of roads.

are only looking for other vehicles (not bikes) before proceeding

Flip me off, cuss at me, attempt to run me over with intent to harm

I hate it when drivers stop in the middle of the road when I am at a stop sign and they have a through-way right of way. They think they are doing me a favor but are actually putting everyone at risk by breaking proper traffic flow.

Fail to give me room at intersections/fail to heed yield signs.

Put their hurry ahead of my safety and forgot I'm a person who is not encased safely in a vehicle

purposely harrass me, about weekly on Dickens Ave.

when I cannot go as fast as the speed limit

Get angry at me for being on the road.

Why would I be nervous when riding my T-Rex?

Swerve and curse at me

Hover behind me instead of passing safely

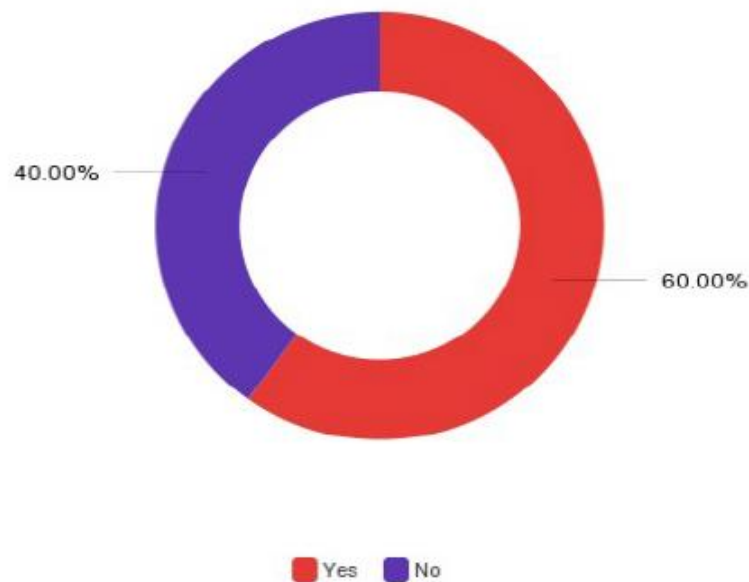
fail to use turn indicators

Honk or make obscene gestures

Often, oddly enough, they're too nice to me and don't take the right-of-way when it is theirs.

Take right turn in front just after passing (e.g. at Sunset Ave from Claflin)
Road rage against bicycles
Follow me slowly for a long time before passing
Don't make eye contact
Swerving at cyclists
almost hit my head with wide side mirrors
Try to run me off the road. Ignore that I'm even on the road.
Follow too closely
Don't expect me to follow the rules or don't check for cyclist before pulling out.

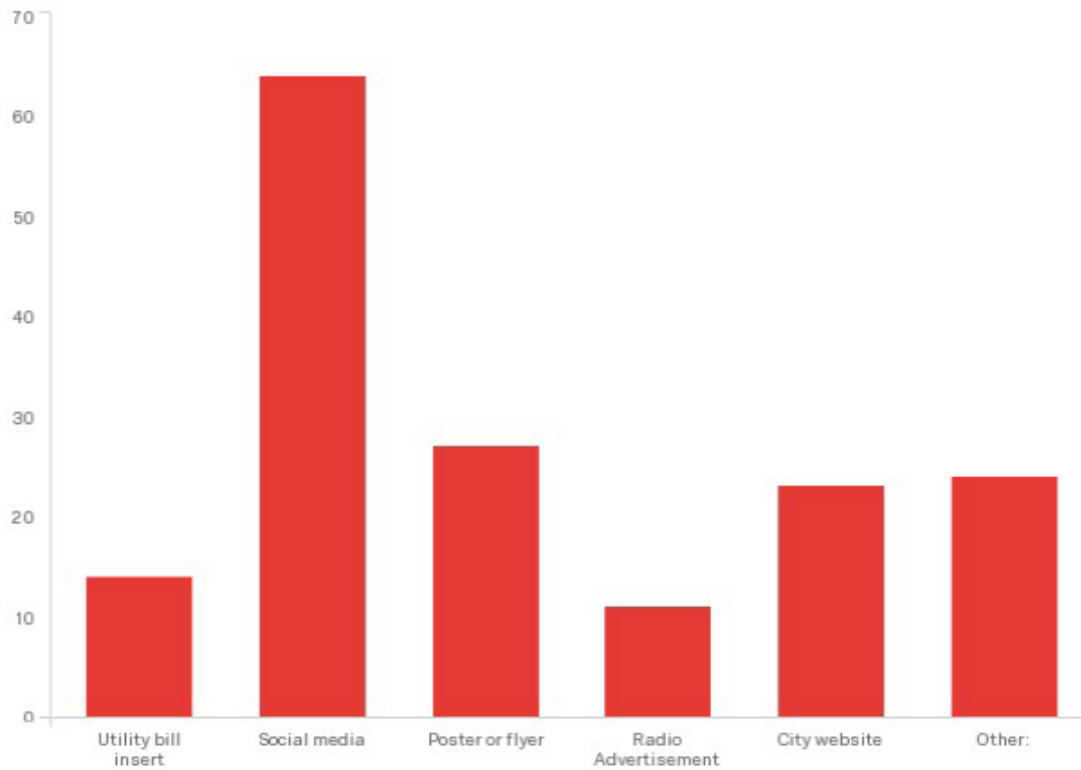
**Q23 - Were you previously aware that May is Bike Month in Manhattan?**



Answer	%	Count
Yes	60.00%	102
No	40.00%	68
Total	100%	170



**Q29 - How did you hear about Bike Month? Please select all that apply.**



Answer	%	Count
Utility bill insert	13.86%	14
Social media	63.37%	64
Poster or flyer	26.73%	27
Radio Advertisement	10.89%	11
City website	22.77%	23
Other:	23.76%	24

Other:

Other:

I lived in other cities that recognized May with cycling events.

Bike friend died in a distracted Driver accident
Member of advisory board
Twitter, Facebook
Aggieville Employee - Word of Mouth
Pathfinder
bike friends
Word of mouth
Cycling community
I don't recall
BikePex
email
table at event
Bike Manhattan updates
Friends
Pathfinder & friends
Women's bike Facebook group
friend
I helped create it in Manhattan
Work in the transportation sector
email from a colleague
Organizer

**Q24 - How do you rate your level of knowledge of the services, activities, and information regarding Bike Month in Manhattan? (1 being not knowledgeable at all, 5 being very knowledgeable)**

Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
Rate your knowledge	0.00	5.00	2.45	1.62	2.61	158

**Q25 - Are you aware of, or have you ever utilized the City of Manhattan's website ([www.cityofmhk.com/bikes](http://www.cityofmhk.com/bikes)) to get more information about bicycling in the community?**

Answer	%	Count
Yes	45.24%	76
No	54.76%	92
Total	100%	168

**Q26 - What type of activities, or offerings, would increase your desire to participate in Bike Month ev...**

Answer	%	Count
More family-friendly activities	42.86%	60
Competitions (i.e. races, Bike to Work challenges, etc.)	35.00%	49
Prizes or awards at events	18.57%	26
More events on the weekends	56.43%	79
Training and education on Bike Safety	35.71%	50
Other:	15.71%	22

Other:

Other:

Bike ride with short, med and long ride like the CASA ride used to be. This would in prep for Biking Across KS

Bicycle Benfits program

Rides that raise awareness of the need for more bike infrastructure (protected lanes, protected intersections, etc. training for motorists

Off road competitions

none

Shouldn't you know by now I refuse bicycles because my T-Rex is more awesome?

Training for auto drivers - NOBODY knows what sharrows mean, e.g.

Safer places to ride

General encouragement
Organized road rides. I miss CASA and Pasta 58.
Better info on the details of an event
no change likely
More Trails
Information on when they are.
Better marketing and information sharing