

Bike Share in Minneapolis

"[Grants are] where all the North Minneapolis [Nice Rides] came from. Then we worked a lot with the insurance folks about what they required because they anticipated so many bikes would be stolen."

- Former Minneapolis Mayor R.T. Rybak

Project Overview

This project was inspired by a chapter in Melody Hoffman’s recent book, *Bike Lanes are White Lanes*. In the chapter, Dr. Hoffman examines the NiceRide bike share program in the Twin Cities. Through interviews with the former (and extremely popular) mayor, R.T. Rybak, community advocates, and other scholars, she illustrates how bike infrastructure can lead to gentrification and displacement in urban areas. Mayor Rybak explicitly states that Minneapolis’ bike infrastructure is designed to attract “people like you [Dr. Hoffman]”. Instead of creating connectivity between areas that have been historically marginalized and serving existing residents, bike lanes are designed to attract people from the predominantly white, high-income, “creative class.”

Neighborhoods in Minneapolis are homogenous and provide a strong sense of community for many. I decided to focus my analysis on North Minneapolis. This is the city’s historically black area and has many active neighborhood organizations. In 1967, the construction of Interstate 94 cut the neighborhood off from downtown (and completely destroyed the upper-middle class black neighborhood in St. Paul). Since that time, North Minneapolis has had to consistently struggle for recognition when city services are being distributed. This included the implementation of NiceRide in 2010.

The area initially only had one NiceRide station (shown in map). During the second phase in 2011, stations were added in the neighborhood. I didn’t want to examine what areas were “in need” of more bike infrastructure like NiceRide- for many residents in the above neighborhoods they are a proxy for higher rents, changing neighborhoods, and a culture they do not identify with. Rather, I wanted to see how residents were using NiceRide as it exists today, leaving the application and interpretation of the visualization to residents themselves.



Methods

Race data: I visualized race data using information from the American Fact Finder Survey and joined it to block group outlines.

Ride Data: NiceRide provides station locations and ride information for each year from 2010-2017. Because there were no stations in North Minneapolis in 2010, I used the 2011 data to visualize early ride information.

The ride datasets were very large, with hundreds of thousands of entries. I narrowed down the dataset by just picking out rides in May. I thought this would capture trips to school, work, and recreational areas. This is shown in the first small map for 2011 and 2017.

The second small map shows most frequent starting points for all riders. The third map shows where rides that begin in North Minneapolis most commonly end.

Conclusion

The amount of data available on this program would lend itself well to further study. If I had had more time, I would have liked to analyze what ride tracks are most common, if riders are more likely to be members or casual users, and where the longest rides are occurring. For each of these analysis, I would separate out North Minneapolis users.

It was interesting to see that in 2011, North Minneapolis users mostly stayed within the neighborhood boundaries, with more rides into the wider city in 2017. I thought it was also telling (and followed with analysis by other researchers) that few rides that start outside North Minneapolis end in the area. Neighborhood advocates are concerned that without NiceRide stations, North Minneapolis may be missing out on vital economic exchange. The proposed North Minneapolis greenway will provide an opportunity to examine whether this argument holds true.

2011 Data



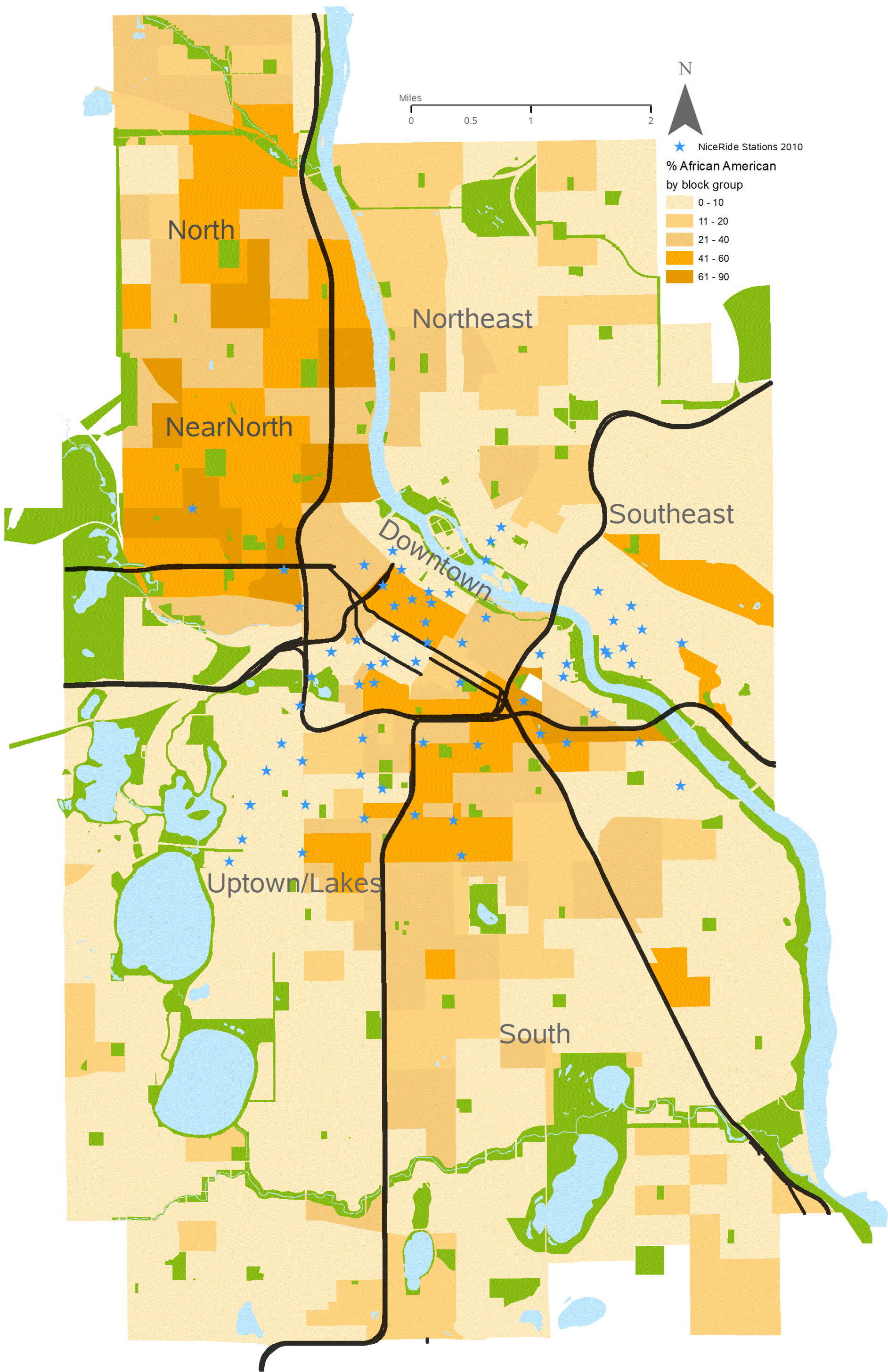
Ride data from May 2011. Green lines indicate rides originating at stations with 10-250 rides, continuing up the color spectrum to maximum number of rides at 1050.



Rides from the most popular starting point. Notice how many fewer rides there were in May 2011 compared to the ride data from 2017.



This map shows where rides starting in North Minneapolis end. From this, we can see that quite a few residents use the bikes to get downtown, but the majority are used to access points around North Minneapolis.

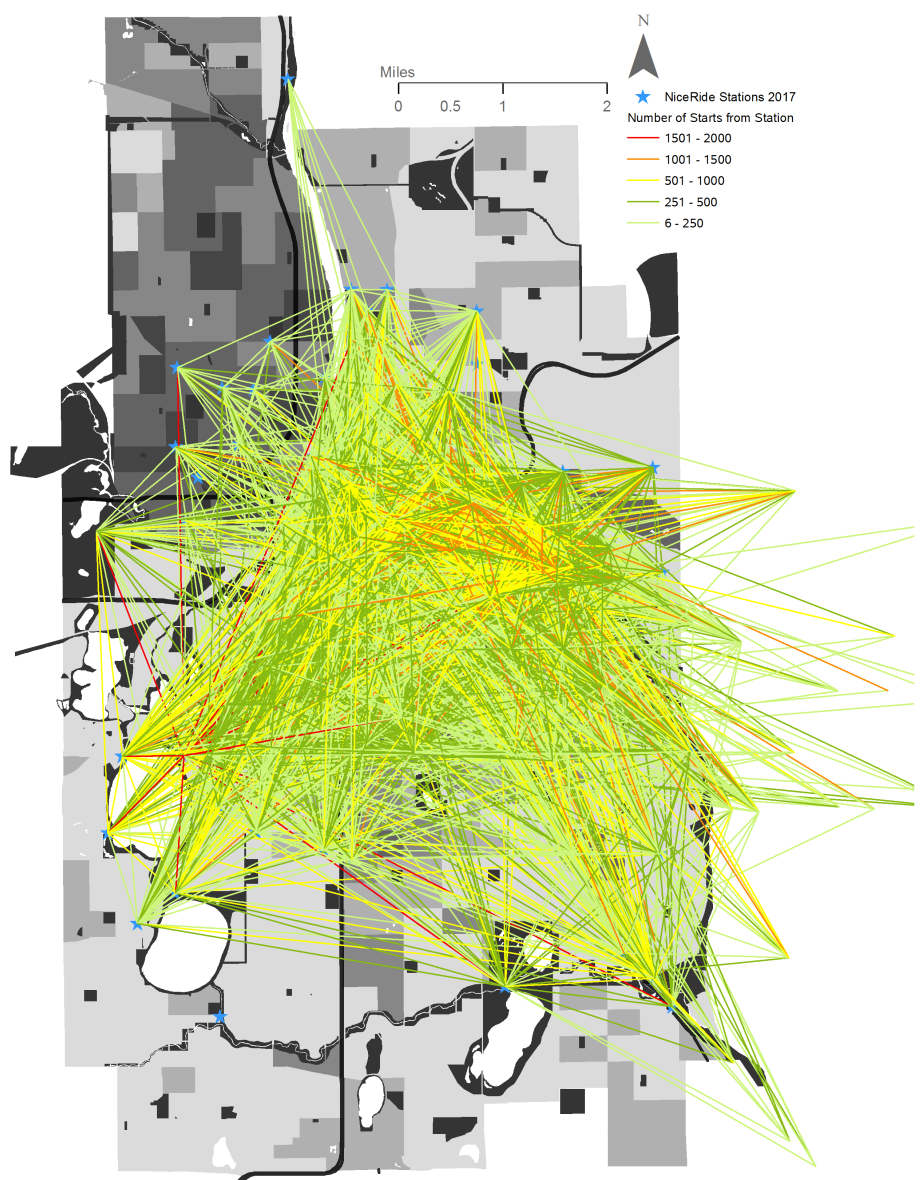


This map shows how completely African American communities have been divided from both economic and ecological resources in Minneapolis. It also shows where the initial NiceRide stations were placed. Notice that only one was placed in North Minneapolis. Some other areas of note are the concentrated stations in Southeast, where the University of Minnesota’s east bank campus is located, downtown, and the lakes area. All are active economic areas of the city.

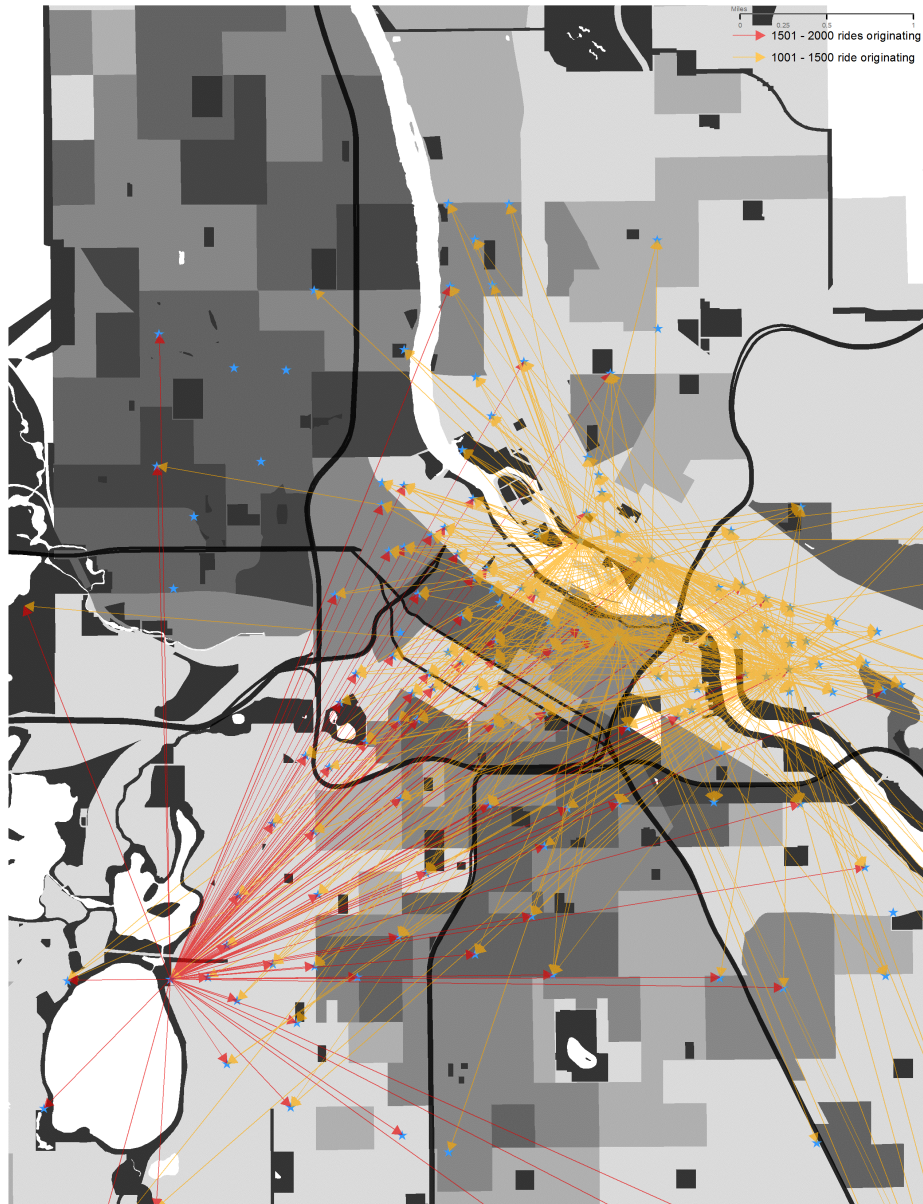
UEP 0232 Introduction to GIS
May 2018
Cartographer: Emma C Homstad
Data: Nice Ride, Minnesota Geospatial Commons,
American Fact Finder Block Group Data
Projection:
NAD_1983_NSR2007_StatePlane_Minnesota_South_
FIPS_2203_Ft_US

Tufts

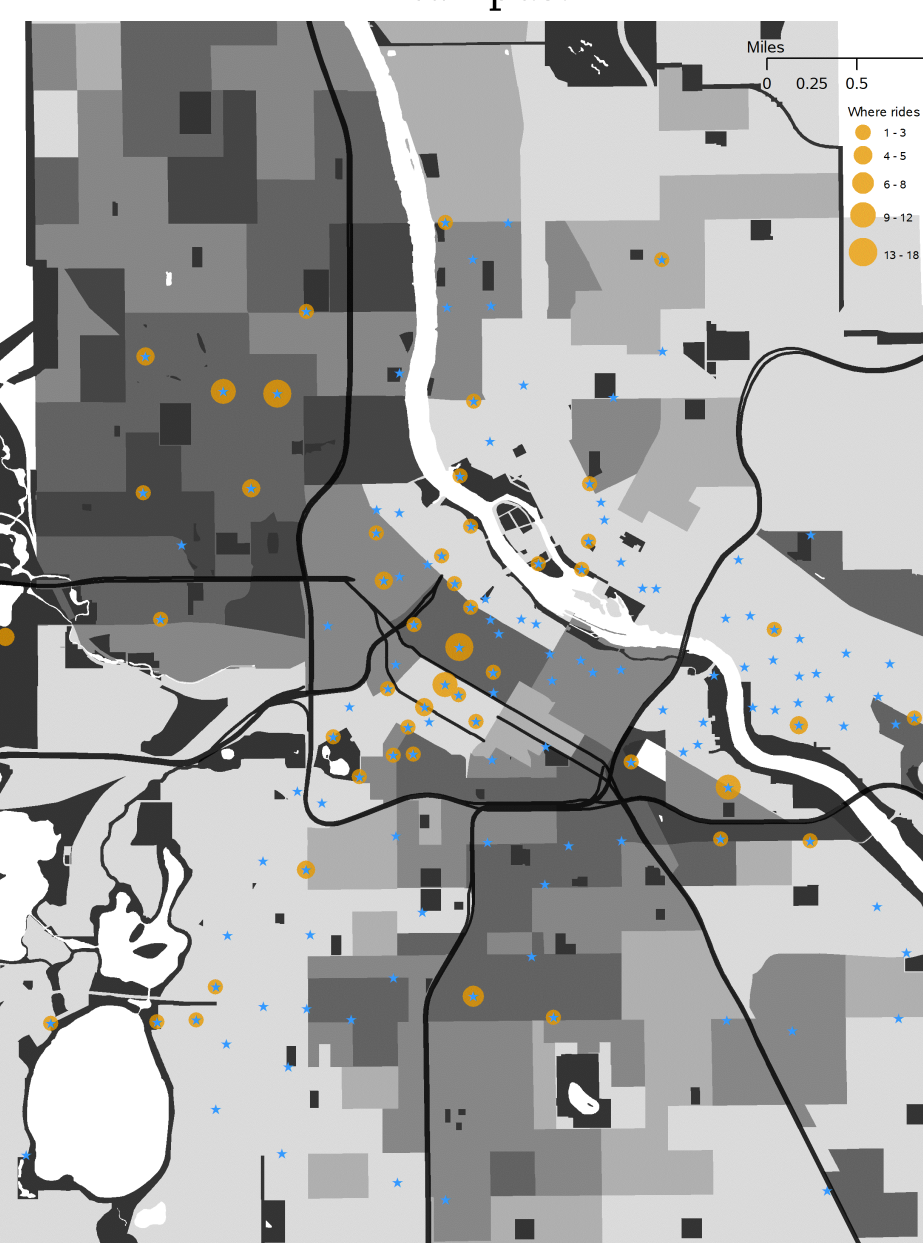
2017 Data



Ride data from May 2017. Notice how many more rides there were six years into the program. There are also significantly more stations.



Stations with the most originating trips. Notice the most trips come from the Lakes, while the orange trips are mostly short trips on the University of Minnesota’s campus.



In 2017, beyond more rides coming from North Minneapolis, they are ending in a wider variety of locations. It would be interesting to see what factors contributed to this change.