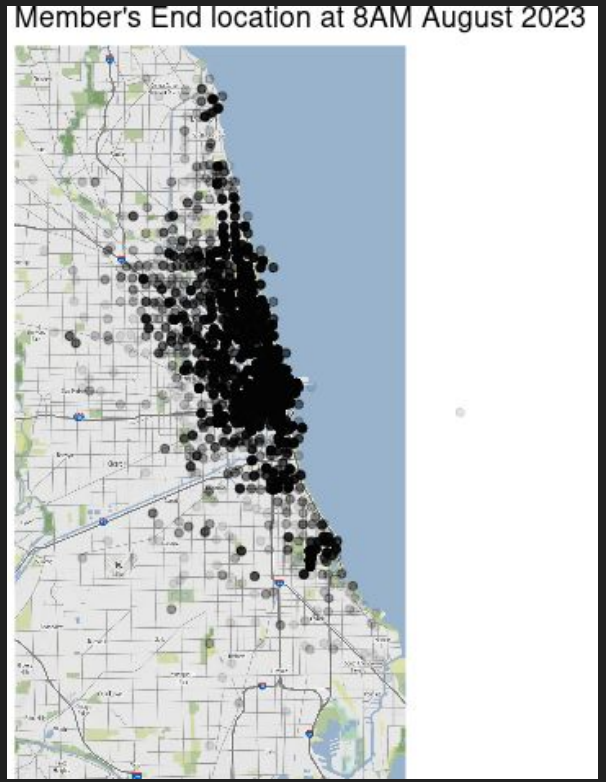
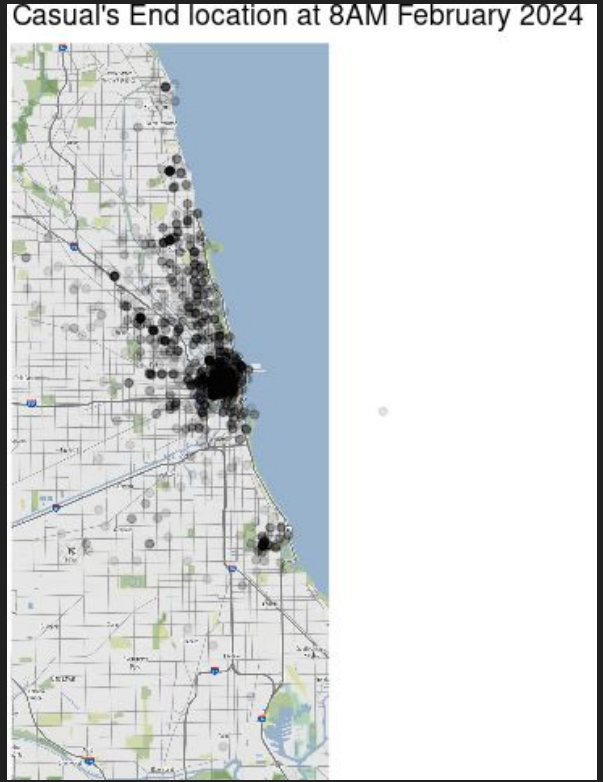
After analyzing the hour usage throughout the day, it seems like member and casual riders always have peak usage of Cyclistic bikes at 8-9am and 5-6pm. Using this information, looking at the coordinates for where the bikes are used at those times can better display if there are differences in bikes usage between member and casual riders. The dataset given for coordinates have both starting and ending coordinate points. For the analysis I decided to look only at the end coordinates because it would make more sense to look at where the destination is compared to where they got on the bike to begin with. This type of analysis will not likely provide all the information we can get but it will be enough to make more inferences as to how member and casual riders differ in their bike usages. All images were created using qmplot which takes uses stadiamaps for the map images.

February 2024 8am

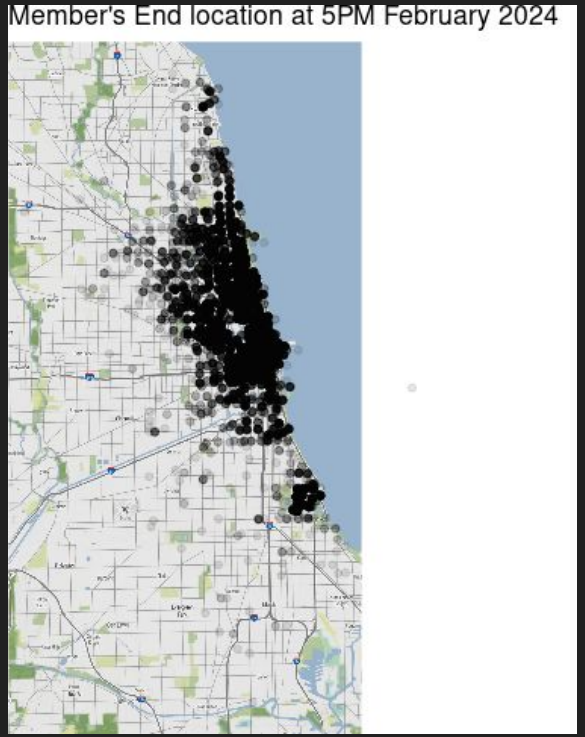
February 2024 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

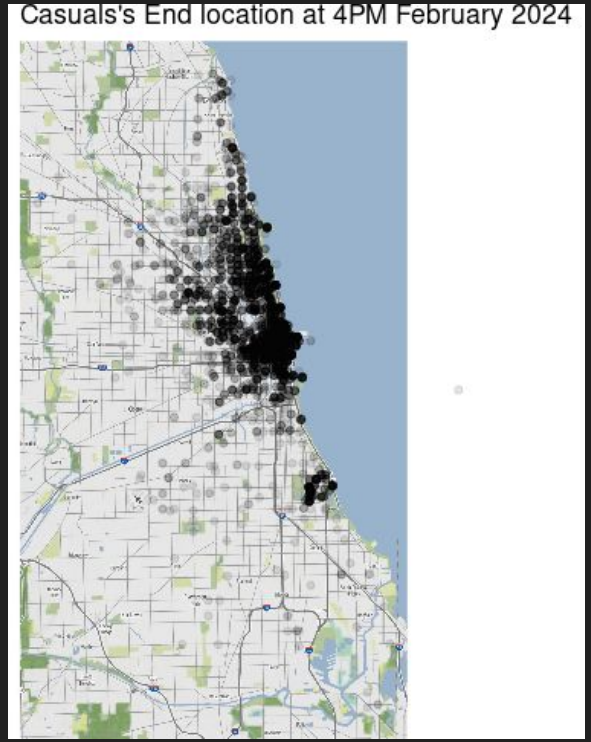




February 2024 4-6pm

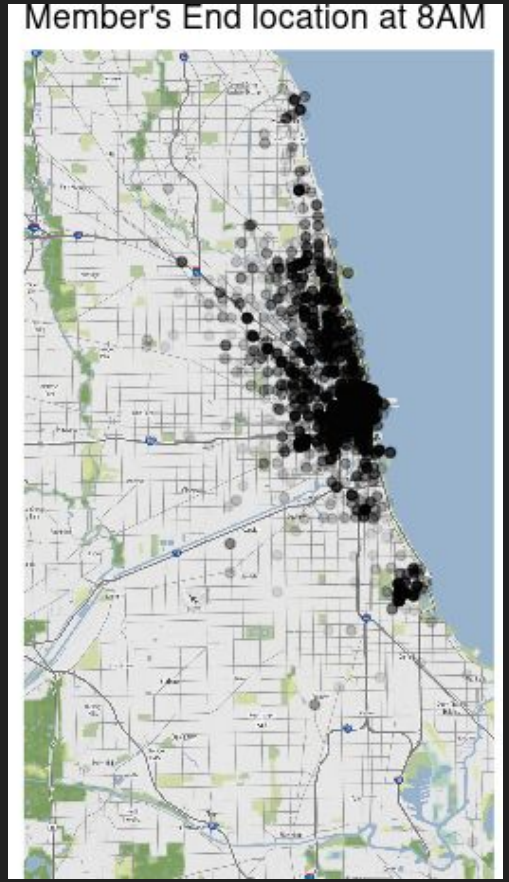
February 2024 4-6pm seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to mostly aggregate towards the navy pier and along the shoreline at 4-5pm.

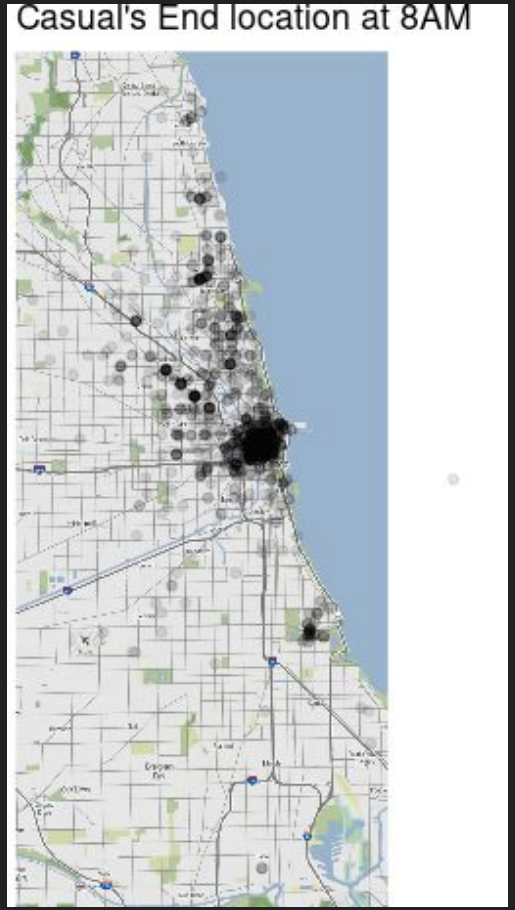




January 2024 8am

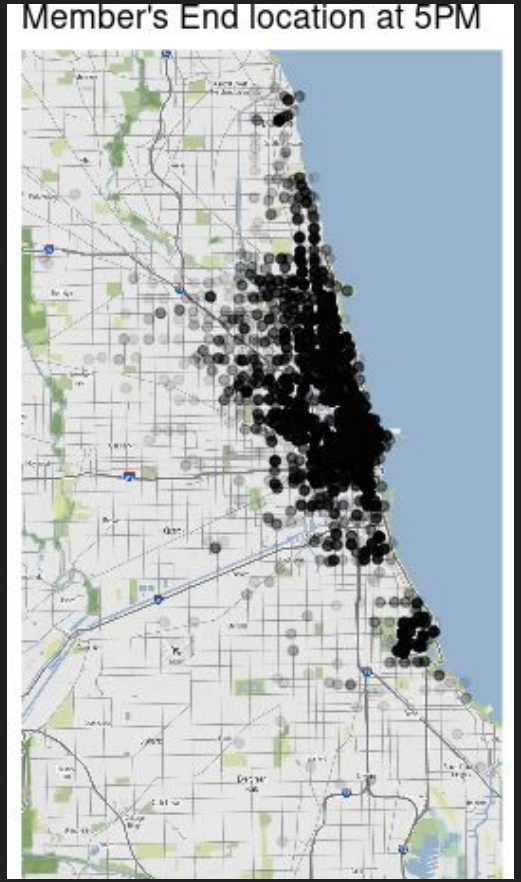
January 2024 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

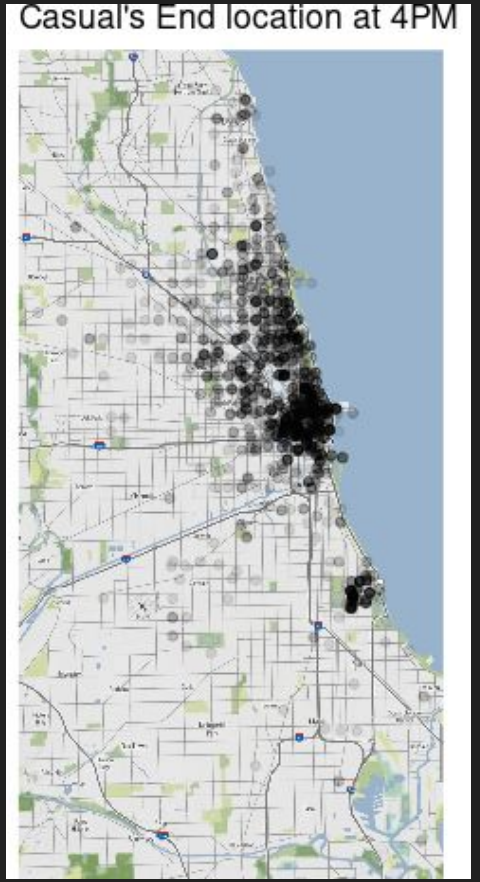




January 2024 4-6pm

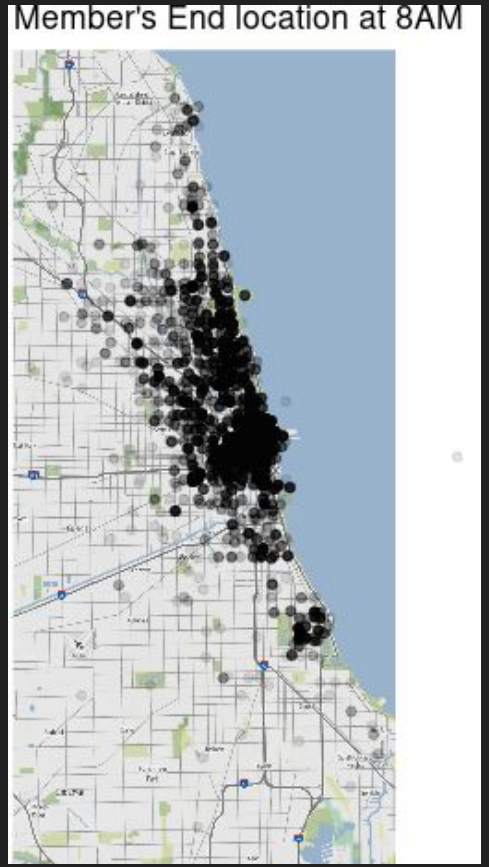
January 2024 4-6pm seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to mostly aggregate towards the navy pier at 4-5pm.

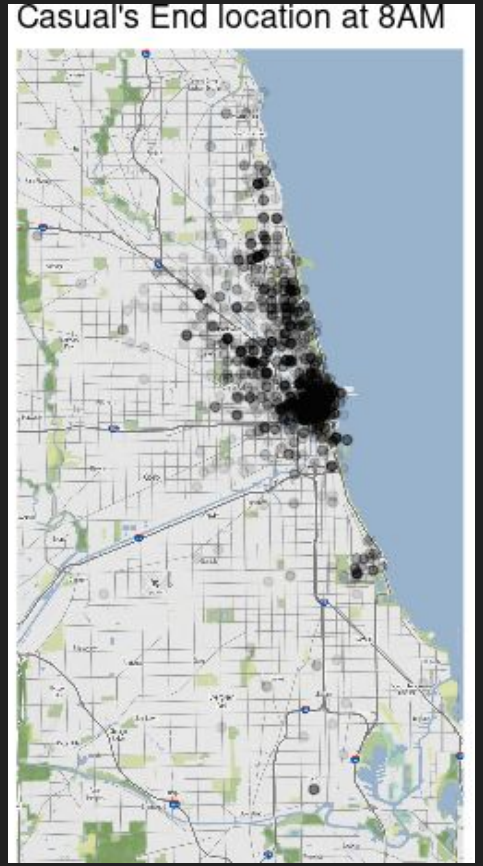




December 2023 8am

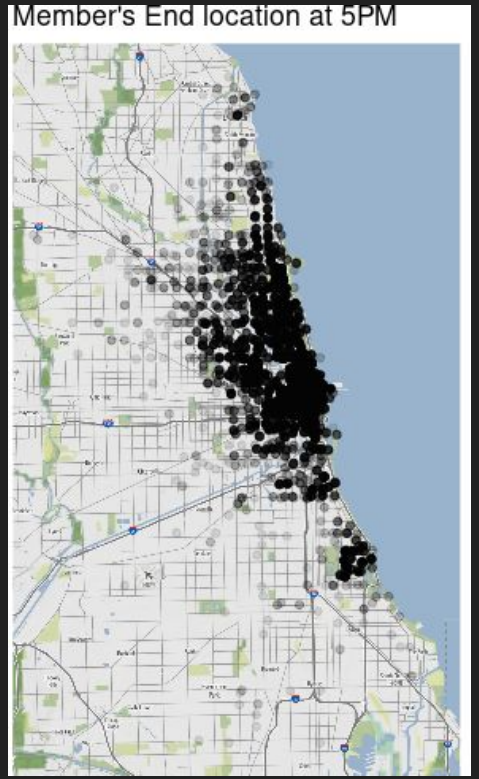
December 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

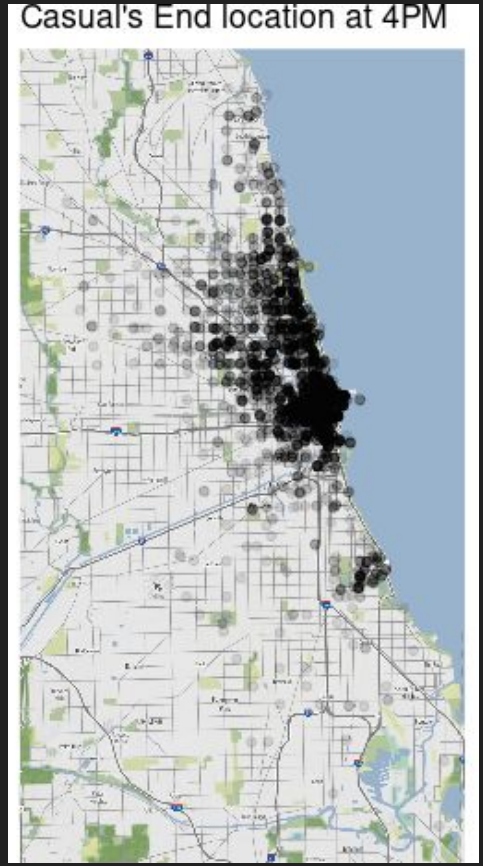




December 2023 4-6pm

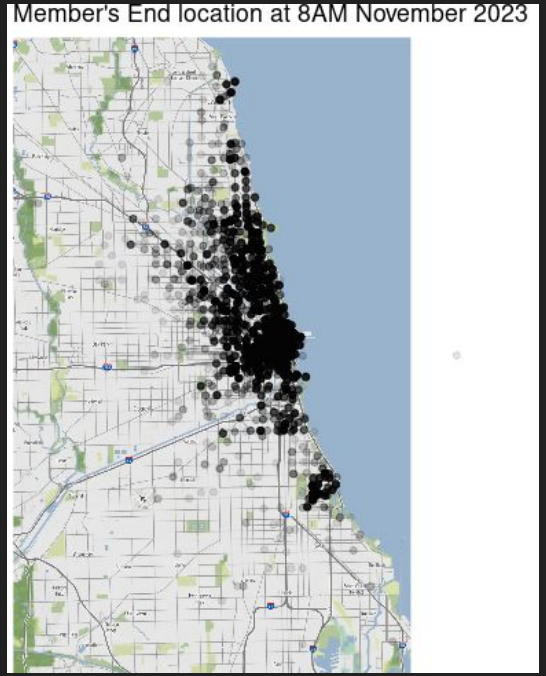
December 2023 4-6pm seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to mostly aggregate towards the navy pier at 4-5pm and along the shoreline.

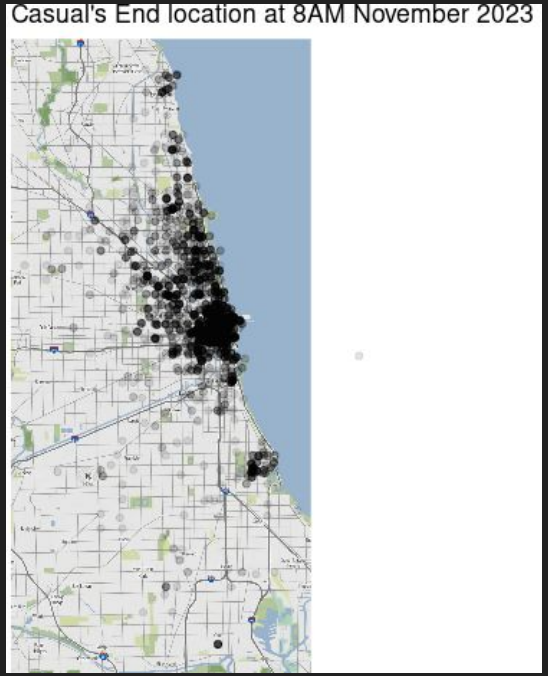




November 2023 8am

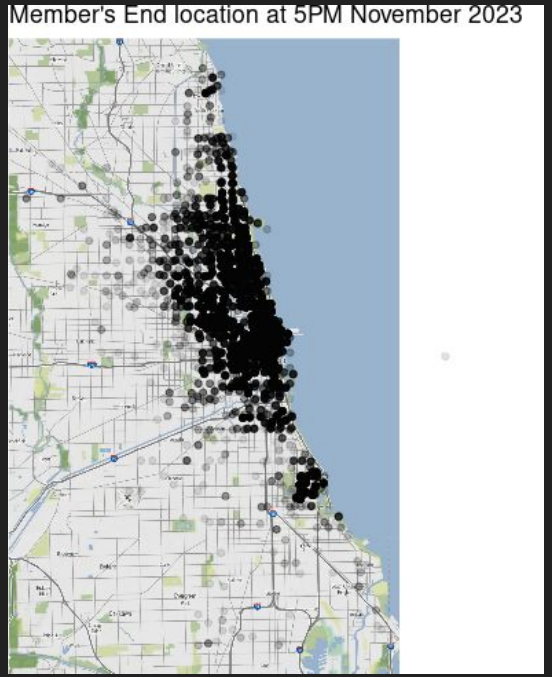
November 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

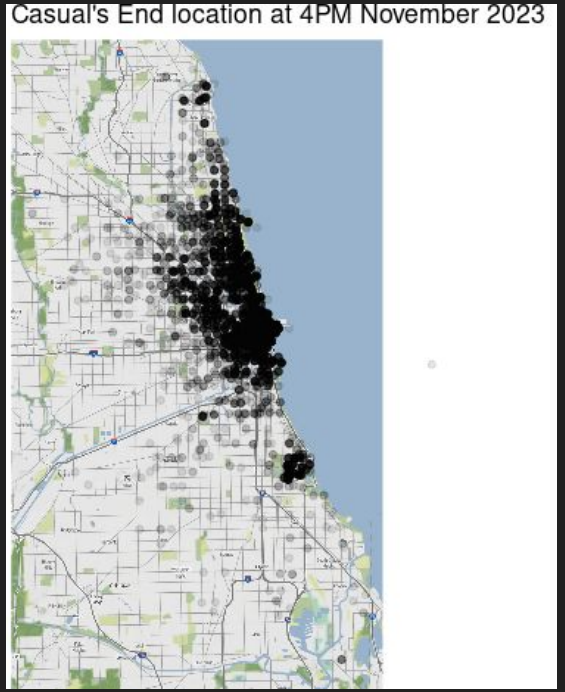




November 2023 4-6pm

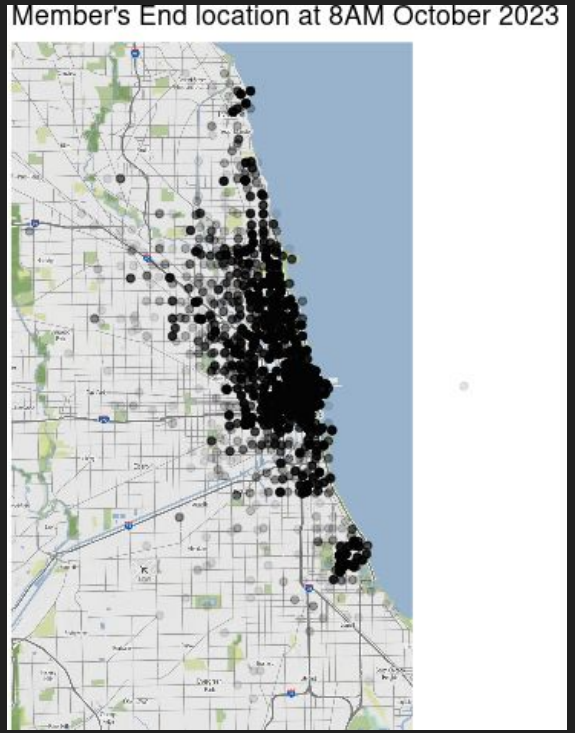
November 2023 4 4-6pm seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to mostly aggregate towards the navy pier at 4-5pm and along the shoreline.

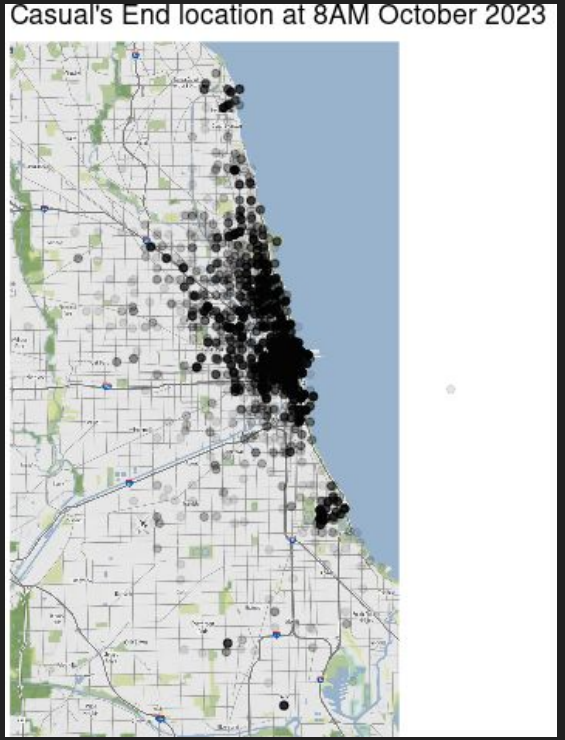




October 2023 8am

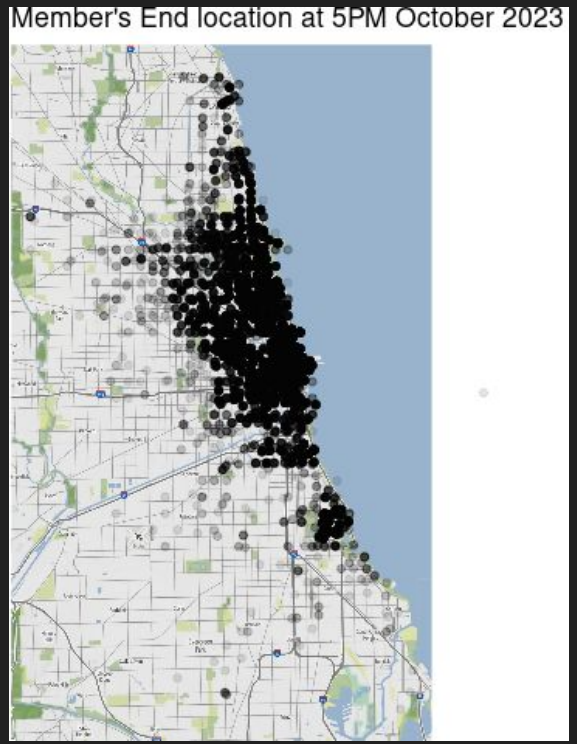
October 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

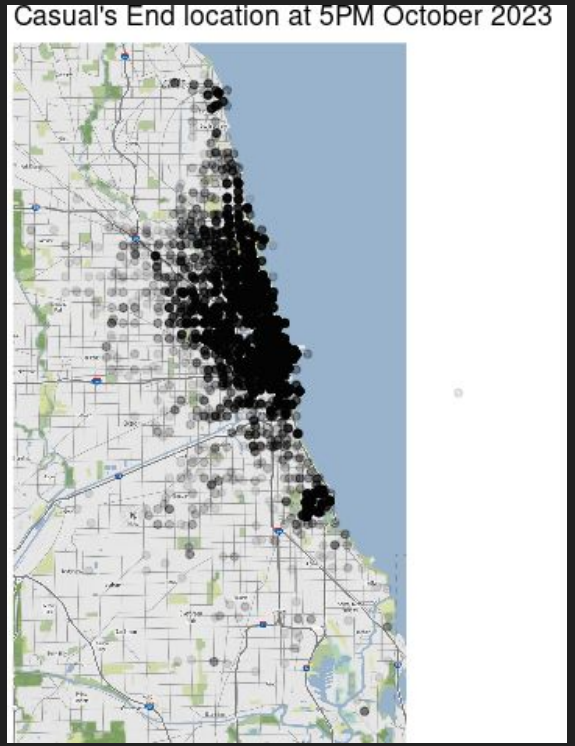




October 2023 4-6pm

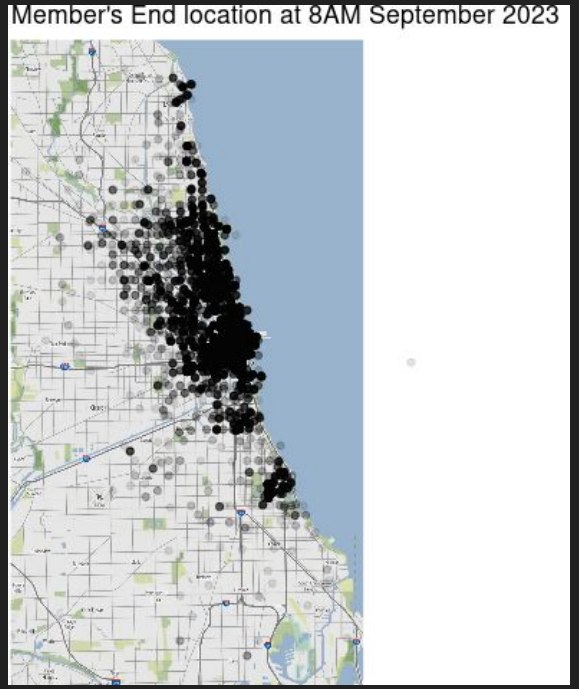
October 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.

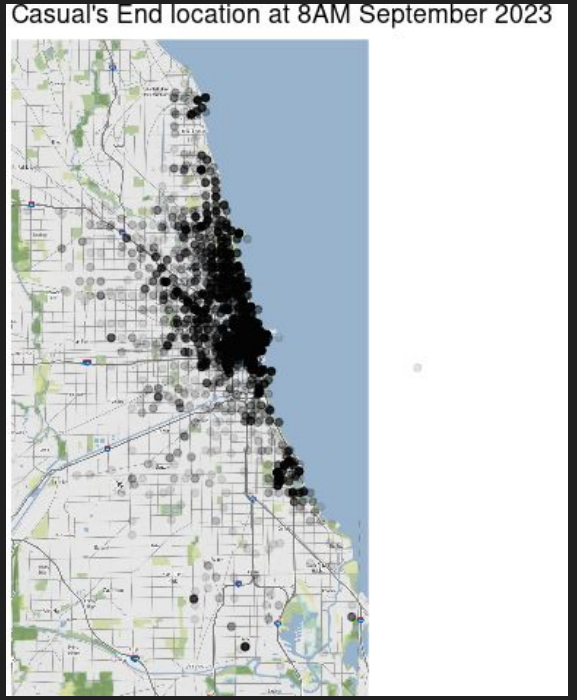




September 2023 8am

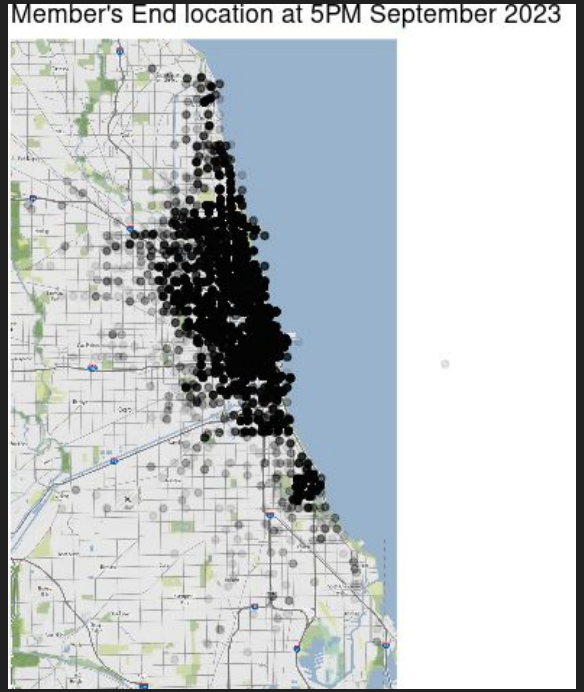
September 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

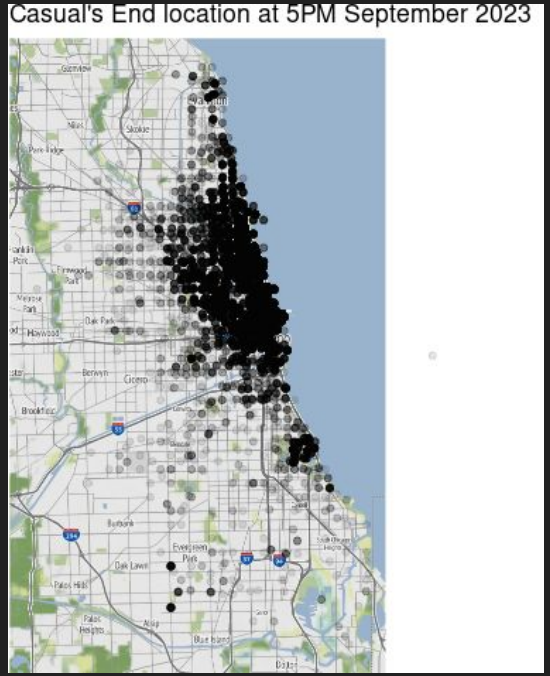




September 2023 5-6pm

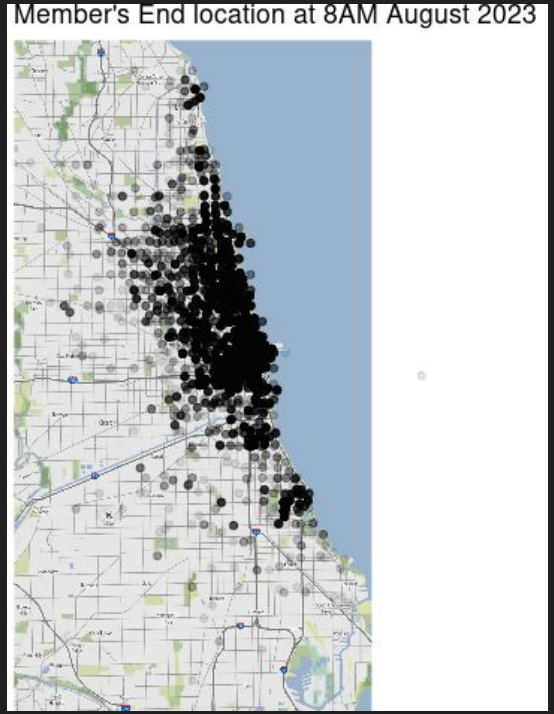
September 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.

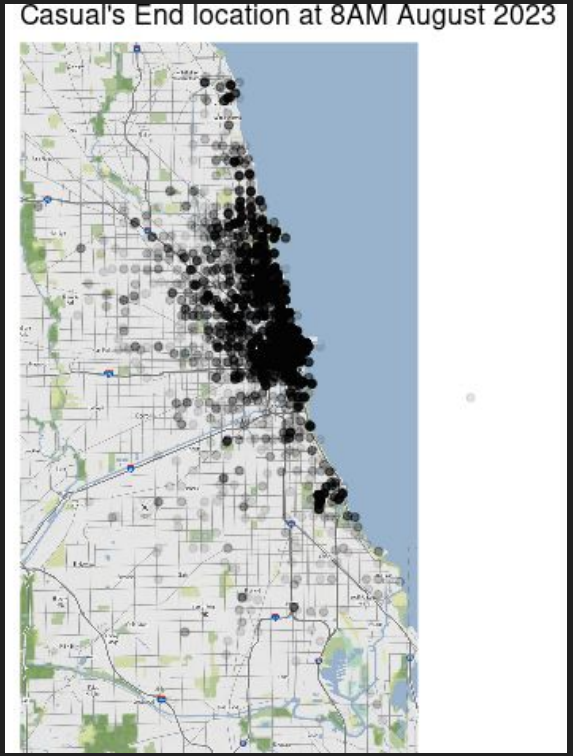




August 2023 8am

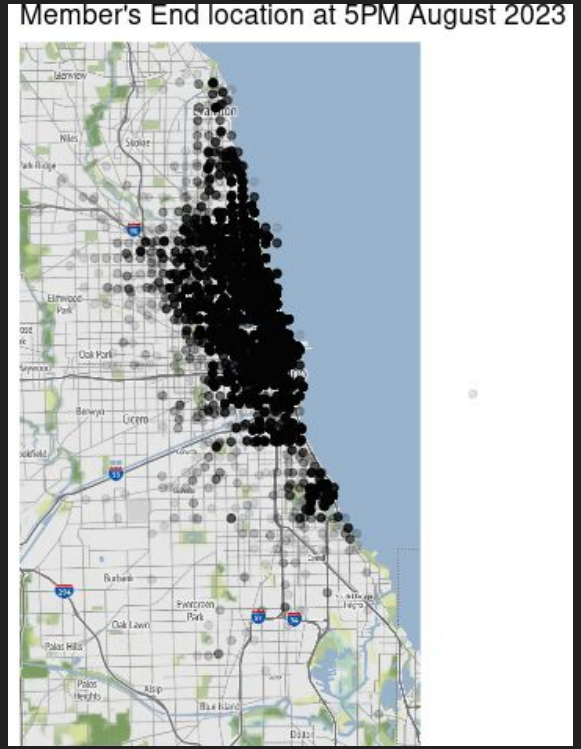
August 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

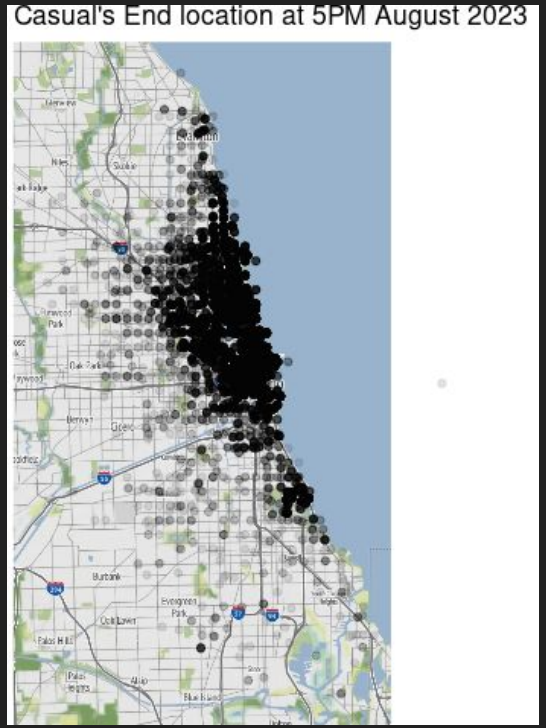




August 2023
5-6pm

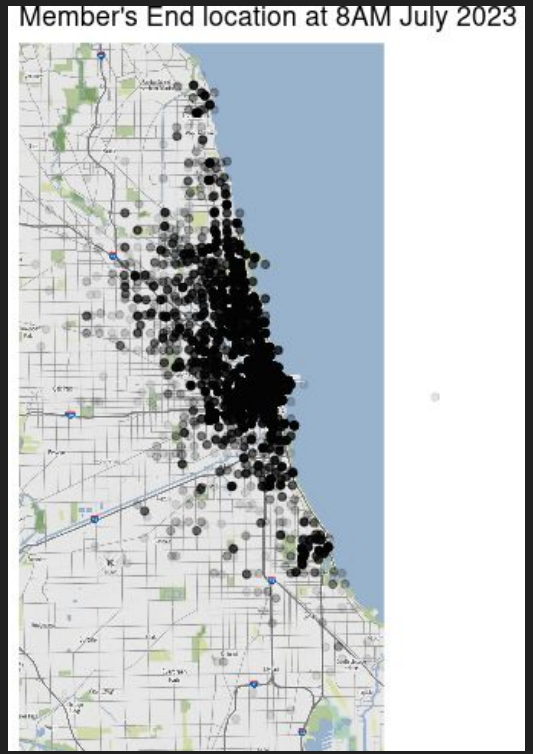
August 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don't disperse out west nearly as much as member end locations.

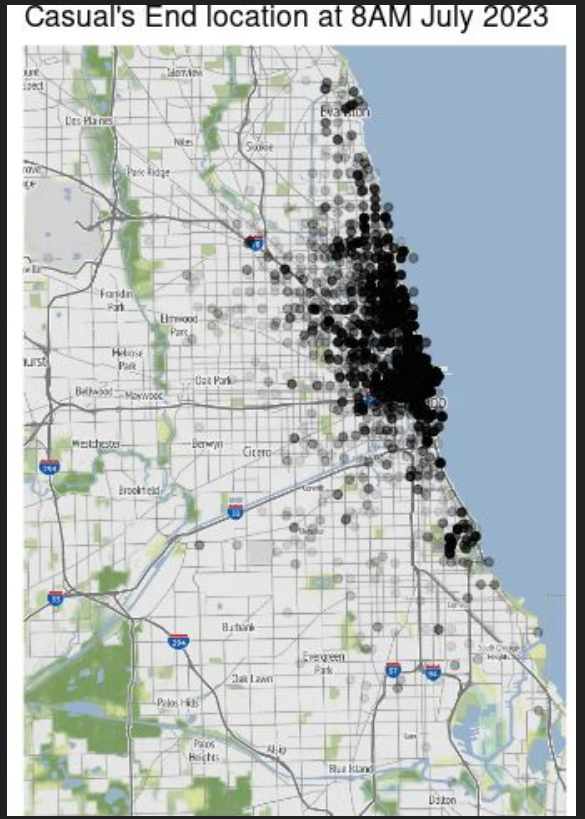




July 2023 8am

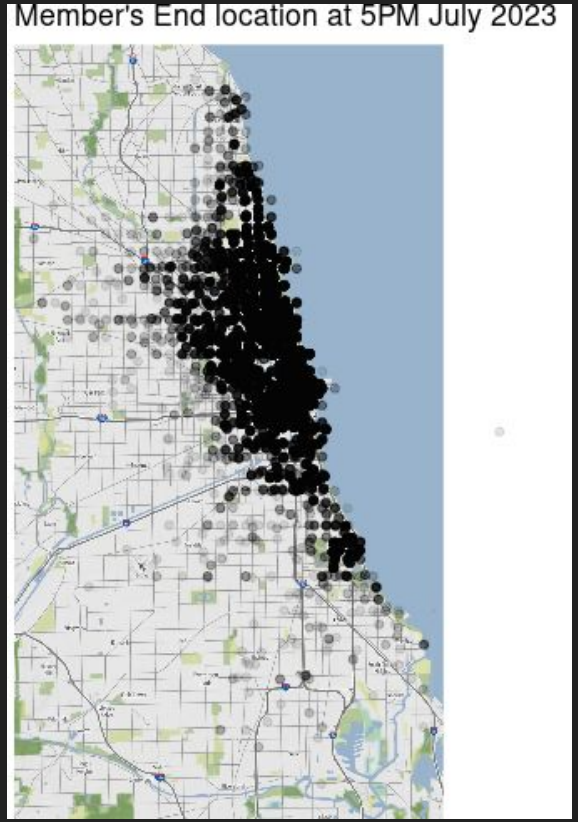
July 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

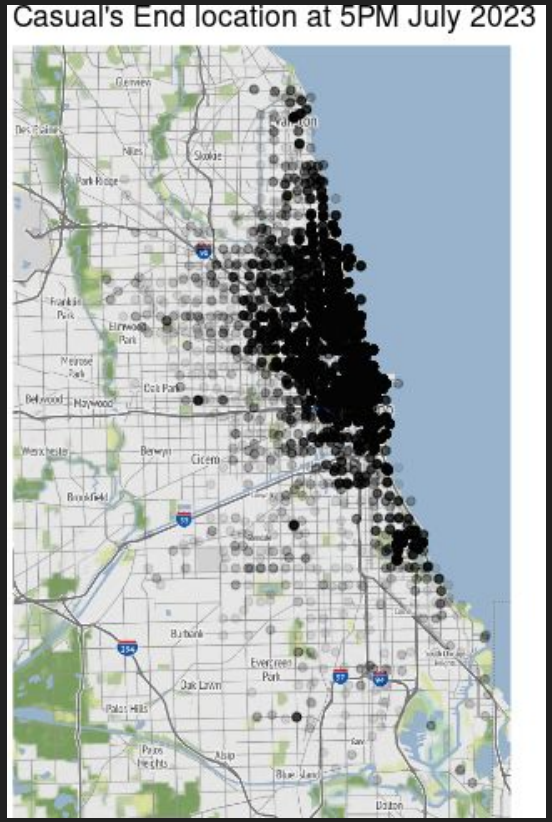




July 2023 5-6pm

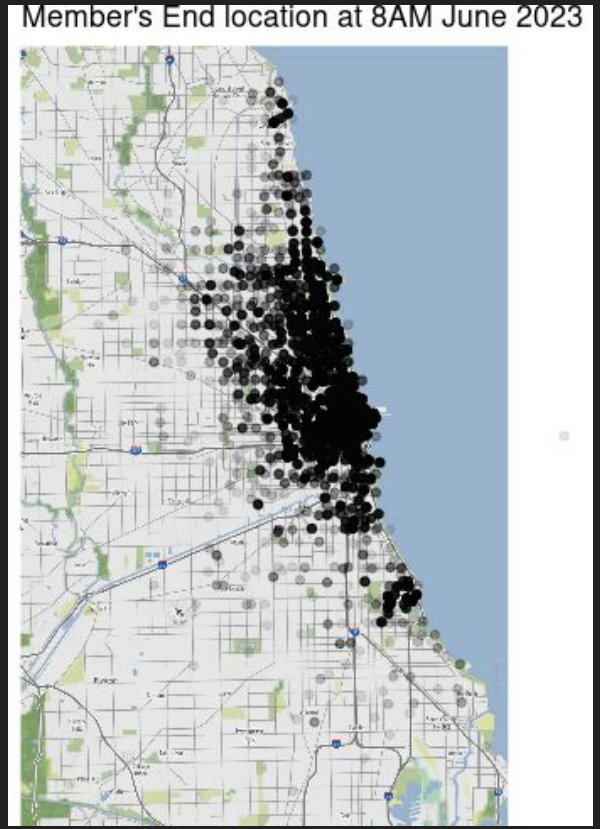
July 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.

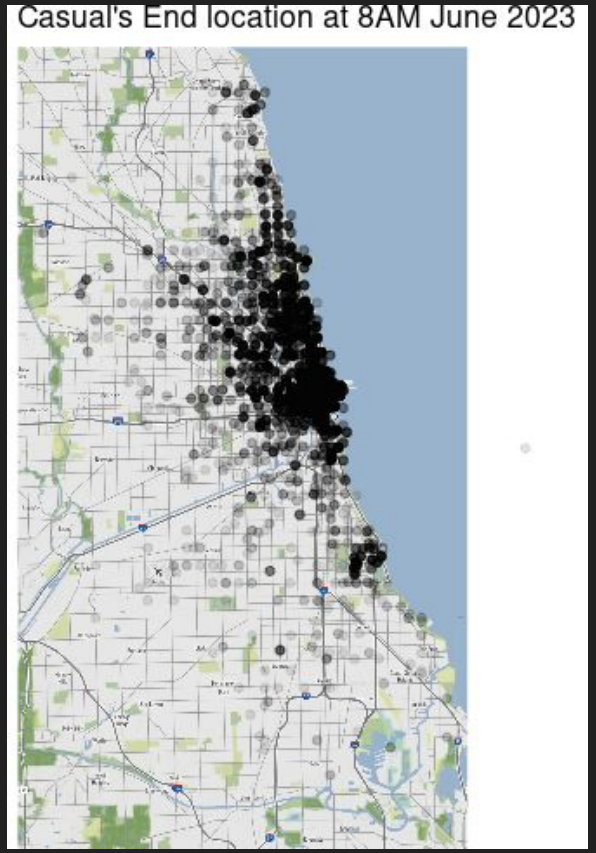




June 2023 8am

June 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

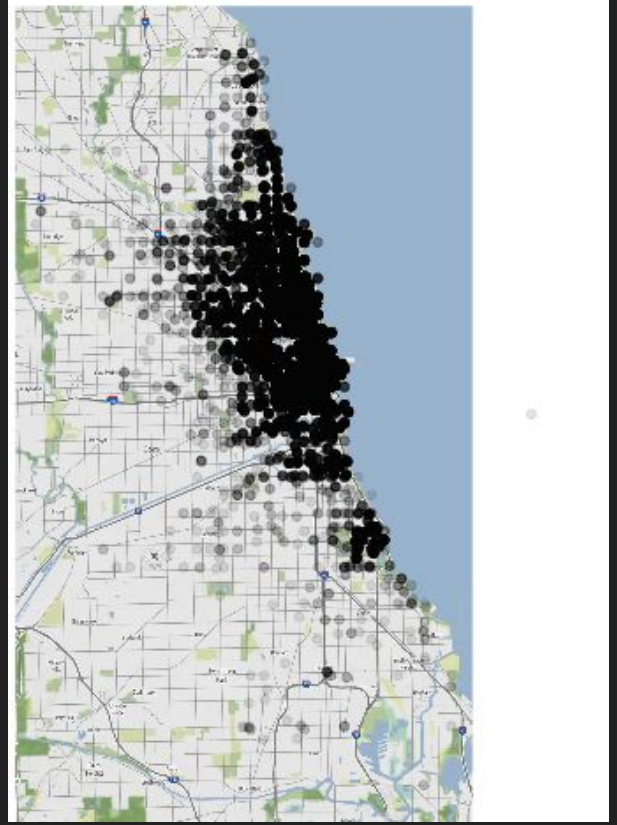




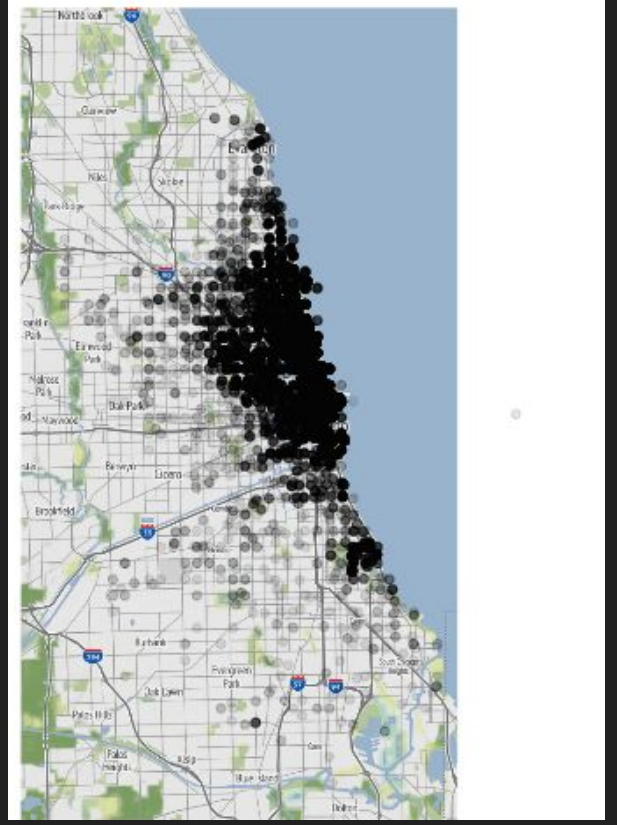
June 2023 5-6pm

June 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.

Member's End location at 5PM June 2023

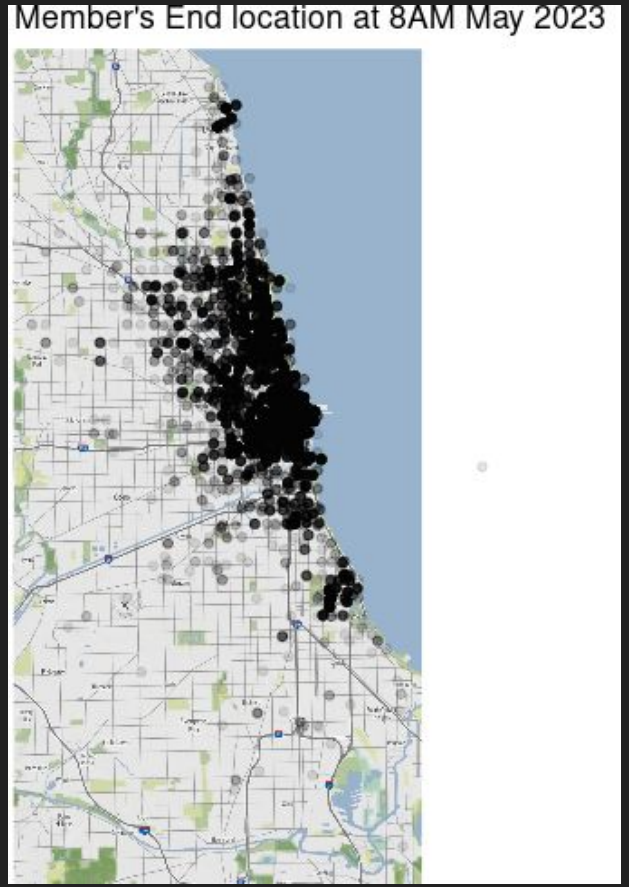


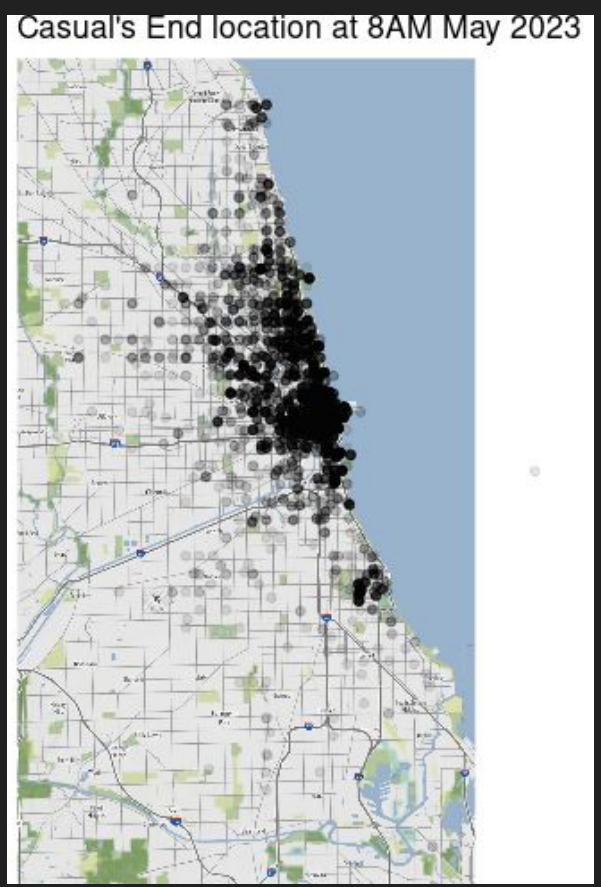
Casual's End location at 5PM June 2023



May 2023 8am

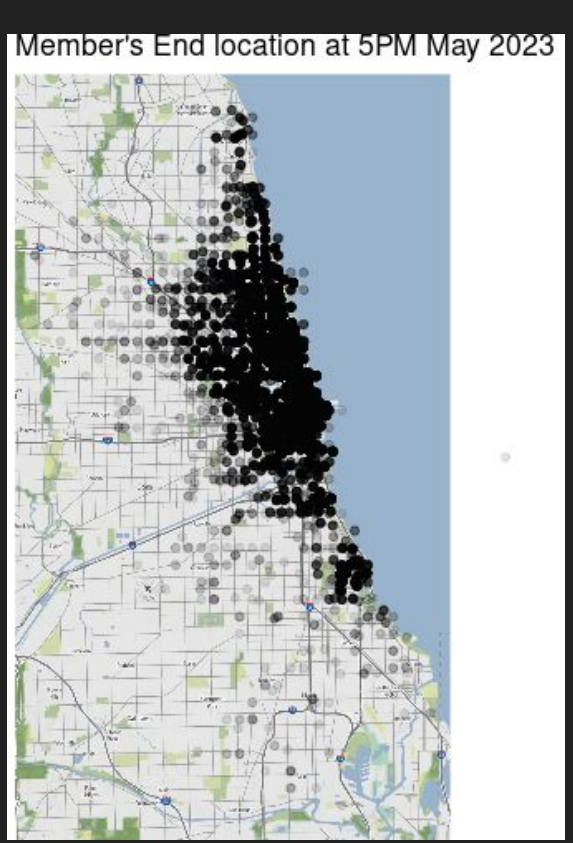
May 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

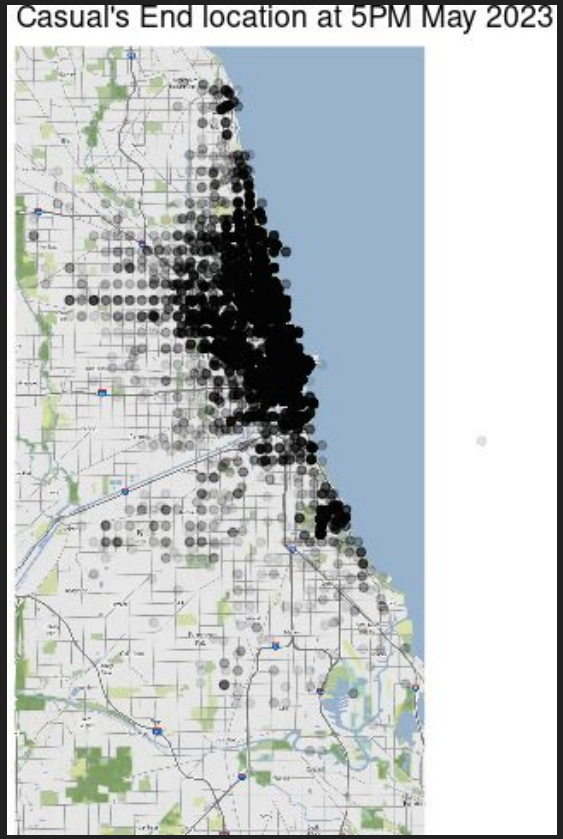




May 2023 5-6pm

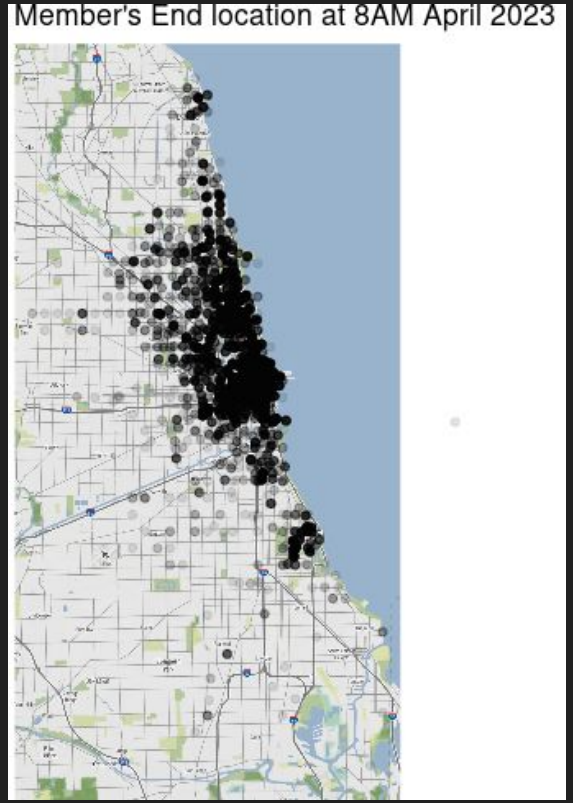
May 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.

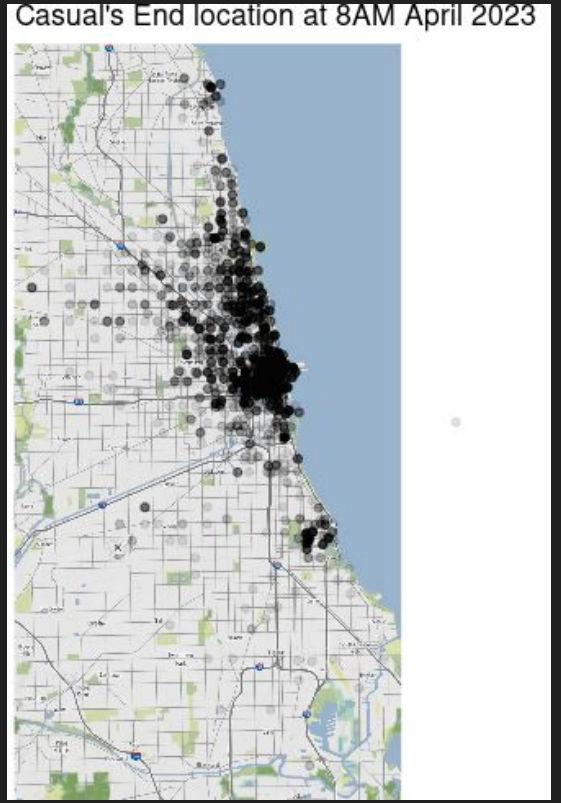




April 2023 8am

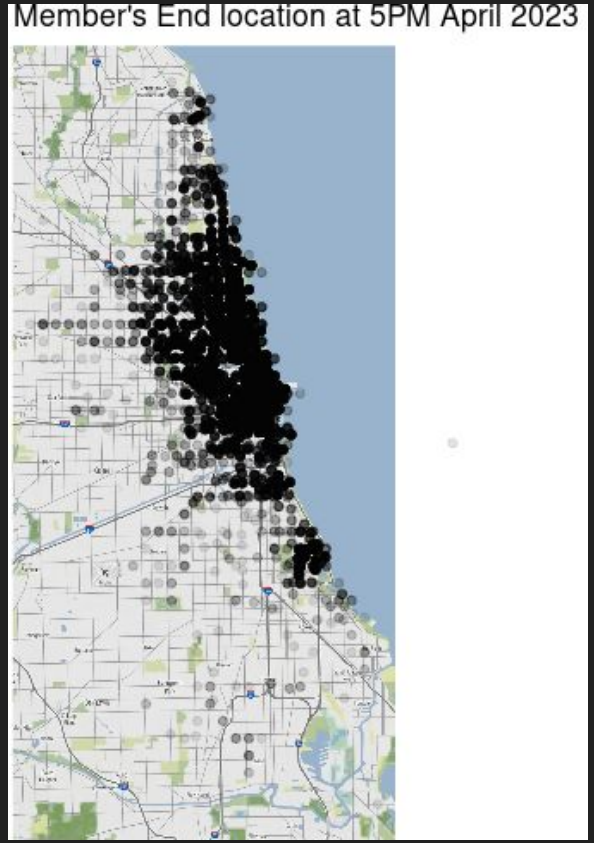
April 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

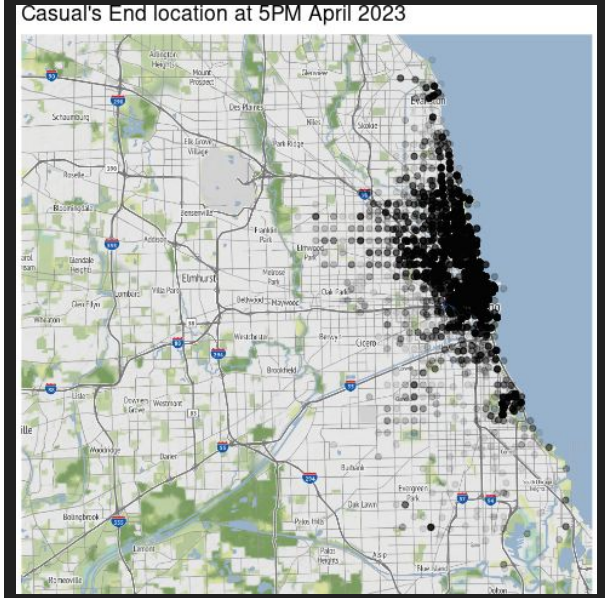




April 2023 5-6pm

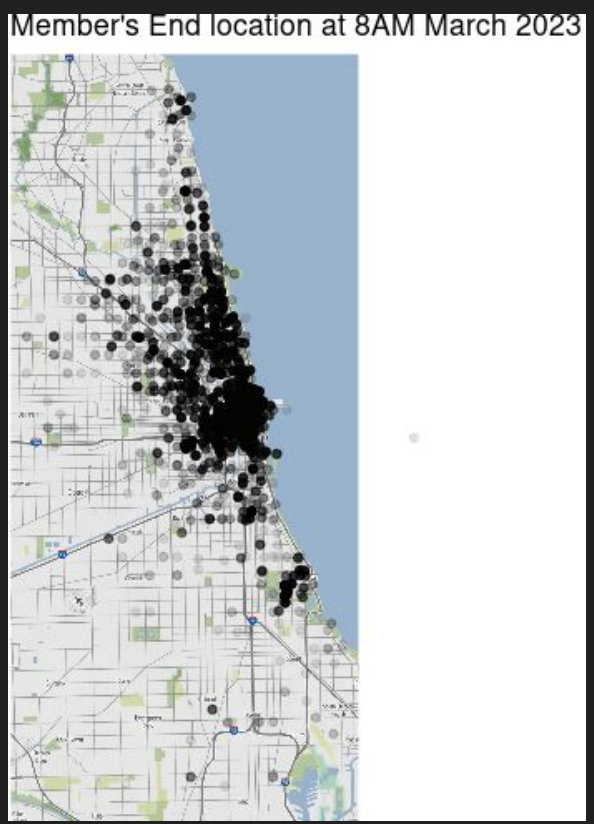
April 20234-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations.

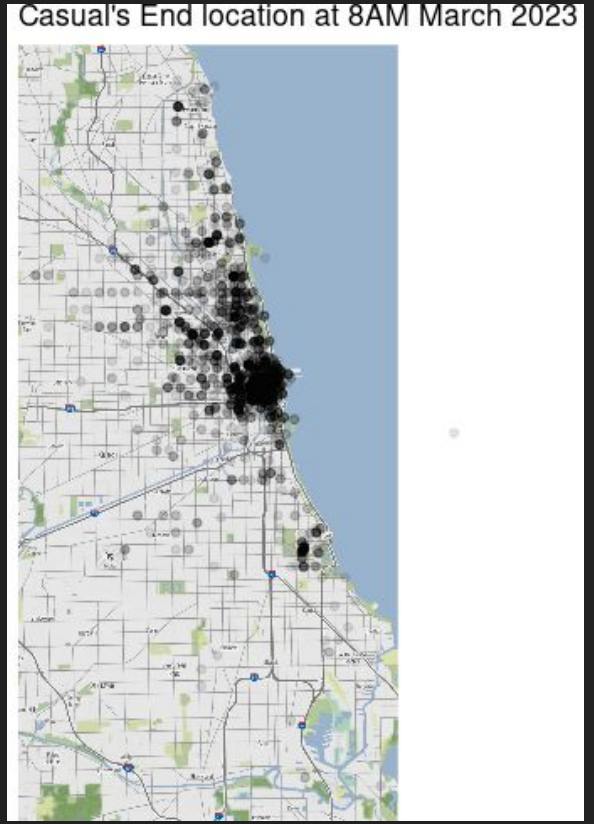




March 2023 8am

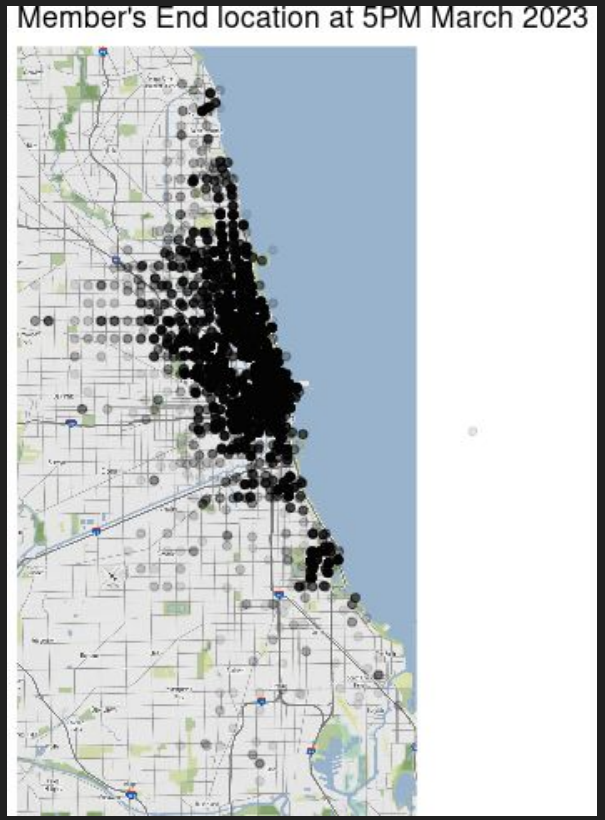
March 2023 8am seems to have a lot of dispersed data points for member end locations. Casuals, however, seem to aggregate towards the navy pier at 8am.

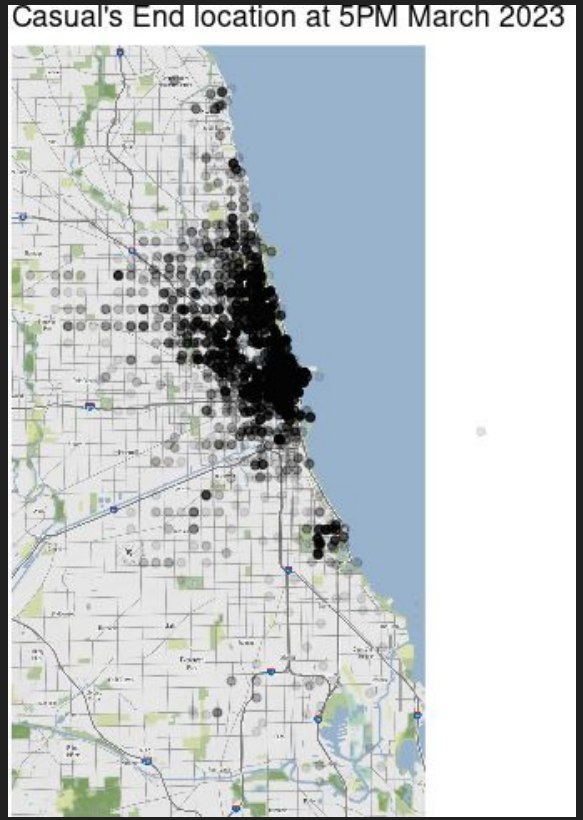




March 2023 5-6pm

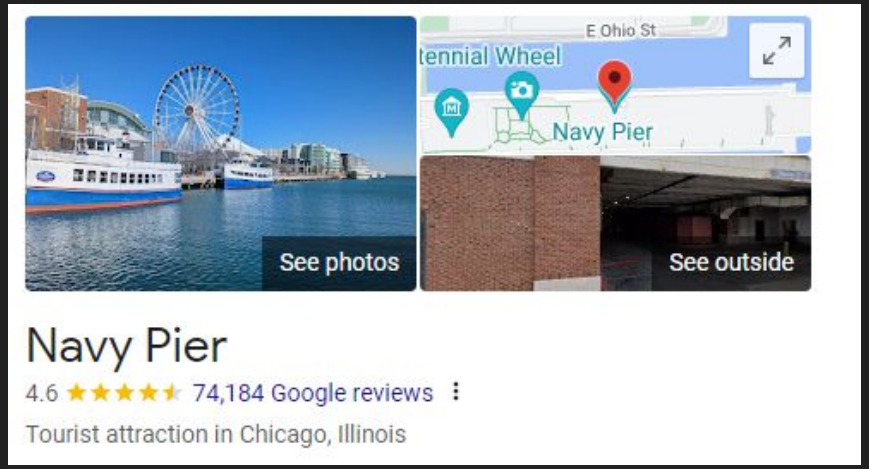
March 2023 4-6pm seems to have a lot of dispersed data points for both member end locations and casual end locations. Even though it is mostly dispersed, we can see that casual end locations don’t disperse out west nearly as much as member end locations.





In Depth

After looking at the end locations for 8am peak hours and 4-6pm peak hours, I think I can assume that casual riders mainly ride along the shoreline and the navy pier at 8am. This could likely be due to people trying to exercise early in the morning as the sun rises along the shoreline. This type of pattern could also be due to the navy pier being a tourist attraction in Chicago. Assuming this reasoning, it might explain as to why we see similar patterns at 4-6pm for casual riders as well. The sunsets around 4-6pm on most days and as such, casual riders could be use the cyclistic bikes to view the sunset along the water as well as the navy pier tourist attraction.



Both images sourced from Google