

CAPITAL BIKESHARE EXPANSION

HOW TO GROW THE SYSTEM AND RETAIN CUSTOMERS

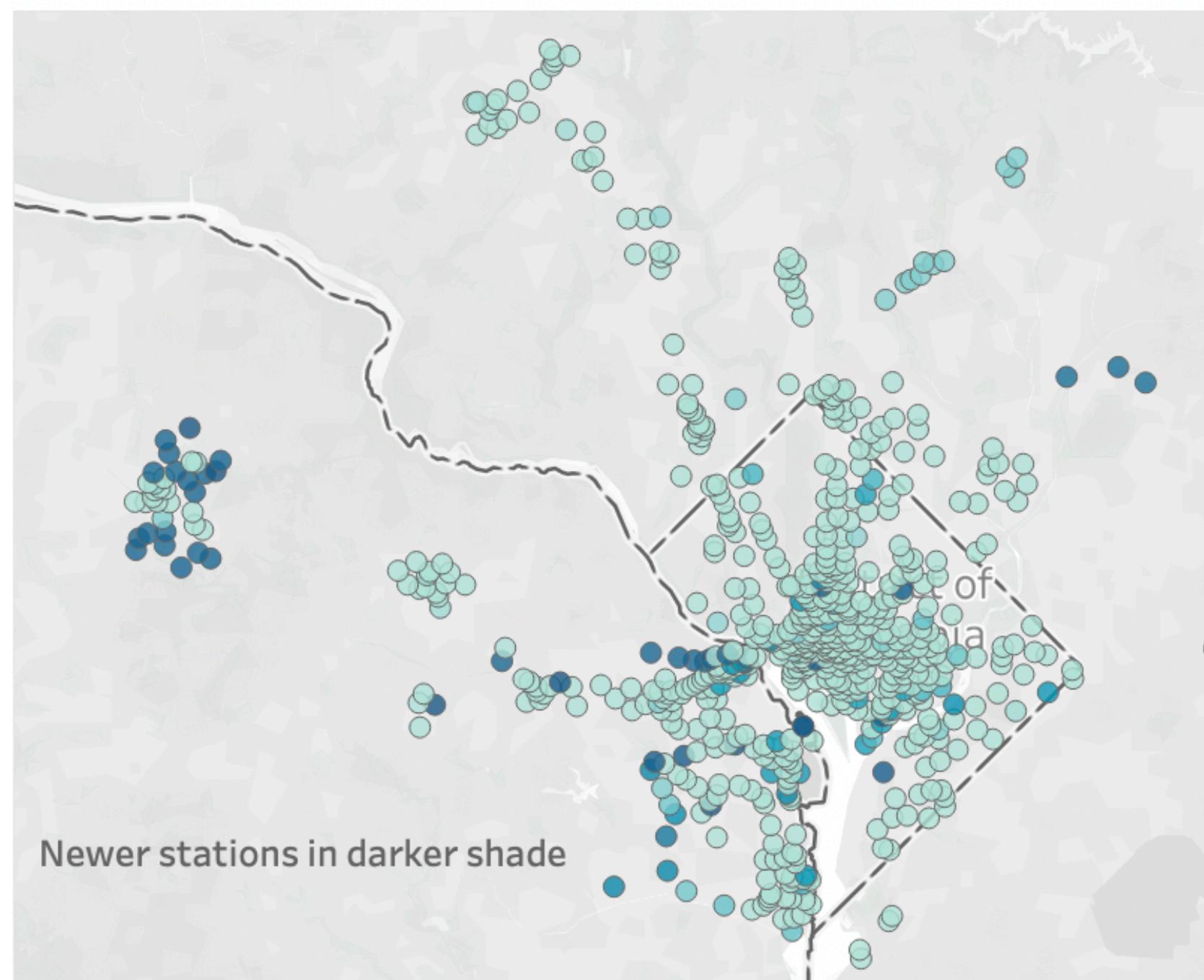
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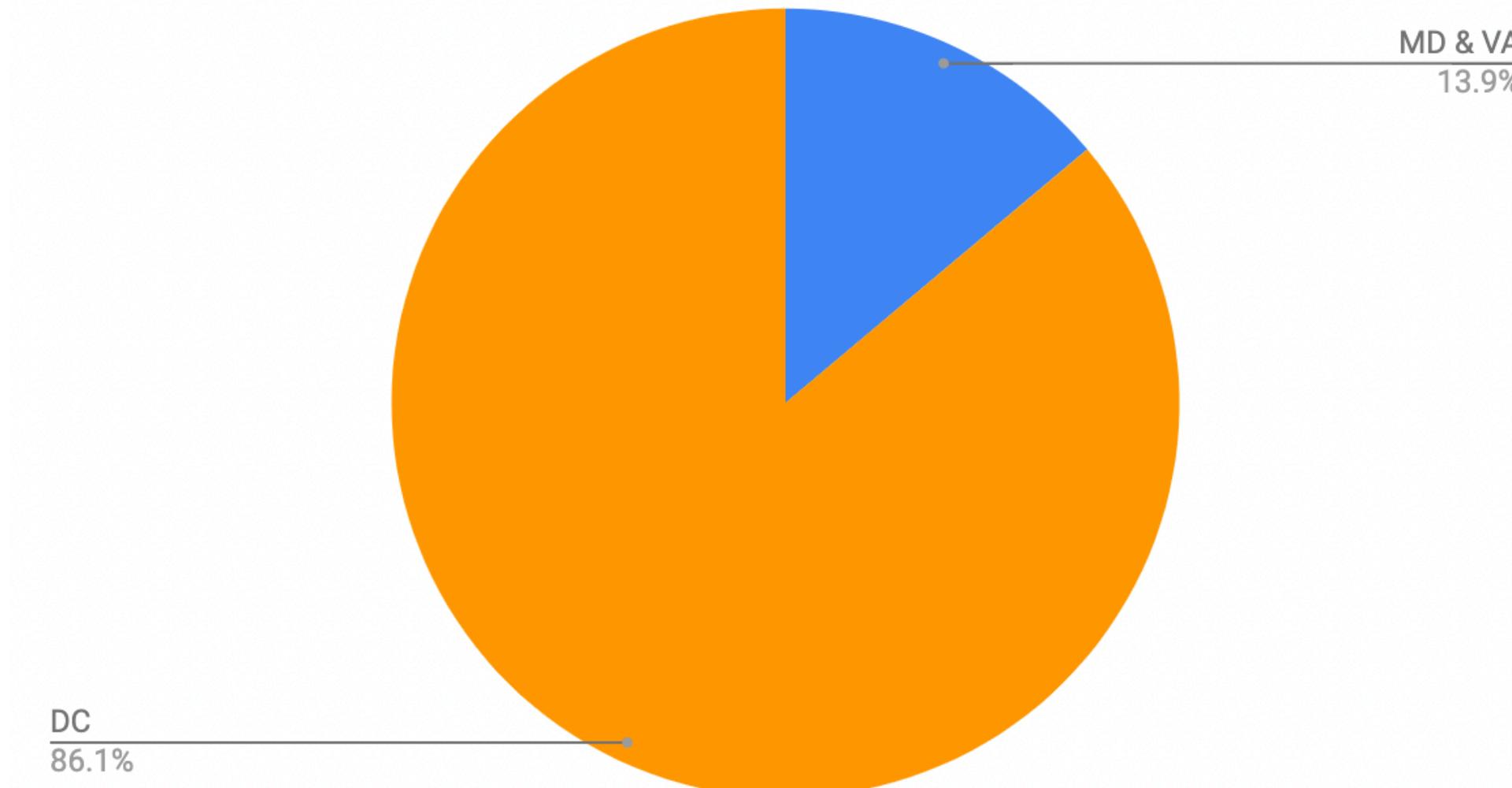
CAPITAL BIKESHARE (CABI) IS EXPANDING

Capital Bikeshare is slated to add more than 60 stations [in 2021], as well as hundreds of bikes [...] In 2020, Capital Bikeshare added about 50 stations. —Washington Post 07/2021

Capital Bikeshare Station Network



Total DC Bikeshare Ridership 2020 & 2021



Most new stations in the system are in DC's suburbs (MD & VA); however, most rides still occur within DC.

BUSINESS PROBLEM

Riders in some areas having trouble finding bikes & reliable docks during expansion period:

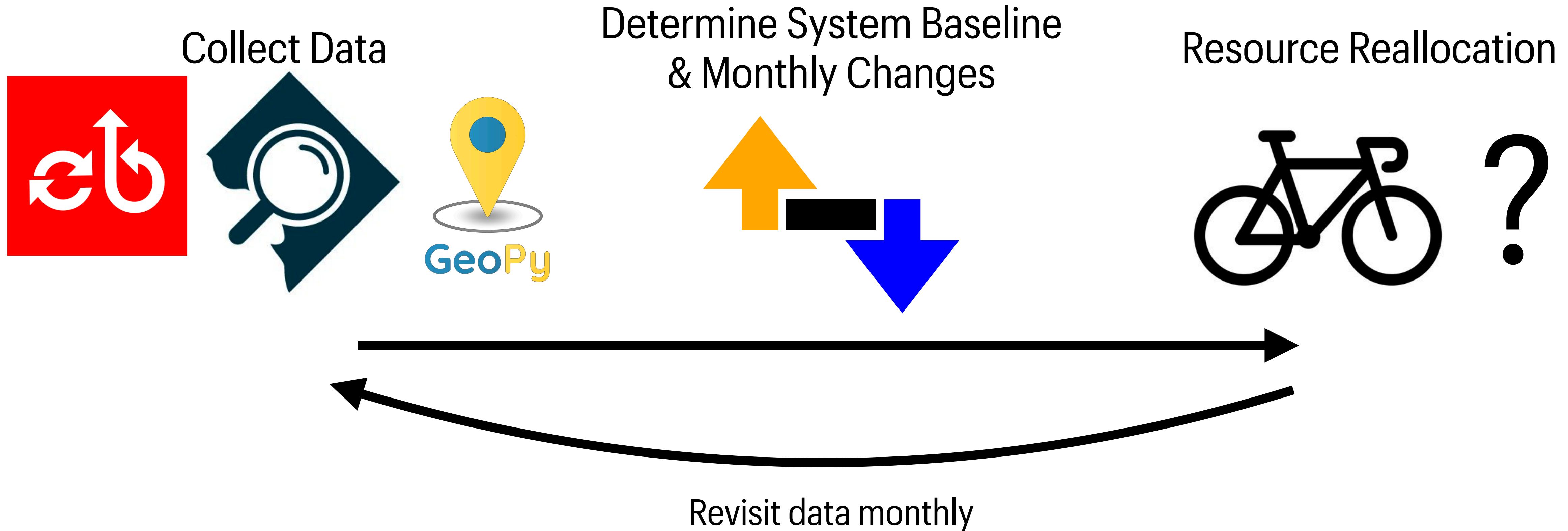
- Capital Bikeshare has been atrocious recently. Most racks have a slew of broken stalls that haven't been serviced in months. There's almost no availability in NW DC.
—Reddit 08/2021

How can CaBi expand the system while maintaining service in preexisting areas (and keep customers)?



PROPOSED SOLUTION

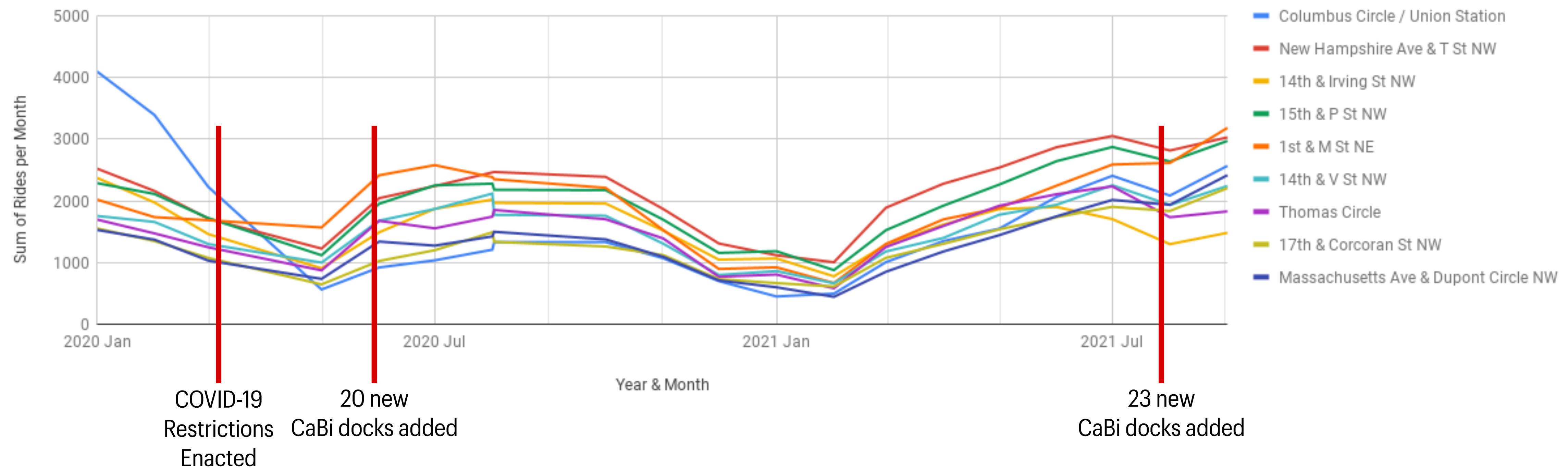
Goal: Create a dashboard to help CaBi better allocate resources on a monthly basis.



ASSUMPTION

We assume that besides seasonality (temperatures, weather), demand for bike share should remain steady or increase as CaBi expands services.

Rides Started at Busiest Bikeshare Stations (Monthly Sum)



PROOF OF CONCEPT METHODOLOGY

Data:

- Two years of bike share ride data from CaBi's website
- Neighborhood boundaries from DC Open Data, zip code information from geopy

Scope:

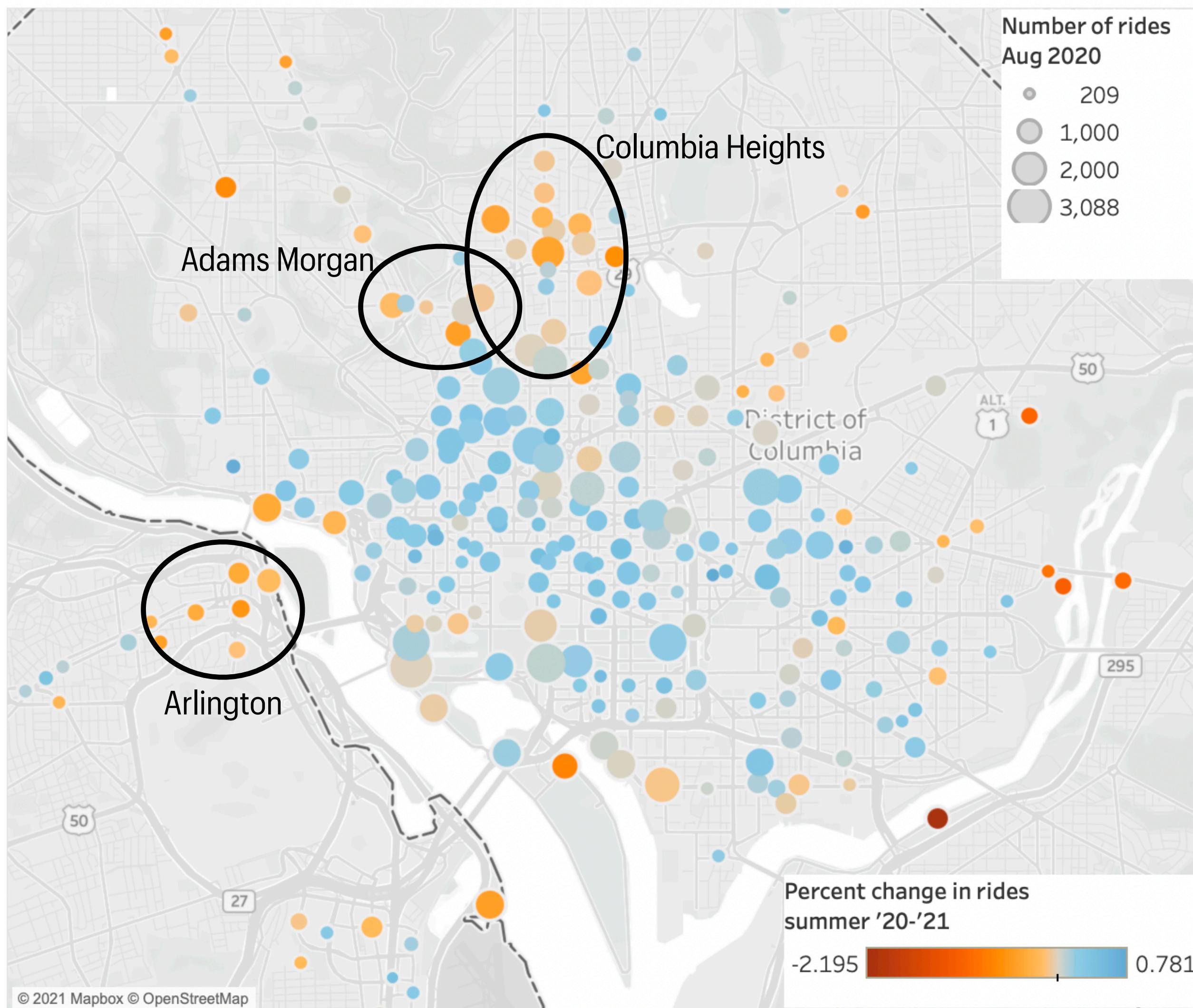
- Comparison of rides started from August + September 2021 to the same period in 2020
- Focus on stations with more than 200+ rides started per month in August 2020

INITIAL RESULTS

The following neighborhoods experienced a decrease in rides initiated in August and September 2021 as compared to 2020:

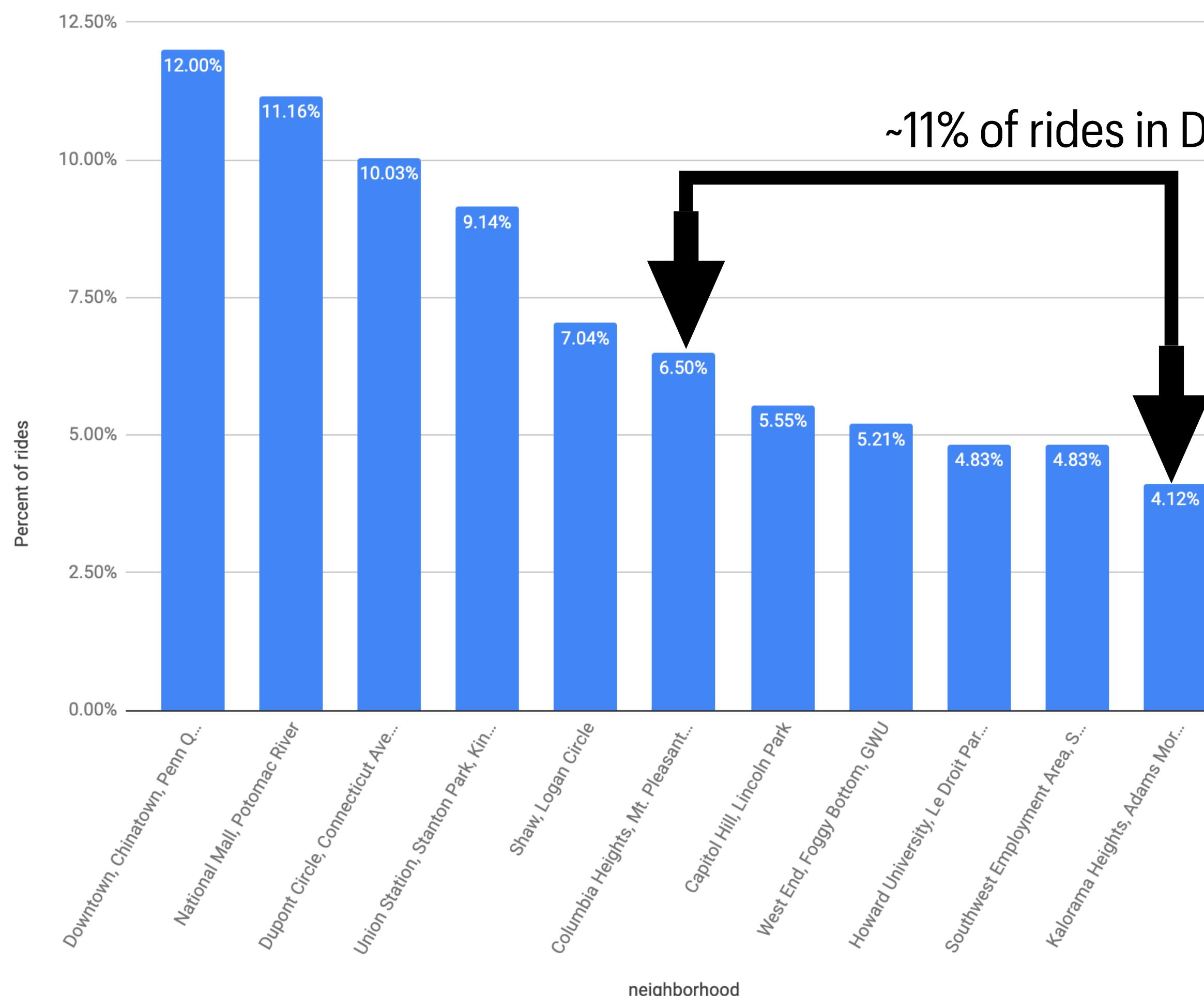
- Columbia Heights
- Adams Morgan
- Arlington

Changes in Capital Bikeshare Rides Initiated
(Aug & Sept 2020-2021)



DC NEIGHBORHOOD ANALYSIS

Bikeshare Rides Initiated in DC in 2021 by Neighborhood



Columbia Heights and Adams Morgan are densely populated neighborhoods.

Maintaining service in these areas would likely help keep regular bike share users.

Arlington, while outside of DC, is a densely populated suburb with many bike share users.

FUTURE WORK

Data:

- Bikeshare user demographics - where do they live?
- Bikeshare dock fill rate & functionality.
- Better neighborhood definition.

A photograph of the United States Capitol building in Washington, D.C. A person wearing a red tank top and dark shorts is riding a red Capital Bikeshare bicycle towards the left. The building's iconic dome and neoclassical architecture are visible against a clear blue sky. Several police officers in uniform are standing near the base of the steps.

DISCUSSION