

# Connecting Citi Bike to the MTA Network

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September 15, 2021



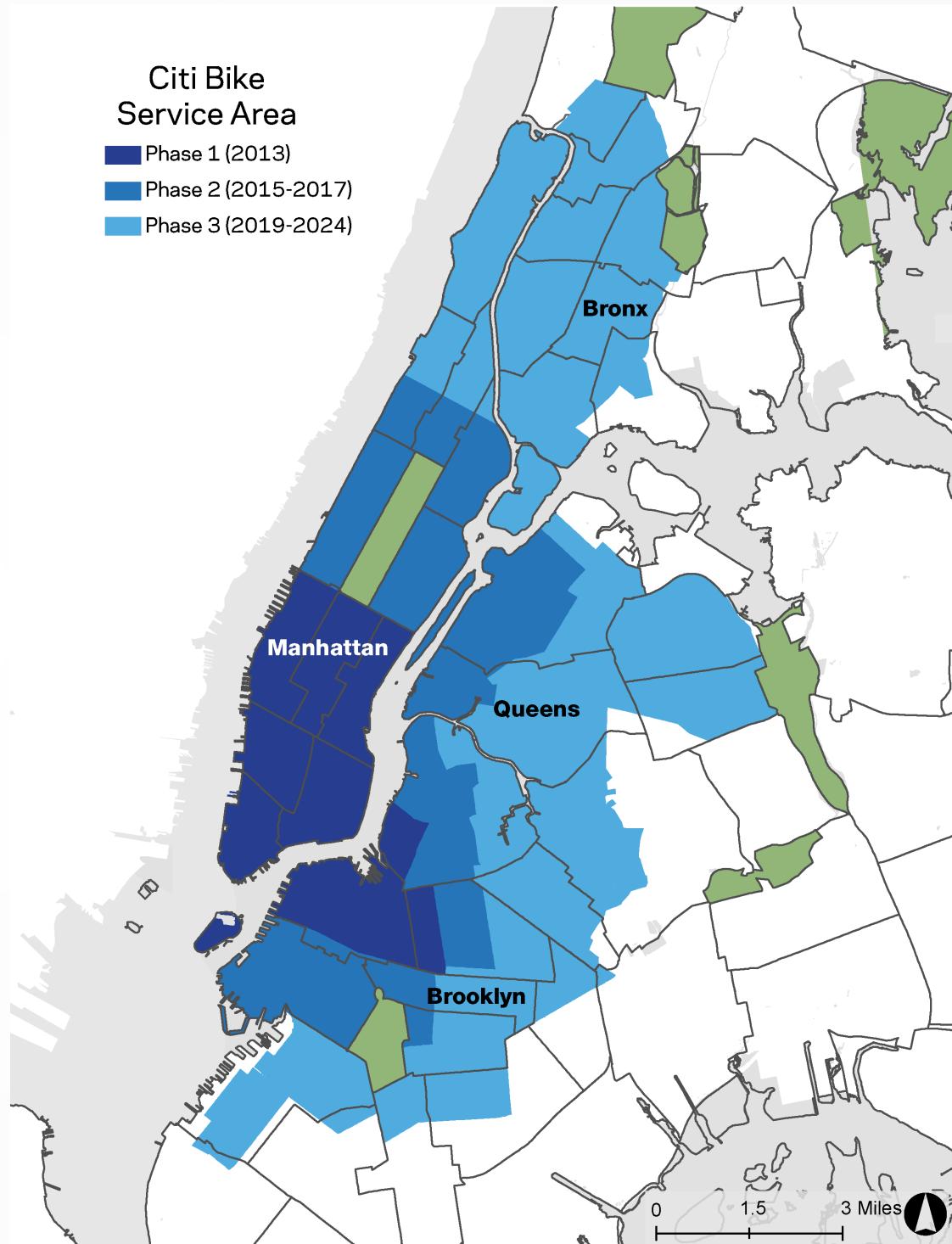
# Background

Citi Bike is expanding in 3 boroughs:  
Queens, the Bronx and Brooklyn.



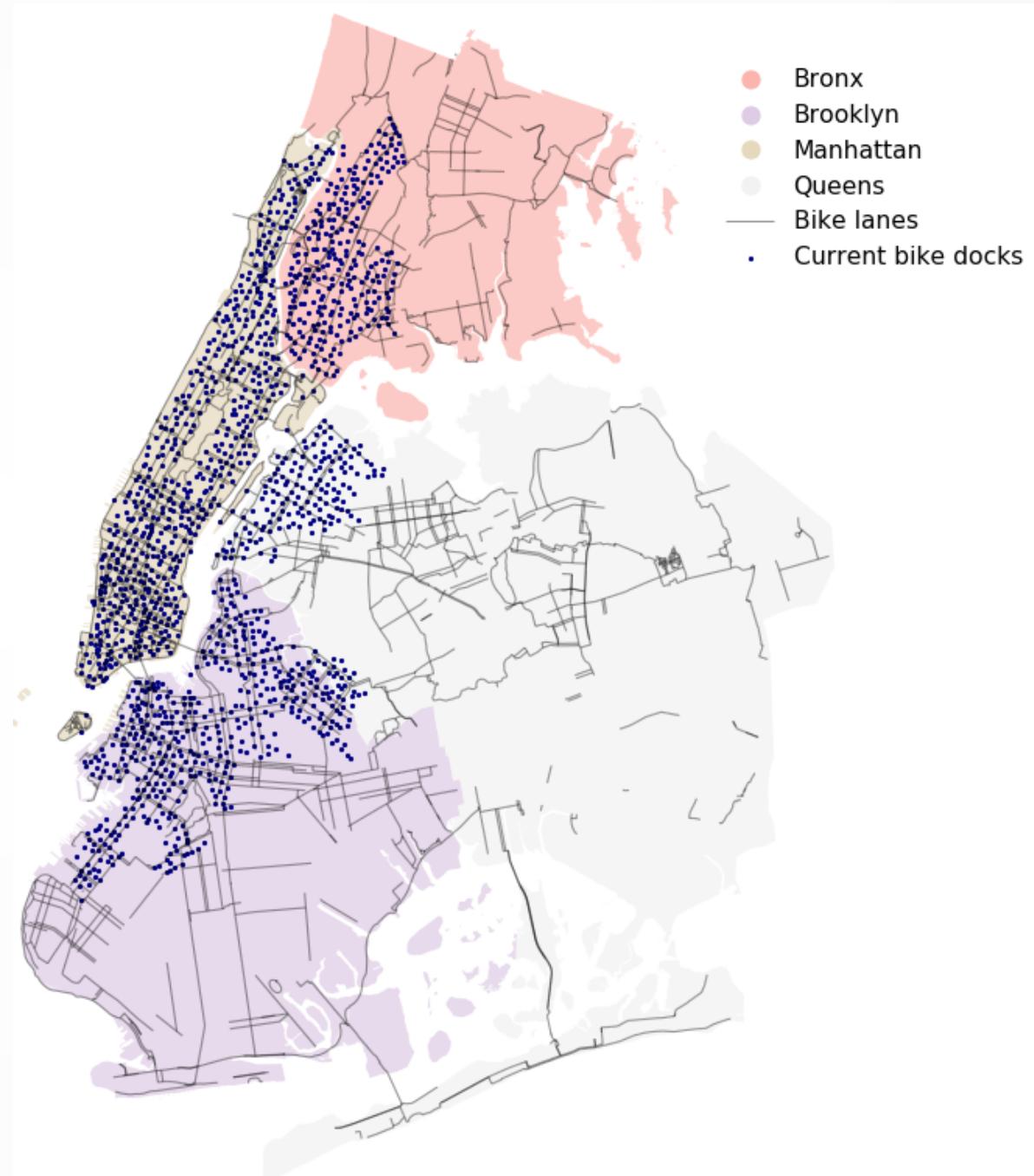
Citi Bike  
Service Area

- Phase 1 (2013)
- Phase 2 (2015-2017)
- Phase 3 (2019-2024)



# Background

Could public transit data help Citi Bike determine where to place new docks?



# Methodology

## “First/last mile problem”

- Commuters could be better connected from their final transit point to their destination (and vice versa)
- Bikeshare service could help bridge this gap
- Citi Bike can bring on new members and increase rental volume by placing new docks near busy transit stations



# Methodology

## Filtering MTA Stations

For regular commuters likely to try Citi Bike

### Turnstile Entries/Exits:

May - July 2019

Weekdays

Evening peak hours

### Station traffic patterns:

Mon-Fri >> Sat-Sun

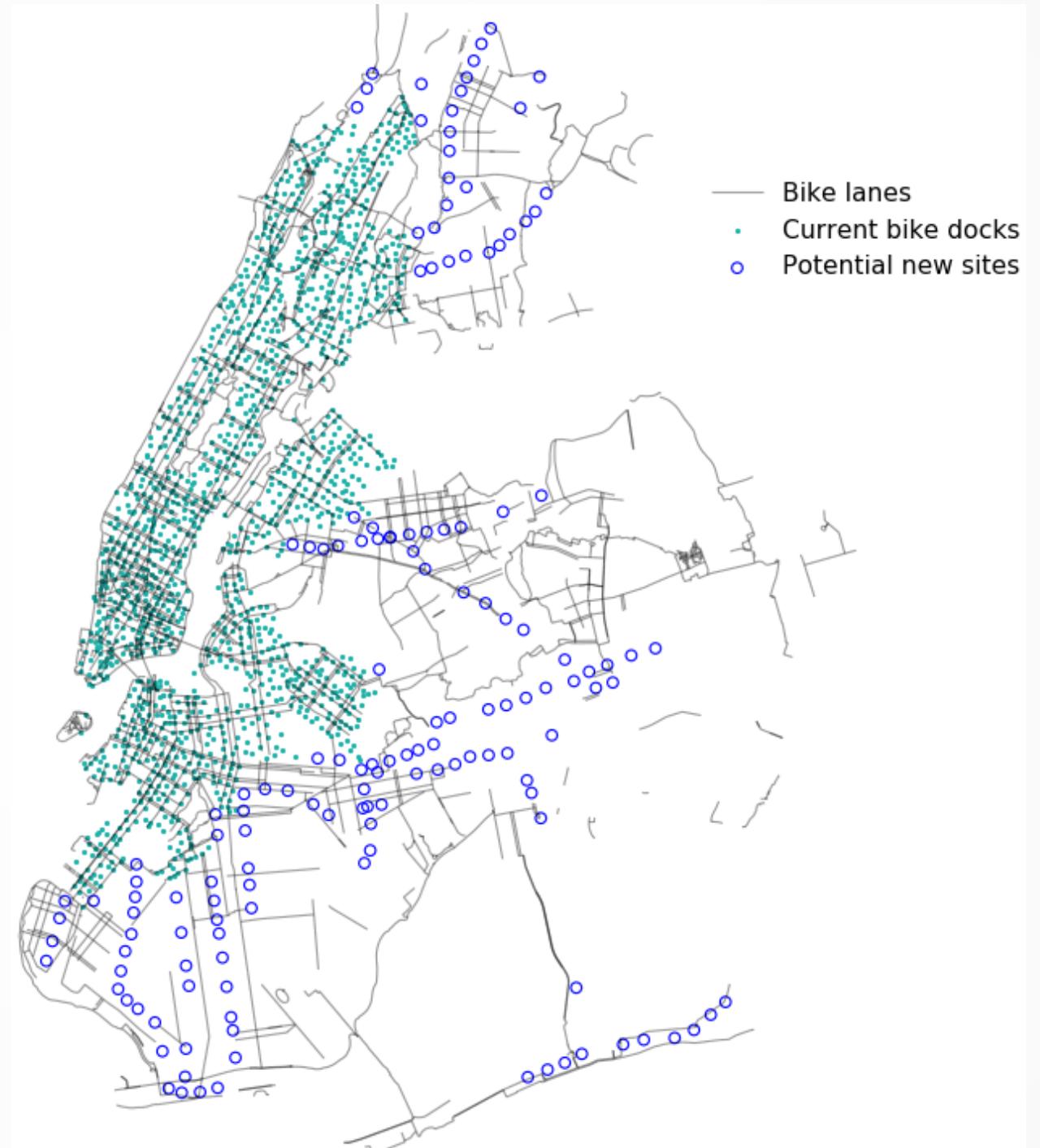
Cumulative entries recorded daily:

4 am - 8 am - 12 pm - 4 pm - 8 pm - 12 am

# Methodology

## Filtering MTA Stations

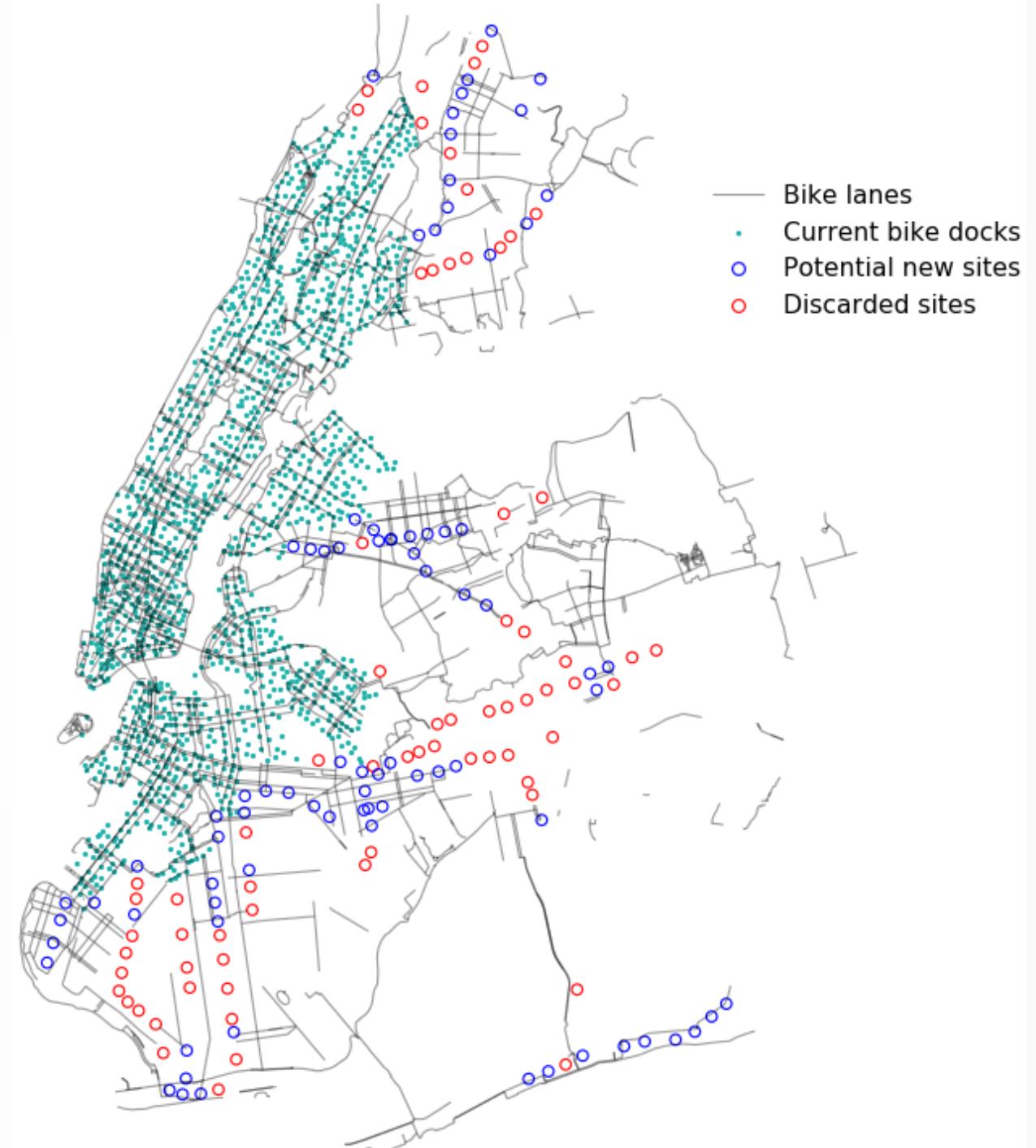
For stations near bike lanes and  
outside of current network



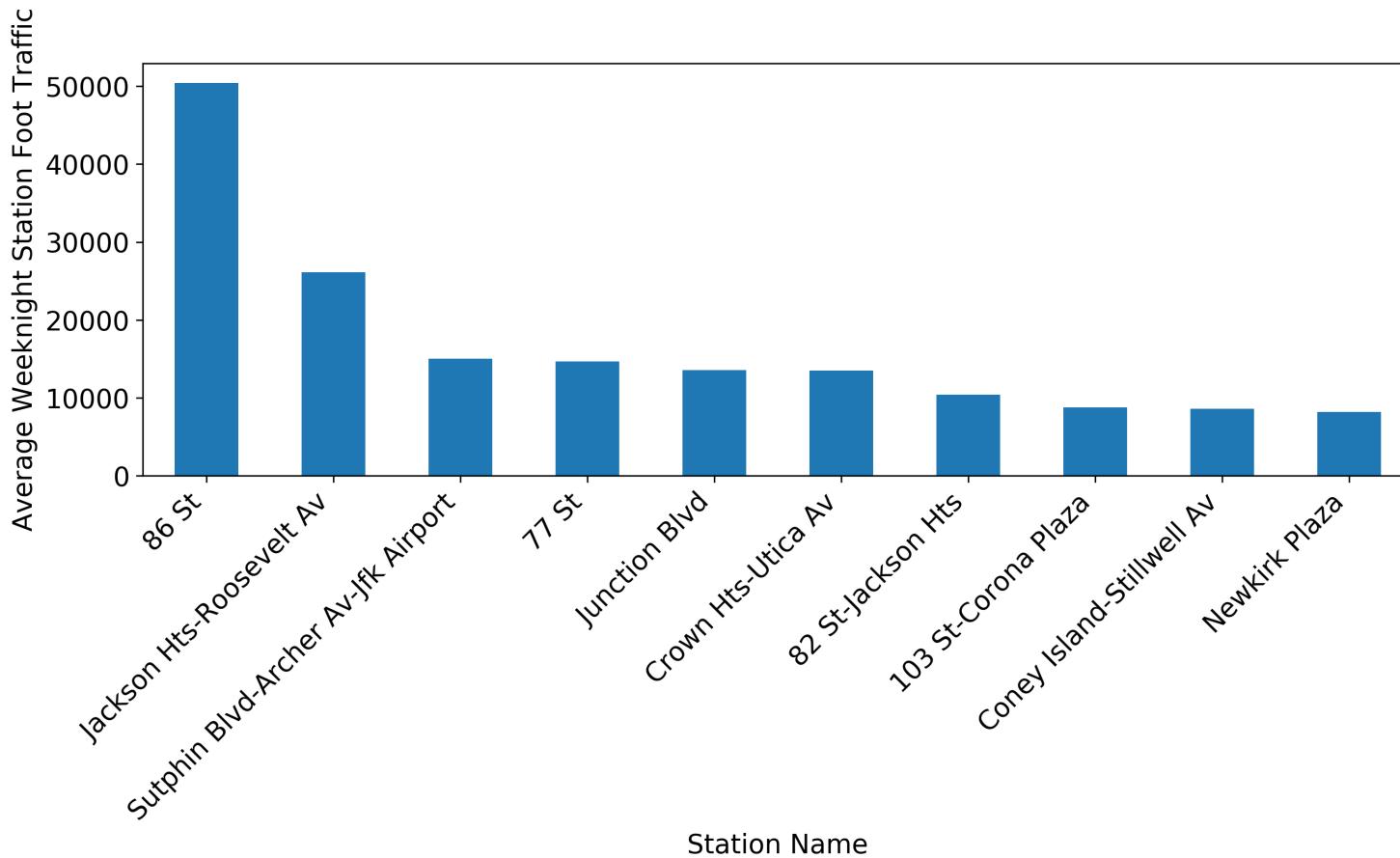
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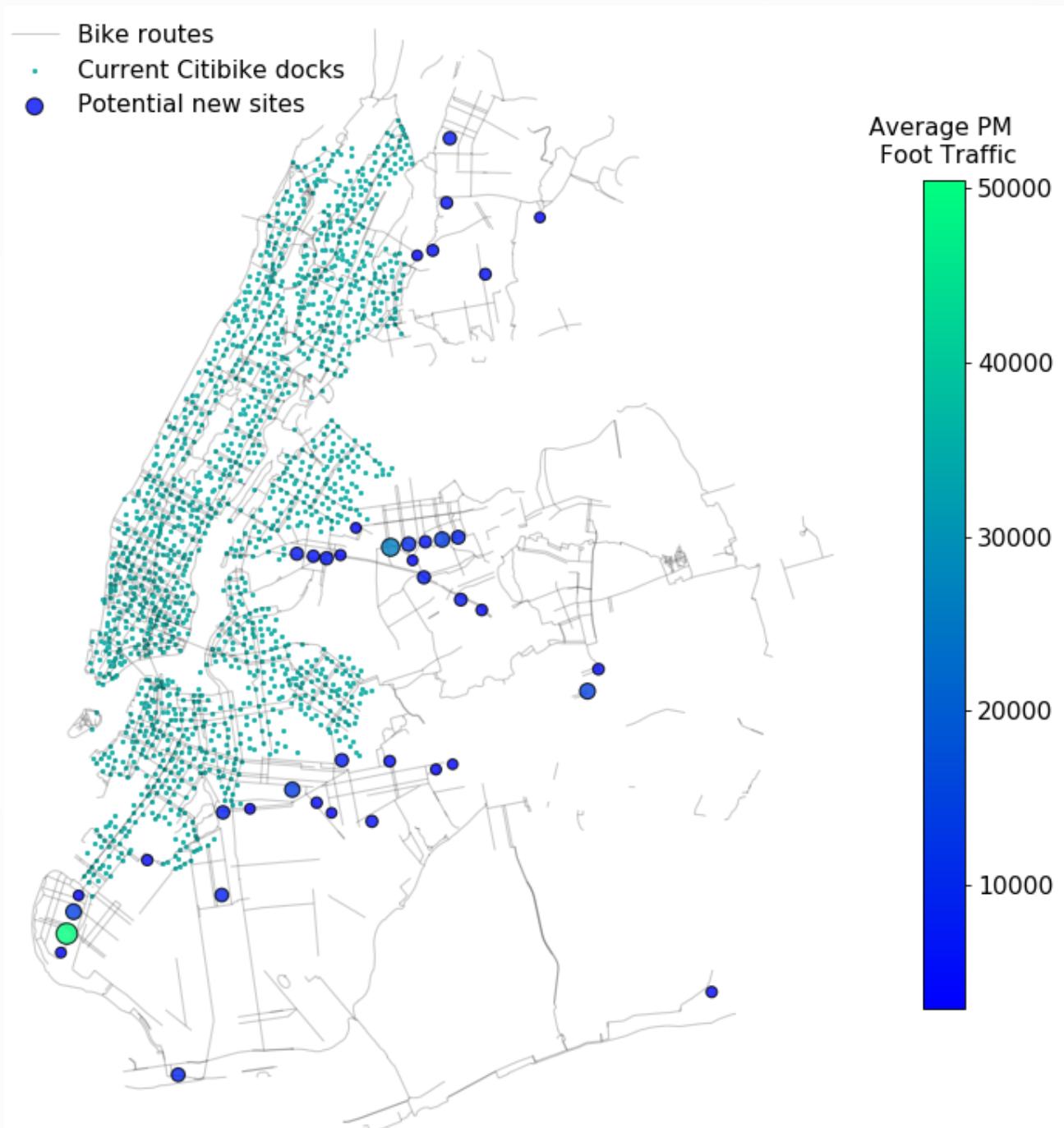
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# Results

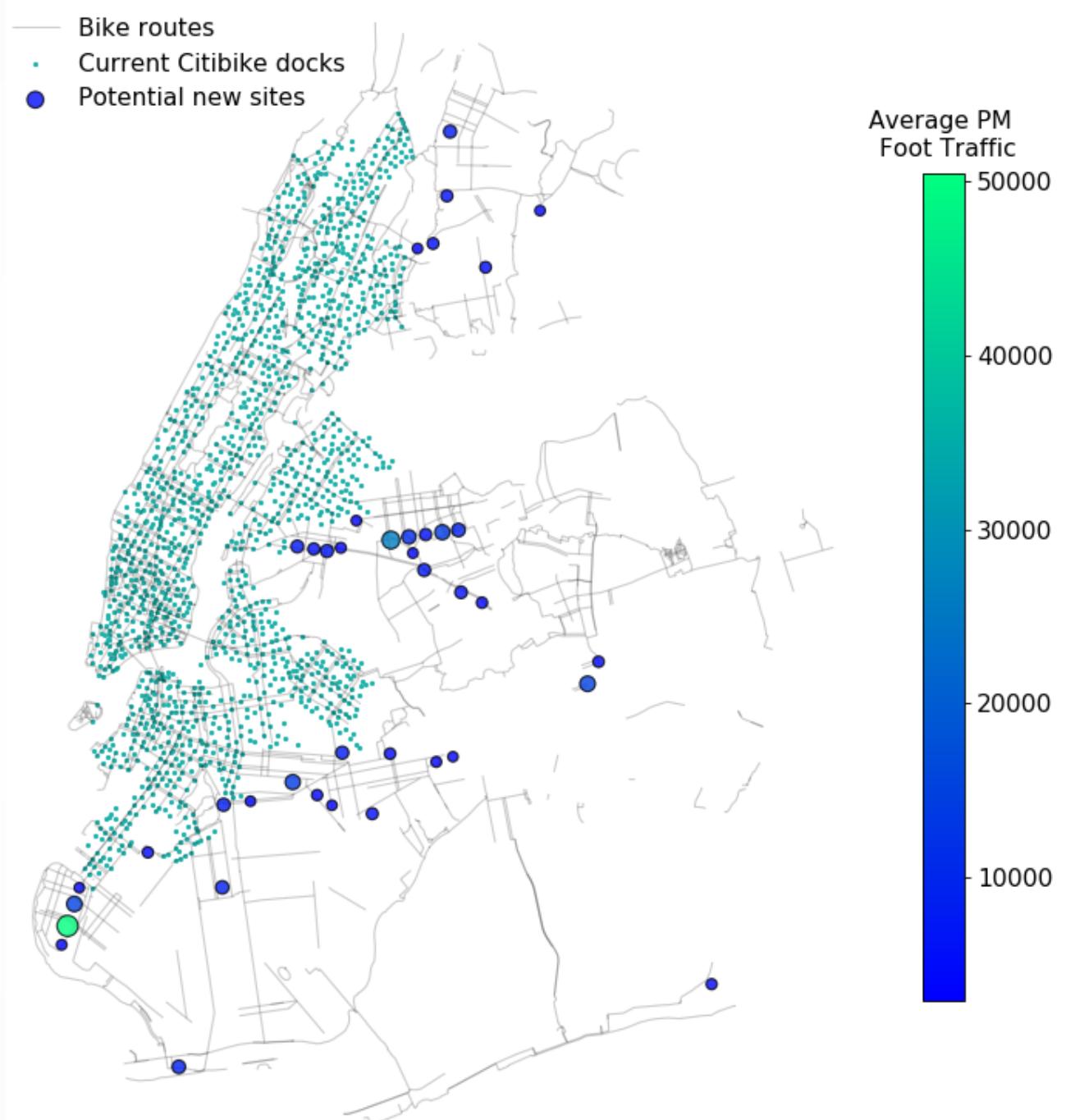


# Results



# Conclusions

- From commuter traffic patterns, it would make sense for Citi Bike to expand into Crown Heights, Jackson Heights and the Bronx as planned
- Station recommendations here can serve as “hubs” or suggest where demand is highest, while docks will need to cover a larger region
- Lack of bike lanes may become a limitation



# Future Work

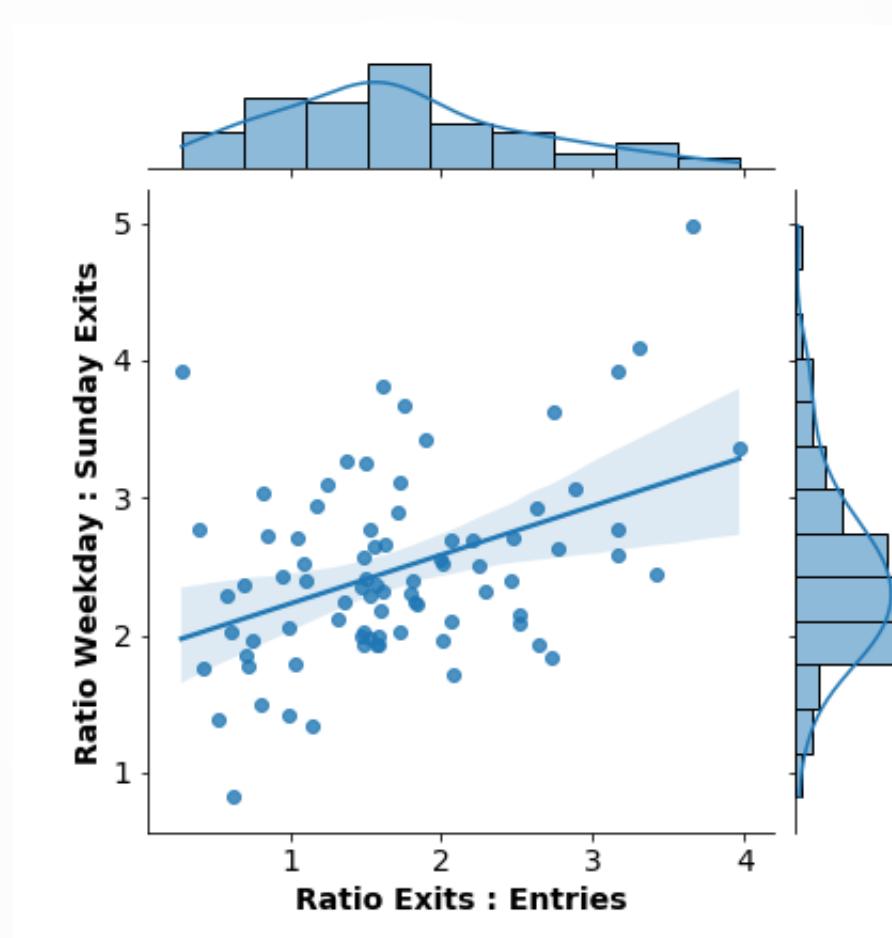
- Interactive plotting, to combine station traffic and geographical info
- The recommended MTA sites can be combined with more fine-grained recommendations from potential users who submitted comments
- Exploring Citi Bike's individual trip data would provide lots more information on how bike commuting relates to train commuting:
  - frequency of bike trip connections with terminal MTA stations
  - any relationship between bike usage and train station crowding
  - number of regular bike commuters versus occasional riders
  - evaluating if ridership decreases with transit connectivity

# Thank you!

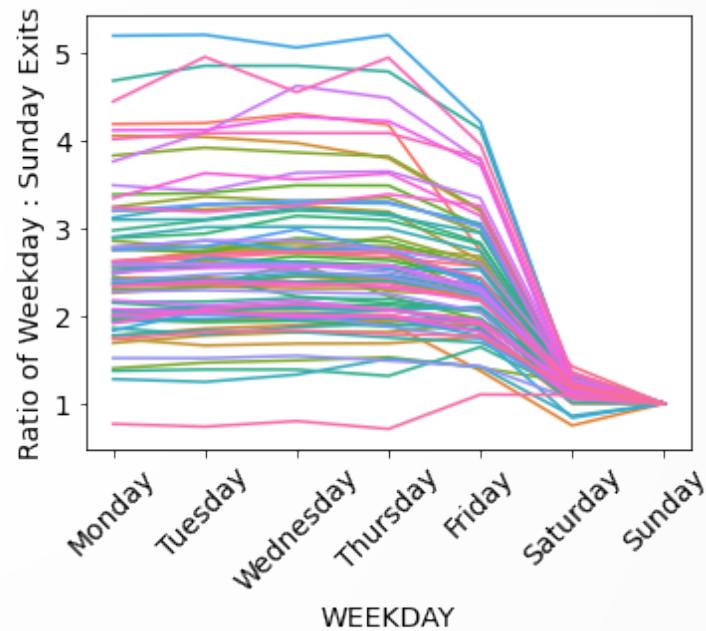
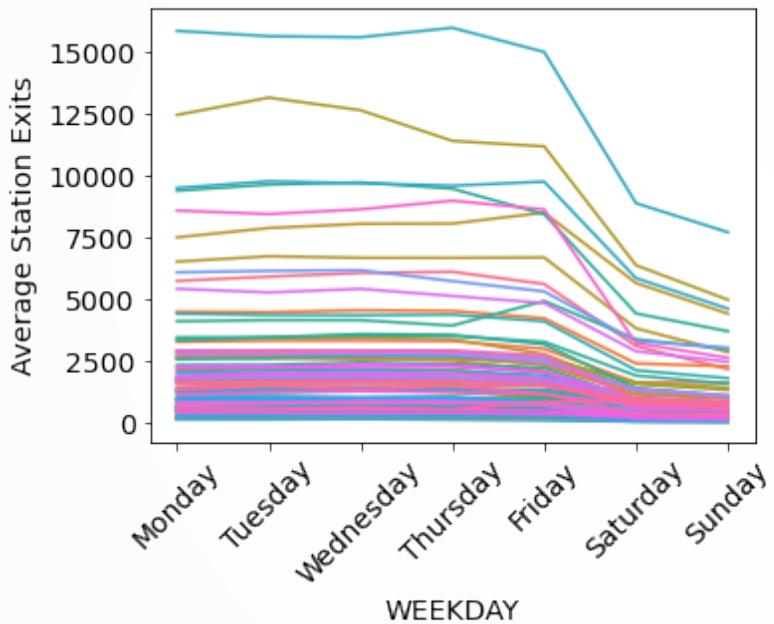


Please get in touch with any questions:  
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# Appendix



# Appendix



# Appendix

Avg volume of exits vs. entries during weekday peak hours

