



DEATH NOTE ANALYSIS

COLUMBIA UNIVERSITY CAPSTONE PROJECT



EXECUTIVE SUMMARY

Business Problem and Hypothesis

Research Questions and Methodologies

Limitations

Sources

BUSINESS PROBLEM & HYPOTHESIS

Business problem:

Among the six initiatives (arterial, bike priority, crossroad, left turn, signal improvement, speed hump), which one has the **greatest impact in reducing** fatality rate and therefore should **get more funding?**

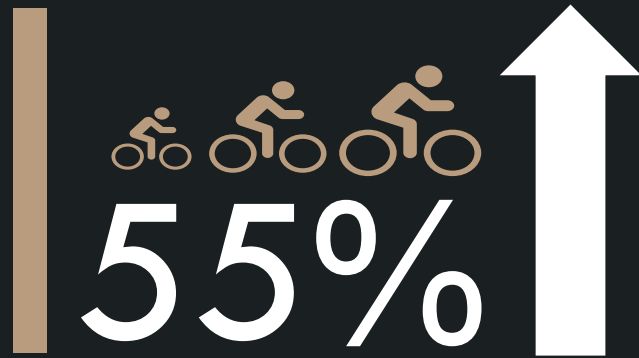
Hypothesis:

The six initiatives are **sustainable.**

BACKGROUND

Number of Cyclists

2012 - 2017

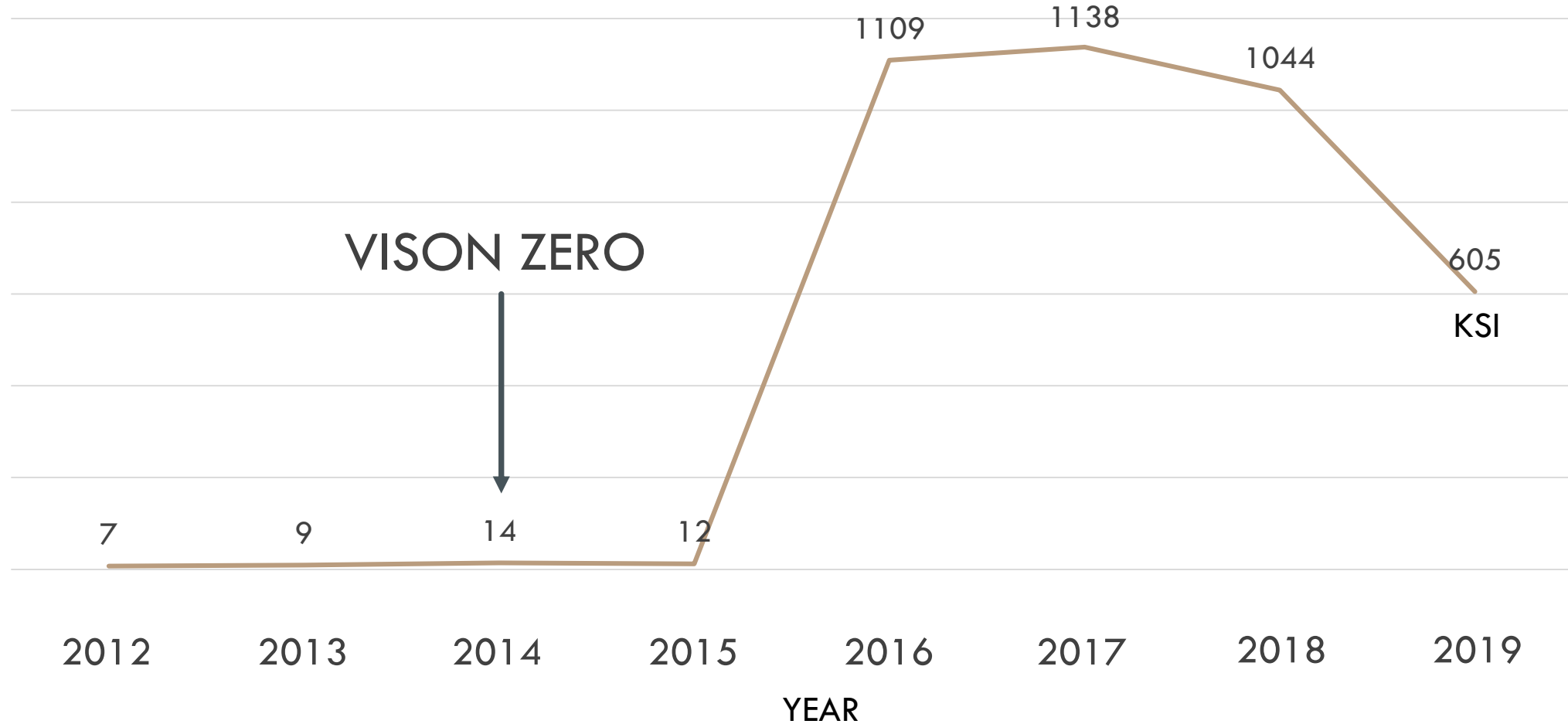


NYC Cyclists Risk

KSI / 1 million trips KSI : Killed or Severely Injured



BACKGROUND : DATA



ASSUMPTION 1:

THE SPIKE IN 2016 IS
DUE TO THE NYPD'S
ADOPTION OF A
DIGITAL REPORTING
SYSTEM.



KSI : KILLED OR SEVERELY INJURED

КСI REPORT: BY ROAD TYPES & BOROUGHС





ASSUMPTION 2:

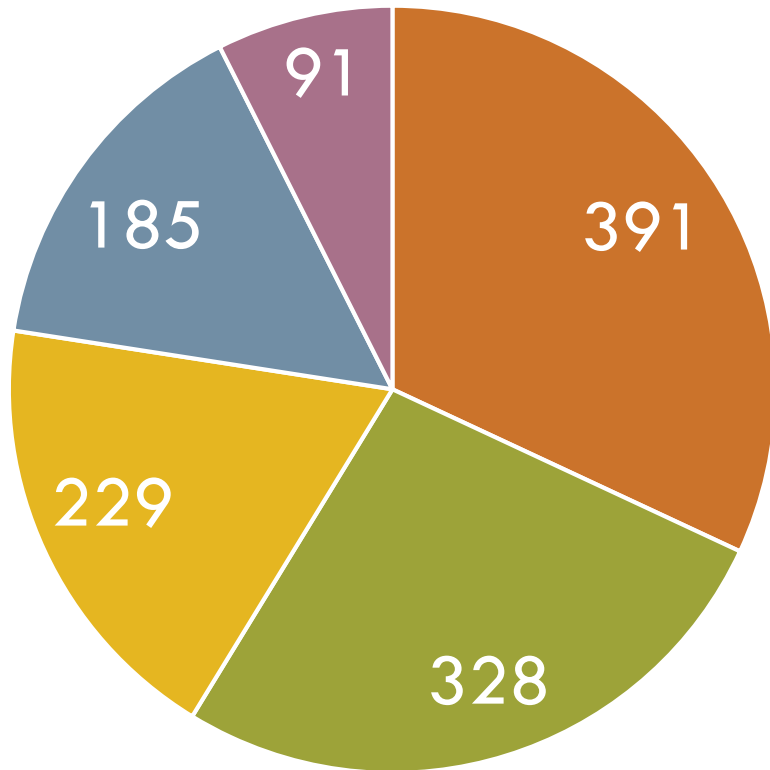
FOR AN ACCIDENT TO
BE CATEGORIZED AS
KSI, IT MUST INVOLVE
A VEHICLE.

QUESTION 1:

WHICH BOROUGH
HAS THE HIGHEST KSI?



KSI: BOROUGH



Brooklyn: 391 KSIs

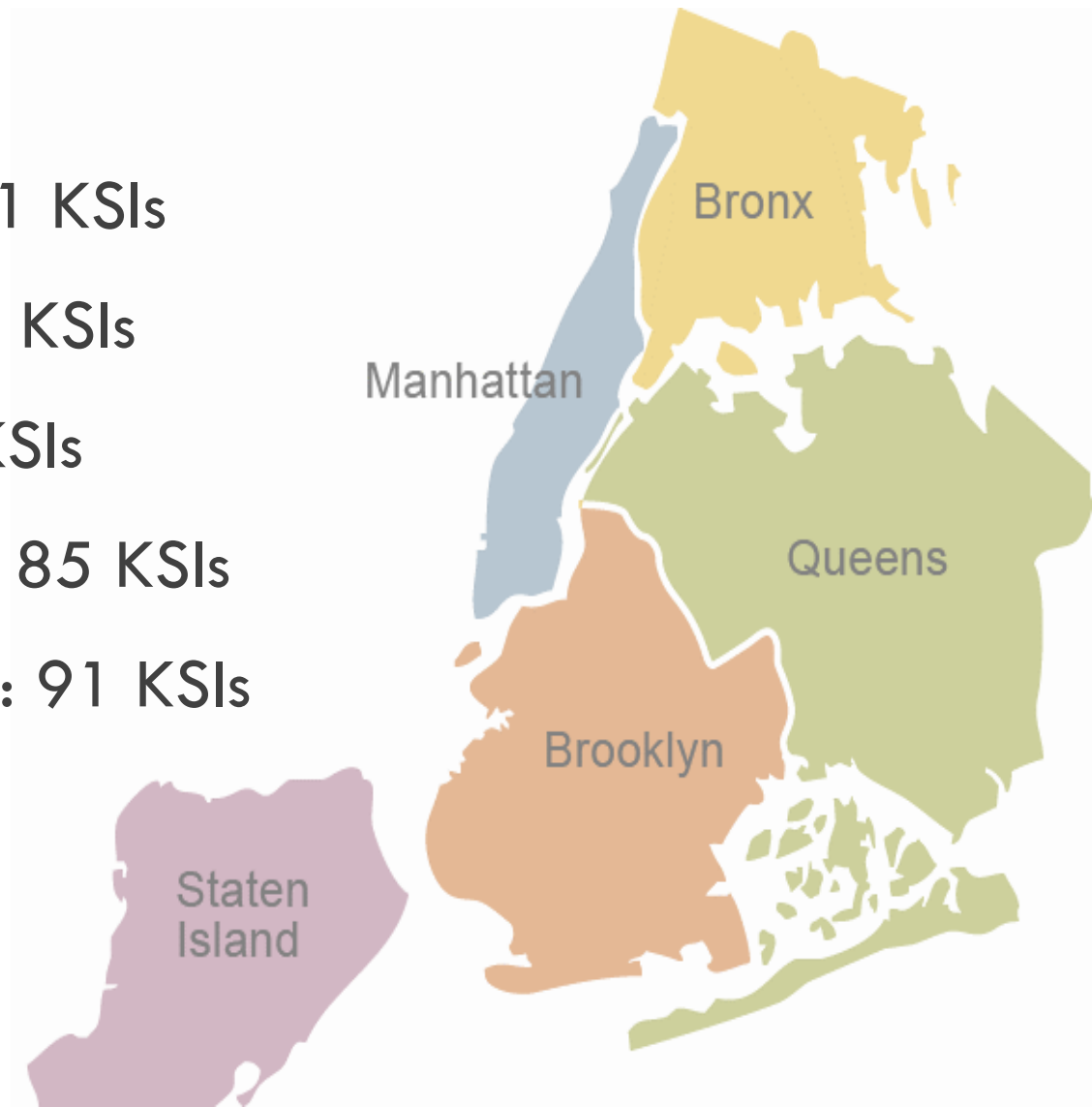
Queens: 328 KSIs

Bronx: 229 KSIs

Manhattan: 185 KSIs

Staten Island: 91 KSIs

From 2012-2018



QUESTION 2:

WHICH ROAD TYPE
HAS THE LOWEST KSI?



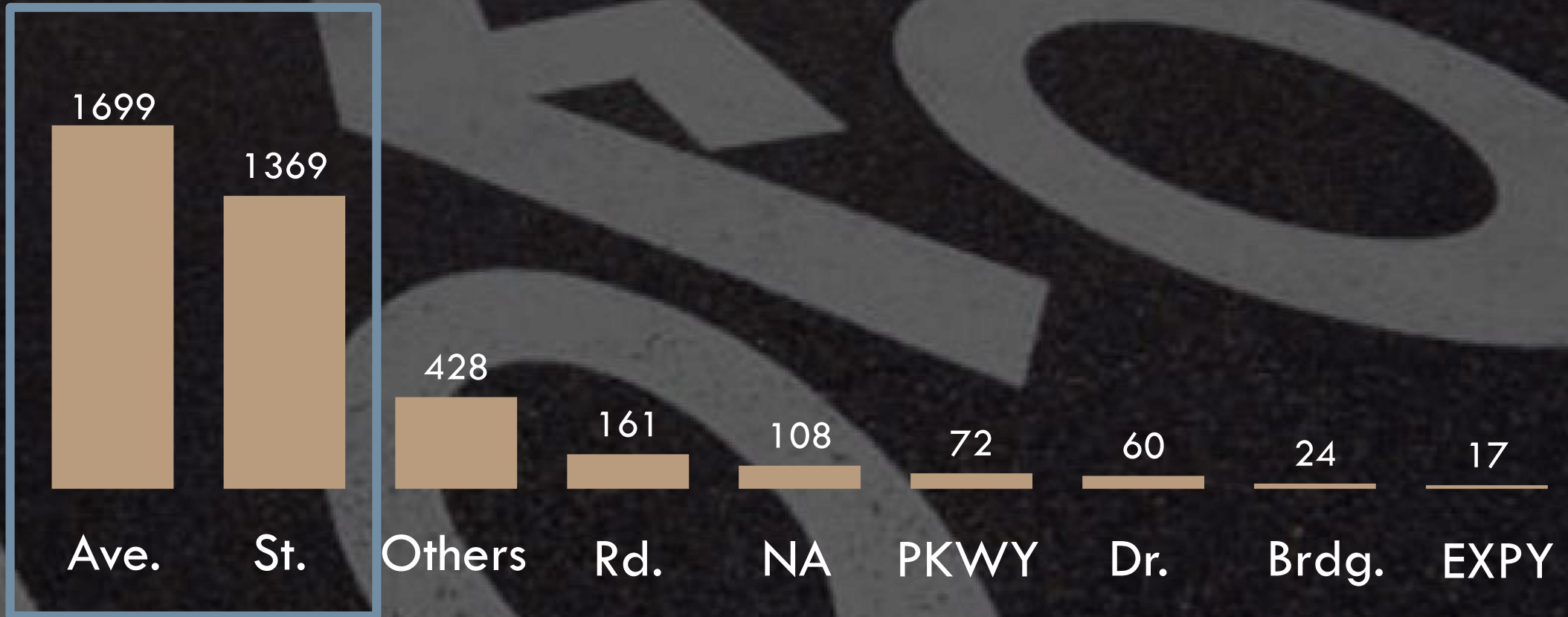
KSI BY ROAD TYPES



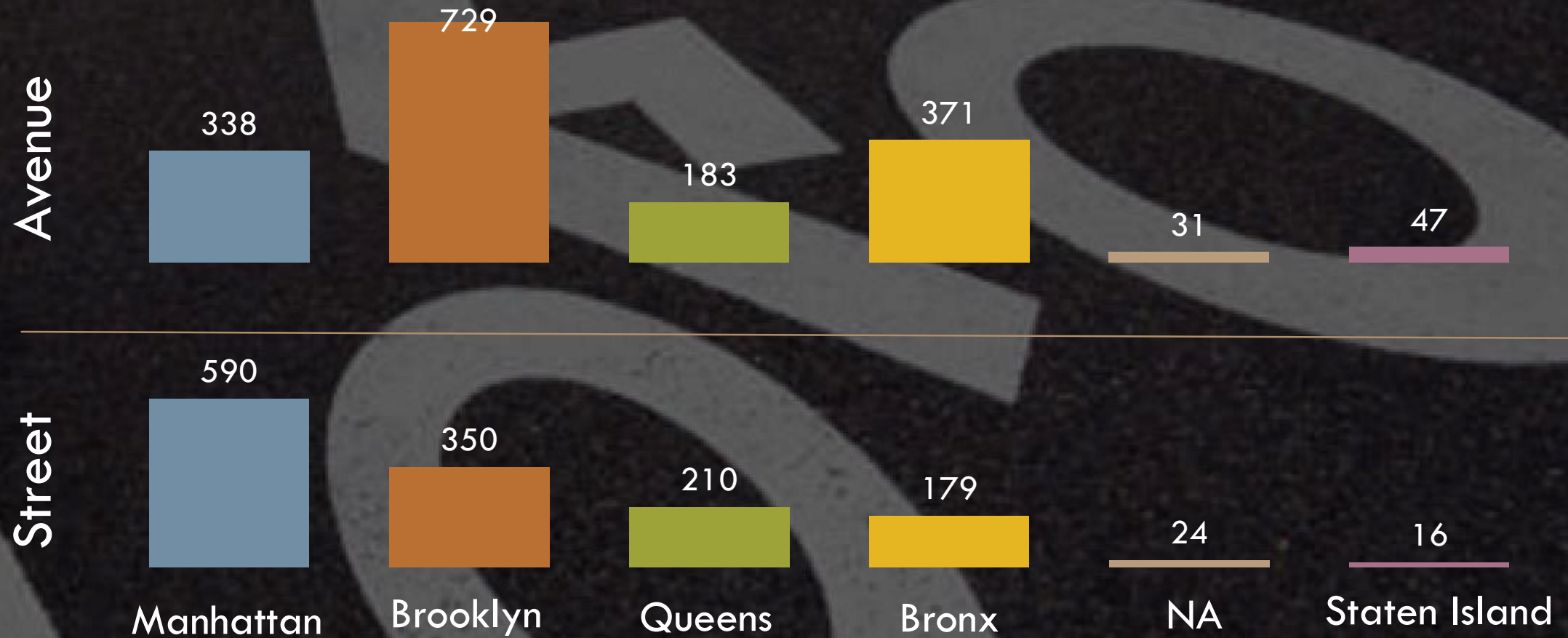
A CLOSE
INVESTIGATION
OF THE TOP 2
ROAD TYPES BY
KSI:
BY BOROUGH



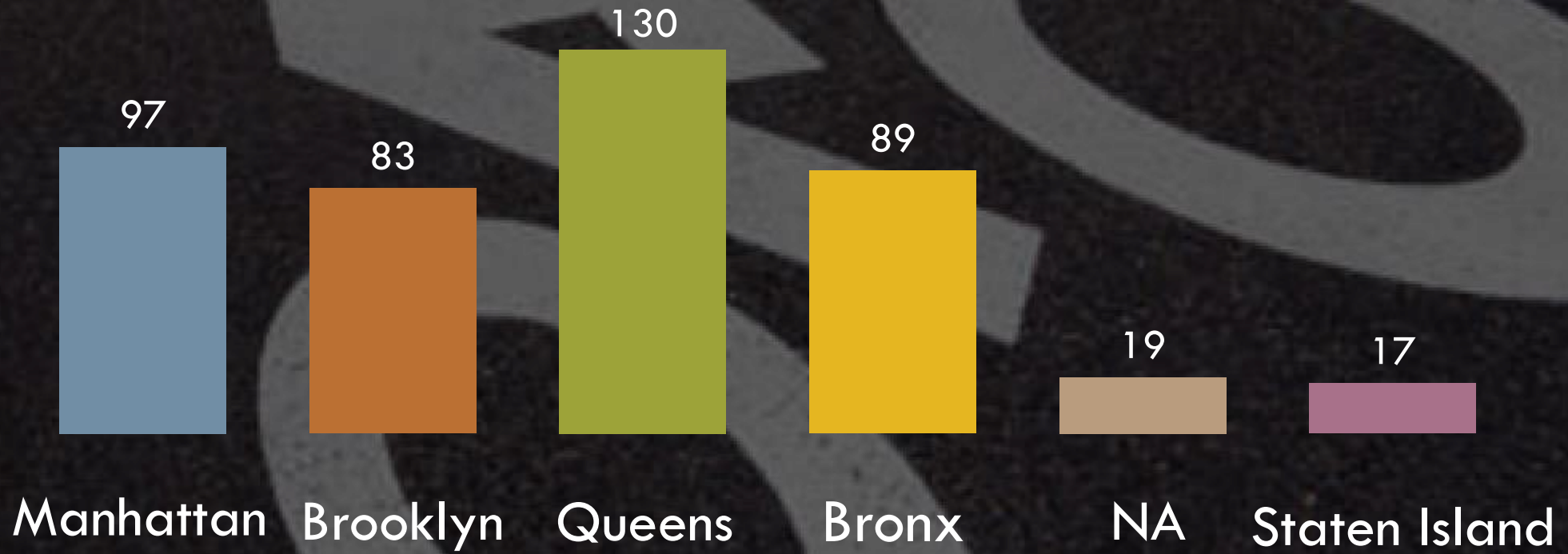
THE TOP 2 KSI ROAD TYPES



KSI BY THE TOP 2 ROAD TYPES

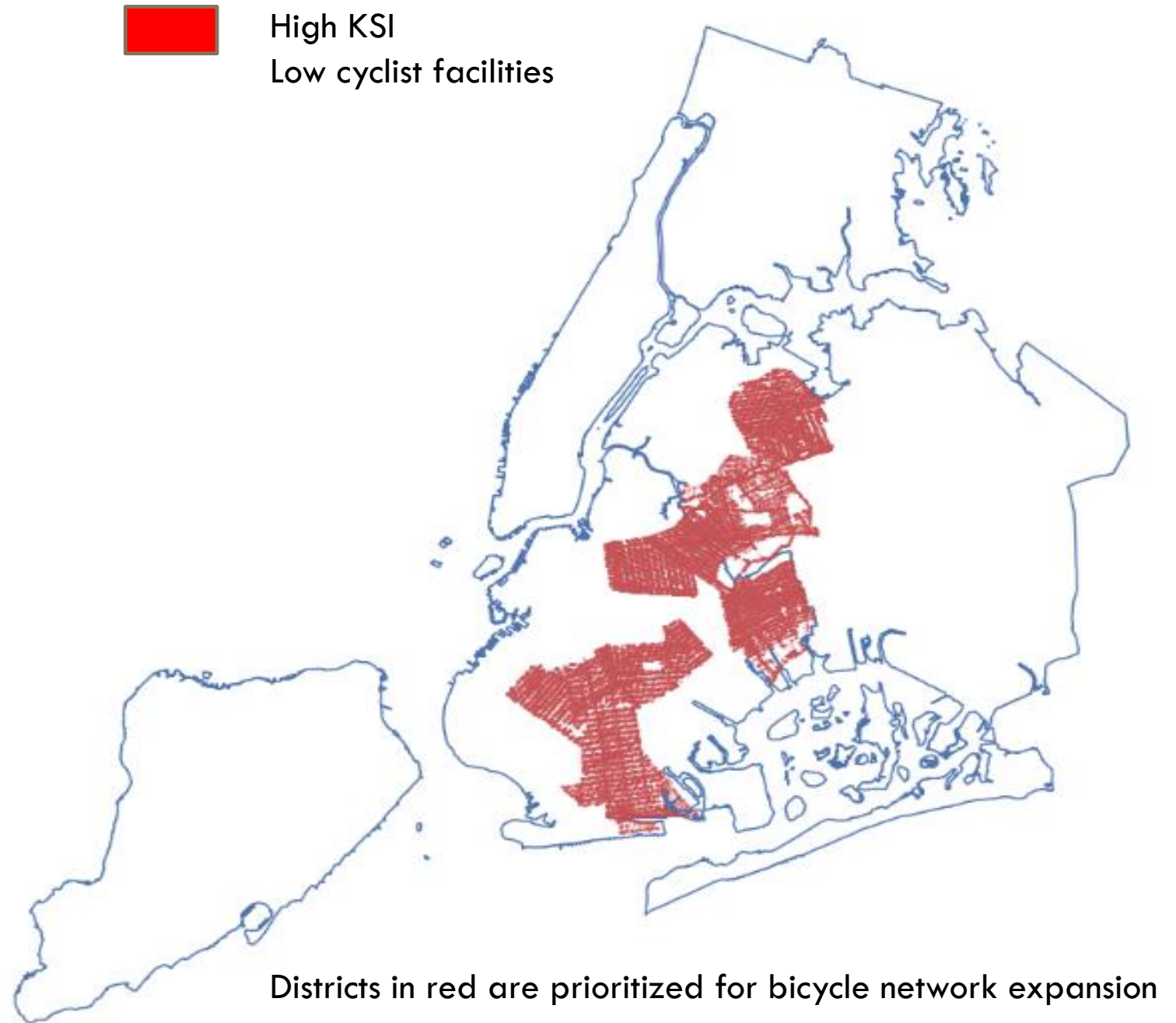


KSI BY OTHER ROAD TYPES



QUESTION 3:

DO THE CURRENT 10
PRIORITY BICYCLE
DISTRICTS BEST
REPRESENT THE AREAS
THAT NEED RIDERSHIP
SAFETY ATTENTION?

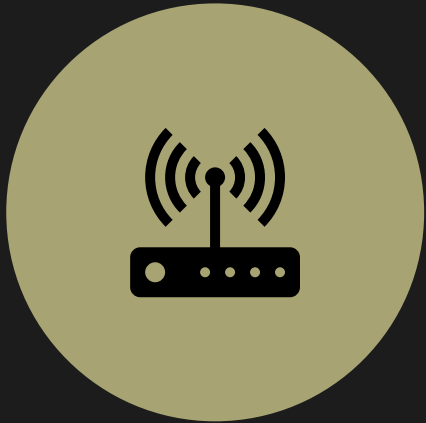




ASSUMPTION 3:

EACH PRIORITY
BICYCLE DISTRICT HAS
SIMILAR BIKE FACILITY
CONDITIONS

LIMITATIONS



NO PROOF OF
DIGITAL EQUIPMENT



NO CYCLIST VOLUME
DATA



NO DATA FOR BIKE
FACILITY INSTALLATION

THANK YOU AND PLEASE ASK US QUESTIONS!



REFERENCES

- <https://nyc.streetsblog.org/2019/02/04/bloody-january-cyclist-injuries-and-fatalities-soared-last-month/>
- <https://www1.nyc.gov/html/dot/html/bicyclists/bike-ridership-safety.shtml>
- <http://www.nycvzv.info/>

