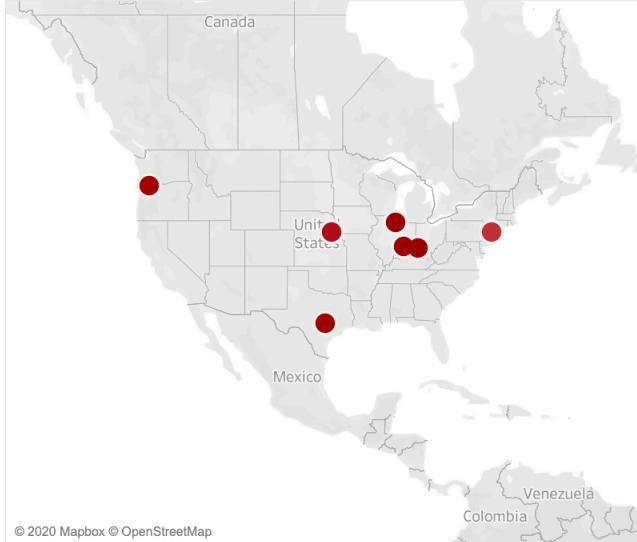
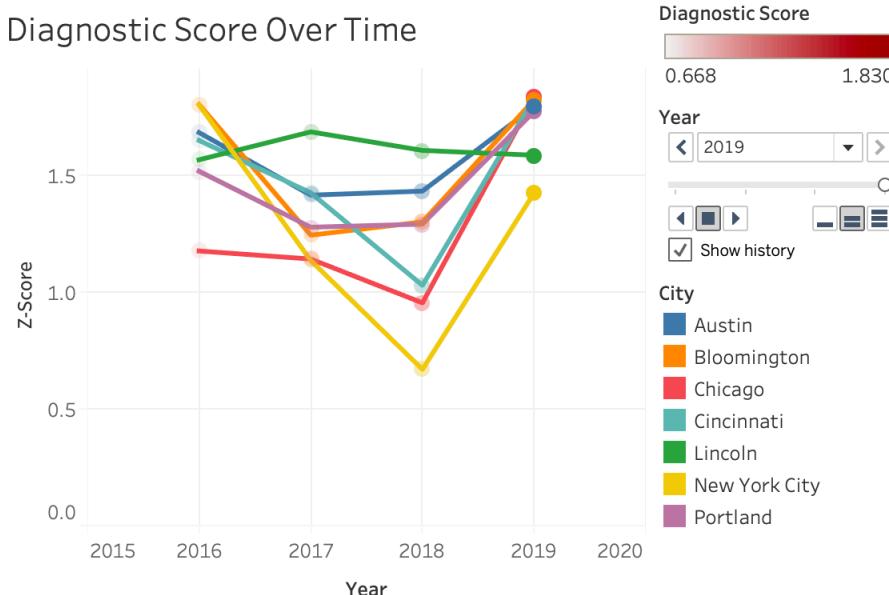


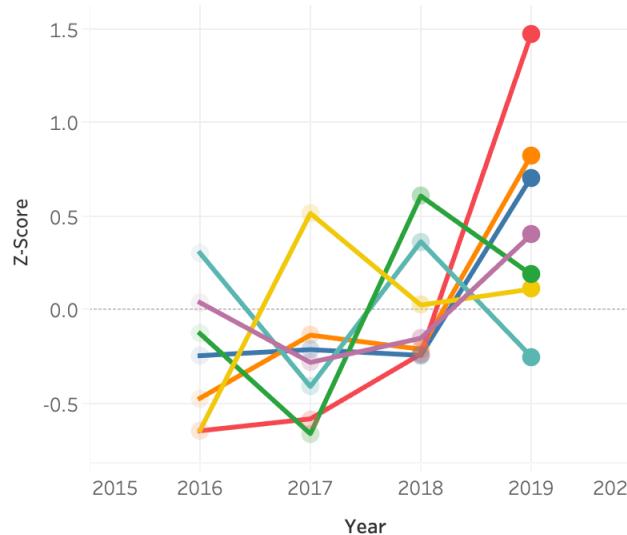
Diagnostic Score Over Time



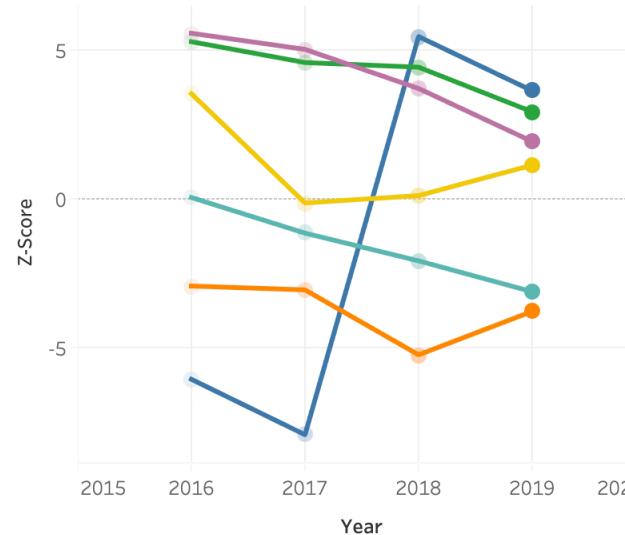
Diagnostic Score Over Time



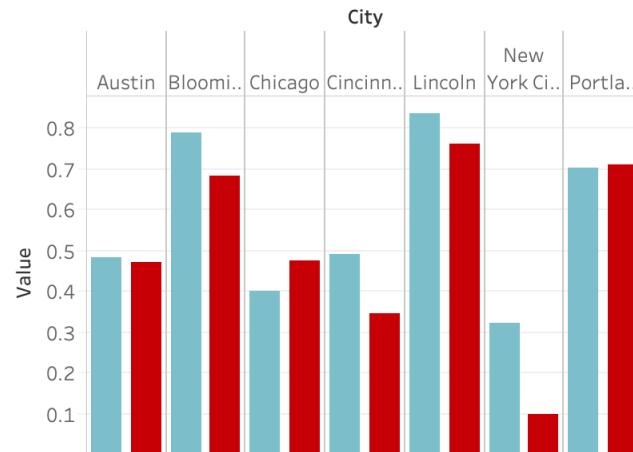
Average Racial Bias Score Over Time



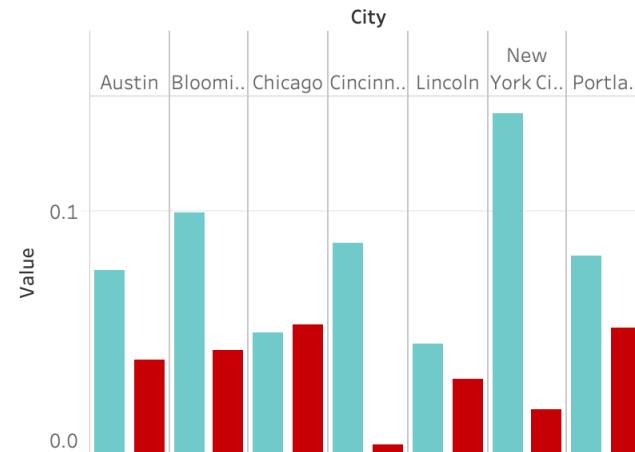
Average Excessive Force Score Over Time



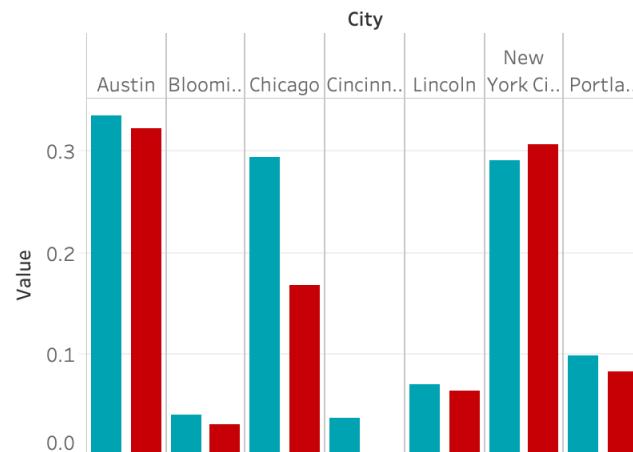
Percentage of Stops Involving **White**
Drivers Relative to Their Population, Avg.
2016 - 2019



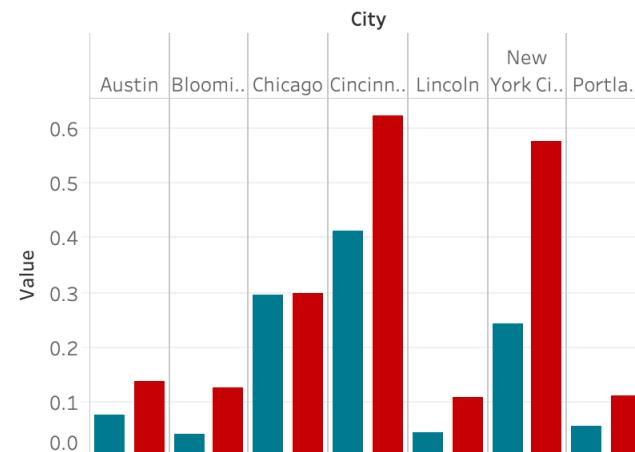
Percentage of Stops Involving **Asian**
Drivers Relative to Their Population, Avg.
2016 - 2019



Percentage of Stops Involving **Latinx**
Drivers Relative to Their Population, Avg.
2016 - 2019



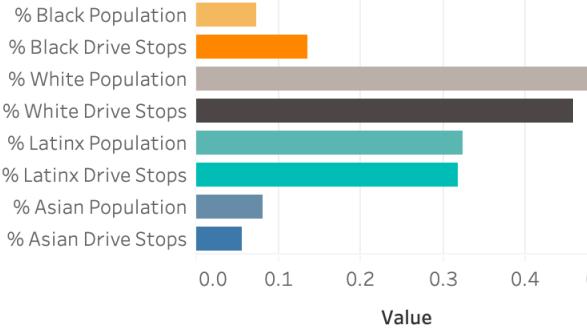
Percentage of Stops Involving **Black**
Drivers Relative to Their Population, Avg.
2016 - 2019



AUSTIN, TEXAS



Proportion of Population v. Drive Stops



City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

Measure Names

- % Black Population
- % Black Drive Stops
- % White Population
- % White Drive Stops
- % Latinx Population
- % Latinx Drive Stops
- % Asian Population
- % Asian Drive Stops

Year

2019

Show history

Year

2019

Show history

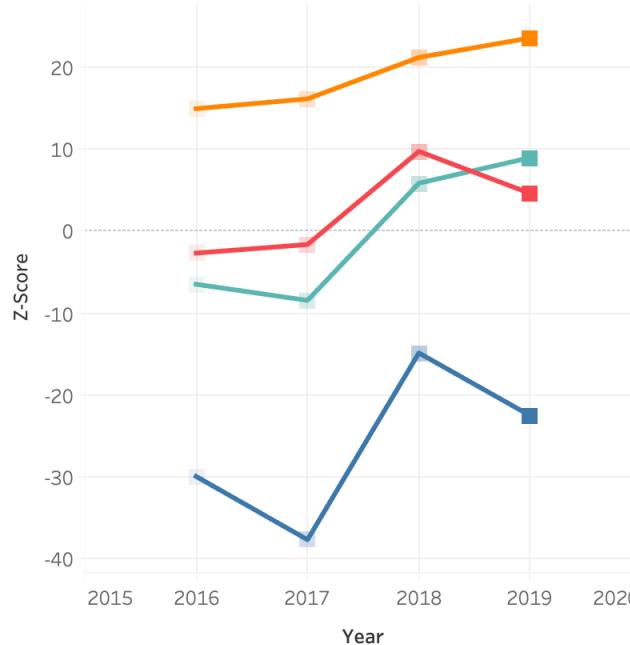
Measure Names

- Asian Excessive Forc..
- Black Excessive Forc..
- Latinx Excessive For..
- Other Excessive Forc..

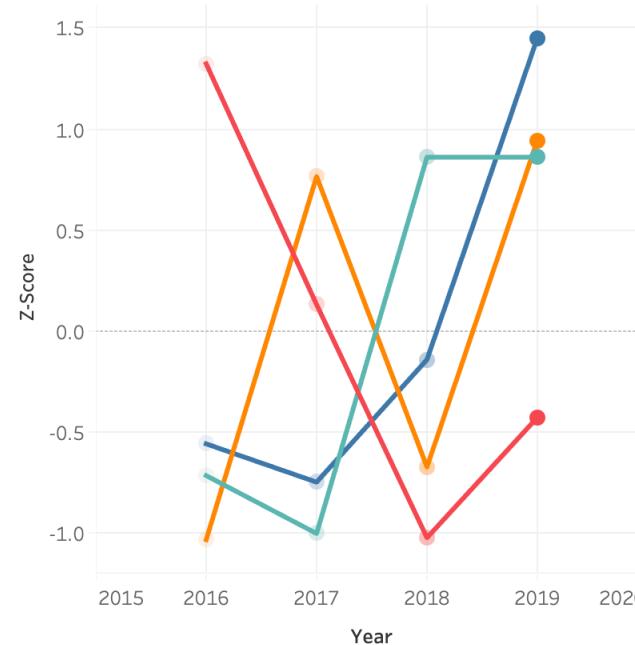
Diagnostic Score



Austin: Excessive Force Scores by Race



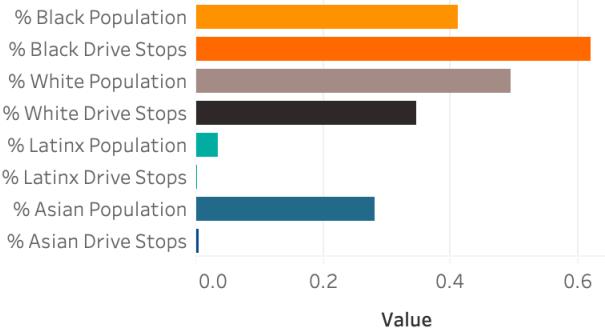
Austin: Racial Bias Scores



CINCINNATI, OHIO



Proportion of Population v. Drive Stops



Diagnostic Score

1.0270 1.8256

Year

◀ 2019 ▶

◀ ▶ ⏪ ⏩ ⏴ ⏵

Show history

City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

Measure Names

- Orange: % Black Population
- Red: % Black Drive Stops
- Brown: % White Population
- Dark Blue: % White Drive Stops
- Cyan: % Latinx Population
- Light Blue: % Latinx Drive Stops
- Dark Teal: % Asian Population
- Blue: % Asian Drive Stops

Year

◀ 2019 ▶

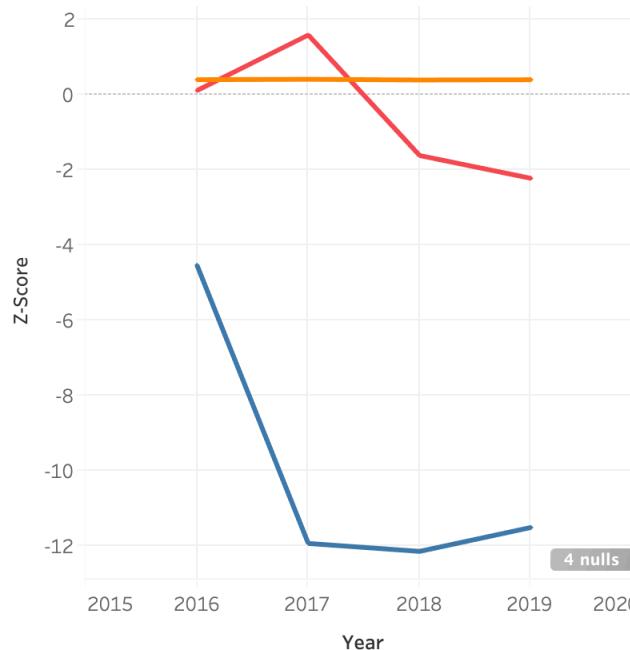
◀ ▶ ⏪ ⏩ ⏴ ⏵

Show history

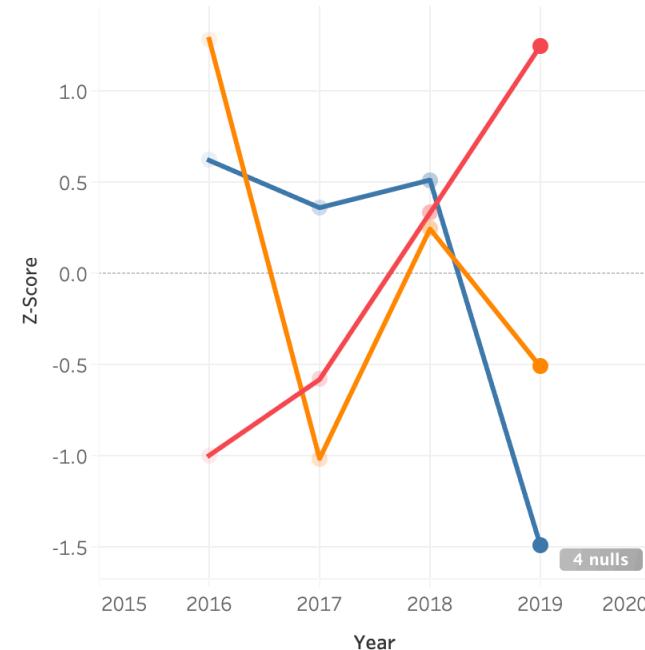
Measure Names

- Blue: Asian Excessive Force..
- Orange: Black Pct
- Cyan: Latinx Excessive For..
- Red: Other Excessive For..

Cincinnati: Excessive Force Scores by Race



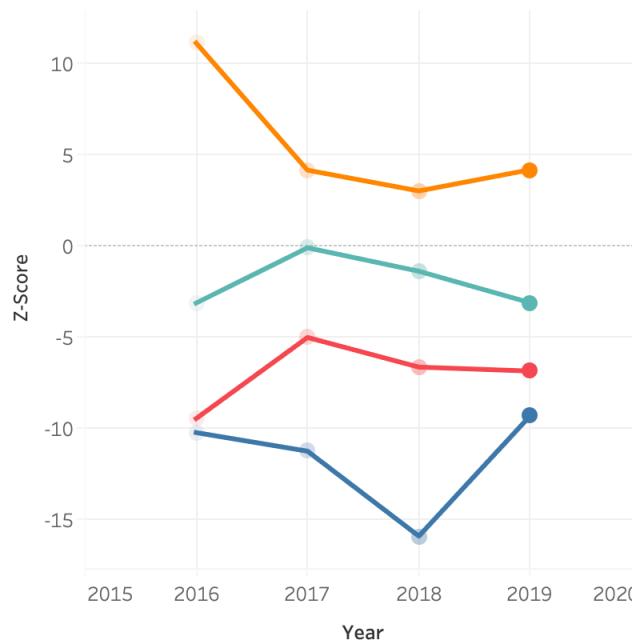
Cincinnati: Racial Bias Scores



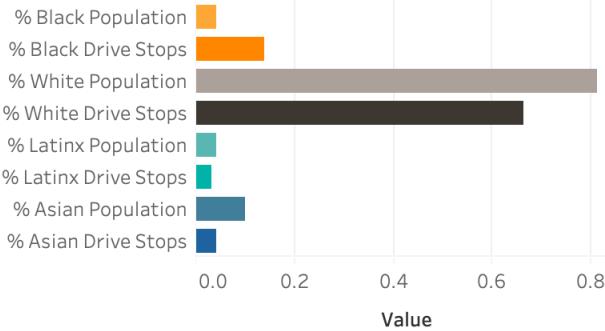
BLOOMINGTON, INDIANA



Bloomington: Excessive Force Scores by Race



Proportion of Population v. Drive Stops



Diagnostic Score



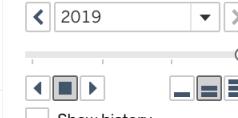
City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln

Measure Names

- % Black Population
- % Black Drive Sto..
- % White Populati..
- % White Drive Sto..
- % Latinx Populati..
- % Latinx Drive Sto..

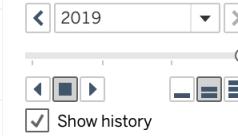
Year



Year



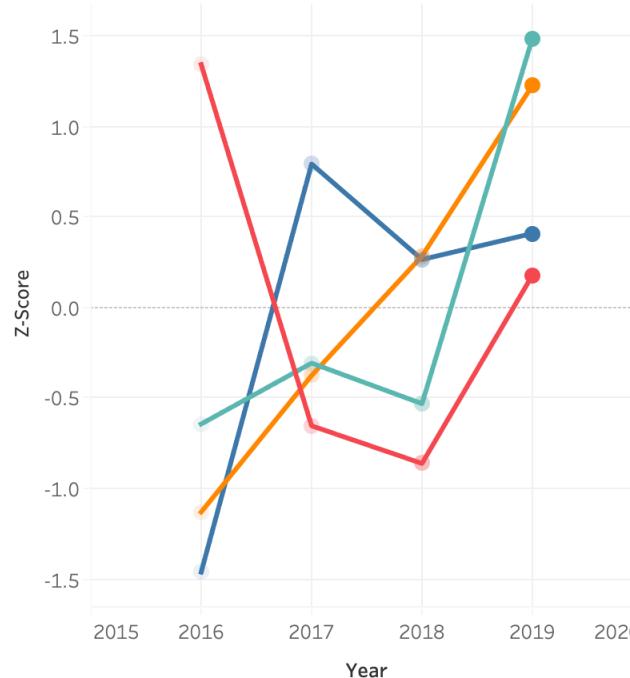
Year



Measure Names

- Asian Bias Score
- Black Bias Score
- Latinx Bias Score
- Other Bias Score

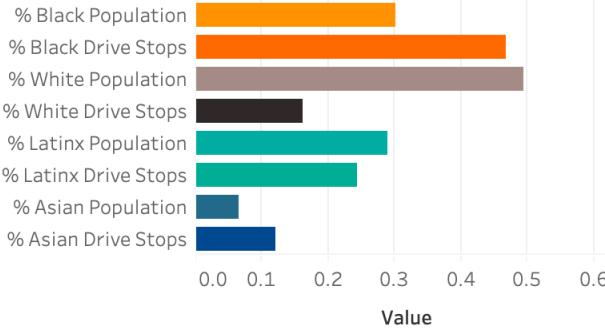
Bloomington: Racial Bias Scores



CHICAGO, ILLINOIS



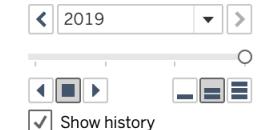
Proportion of Population v. Drive Stops



Diagnostic Score



Year



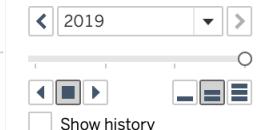
City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

Measure Names

- % Black Population
- % Black Drive Stops
- % White Population
- % White Drive Stops
- % Latinx Population
- % Latinx Drive Stops
- % Asian Population
- % Asian Drive Stops

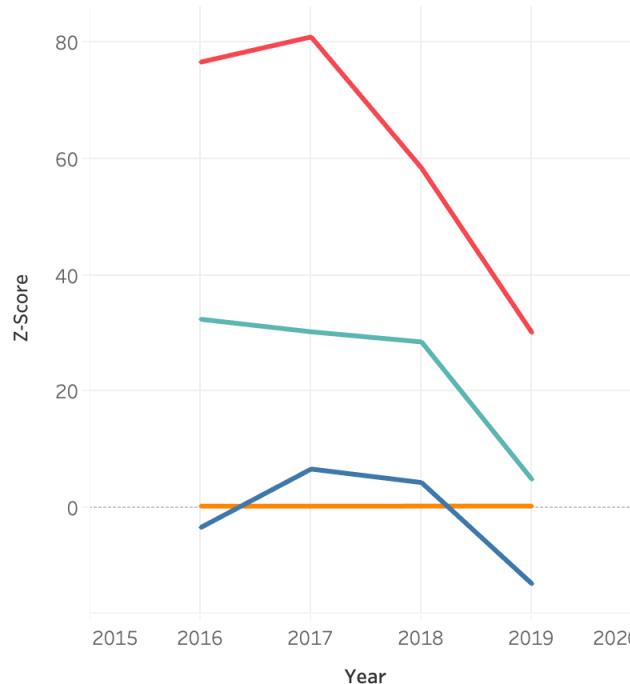
Year



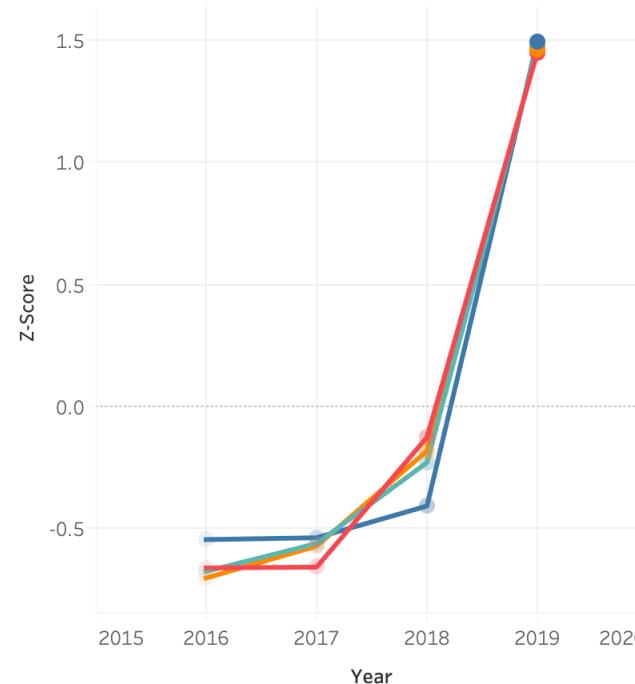
Measure Names

- Asian Bias Score
- Black Bias Score
- Latinx Bias Score
- Other Bias Score

Chicago: Excessive Force Scores by Race



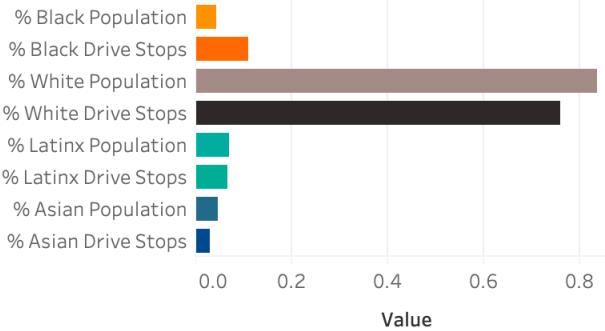
Chicago: Racial Bias Scores



LINCOLN, NEBRASKA



Proportion of Population v. Drive Stops



Diagnostic Score

1.5637 1.6832

Year

◀ 2019 ▶

◀ □ ▶

Show history

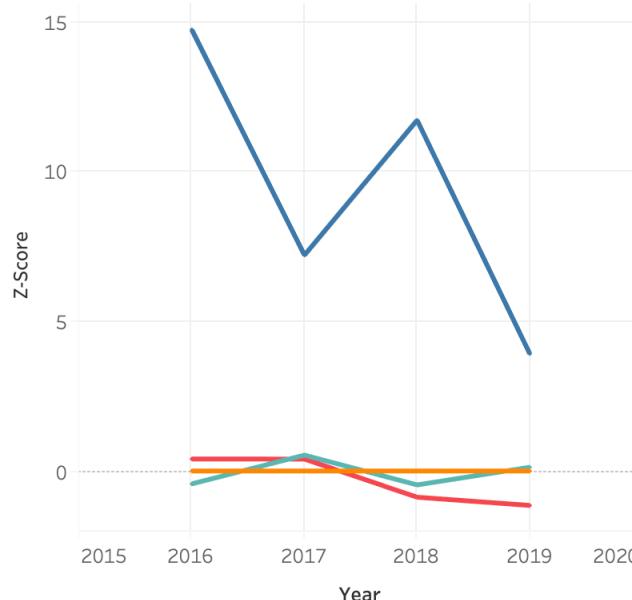
City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

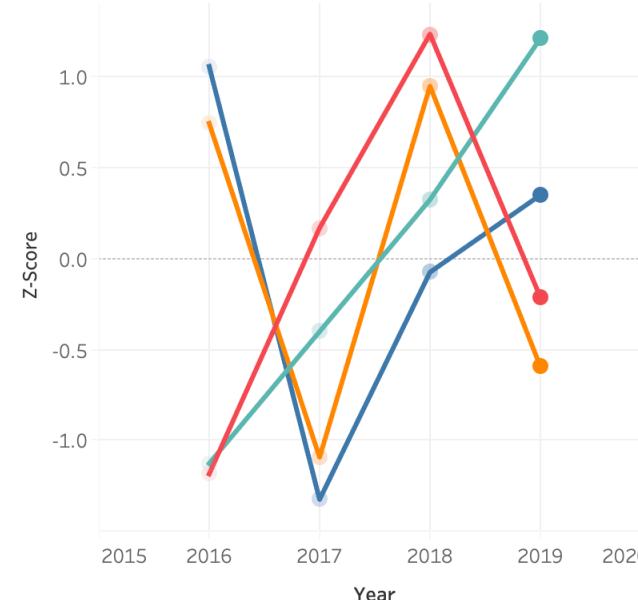
Measure Names

- █ % Black Population
- █ % Black Drive Stops
- █ % White Population
- █ % White Drive Stops
- █ % Latinx Population
- █ % Latinx Drive Stops
- █ % Asian Population
- █ % Asian Drive Stops

Lincoln: Excessive Force Scores by Race



Lincoln: Racial Bias Scores



City

◀ Lincoln ▶

◀ □ ▶

Show history

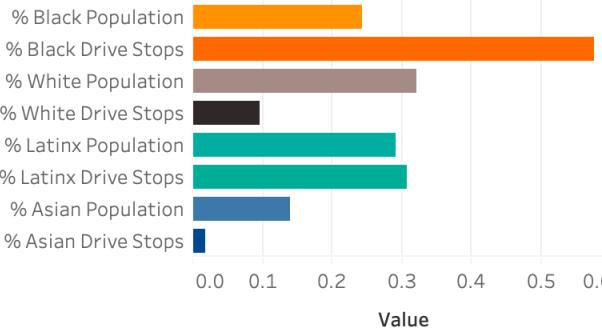
Measure Names

- █ Asian Excessive For..
- █ Black Pct
- █ Latinx Excessive For..
- █ Other Excessive For..

NEW YORK CITY, NEW YORK



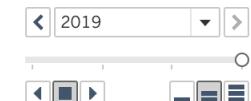
Proportion of Population v. Drive Stops



Diagnostic Score



Year



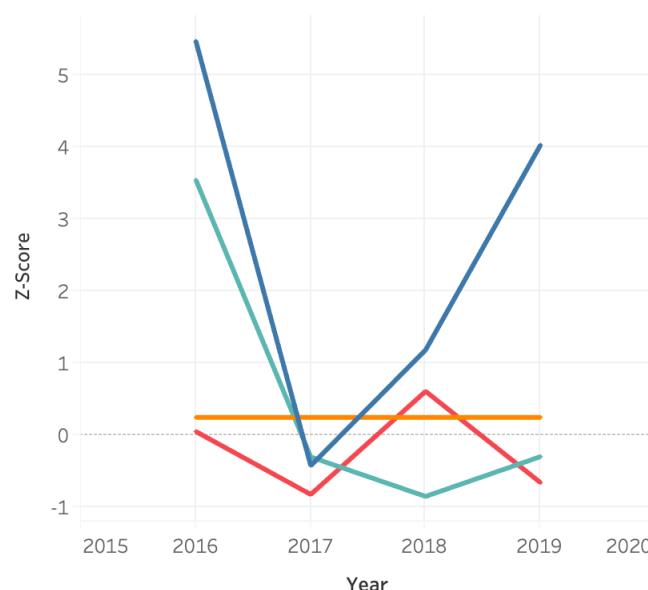
City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

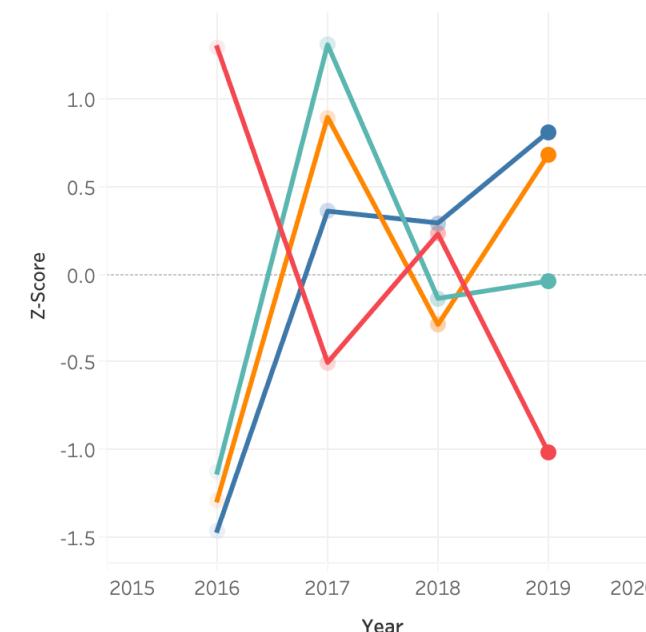
Measure Names

- █ % Black Population
- █ % Black Drive Stops
- █ % White Population
- █ % White Drive Stops
- █ % Latinx Population
- █ % Latinx Drive Stops
- █ % Asian Population
- █ % Asian Drive Stops

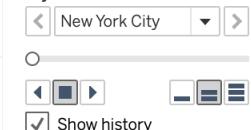
New York City: Excessive Force Scores by Race



New York City: Racial Bias Scores



City



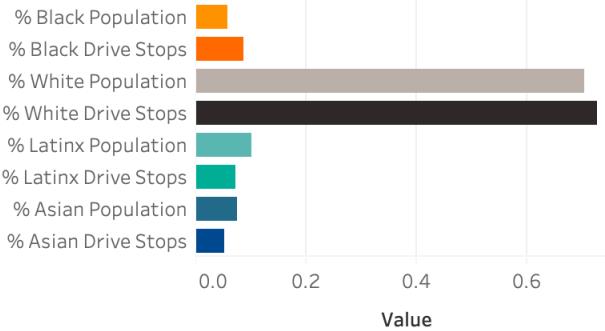
Measure Names

- █ Asian Excessive For..
- █ Black Pct
- █ Latinx Excessive For..
- █ Other Excessive For..

PORTLAND, OREGON



Proportion of Population v. Drive Stops



Diagnostic Score

1.2754 1.7703

Year

2019

Show history

City

- (All)
- Austin
- Bloomington
- Chicago
- Cincinnati
- Lincoln
- New York City
- Portland

Measure Names

- █ % Black Population
- █ % Black Drive Stops
- █ % White Population
- █ % White Drive Stops
- █ % Latinx Population
- █ % Latinx Drive Stops
- █ % Asian Population
- █ % Asian Drive Stops

Year

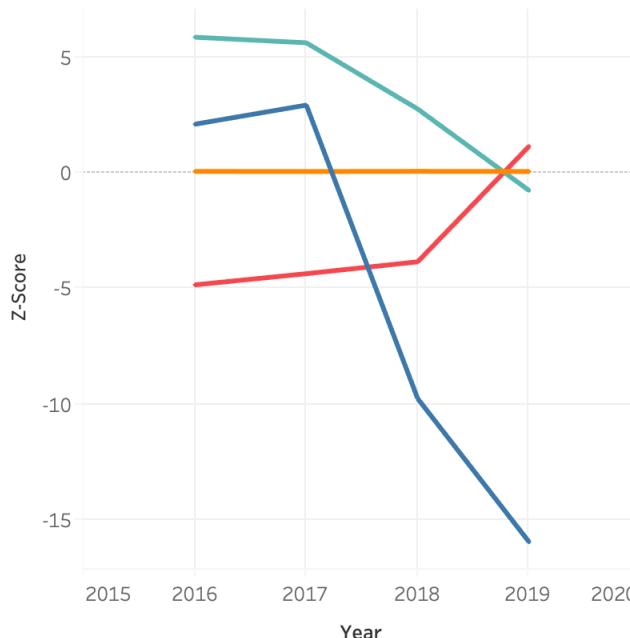
2016

Show history

Measure Names

- █ Asian Excessive For..
- █ Black Pct
- █ Latinx Excessive For..
- █ Other Excessive For..

Portland: Excessive Force Scores by Race



Portland: Racial Bias Scores



Methods:

The police bias diagnostic score was calculated using a racial bias score and an excessive force score. The diagnostic score is a product of the sum of the racial bias score and excessive force score converted into percentages.

The racial bias score is a z-score that represents the difference between logit scores for white vs. non-white racial groups. The excessive force score is the z-score of the difference between two Binomial Distributions to determine whether the difference in the probability of excessive force for white vs. non-white racial groups is significant.

After converting both of these scores into a percentage, we take the average to get the averaged p-value, and convert this back to a Z-Score using the Gaussian distribution. We use this score to quantify just how differently communities of color are treated by police departments in comparison to the white population of that city. A higher diagnostic score indicates that there is a larger difference in treatment based on race, indicating higher levels of bias.

Please refer to more thorough documentation in github repo for additional information.

Full Methods:

https://docs.google.com/document/d/14HGTZGBeoiHT3_NmvRMxozWnmf-PMWz_MEgOWPrAoF8k/edit