

URBANA POLICE DEPARTMENT REPORT TO CITY COUNCIL CONCERNING TRAFFIC STOP DATA: 2016 DASHBOARD

URBANA POLICE DEPARTMENT | CRIME ANALYSIS

PRESENTERS:

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Crime Analysis | 2017 Accomplishments

- January: Beyond Scope checkbox added on traffic tickets
- January: Published summary of 2011–2016 UPD activities ([UPD website](#))
- February: Data quality improvements for drivers in accidents
- February: Submitted 2016 UCR information
- February: Selection of crime mapping program
- March: Updated benchmark
- March: Installation of crime mapping program
- March: Submitted application for National Institute of Justice grant in collaboration with University of Illinois professors
- March: Worked with IT to publish traffic stop data on Urbana's [Open Data Portal](#)

- Upcoming: Training in Indianapolis, configuration and training on crime mapping program

- Ongoing: Collaboration with FBI, U of I professors, and Fresh Start Project Specialist



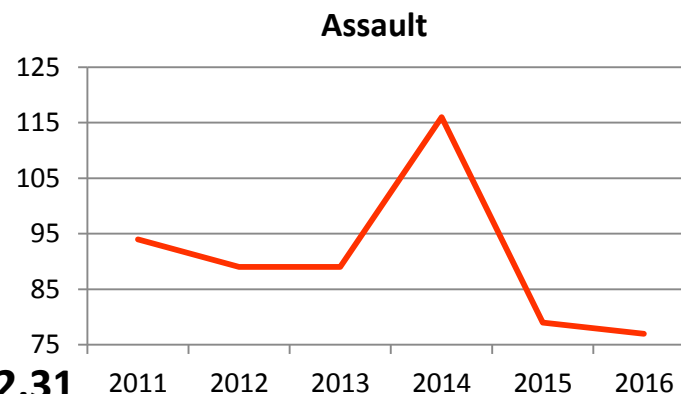
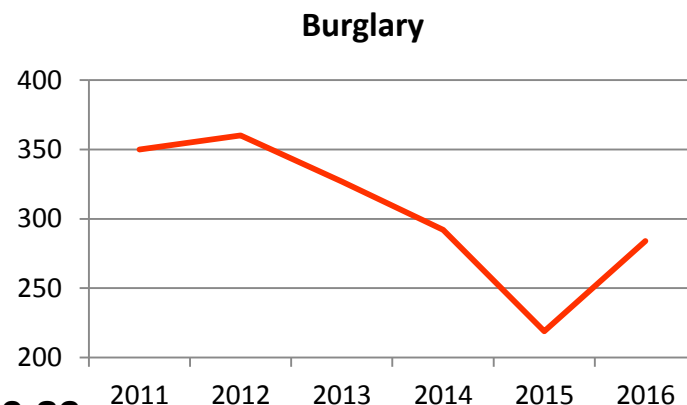
Traffic Stop Data | Overview

- Updated benchmark
- Comparing 5-year average to 2016
 - Number of stops
 - Disparity ratio
 - Motivation, reason, and outcomes
 - Race and outcomes
 - Arrests from traffic stops
- Introductory quarterly dashboard

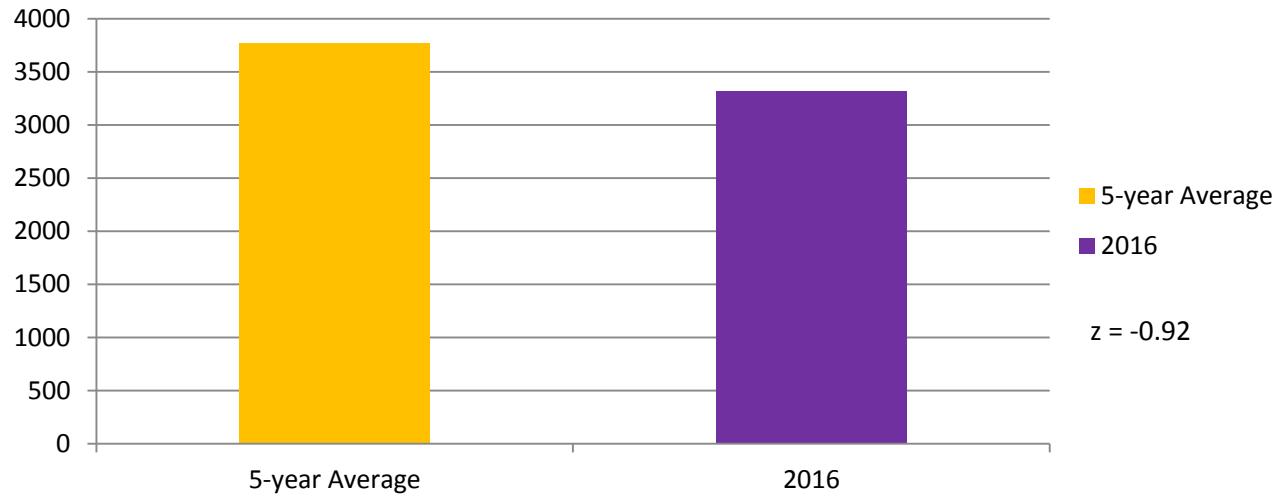


Why z-score?

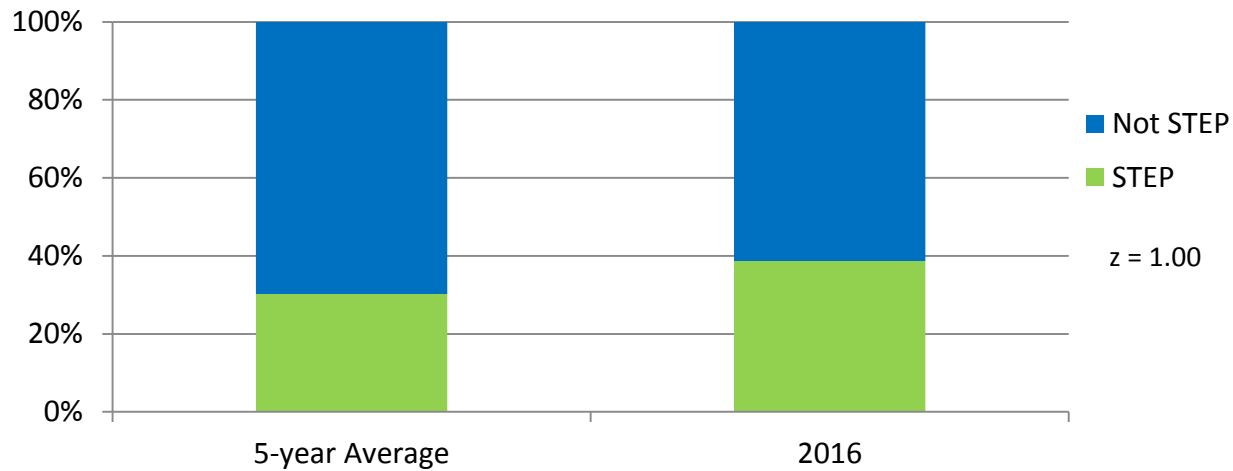
- Accounts for variation across years
 - Example: Burglaries
 - 284 burglaries in 2016
 - 65 more burglaries than 2015
 - 22.89% increase
 - 2011 – 2015 average: 309
 - 8% fewer in 2016
 - Standard deviation 2011 – 2015 = 50.89
 - z-score = -0.50
 - Example: Assault
 - 77 assaults in 2016
 - 9 fewer than 2015
 - -2.60% decrease
 - 2011 – 2015 average: 93.40
 - 17.6% fewer in 2016
 - Standard deviation 2011 – 2015 = 12.31
 - z-score = -1.33



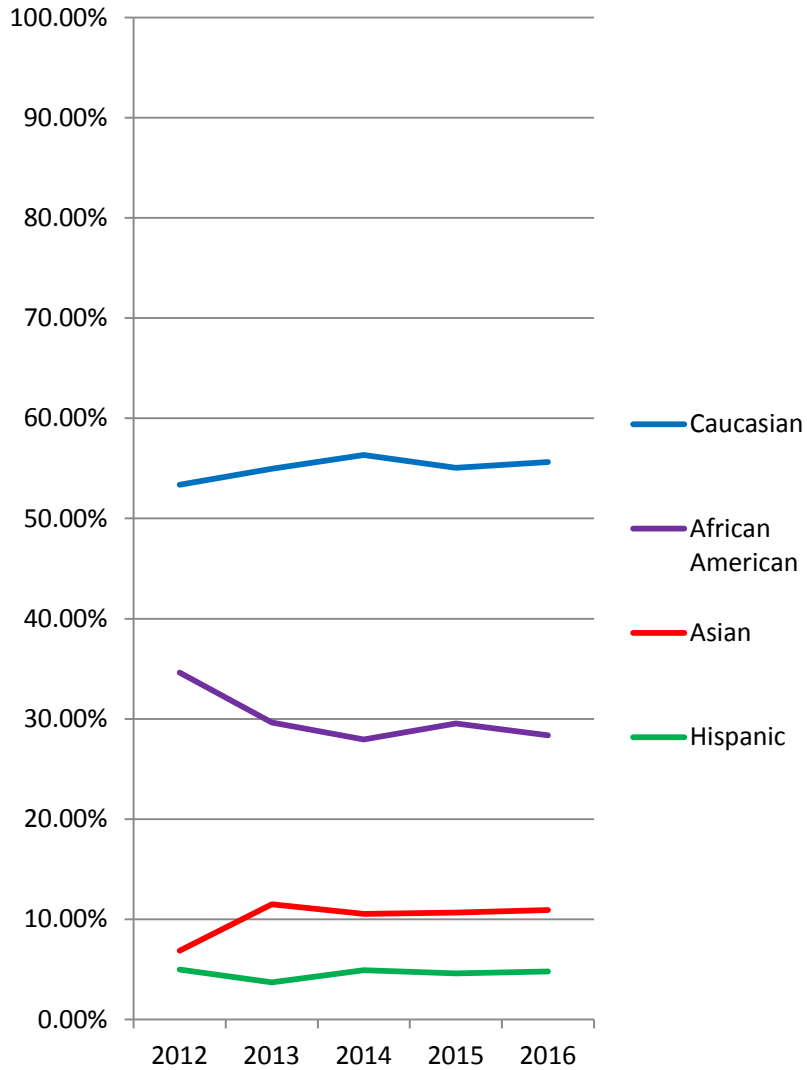
All Traffic Stops



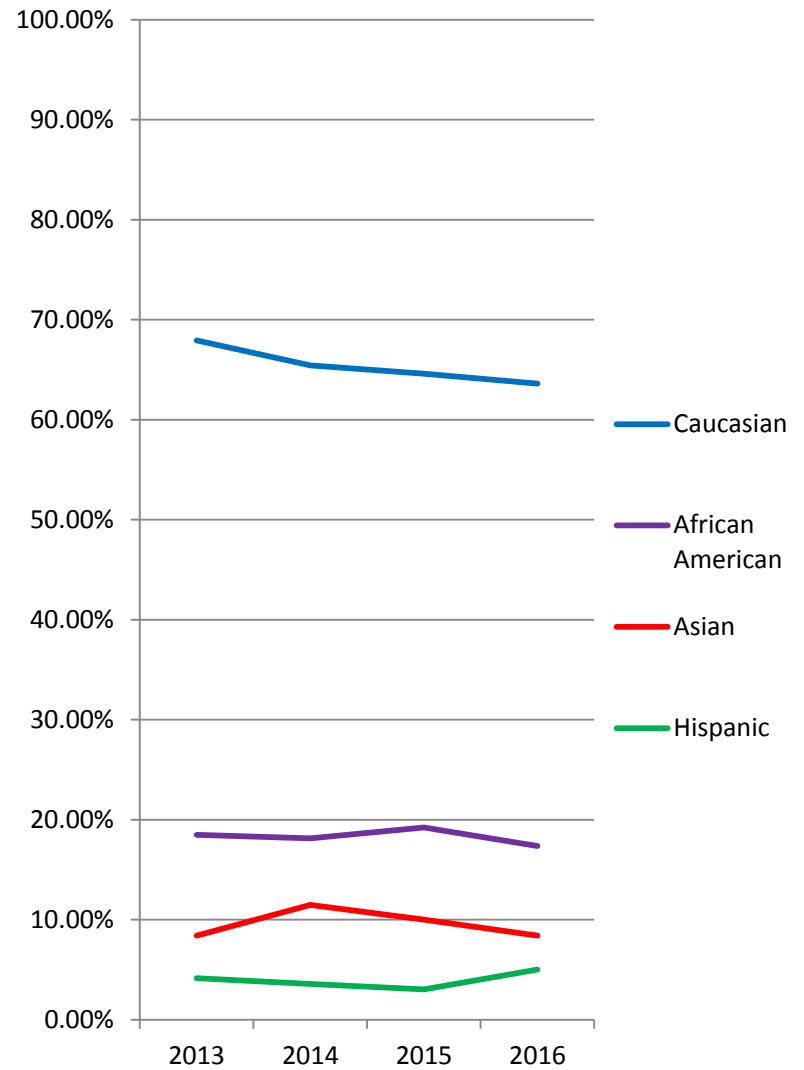
STEP Traffic Stops



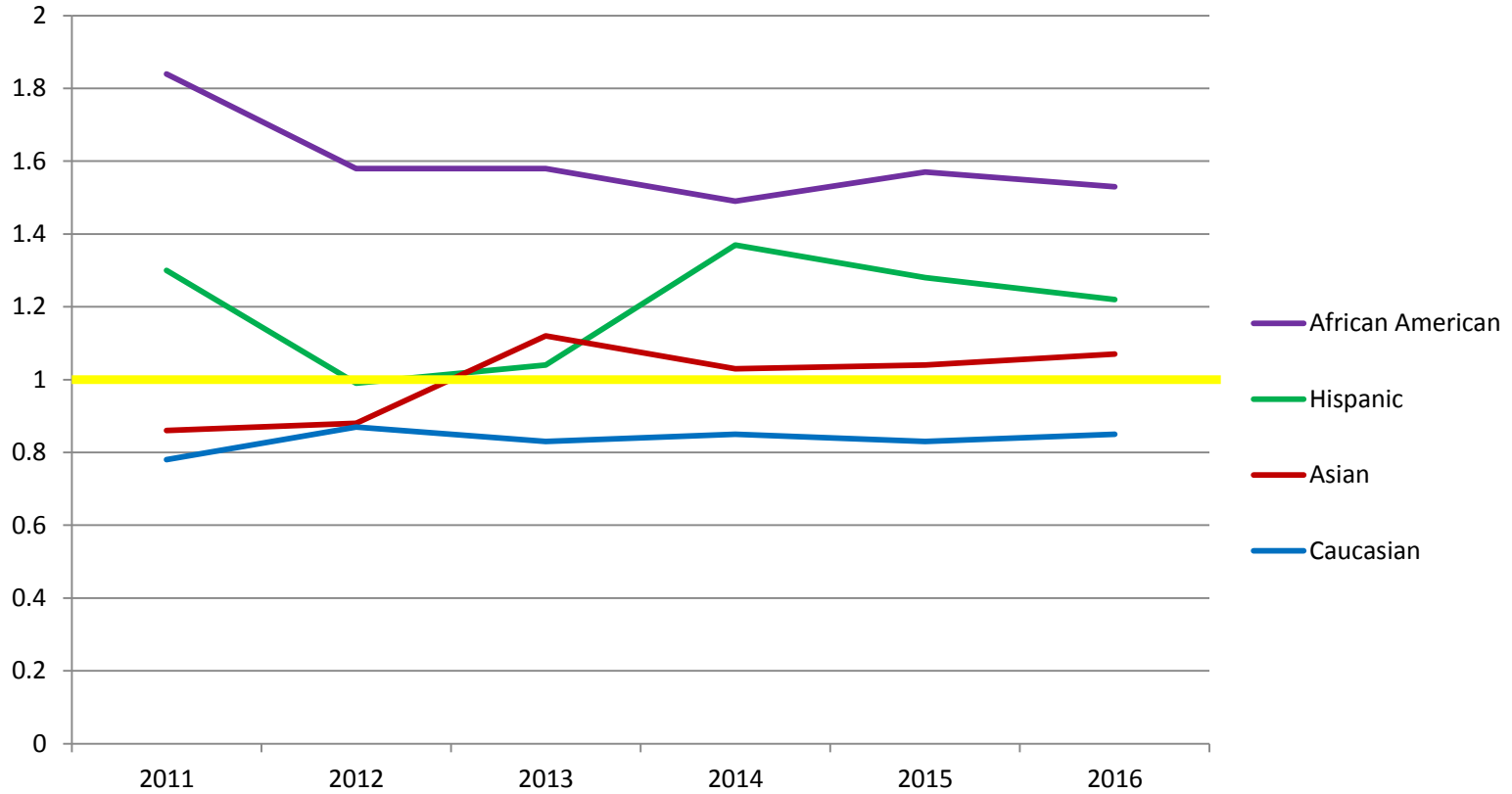
Traffic Stops by Race



Accidents by Race



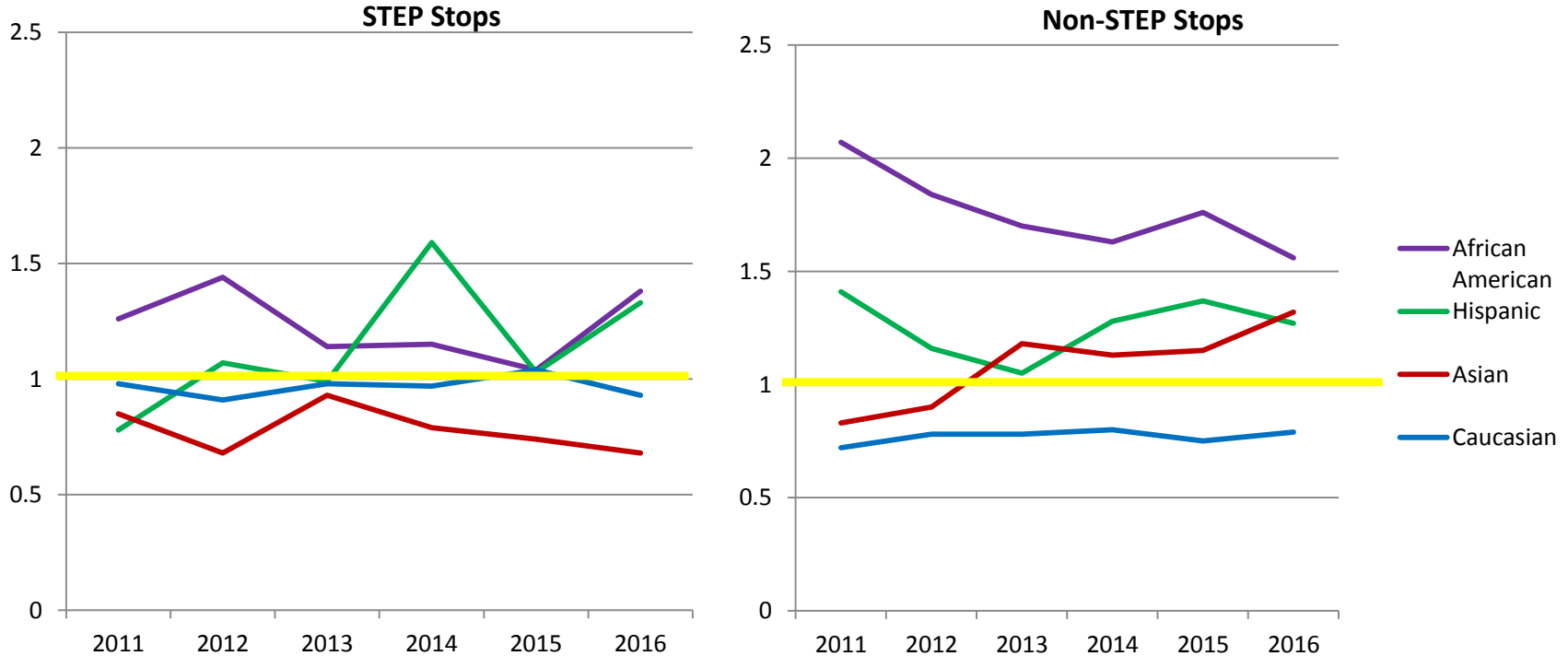
Disparity Ratios



| | Caucasian | African American | Asian | Hispanic |
|---------------------|-----------|------------------|-------|----------|
| 2016 | 0.85 | 1.53 | 1.07 | 1.22 |
| 5-year Avg | 0.83 | 1.61 | 0.99 | 1.19 |
| 2016 z-score | 0.86 | -0.71 | 0.18 | 0.60 |



Disparity Ratios, STEP vs. Non-STEP Stops*



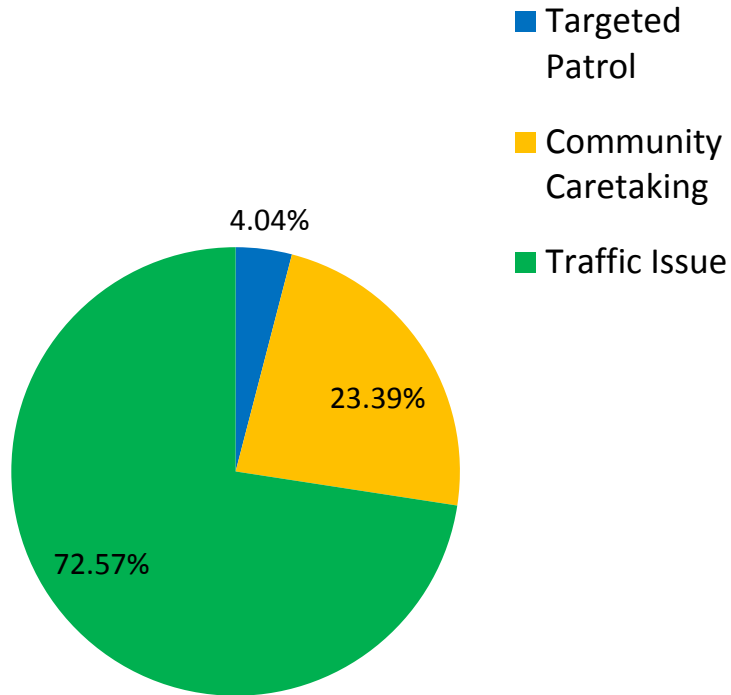
| | Caucasian | | African American | | Asian | | Hispanic | |
|---------------------|-----------|----------|------------------|----------|-------|----------|----------|----------|
| | STEP | Non-STEP | STEP | Non-STEP | STEP | Non-STEP | STEP | Non-STEP |
| 2016 | 0.93 | 0.79 | 1.38 | 1.56 | 0.68 | 1.32 | 1.33 | 1.27 |
| 5-year Avg | 0.98 | 0.77 | 1.19 | 1.80 | 0.85 | 1.04 | 1.09 | 1.26 |
| 2016 z-score | -1.22 | 0.76 | 2.09 | -1.55 | -1.22 | 1.96 | 1.33 | 0.08 |

*Interpret with caution:

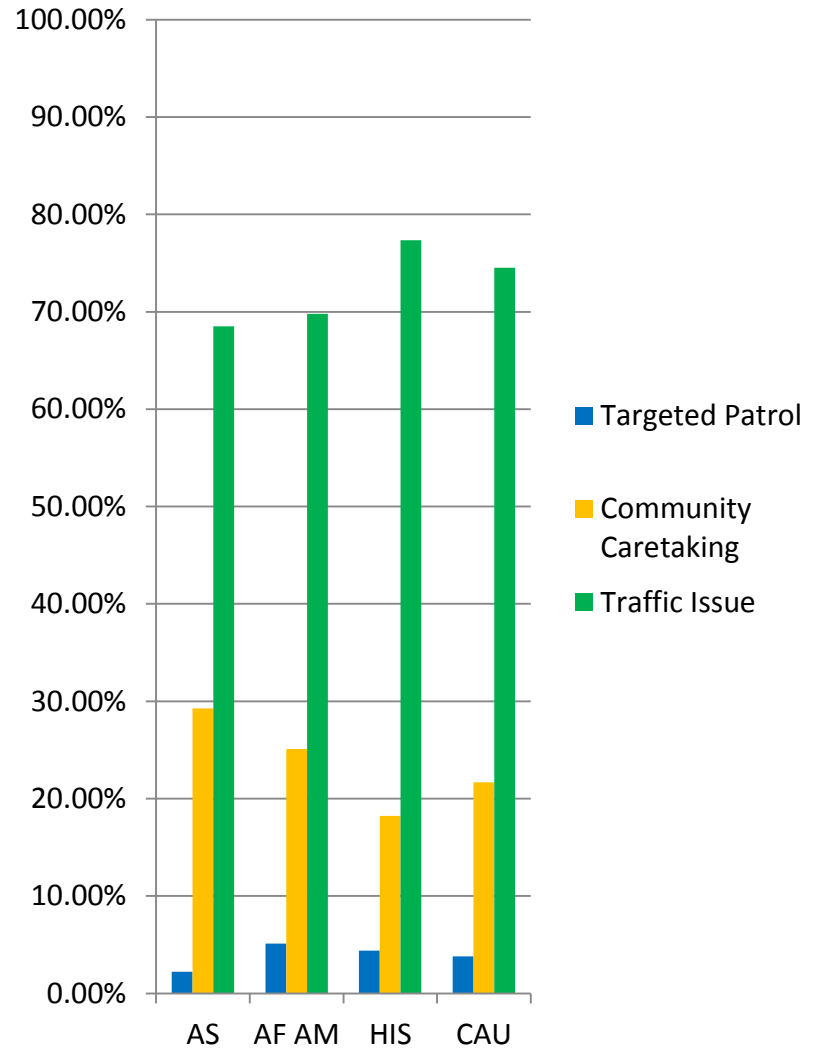
- STEP stops, on average, represent 31% of traffic stops.
- Disaggregating by race results in low numbers



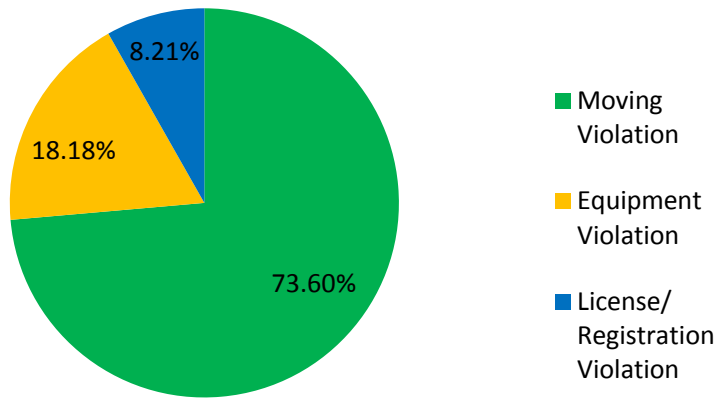
Motivation for Traffic Stops, 2016



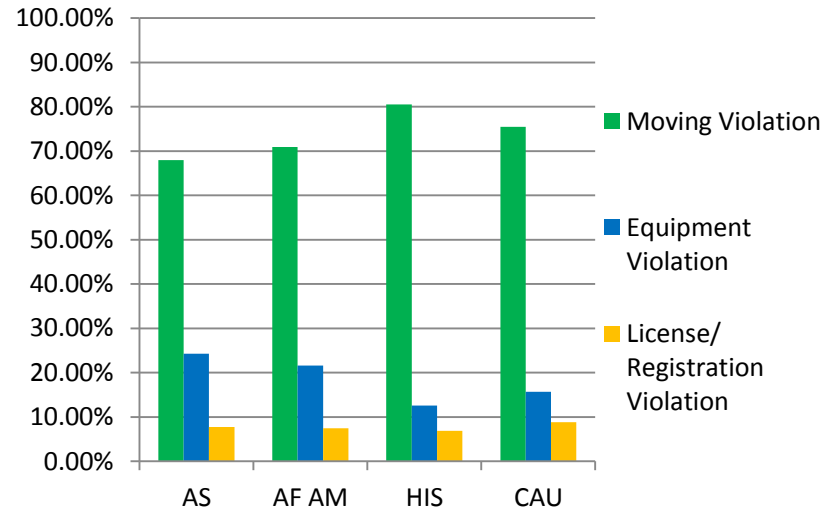
Motivation for Traffic Stop by Race, 2016



Reason for Stop, 2016



Reason for Traffic Stop by Race, 2016



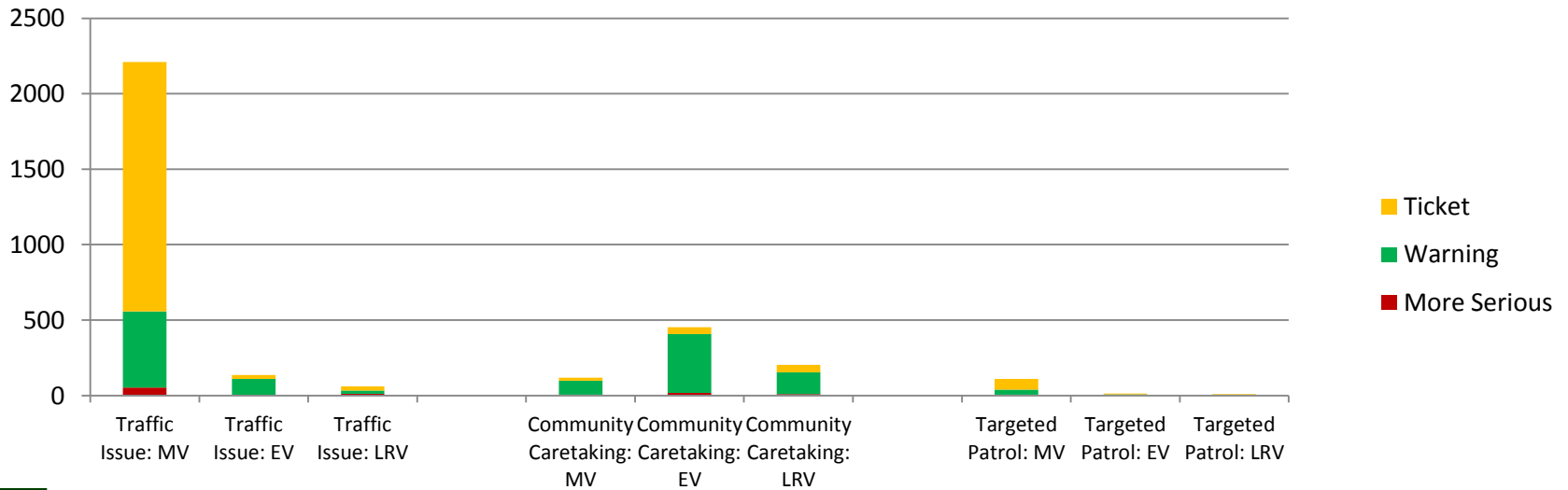
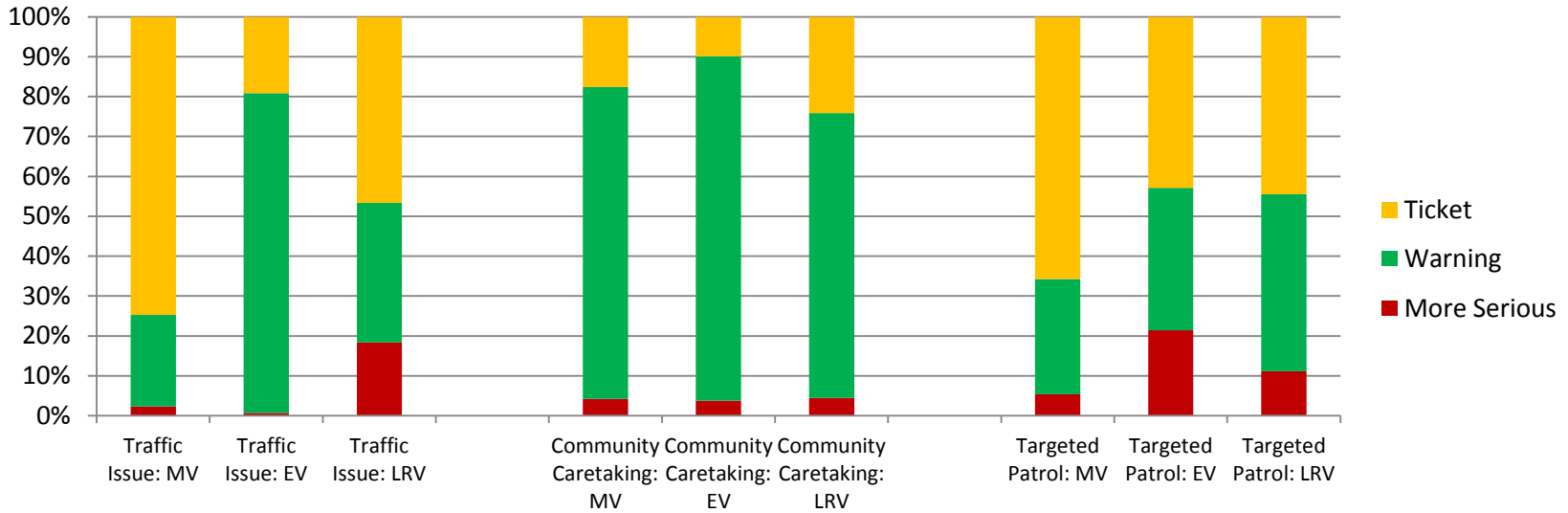
Reason for Stop by Race and Year

| Reason for Stop | 2011 – 2015 Avg | 2016 | z-score |
|--|-----------------|--------|---------|
| Moving Violation | | | |
| Asian* | 71.95% | 67.96% | -1.13 |
| African American | 61.71% | 70.96% | 4.81 |
| Hispanic* | 68.54% | 80.50% | 2.11 |
| Caucasian | 74.87% | 75.50% | 0.29 |
| Equipment Violation* | | | |
| Asian | 23.17% | 24.31% | 0.54 |
| African American | 25.39% | 21.60% | -3.60 |
| Hispanic | 20.78% | 12.58% | -2.73 |
| Caucasian | 17.00% | 15.66% | -0.93 |
| License/Registration Violation* | | | |
| Asian | 4.88% | 7.73% | 1.69 |
| African American | 12.77% | 7.45% | -4.55 |
| Hispanic | 10.53% | 6.92% | -0.90 |
| Caucasian | 8.08% | 8.83% | 0.58 |

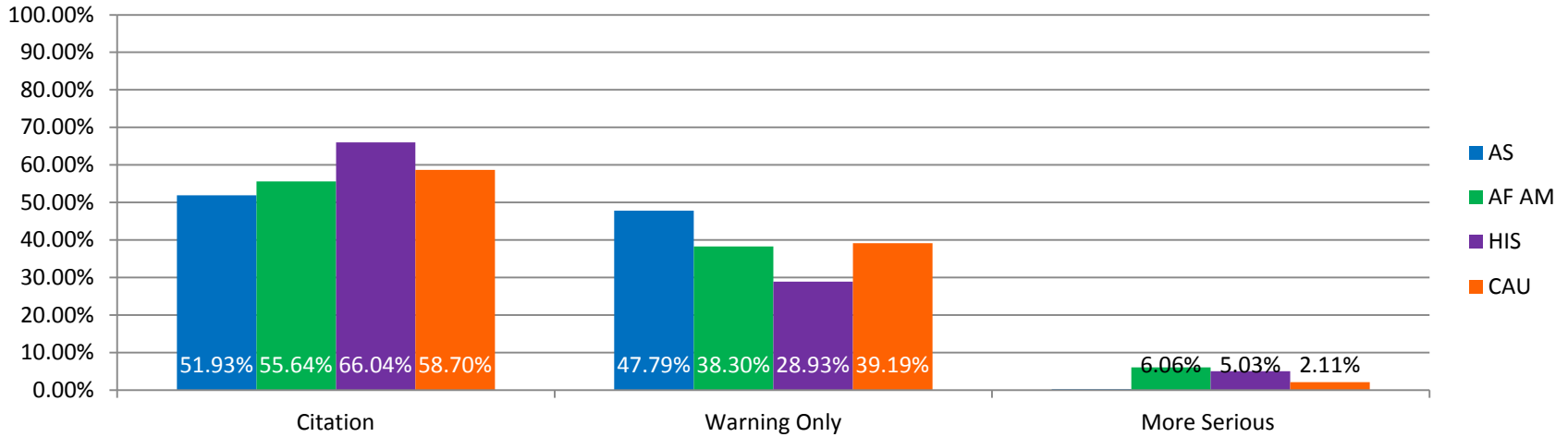
*Interpret with caution
Disaggregating by reason and race results in low numbers



Motivation, Reason, and Outcome of Stops, 2016



Race and Outcomes, 2016

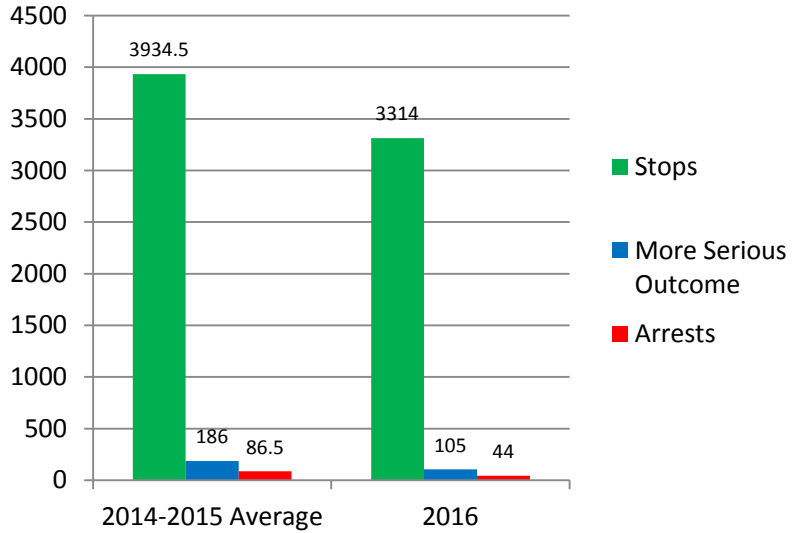


Race and Outcomes

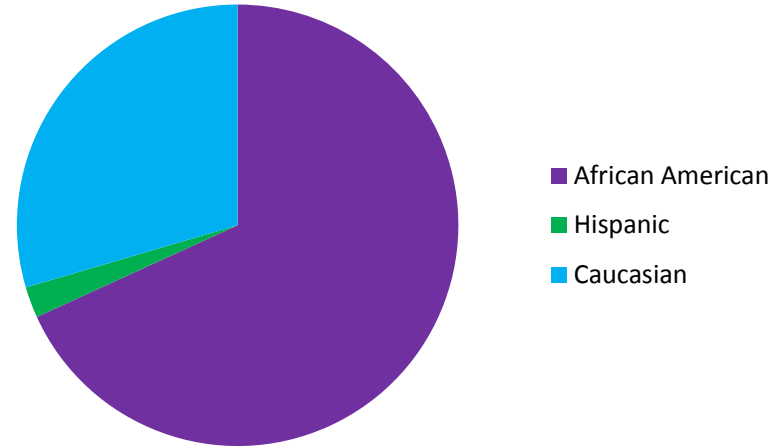
| | Citation | | | Warning Only | | | More Serious | | |
|-------------------------|------------|------|---------|--------------|------|---------|--------------|------|---------|
| | 5-year avg | 2016 | z-score | 5-year avg | 2016 | z-score | 5-year avg | 2016 | z-score |
| Asian | 1.06 | 0.91 | -4.21 | 1.03 | 1.21 | 4.90 | | | |
| African American | | | | | | | | | |
| Hispanic | 0.89 | 0.97 | 2.93 | 1.00 | 0.97 | -0.57 | 1.94 | 1.91 | -0.19 |
| Caucasian | 1.08 | 1.15 | 0.40 | 0.72 | 0.73 | 0.13 | 2.14 | 1.59 | -0.68 |
| | 1.05 | 1.02 | -1.76 | 1.02 | 0.99 | -1.08 | 0.53 | 0.67 | 2.02 |



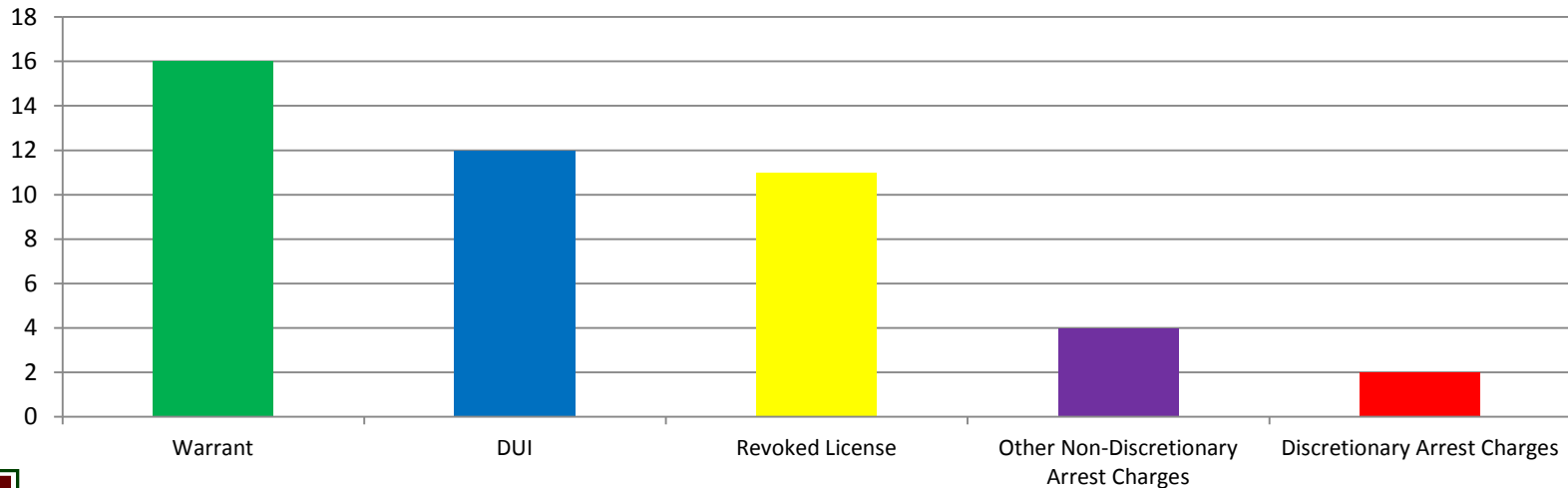
More Serious Outcomes from Traffic Stops, 2016



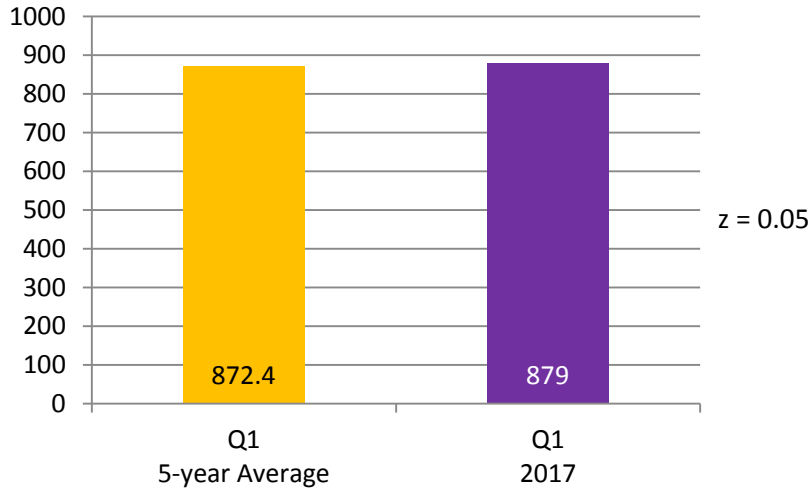
Arrests from Traffic Stops by Race, 2016



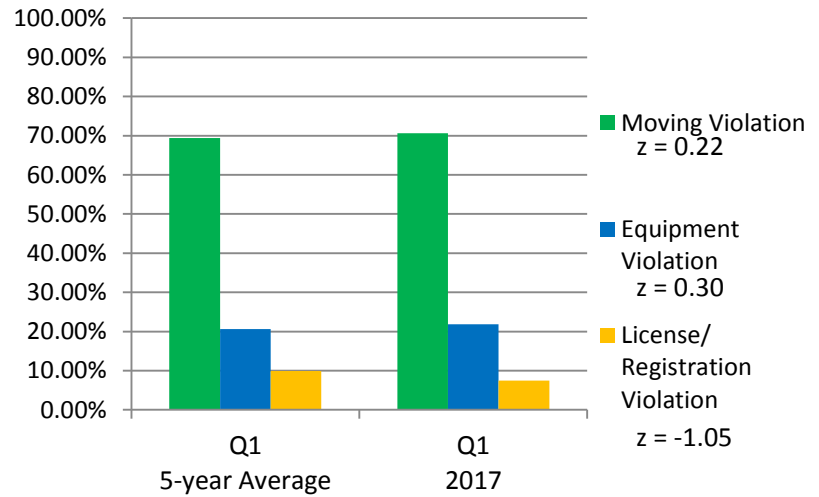
Arrests from Traffic Stops by Charge, 2016



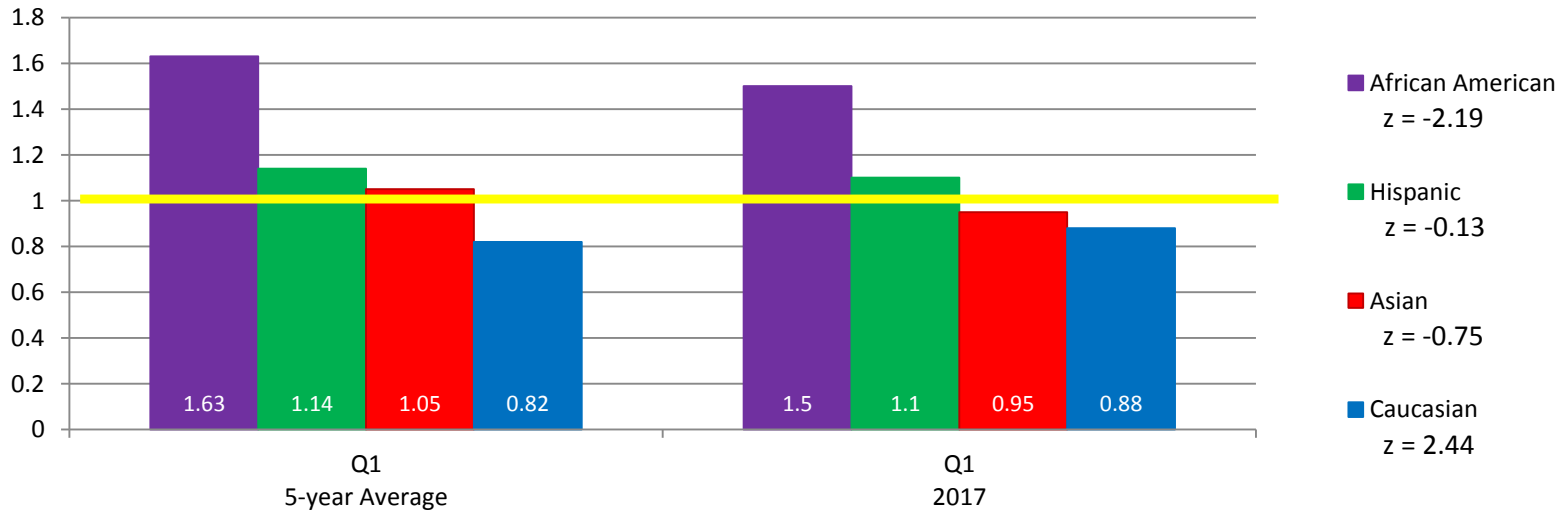
Number of Stops



Reason for Stop



Disparity Ratio



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EMAIL QUESTIONS MAY BE DIRECTED TO:

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