Where Use of Force, Race, and Place Collide
Infographic #1: Tabular Data* for Each City

**Indianapolis**
- Labeled Variables
- Police Districts
- Spatial Geometry
- Numerical Data

**Baltimore**
- Labeled Variables
- Police Districts
- Spatial Geometry
- Numerical Data

Infographic #2: Scatterplots for Each City

**Indianapolis**
- Aggressive LOP
- Remaining LOP

**Baltimore**
- Residences Injured
- Aggressive LOP
- Remaining LOP

Infographic #3: PCPLOT Pairings for Each City

**Discoveries**
- Districts PCPLOTS Variables/Misc.
- STD Dev Scale

**Indianapolis**
- Aggressive use of force
- Resident injured
- Aggressive LOP

**Baltimore**
- Aggressive use of force
- Resident injured
- Aggressive LOP

Infographic #4: Force, Space + Race Compared

**Indianapolis**
- Neighborhoods where force is used

**Baltimore**
- Neighborhoods where force is used

Notes:
- STD Dev Scale
- Aggressive use of force
- Resident injured

Indianapolis: More aggressive use of force in neighborhoods with higher STD Dev scales.

Baltimore: Similar patterns observed with additional factors such as race and space.
## Infographic #1: TABULAR DATA* FOR EACH CITY

### INDIANAPOLIS

169 cases, August 20-29, 2019, 8 variables, 5 police districts

### BALTIMORE

277 cases, August 1-29, 2019, 8 variables, 9 police patrol districts

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### LABELED VARIABLES

<table>
<thead>
<tr>
<th>POLICE DISTRICT</th>
<th>ZONE SHAPEAREA</th>
<th>ZONE SHAPELEN</th>
<th>R-RACE.W</th>
<th>R-RACE.B</th>
<th>P-WHL</th>
<th>R-JUR</th>
<th>R-ARREST</th>
<th>R-HOSP</th>
<th>O-RACE.W</th>
<th>O-RACE.B</th>
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<td>28</td>
<td>46</td>
<td>5</td>
<td>44</td>
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### UNIQ.ID | DIRT_NAME | DISTRICT | UOFAGUR | RESINJ | RESHOSP | RESRACEW | REHACCA | OFFRCAW | OFFRACAA | OFFRACH |
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$R^2 = 0.87$
AFR-AMER. RESIDENTS ARRESTED

AGGRESSIVE UOF

$R^2 = .8$
**Infographic #3: PCPLOT PAIRINGS**

**DISCOVERIES**

Key finding: District is *Northeast* but more often it is referred to as “the Eastside.” There were frequent arrests of African-American residents by Caucasian officers with aggressive UOF and subsequent resident injuries. **Spatial result:** The data cluster in this district turns out to closely match Indy’s main African-American geodemographic zone. **Possible compelling questions:** How unnecessarily brutal was such police behavior and – by extension – does it suggest police misconduct, perhaps even racist behavior on the part of officers who made arrests here?

**Districts PCPLOTS**

Key finding: Fewest occurrences of injured residents were displayed wherein mean and low-mean data coincide with the variables of Caucasian and African-American residents, aggressive UOF behavior, and Caucasian.
< Aggressive use of force
< Resident injured
< Resident hospitalized
< Cauc. resident arrested
< Afr-Am. resident arrested
< Caucasian arresting officer
< Afr-Am. arresting officer

VECTORS HERE SHOWN SELECTED
Above: Note that the variables titled P-W-L (Aggressive UOF) and R-RACE-B (Afr.-Am. residents) have high values (nearly +2).

Below: Note that the variable titled UOF-AGGR had std. dev. value > +2 and the variable titled RESRACAA (Afr.-Am. residents arrested) had std. dev. value of nearly +2.
<table>
<thead>
<tr>
<th>Plurality</th>
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<th>30-50</th>
<th>50-70</th>
<th>70-90</th>
<th>90%+</th>
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