

# **INTEGRATING GIS INTO CRIMINAL JUSTICE RESEARCH**

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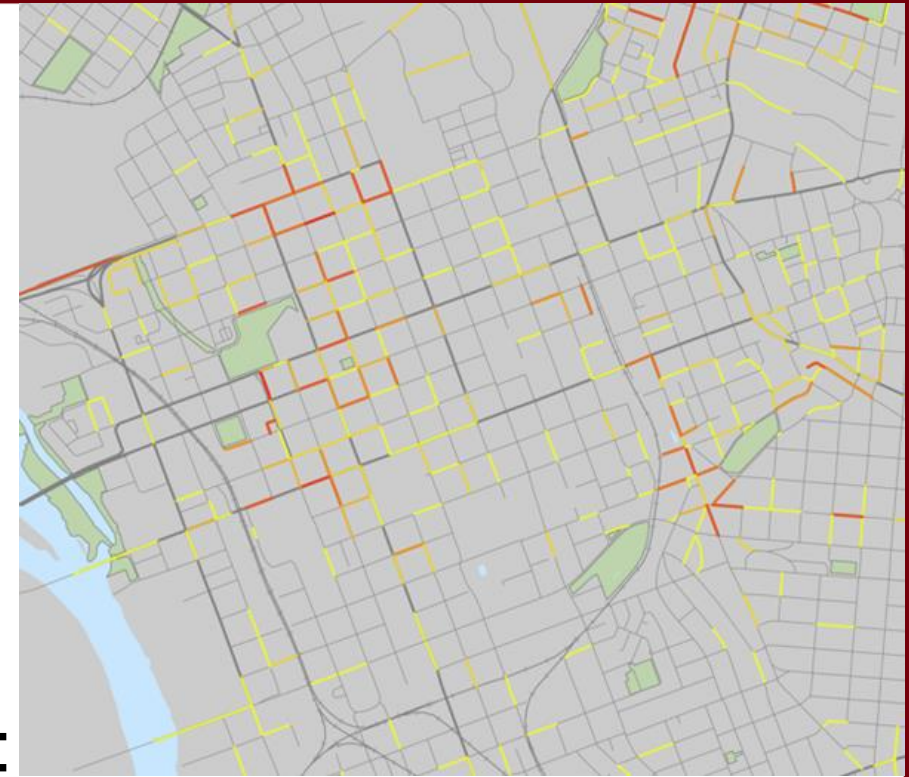


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# GEOSPATIAL CRIME RESEARCH

- Examine various quantitative criminological data
  - Crime points, arrests, calls for service
    - Hot spot analyses, space/time
- Within/across units of analysis
  - Cities/counties/census tracts/block-groups: socio-demographics confluence with crime
- Recent development: street segments and the “law of crime concentration”
  - A small number of street segments (2-7%) generate over 50% of a city’s violent crime



# POLICE CONTACTS

- Criminologists seek to understand the causes, outcomes, and why some communities may be more exposed to police contact
- “Routine police work” vs. “social characteristic” explanations
- Contacts may be beneficial to communities and the public
  - Community-policing, problem-solving, crime prevention
- Contacts may also be detrimental (over- and under-policing)
  - Perceptions of police, use of force, arrests... but also neglect

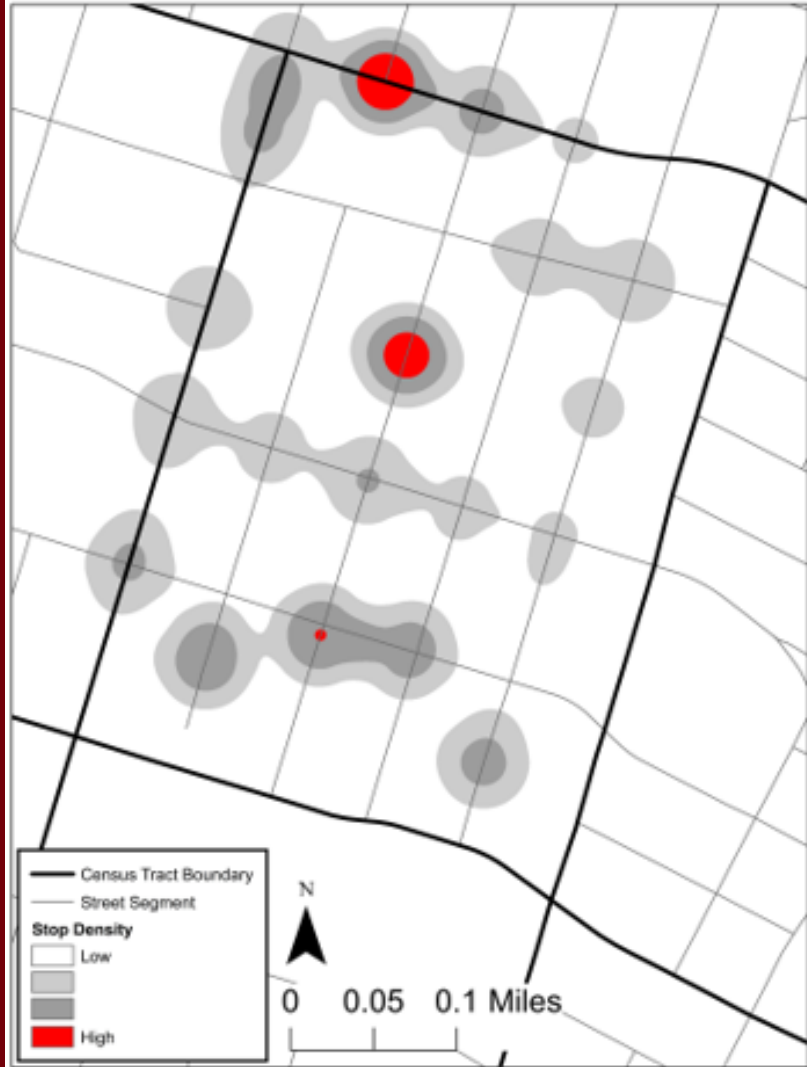


# COUNTS VS. GINI

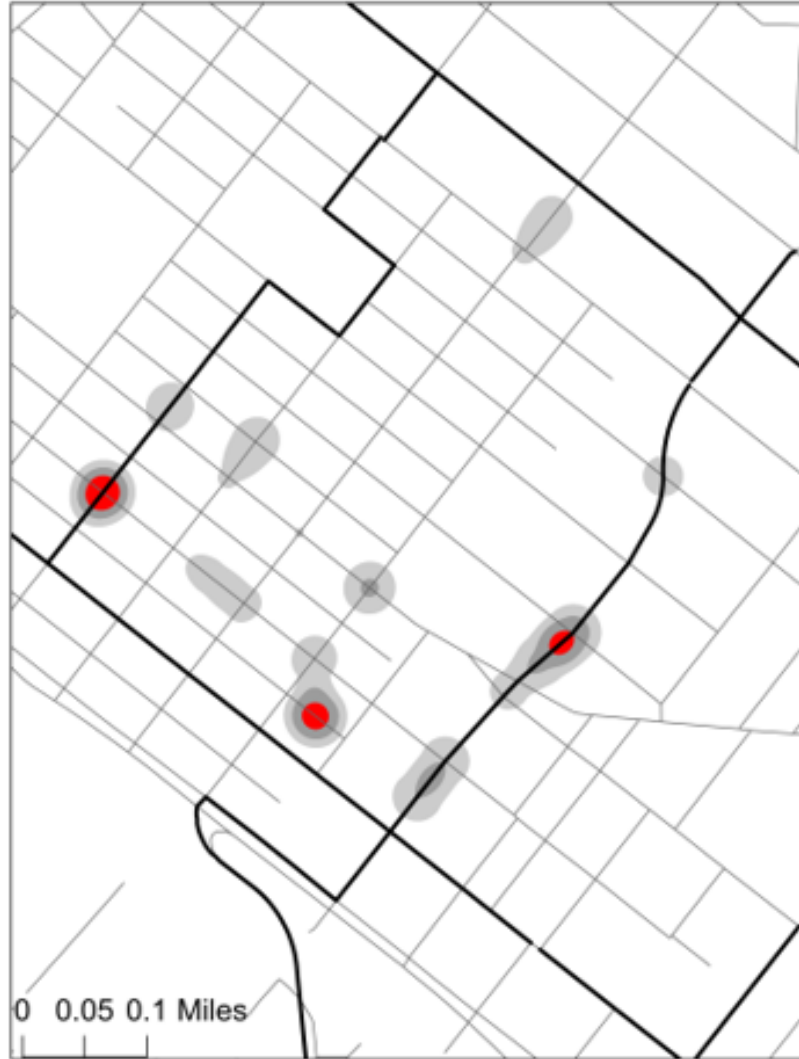
- Aggregated counts of contacts (or crime) within larger units of analysis (e.g., census tracts) are informative, but can only tell us so much.
  - Does not explain whether these counts/contacts are diffused or concentrated
- Are police contacts likely to occur across more micro-locations (diffusion) or do contacts concentrate in few micro-locations within/across neighborhoods?



Tract A – Low



Tract B – Average



Tract C – High



# IMPLICATIONS

- Race was the strongest predictor to more diffused police contacts, after controlling for crime and other social factors
  - Police may cast a larger “net” across certain racially diverse neighborhoods
  - These areas may be over-policed
- Potential: officers hold implicit biases, a rare number hold explicit biases
- Agencies may not monitor habitual officer behavior; lack of accountability
  - Specific to Oakland?
- There may be other underlying factors of racially/diverse neighborhoods that draw police attention (e.g., risky facilities, vacant lots)



# THANK YOU!

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