

Network Criminology

Presentations

Turf wars



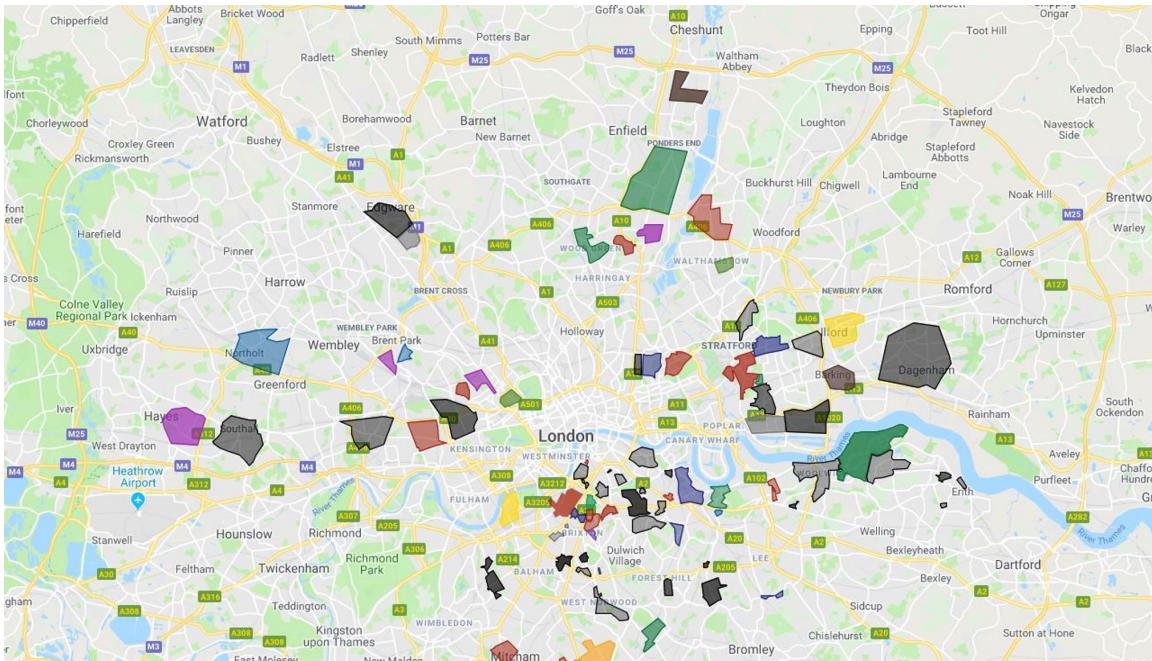
**YOU CAME TO THE
WRONG NEIGHBORHOOD**

Overview

- Homicide is 3rd leading cause of death 15-19 (CDC, 2021)
- Gangs contribute a significant amount of drug and violent crimes (National Youth Gang Survey Analysis, National Drug Intelligence Center 2008)
- Gangs have been expanding outwards from urban centers to suburban and rural areas (National Gang Center, 2008).

Overview

- Increase in gang violence nationwide
- Gangs don't show any trend of decreasing, rather as they expand the threat of increase in numbers becomes apparent



Overview

- Previous anti-gang initiatives have yielded mixed results
- Prevention techniques likewise show mixed results (restrictively target youth proactively, adults receive sentencing enhancements)
- Growing interest in gang-on-gang violence in combo with network science

Objectives

- Synthesize information on how networks of rivalries are constructed
- Understand internal workings of gangs socially

Why Gangs?

- Protective alliances
- Consequence of deprived regions
- In a low resource environment, it provides access to key resources
 - Socially
 - Developmentally
 - Physically

Social environment

- Gangs contain unofficial hierarchies centered around status/reputation
- As gangs are protective alliances, status and reputation are determined by violence (Int & Ext)
- Turnover is frequent and rapid (6mo-1y)

Turf

- Turf is territory claimed by gangs, their "kingdom"
- Turf centered around gang homes and proximate locations
- Touching turfs create violence between gangs
- Turf itself has limited or no known strategic value (as of yet)
- More a means of establishing & maintaining gang hierarchy

Turf

Author: Does the spot really matter that much?

Truck: Man, ain't you listening? It ain't about no fucking corner. I mean, yeah, it's about corner, but, fuck the corner—it's about not looking like a punk. If you a punk, a corner ain't going to help, see. Plenty of bitches got corners they can't keep. What good is a corner to them? You can only keep a corner if you down and everyone knows you and your mob are down too. If people know you're solid, and that you and your boys throw down, then you be all right. You're straight. You got your corner and your rep. That's just the way it is. (Papachristos, 2009).



Rivalries

- Formed due to historical battles between gangs
- Tit for tat
- Created to maintain gang reputation
- Spatial proximity + prior history significantly increases the chance of a rivalry being maintained

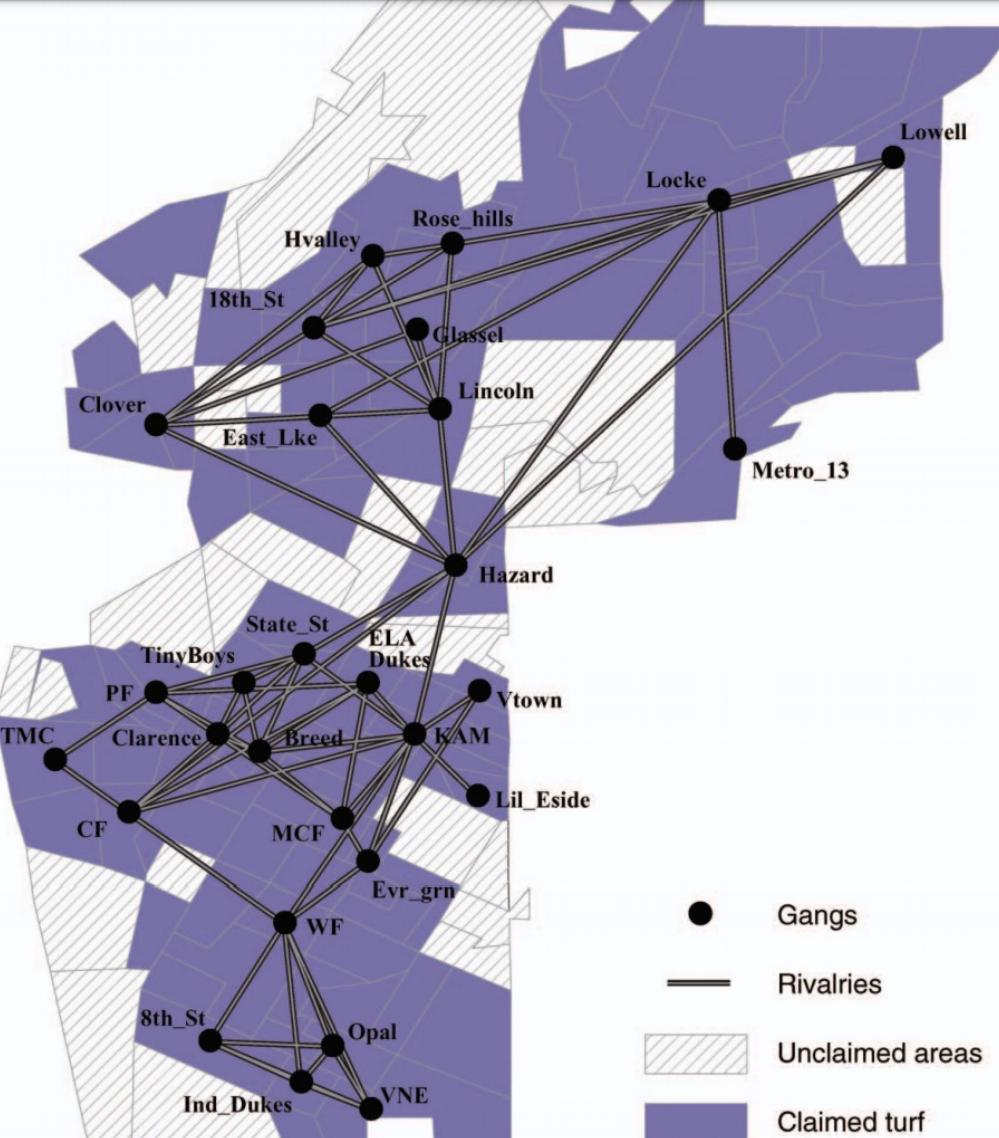


Figure 4. Placing the gang rivalry network (based on turf locations) into the geographic space of Hollenbeck shows both the complexity of the social relations and how some relations “stretch” long distances to link gangs, whereas others link only immediate neighbors.

Key findings

- Gang violence (and homicide) is sporadic, public and dominated by firearms
- Escalation when faced with hostile gang members
- Once blood is spilt – point of no return is reached
- Tit for tat (leaving attacks unpunished signals weakness)
- Geography is a mitigating factor (turf)

Research problems

- Large number of gangs – Estimated 20,000+ W/ 1+ M. members
- Official sources only account for known members
- Membership may be very temporary or constantly shifting (6 MO-1 Yr)
- Overreliance on self-report
- Overreliance on Hollenbeck, Chicago and Boston data
- Limited access to gang members

Open questions

- Lack of ego-centric experimentation (properties of networks)
- Utilization of space (open and restricted)
- What's more effective – viewing ties as events or as temperaments
- Are multi-year rivalries stay consistent if viewed biennially?

How the Street You Live On Can Prevent Burglaries

Gerald Eastwood

Network Criminology

April 27, 2022

Purpose of the Extended Literature Review

- ❖ The purpose of this presentation is to discuss the progress of the extended literature review on how street networks and burglaries are connected.
- ❖ The goal is to synthesize the literature to gain a better understanding as to what characteristics of a street network leads to an increased and decreased risk of a burglary occurring.
- ❖ Data: United Kingdom, Netherlands, Pennsylvania, Nigeria, China, South Korea, New Jersey, South Africa, Oregon, and Taiwan

Goal of the Extended Literature Review

- ❖ To address the significance street networks and road designs play in determining the risk of a potential burglary occurring.
- ❖ Accomplishing this synthesis will provide developers, city planners, and policymakers a blueprint on creating street networks that can reduce the chances of burglary occurring.

Open Questions and Unresolved Problems

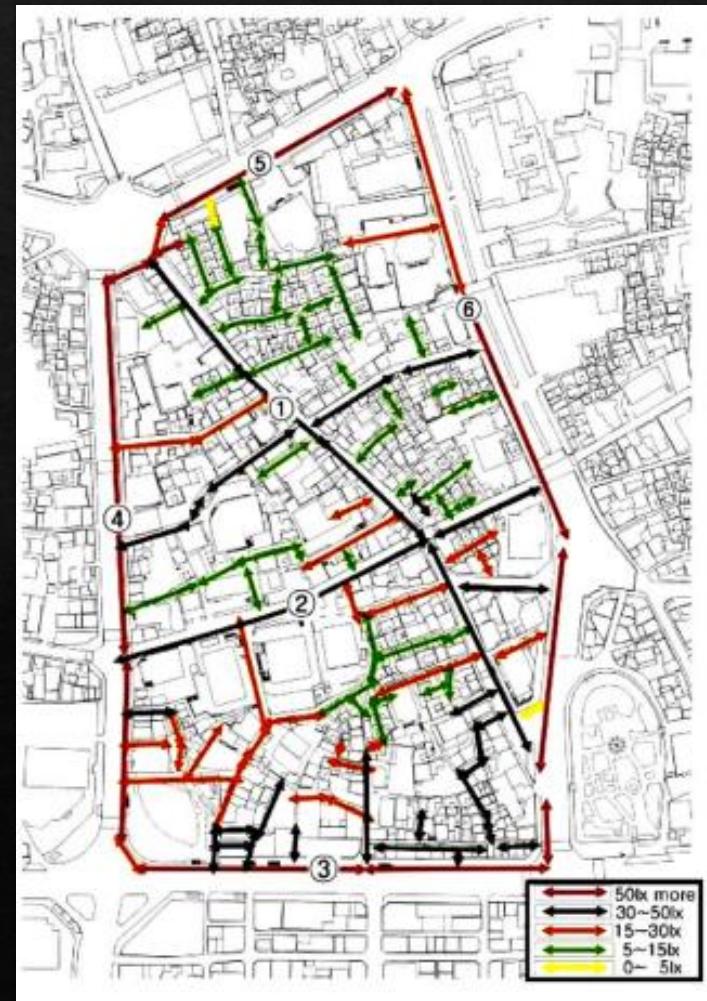
- ❖ Is there a difference between public and private roads?
- ❖ Does the length of a street decrease the chances of burglary?
- ❖ Does more connectivity or betweenness of a street lead to a greater burglary risk?
- ❖ Is there a difference between linear and non-linear street networks in terms of burglary risk?
- ❖ Are there similarities and differences of burglary risks in different countries based on their street network?

Theoretical Approach

- ❖ Routine Activities Theory
 - Motivated offender, suitable target, and lack of capable guardians.
- ❖ Defensible Space
 - Crime can be found in physical environment features.
- ❖ Crime Pattern Theory
 - How offender movements influence the probability of encounters with suitable targets.
- ❖ Rational Choice
 - Cost and Benefits; includes the selection of where they commit burglary.

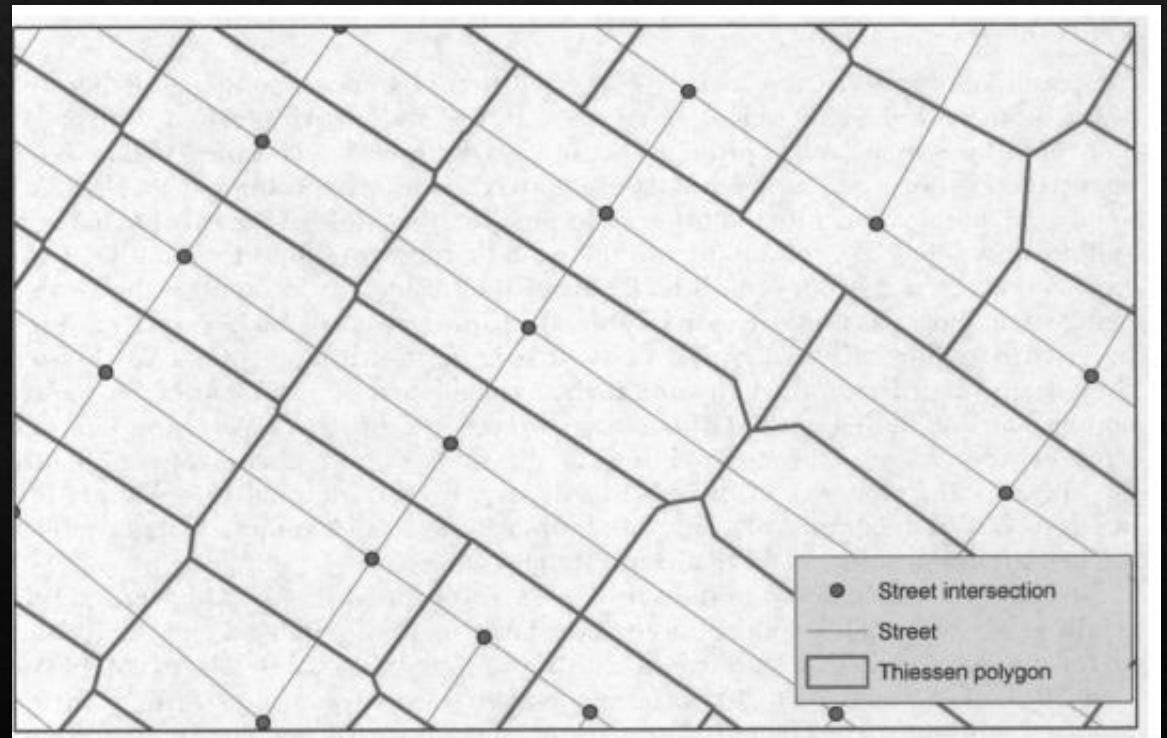
Space Syntax

- ❖ Set of techniques for representing the street networks to analyze the underlying patterns and structures which influence movement of people and land use.



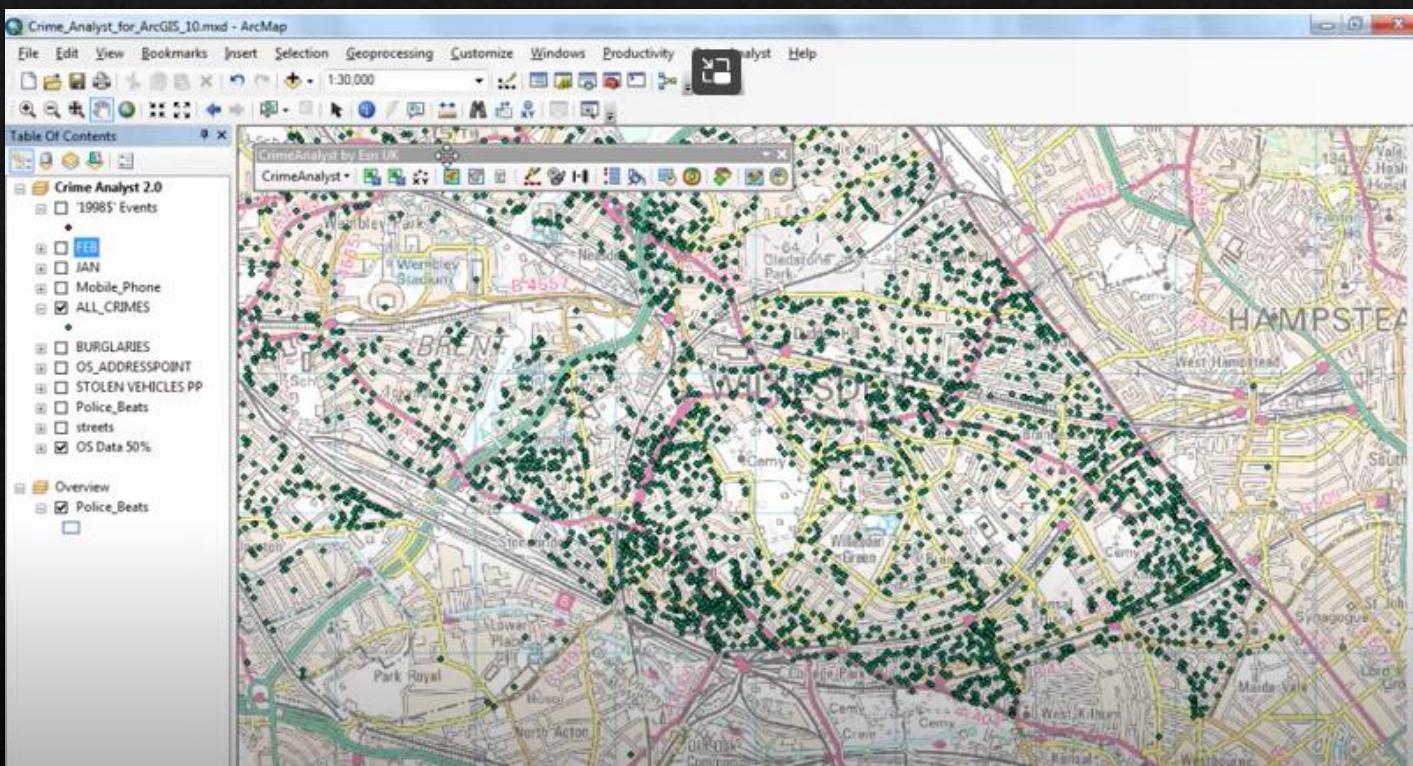
Thiessen Polygon

- ❖ A street segment is divided in the middle and assigned to a corner at either end of the segment.
- ❖ Ensures each street segment is assigned to the closest street intersection and that predictors close to street corners were included the same unit of analysis.



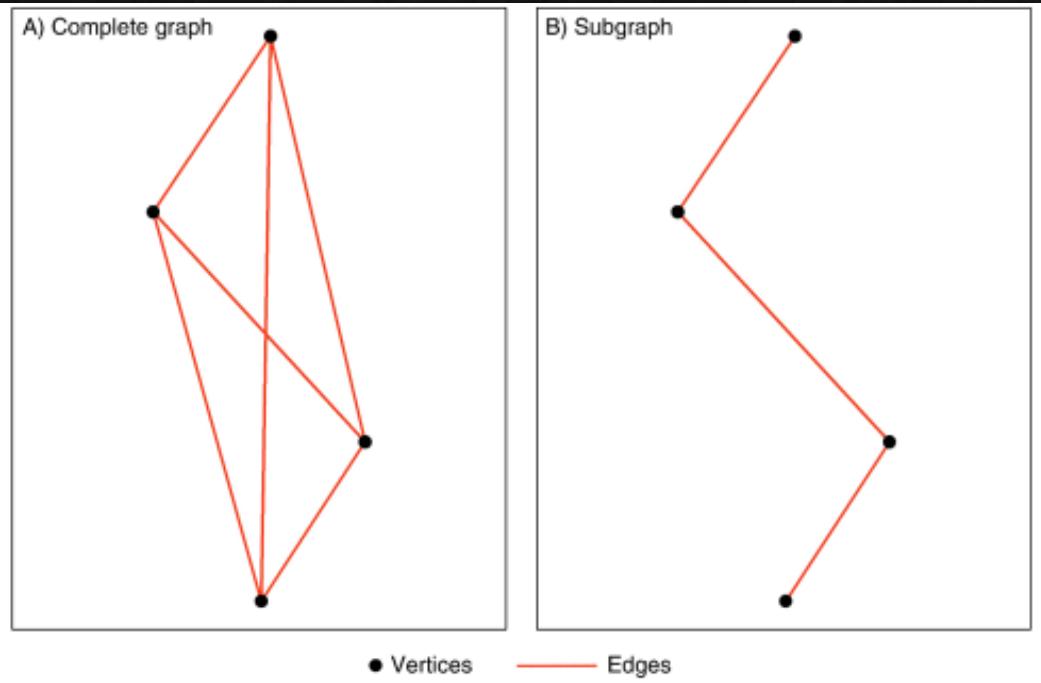
ArcGIS

- ❖ Plot and analyze geographic data on a map.
- ❖ Strategy employed by multiple articles to map out burglary in a city.

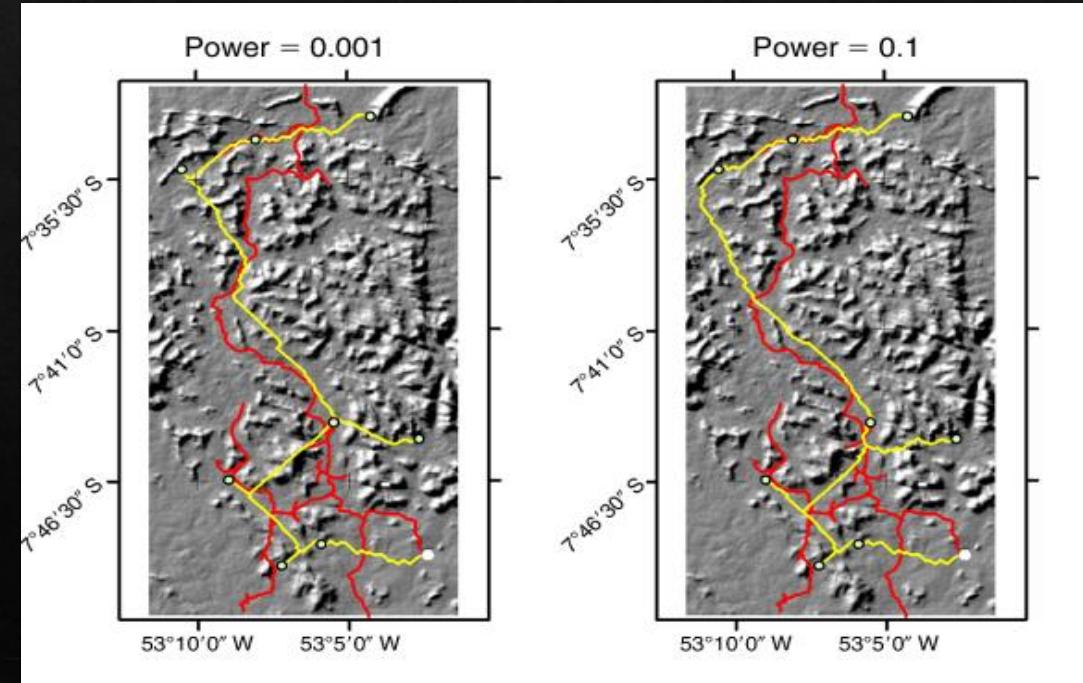


Graph Theory

Example 1

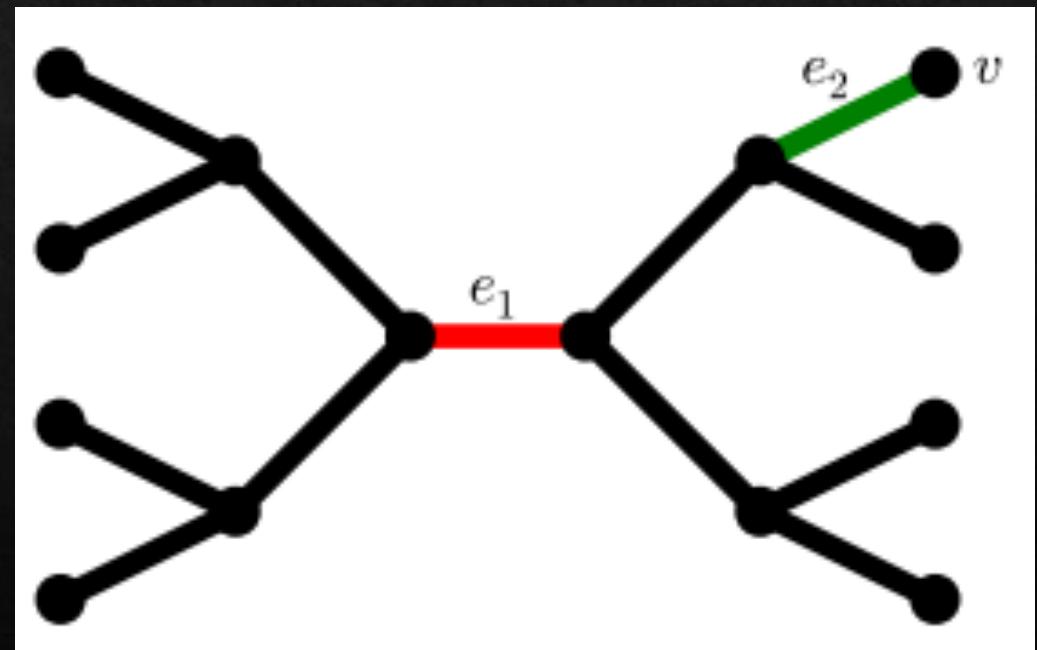


Example 2



Points of Agreement

- ❖ Local pedestrian traffic on a street network led to a decrease in burglary risk.
- ❖ The more betweenness, the greater the burglary risk.
- ❖ The more commercial businesses on a street, the higher the risk for burglary.
- ❖ Back alleys lead to greater risk of burglary



Points of Disagreement

- ❖ Sinuous streets led to mixed results.
- ❖ Linear streets led to mixed results.
- ❖ The number of residential dwellings on a street led to mixed results.
- ❖ Proximity to grocery stores led to mixed results.



Future Directions for Research

- ❖ Understanding burglar's selections. Does the street network play a role in their decision to burglarize?
- ❖ width of the roads in the street network. (one lane v. four)
- ❖ Does risk increase or decrease when the street network goes through different counties?
- ❖ Do green policies (walkability and bike lanes) increase burglaries?
- ❖ The differences in burglary rates with different characteristics (Round abouts, paid street parking v. no street parking allowed, stop signs v. traffic lights).

Final Takeaways

01

Template
for other
crimes.

02

Review of
current
policies.

03

Expand the
stakeholders
involved.

Questions?



POLICE CULTURE

BY: ERIC ALARCON

BACKGROUND INFORMATION

- Policing is a difficult and dangerous job.
- Policing culture forms due to this special type of environment.
- Culture can form in different ways.
- There are many factors that go into police culture
 - Such as the dangerousness of the job, the stress, and seeing the worse in people.



PURPOSE OF LITERATURE REVIEW

- Many of the previous studies have looked at formal relationships.
 - Valente, 1995; Conti & Doreian, 2010. Ingram et al., 2018
- Explain how informal relationships form
 - As well as how people of different cultures, gender, and races assimilate to police culture
- Synthesize the research that looks at the police culture



CURRENT LITERATURE

- Conti and Doreian (2014) looked at police socialization and how race plays a role.
 - Compared how well Latinos and Blacks assimilate to a culture that is predominately white.
 - Conti took an overt role as acted as a police recruit, writing down observations and communicating with all the recruits.
 - Researchers later asked the 68 recruits who finished training who they considered a friend.
 - Results showed Latinos and Blacks were more likely to relate to one another because of race rather than police officers when compared to whites.
- Oullet & colleagues (2020) looked at the web of relationships between individuals and groups of officers.
 - They looked at informal social relationships that form within policing.
 - Sampled a total of 88 officers.
 - Asked them to nominate people.
 - Results showed high multiplexity and interconnectivity.

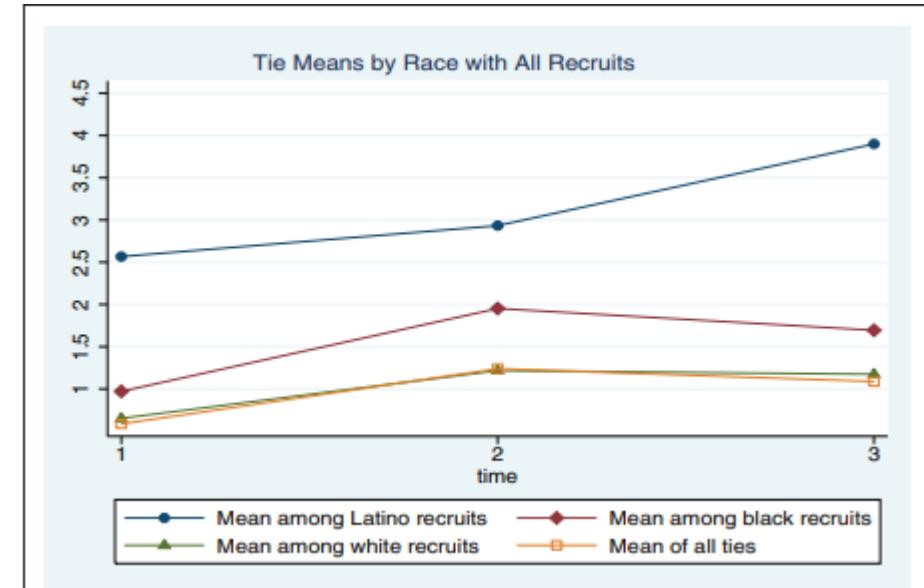
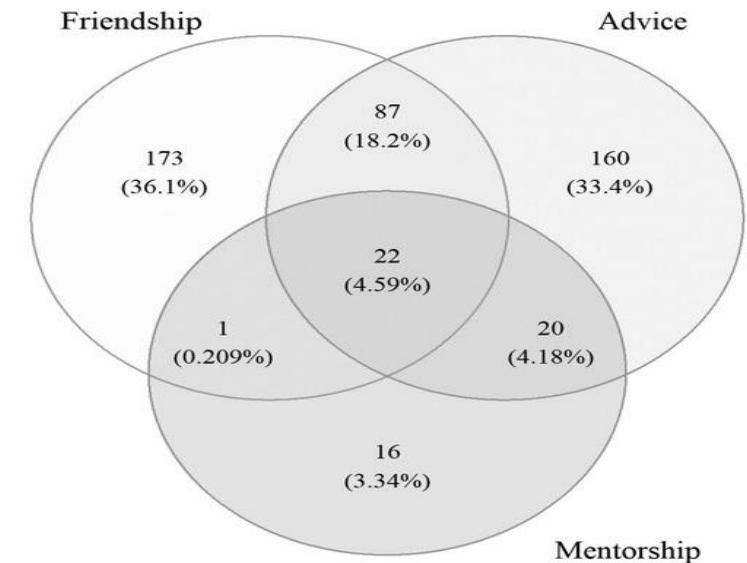


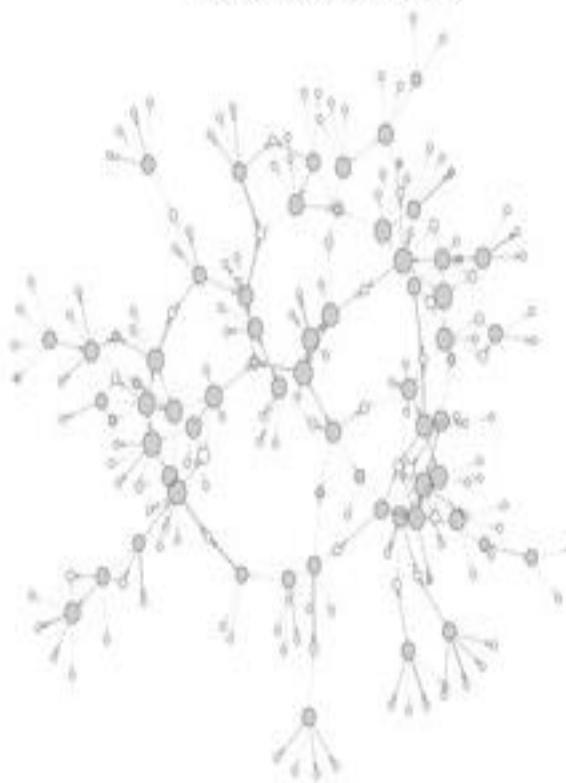
Figure 1. Multiplexity of officer relationships.



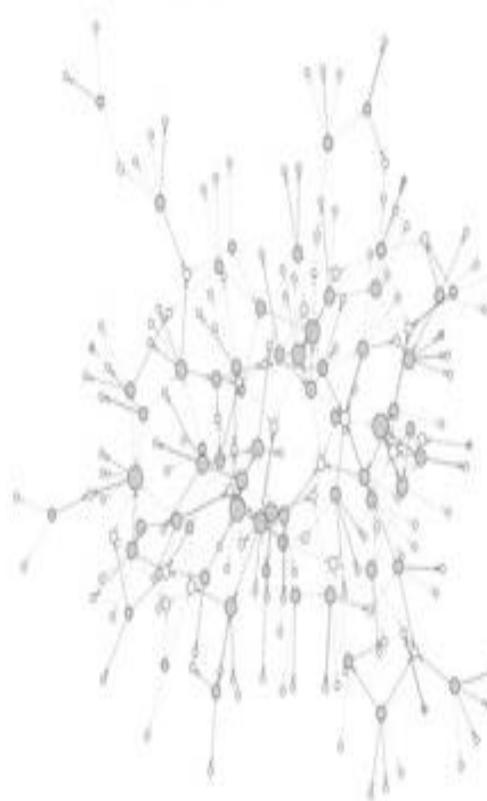
Full Network



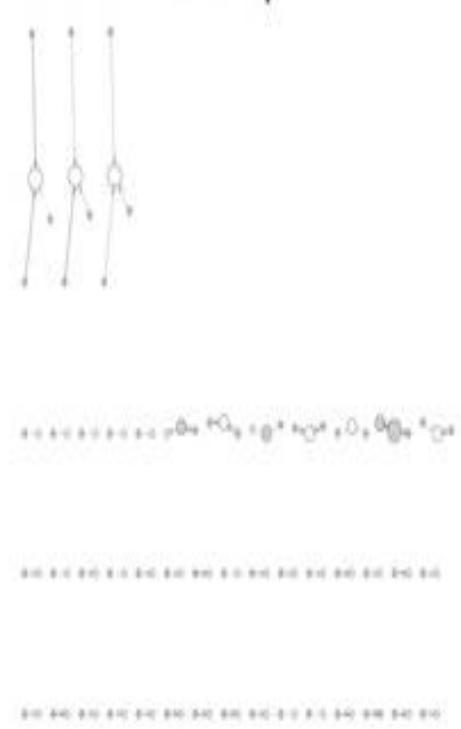
Friendship Network



Advice Network



Mentorship Network



CURRENT LITERATURE CONT.

- Paoline (2003) Looked at police culture as a whole and what were some of the things that form it.
 - The environment in which officers operate is dangerous and coercive
 - The organization provides scrutiny and their role is ambiguous
 - This leads to coping mechanisms which are constant supervision of suspiciousness
 - This creates social isolation and loyalty to their peers.
- Paoline (2004) looked at police subculture and officer attitudes.
 - Paoline makes the argument that in order to fit in officers fall into 5 different categories.
 - Tough cops, Clean-Beat-Crime-Fighters, Avoiders, Problem solvers, and Professionals
 - Using a cluster sample Paoline was able to assess the attitudinal composition of the groups towards citizens
 - Found that Tough cops had the least favorable views on citizens and their supervisors.

Environments	Coping mechanism/ prescriptions	Outcomes
<u>Occupational</u>		
Danger	Suspiciousness	
Coercive authority	Maintaining the edge	Social isolation
<i>Stress anxiety</i>		
<u>Organizational</u>		
Supervisor scrutiny	Lay low/CYA	
Role ambiguity	Crime fighter orientation	Loyalty

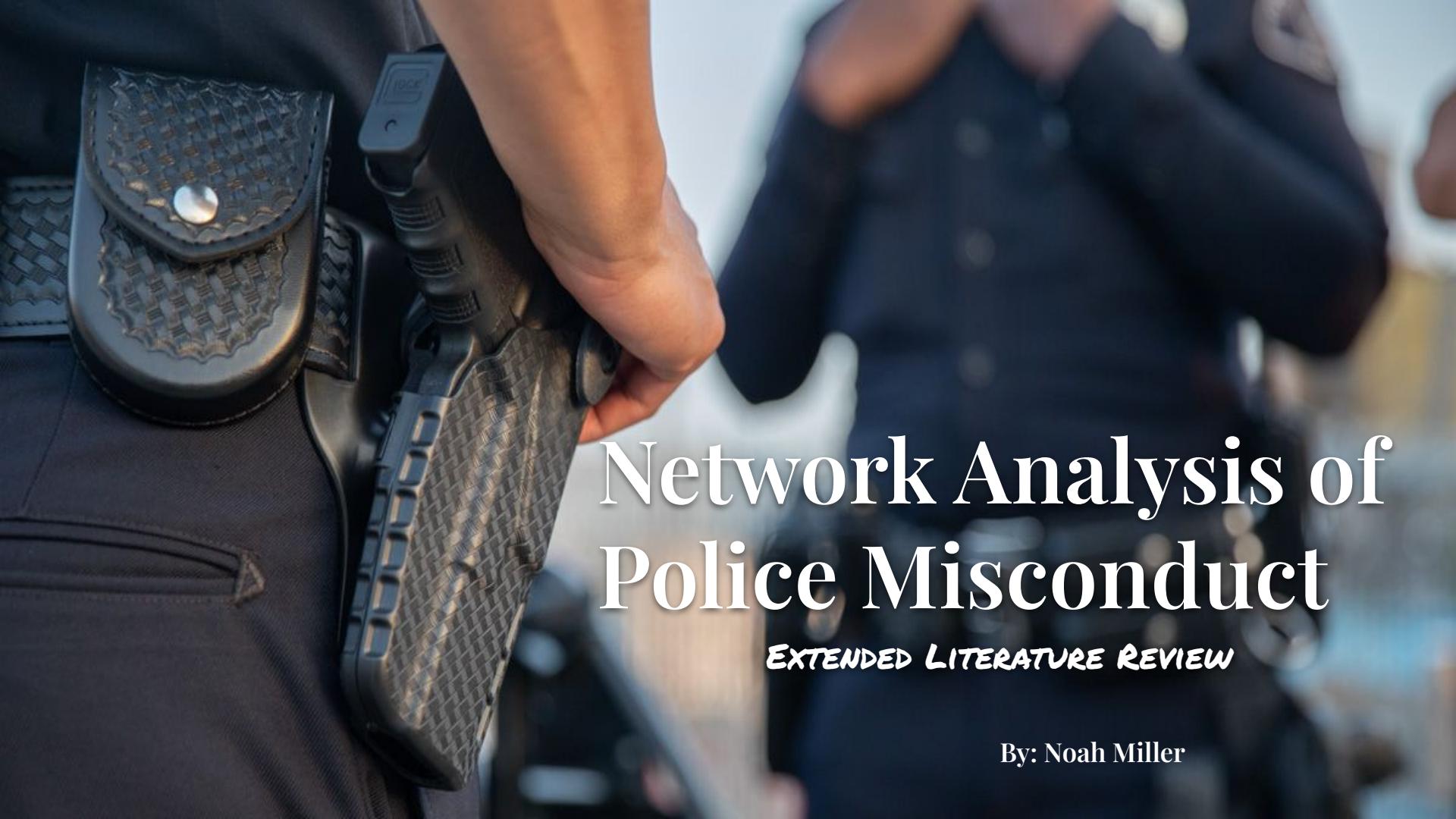
WHERE THE LITERATURE IS LACKING

- There is not much literature out there
 - More research needs to be done on police culture using a networks perspective
- Loyalty is a big factor in police culture and much of the research that looks at police culture misses this point
- Future research should look to expand the ideas of informal and formal relationships formed in police culture
 - Social structure
 - Social influence
 - Group process
- Future research should look at gendered differences in policing.
 - How females adapt to the police role
- What happens when police officers can't adapt to the role?



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Network Analysis of Police Misconduct

EXTENDED LITERATURE REVIEW

By: Noah Miller

Purpose

- Police misconduct is not a new phenomenon
 - In an article by Alexander (2022), 25 of the largest police precincts and sheriff departments were observed to have issued about 40,000 payments due to cases of excessive force and various forms of misconduct.
 - Those 40,000 payments equated to roughly 3 billion dollars
 - From 2010-2020 Chicago PD alone has paid roughly 528 million dollars
- However, network analysis of misconduct is an emerging research endeavor

Literature Review

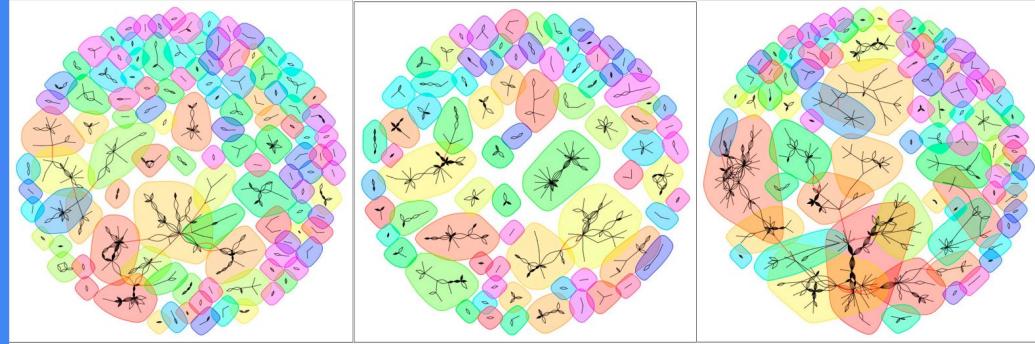


Figure 1. Misconduct communities in the Central patrol assignment.

Figure 2. Misconduct communities in the Northern patrol assignment.

Figure 3. Misconduct communities in the Eastern patrol assignment.

- Cubitt, T. (2021):
 - Reviewed 7755 allegations of police misconduct in the Baltimore Police Department
 - There were a total of 1495 officers named
 - Report spanned over the time period January 2015 to 2020
 - Identified the presence of “brokers”
 - Found that 5 of the 8 identified brokers were below the mean age of officers
 - Committed misconduct themselves and connected officers to other misconduct prone persons
 - Failed to determine the flow of misconduct
 1. Misconduct is contagious and is therefore spread to prone officers, then spread to broker group
 2. The broker group is allowing misconduct to occur and disseminating this behavior due to the lack of capable guardians

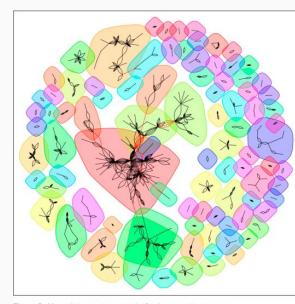


Figure 5. Misconduct communities in the Southern patrol assignment.

Literature Review (cont.)

- **Simpson, C., & Kirk, D. (2022):**
 - Utilized complete calls for service data from the Dallas Police Department (2013-2014)
 - The total number of calls for service was 1,165,136
 - 3475 officers responded to these calls
 - 2703 incidents of police deviance
 - Could not conclude that misconduct was contagious
 - Also, were reluctant to state that officers are predisposed to misconduct ('bad apples')
 - Individual characteristics are important to recognize
 - Less experience: more apt to engage in misconduct
 - Race: Black/Latino/Spanish Officers:
 - Assigned to areas that are more conducive to misconduct (i.e. patrol rather than traffic duty); certain times/days of the week (i.e. night and weekends)
 - Less likely to be protected by the wall of silence

Literature Review (cont.)

- **Wood, G., RoithMayr, D., & Papachristos, A. V. (2019):**
 - Specifically reviewed 16,503 complaints of misconduct in the city of Chicago
 - 15,811 officers involved
 - Data was collected over a 6 year span (2010-2016)
 - Looked at civilian and departmental complaints
 - Almost half of officers are named in complaints (roughly 40% for each)
 - Individual Characteristics:
 - Gender
 - Male and Female received the same number of departmental complaints
 - Males twice as likely to receive civilian complaints
 - Race
 - Black officers more likely to receive department complaints than White and Hispanic
 - Likely to receive the similar number of civilian complaints
 - Age
 - Younger officers more likely to receive complaints
 - 83% percent of officers for civilian complaints were named with another officer
 - 55% of all civilian complaints listed more than 1 officer
 - Validating that misconduct is a network phenomenon

Literature Review (cont.)

- **Ouellet, M., Hashimi, S., Gravel, J., & Papachristos, A. (2019):**
 - Reviewed Chicago Police Department (2007-2015)
 - Reconstructed police misconduct networks using complaint data
 - Specifically looking at use of force
 - 29,634 complaints
 - For repeat offenders of all complaints:
 - 48% received 5 or more complaints
 - Prior solo complaints increase the chance of a use of force complaint by 7%
 - 48% of those who received a use of force complaint, would be named again
 - Officers who associate with those who have a history of misconduct are more likely to engage in misconduct
 - If the immediate network does not have officers with complaints, the officer is less likely to engage in misconduct
 - Being named on a complaint with a female officer reduces the chance of a use of force complaint in the future

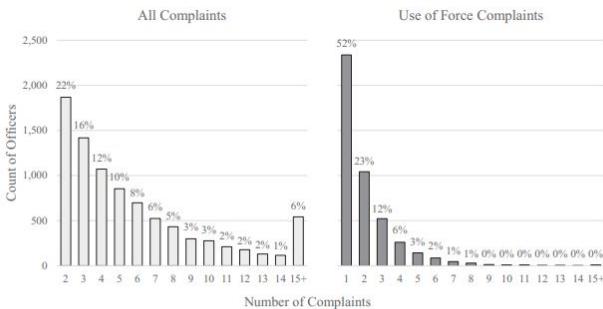


FIGURE 3 Frequency of misconduct complaints across officers, 2007-2015^{a,b}

^aAll complaints: Percentages represent the number of complaints received by the officers in our sample ($n = 8,624$)

^bUse of force complaints: Percentages represent the number of complaints received by the officers in our sample who had at least one use of force complaint ($n = 4,523$)

Literature Review (cont.)

- **Zhao, C., & Papachristos, A. (2020):**
 - Reviewed Chicago Police Department
 - 38,422 complaints from 2004-2016
 - Reconstruct misconduct allegation networks
 - Specifically, looked at police use of force
 - 338 officers fired their weapon at a civilian
 - 5,364 used other means of force (hands, taser, etc.)
 - 3,508 used no force
 - Again, younger officers more likely to use force
 - No statistical difference between different race and gender groups (similar likelihood)
 - Found persons in the broker role to be more likely to discharge their firearm
 - A node with a higher level of betweenness shows an increase in the likelihood to use their firearm
 - What generates brokerage? (shuffling, activity or other)

Policy Implications

- The majority of present literature that supports the idea that police misconduct is a contagion
 - Simpson & Kirk (2022) were not able to reasonably conclude this in their study
- Cubitt (2021) and Sampson & Kirk (2022) suggest disrupting the network
 - Removing the deviant node or providing early intervention
 - Sierra-Arevlao & Papachristos (2021) found that removing actors can reduce misconduct when spillover is occurring
- Outlett et al. (2019) suggest that exposure to female officers would reduce complaints

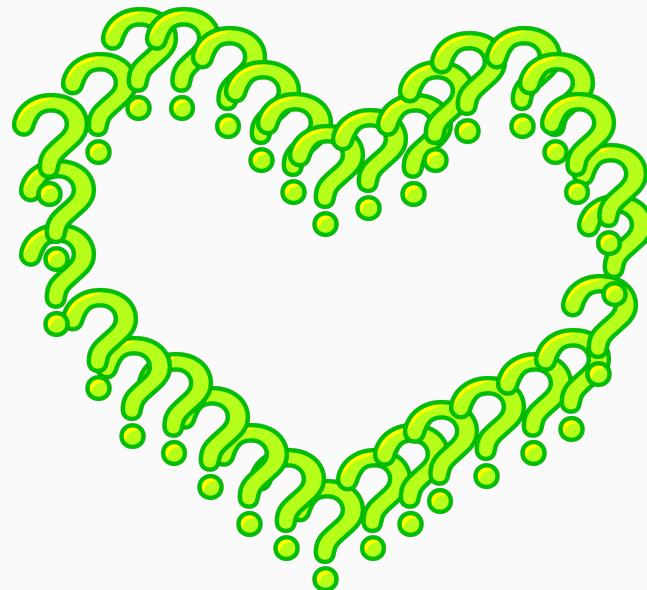
Critiques

- There is a lack of data/analysis on the non-deviant actors (specifically those that are in the deviant networks)
 - What is preventing them from engaging in similar behavior
- The solution most often suggested is the removal of bad actors
 - Unsure if any study has reviewed its effect on how that impacts the network
- Is there a need for a culture shift?
- Outlett et al. (2019) suggest recruiting more women but is that feasible?

Future Research

- Need to review how the removal of a deviant actor impacts the continued deviance of the network.
 - Important to look at the removal of the broker
- Need a better understanding on how brokers are formed
- Need more research on female officers
 - How do their network differ specifically for those that have police complaints
 - Shuck (2014) stated that female officers do not internalize hypermasculine subculture norms, can this disrupt the culture

Questions



References

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Repeated police misconduct cost taxpayers \$1.5 billion in settlements - Washington Post
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Trust Networks in Male Prisons

Arizona State University

CRJ 523 Network Criminology

Olivia Shaw, M.S.

Literature Review



Relationships in Male Prisons: Negative Experiences and Violence

Increase in Institutional hostility and deviance

The code then emphasizes, the employment of aggression and violent tactics and the disruption of relationships with correctional actors

Bullying among incarcerated men and found that when compared to bullying victims, those who bullied others found such behavior acceptable as a problem-solving technique.

Those who belonged to organized gangs where codes were often strict, compared to loosely organized gangs, those who resided within organized gangs were more likely to engage in violent forms of prison misconduct

Relationships in Male Prisons: Positive Relationships

Provide opportunities of emotional support

Individual characteristics such as friendships acquired prior to one's incarceration, geography, the length of one's sentence and social hierarchy played a role in who created friendships with who

Fear played a role in the generation of friendships. To be more specific, the results revealed that those who shared a universal fright towards other incarcerated individuals were more likely to associate with one another

Common to observe men in relationship that were overall positive relationships that were filled with genuineness and affection

Kerley and Copes (2009) found that there was a desire to find social groups that bolstered support. In doing so, those who found belonging in religious and other social groups noted that such groups provided protective mechanism to the negative prison experiences

Trust in Carcel Contexts

Prisoner vs. Staff

Incarcerated individuals are more likely to be perceive prison staff as untrustworthy.

- Power imbalance
- Creates conflict lack of
- Establishment of trust creates routine conflict

Trust among women

Incarcerated females saw their peers as being untrustworthy

- Gossip and selfishness

More likely to trust those from the same religious group

Embeddedness played a role in perceiving someone as being trustworthy

Positive Relationships and the Desistance Process

Recidivism indicates that support and family contact can reduce the rates of reoffending and future reincarceration

The inmates who were considered “loners” were six times more likely to end up back in prison during the first year.

Social support may contribute to desistance and these types of positive peer relationships are a necessary component of the identity transformation that must occur for former prisoners to avoid returning to a lifestyle that resulted in their incarceration

Social Network Concepts on Trust

Social Embeddedness

- A long line of research in sociology has argued that if two individuals are connected by an embedded edge, then this **makes it easier for them to trust one another**, and to have confidence in the integrity of the transactions

Resource Mobilization

- network heterogeneity, measured by modularity. Networks with higher levels of closure are associated with **higher familiarity, trust, and social capital**, and more efficient exchange of information, goods, or services

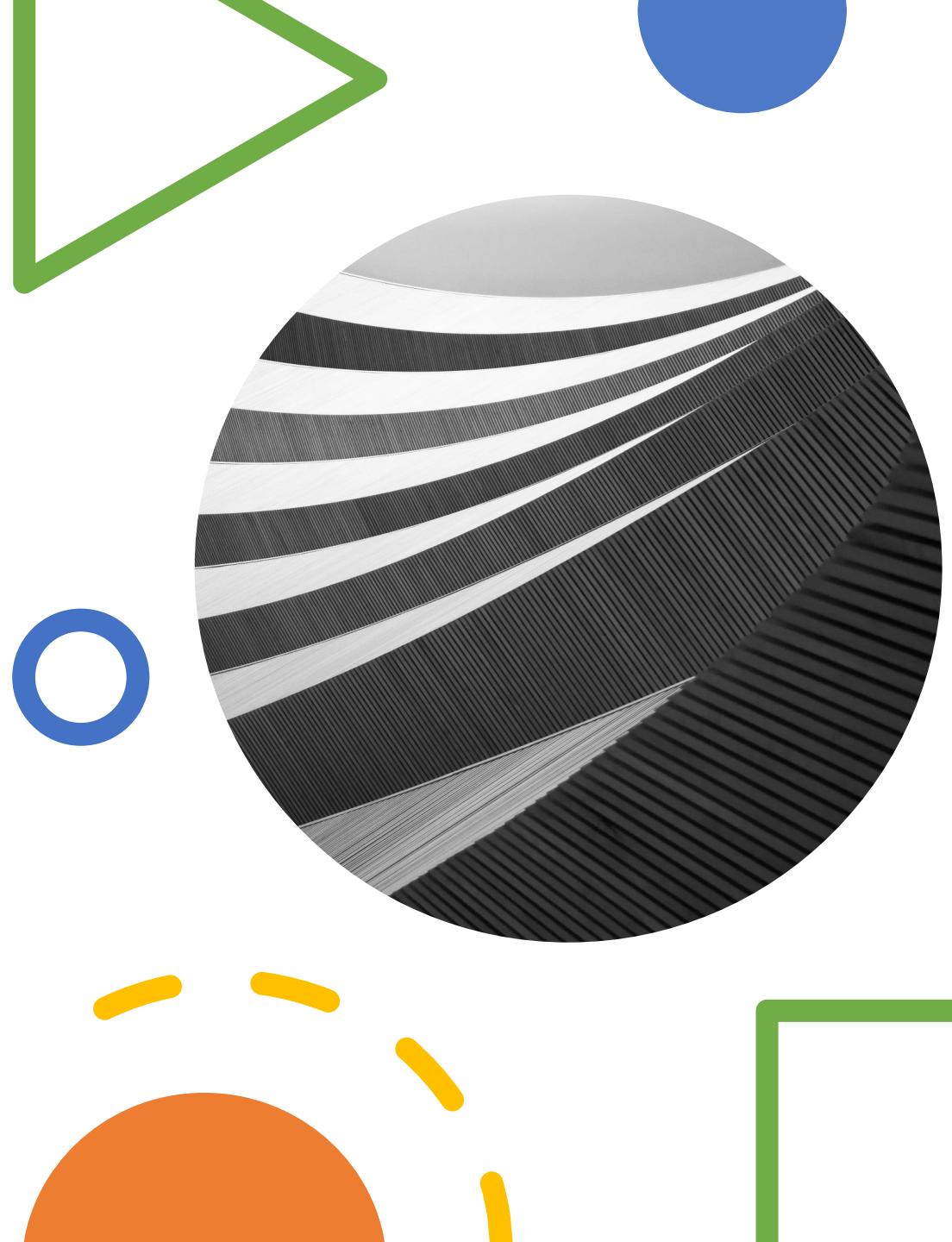
Problem

SOCIETAL

- Social Isolation & deprivation
- Reduce interpersonal aggression in male prisons
- Enhancing the opportunity to form positive relationships within correctional settings
- Improving correctional staff safety

RESEARCH

- Lack of research on the aspects of trust in the formation of interpersonal relationships in male prisons
- Lack of literature on how positive relationships can be aid in the desistence process both within correctional institutions and within society for incarcerated males



Importance

1. Therefore, there is a need to examine how incarcerated males form friendships built on trust in prison and with whom they decide to bestow this honor, as well as how this affects and institutional behavior.
 1. The examination of trust within male prisons is important for several reasons. For one, examining the formation of trust in relationships between incarcerated is beneficial how individuals cope with the dilemma of isolation from community networks.
 2. Currently, the research on the formation of positive relationships in male prisons and the corresponding role of trust in such relationships are scarce.

Purpose

Add

- Add to the gaps in the current literature on the underlying mechanisms of social relationships and trust networks in male prisons
 - Utilizing social network analysis

Create

- Create a better understanding of how trust networks are formed and how they differ from networks formed in female prisons
- How/if such positive trust networks are maintained and contribute to the desistence process in male prisons

Explorative Research Questions



- Who do incarcerated men consider to be trustworthy?
- How do factors such as trust, embeddedness and social capital play a role in forming trustworthy relationships?
- Finally, how can trustworthy relationships reduce deviant misconduct found within male correctional facilities and contribute to positive relationships?

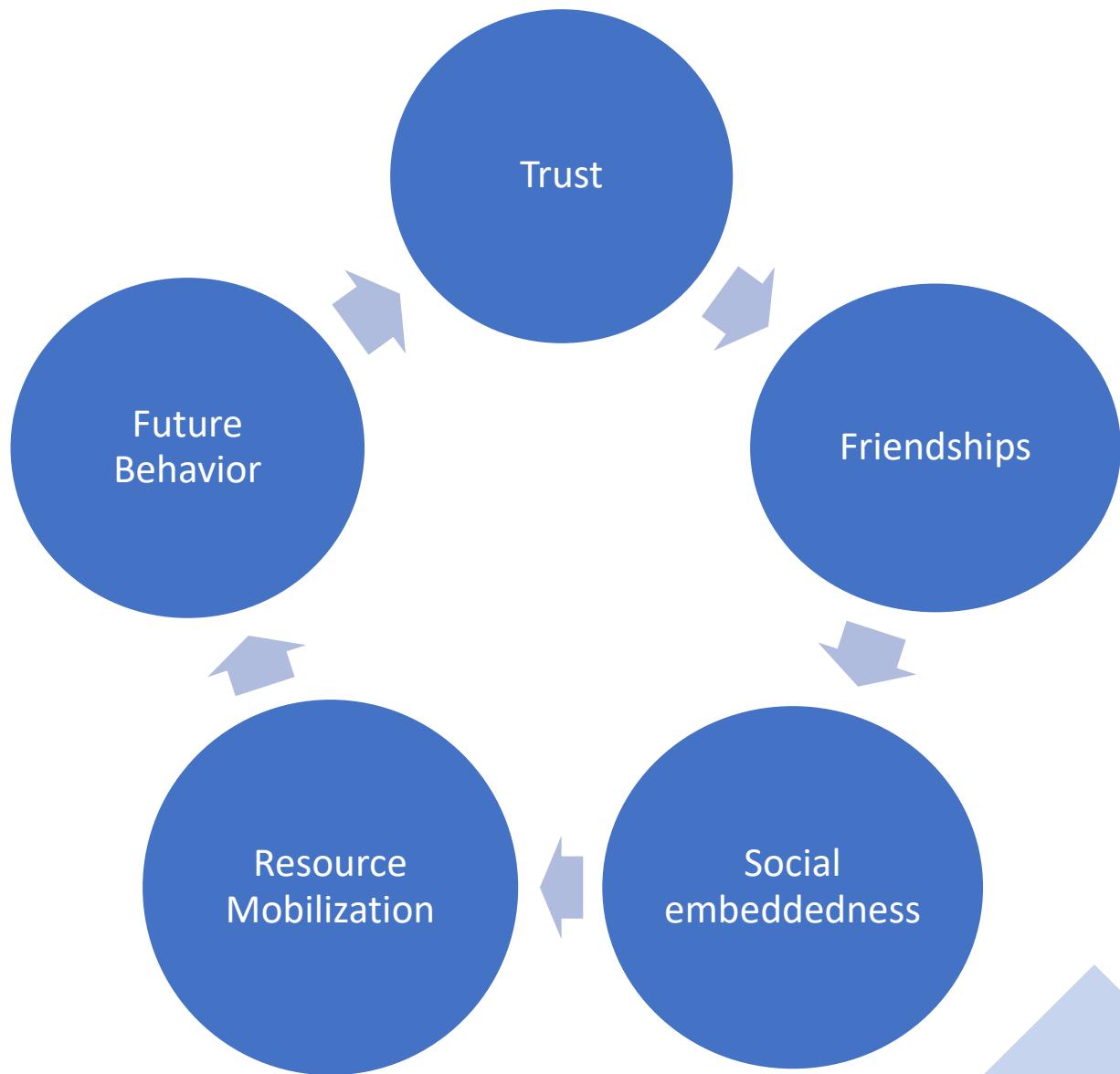


Data

- Only dataset to exist on the topic of incarcerated male prison networks is the:
 - Prison Inmate Study (PINS)
 - For the purpose of this study:
 - Mixed methods:
 - In- person interviews
 - ERGM models
 - Site: The data for this project includes the examination of incarcerated men at the California Department of Corrections and Rehabilitation in Los Angeles County in Lancaster, California. The CDCR-LAC includes incarcerated populations within two different units, including minimum and maximum units



Variables of Interest



Prospective Interview Questions



To measure unit friendships, respondents could be asked something along the lines of “Who are your friends?”

How would you define friendship?



To measure peer trust, respondents could be asked, “Who are the peers that you trust to give you advice here in this prison?”

“What does trust mean to you?”

Who do you trust to be there when you are emotionally troubled?”

“How reliable is this person?”

“Does this person have your back?”



To measure future behavior, respondents could be asked, “Are there any friends you met in prison who have helped you become a better person?”



To measure embeddedness and resource capital, respondent may be asked, “How would you categorize the strength of your friendship?”

“Given the people you trust and have befriended, how have they helped you learn about opportunities on the unit?” (Job, programming, etc.)

How frequently do a set of actors interact?

Break

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APRIL 27, 2022



**IMMIGRANT TRANSNATIONAL
NETWORKS AND DEVIANCE:
ASSESSING THE EFFECTS OF
TRANSNATIONAL TIES.**

NETWORK CRIMINOLOGY

BACKGROUND OF STUDY



Pre twentieth-century ideas on immigration

- Strong family ties are weakened due to distance, the cost of maintaining family contact, and the unavailability of accessible communication tools.
- Immigrants lost touch with their ethnic, religious, and cultural codes due to immigration shock and uncertainties.
- This facilitated immigrant enclaves.

Post twentieth-century ideas on immigration

- The current nature of immigration is transnational.
- It is the case because of the growth in information technology and communication tools.
- Implications of this idea: research on the social lives of immigrants should account for transnationalism.

LITERATURE REVIEW



FACTORS THAT INFLUENCE OFFENDING BEHAVIORS AMONG IMMIGRANTS

- Attenuating family control among immigrants, particularly third-plus generation immigrants.
- Peer networks and unsupervised relationships, particularly among second and third-plus generation immigrants.
- Immigration status: legal (sanction threat) and illegal (strain and its implications).
- Acculturation & Overlaps.

TRANSNATIONALISM & IMMIGRANT RELATIONSHIPS

- 20th & 21st-century immigrants are transnational in their relationships and social lives.
- Information flow through ties: cultural, ethnic, and familial.

GAP IN RESEARCH



The effects of transnational ties on immigrant offending behaviors have been completely ignored in the literature.

- Lack of conceptual and methodological tools to map out the network size and structure of immigrant transnational ties, and the density, and information that flows through these ties.

ADDRESSING THIS GAP

SOCIAL NETWORK ANALYSIS



- Since transnational ties persist, have information flowing through, and mainly involve networks, social network analysis can help fill this gap.
- Social network analysis will help me to map out the size and structure of networks and analyze the outcomes of such network structures.

RESEARCH QUESTIONS

- What are the key characteristics of immigrant transnational network members?
- What role do network members play in immigrant offending behaviors?
- Who are the most influential members of immigrant transnational networks and what makes them influential to immigrants?

THEORETICAL FRAMEWORK



Strength of Weak Ties by Mark Granovetter (1973)

- Not all immigrant transnational ties are strong, some are weak.

Social Capital & Learning Theories

- Information resources embedded in network ties.

DATA & METHODS

- A convenient sample of 1st and 2nd-generation immigrants.
- Mixed Methodology: qualitative and quantitative methods.
- I plan to conduct 50 to 100 interviews using the snowballing technique. My sample frame will include immigrants from different backgrounds.
- Descriptive statistics will be used to report network composition & characteristics; t-tests will be used to analyze the similarities and differences across alters who are influential and those who are not.

QUESTIONNAIRE & MEASUREMENT HIGHLIGHTS



QUALITATIVE PART

- Are there any individuals outside America whom you interact with that are significant to you?
- How old are they? Are they employed? Are they family members or not?
- How often do you talk with them?
- Which of your transnational relations is most important to you & with whom do you have that tie?

QUANTITATIVE PART

- The frequency of contact will be measured linearly on a 5-point scale. 1 = *less than monthly*, 2 = *about monthly*, 3 = *2 to 3 times per month*, 4 = *weekly or about weekly*, 5 = *daily or about daily*.
- The length of each relationship will be measured on a 5-point scale with response options including *weeks*, *months*, *less than a year*, *several years*, and *7 or more years*.

ANALYTIC STRATEGY



STEP 1

QUALITATIVE ANALYSIS

- Identify the people in their transnational networks.
- Analyze the characteristics of the people enlisted by respondents.
- Identify the most important people in their transnational networks.

STEP 2

QUANTITATIVE ANALYSIS

- Analyze the characteristics of ties; for instance, frequency of contact, relationship closeness, and relationship length.

I will focus on network size and the composition of network structure.

The main social network analysis tool that will be utilized here is *Name Generators*.

RESEARCH EXPECTATIONS

I hypothesize that immigrant networks will be made up of kin and non-kin alters.

I hypothesize that kin alters will be influential in shaping immigrant behavior.

I hypothesize that immigrants' transnational networks will comprise members in their country of origin and those from other countries.

I hypothesize that transnational ties will be both sanctioning and reinforcing.

Ultimately, I hypothesize that transnational ties will play a role in the observed variation in offending behaviors between and within-immigrant groups.

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THANK YOU!

Enterprise Risk Management at Seattle Police Department

Mitchell Smith

Primary Research Problem

Seattle PD wants to know if their officers are “shopping” reports around. They want to conduct a network analysis to identify officers engaging in this behavior.

Reports

- Filed for various police-citizen interactions (use of force, search and seizure)
- Must be signed off by a supervisor, not necessarily direct chain of command

Officers

- Some officers might be masking problem behavior by spreading reports to different supervisors. These would likely be in their friendship network
- Certain officers with specialized training often get assigned to calls outside of their chain of command and are not an issue

Review of Literature: Officers

Several studies have found that police are affected by the “bad apples” around them, leading to worse individual outcomes. Primarily studied through network concept of **contagion**. Applied to complaints, use of force, and officer involved shootings

(Cubitt, 2021; Oullet et al., 2019; Quispe-Torreblanca & Stewart, 2019; Zhao & Papachristos, 2020; Wood et al., 2019)

One recent study in Dallas found no significant results from the network analysis, and instead found misconduct is primarily a function of individual traits and situational context

(Simpson & Kirk, 2022)

Review of Literature: Supervisors

Some police leaders may be regarded as better options to sign off on reports. This is likely a function of the friendship network converging with the chain of command

(Chang-Hyeon, 2008)

Police misconduct may transmit generationally. New officers learn misconduct early in their careers and pass it on when placed in leadership positions

(Frake & Harmon, 2021)

Evidence from business literature suggests that important experts or leaders are willing to engage in “gray area” misconduct, but quickly change behavior once it is identified as true misconduct. Shopping reports may not be seen as “bad” by some leaders currently

(Mohliver, 2019)

Initial Data

Chain of Command

- SPD has data records of the entire CoC each day for the past several years

Reports

- SPD has records of report type, who filed, and who signed each report

Network Analysis of the Problem

The primary analysis to address the research problem posed by SPD will center around the network concept of **multiplexity**.

When a tie is shared between two individuals across two or more networks, that tie is considered to be **entrained**.

Simply, SPD wants to know if have more connections to supervisors in the report network than is explained by the chain of command. If an officer has low entrainment across the two networks, they are likely shopping reports outside of their chain of command.

Additional Data Considerations

Friendship Network

- An ideal study would survey officers to identify friendship networks. Collecting survey data from PDs can be challenging, but Seattle is a city highly committed to police data collection and research

Training Officer Network

- I would like to include the training officer for new hires in the analysis. The research team at SPD has indicated to me that they are interested in studying training officers further and have data that could be useful. Tenure as a protective factor suggests the training period is vital learning conduct

Further Network Ideas: Officers

Embeddedness

- Officers with a high **degree** of connections to supervisors in their friendship could be more likely to shop
- Officers with a high **eigenvector** could be shielded from suspicion (Joseph & Smith)

Contagion

- Officers who are exposed to others who shop will have a higher chance of shopping themselves through network misconduct **diffusion**.

Further Network Ideas: Supervisors

Brokerage/Structural Holes

- Supervisors with many **bridging ties** could perpetuate shopping

Homophily

- Officers and supervisors that are **homophilous** could engage in misconduct more frequently

Department Integration

Jupyter Code

- Code project using R w/ Jupyter
- SPD uses AWS Cloud
- Code can be converted w/ Jupyter to Python and integrated into SPD system

Early Intervention System

- SPD uses a machine learning based EIS for many departmental issues
- Code abstractions will be added to Cloud and identify officers and supervisors with over-connectedness in the report network

Complaint Networks

A future project with SPD that could come from this research

Theoretically, exposure to different officers and supervisors could alter one individual's behavior and attitudes

Is over-connectedness to those with higher complaints a risk factor for new officers?

Do officers with more complaints tend to be homophilous in the friendship network?

Similar Cloud integration

Following the recent publication by Simpson and Kirk out of Dallas, this project takes on more urgency. This study was the first to have non-significant findings for spread of misconduct through contagion. Replication with new data is necessary.

Harm Reduction Attitudes Among Police Officers: Is There Transmission?

Seth Watts, M.S.

Arizona State University



Introduction

- Opioid crisis
- Police-led naloxone programs
 - Concerns
 - Buy-in
- Social network analysis and how it can be vital in this context

Literature of SNA in Police Departments

- Exposure to misconduct and use of force¹
 - Network exposure to misconduct is a predictor of use of force
- Similarly, misconduct networks begets misconduct²
 - Networks of officers who engage in misconduct foster misconduct
 - Police misconduct is at least partially a product of the network

Literature of SNA in Police Departments

- Officers' framing of BWCs³
 - Network effect
 - Reduces with the addition of variables
- Takeaways:
 - Networks matter in police departments
 - Both behavior and attitudes can be influenced by these networks

Contagion as a Mechanism

- Network Flow: Ties as pipes
- Diffusion of perceptions among officers

Proposed Study

- Competence, confidence, and support for carrying Narcan increases over time⁴
- What drives this finding? Is it simply that Narcan works? Or is there a transmission of positive attitudes towards Narcan?

Research Question

- Why do officers' perceptions of harm reduction policies change over time?
 - *Hypothesis: Officers' attitudes change via a network effect*

Data

- Affiliational data
 - BWC coding or field contact forms
 - Unique identifier for those on scene at an overdose
- Survey data
 - Officer attitudes towards Narcan and other harm reduction perspectives
 - Unique identifier to match with affiliational data

Analysis

- Growth curve modeling with network effects
 - Model attitudes changing over time
- Incorporate network variables into the model

Potential Implications

- If the results show that there is a network effect:
 - Incorporate multiple “champions” of the program during implementation
 - Continuous presence of positive messaging of the program throughout the project

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