

A Spatial Analysis of Sexual Homicide

To Live and Die in LA

Twenty-five years of Sexually
Motivated Murder

0 3.5 7 14 21 28 Miles

prepared by: IVP



Routine Activities

- Sexual homicide represents a convergence in time and place of the motivated offender and the victim
 - An overlap of routine activity space
- Shifts the focus away from either the offender or victim exclusively
- Allows the emphasis to focus on spatial behavior, location, & choice

Sexual Homicide

- *a sexual homicide is one in which there is physical evidence of sexual activity which has occurred in close temporal and physical proximity to the murder or when there is a legally admissible statement by the perpetrator of sexual activity*

– Reid Meloy, 2000

Method: Sample

- All sexual homicide cases investigated by the Los Angeles Sheriff's Department from January 1, 1980 through December 31, 2004
 - **194** cases, **199** victims, **141** offenders
 - **105** Closed by arrest (**52.8%**)
 - **84** Open/Active (42.2%)
 - Only 2 cases are Open-suspended/inactive

Sexual Homicide Epidemiology

- A low base rate phenomenon
 - Estimates vary from less than 1% to approximately 4% of all homicides
- Current Study
 - **Mean** base rate for 25 years= 4.33%
 - **Median** base rate for 25 years=3.83%
 - **Range**= 0.59% to 9.15%

Sexual Homicide Epidemiology

- Probability of ***any homicide*** in Los Angeles of being a sexual homicide:

$$\mathbf{P=0.043}$$

- Probability of ***any violent crime*** in Los Angeles being a sexual homicide:

$$\mathbf{P=0.0006}$$

Spatial Data

Location	Count
Incident (body dump)	197
Victim Residence	192
Offender Residence	110
Encounter Site	136
Post-offense location	98
Mobility Triangles – Incident	108
Mobility Triangles - Encounter	98

Comparison Data

- Incident location data for all homicides occurring in Los Angeles County for the period 1 January 2005 through 31 July 2007 were obtained (N=959) and geocoded

SEXUAL HOMICIDES MAPPED

Sexual Homicides 1980 - 2004

0 3.5 7 14 21 28 Miles

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ALL HOMICIDES MAPPED

(JAN 2005 – JUL 2007)

All Homicides N=959
JAN 2005 – JUL 2007

0 3.5 7 14 21 28 Miles

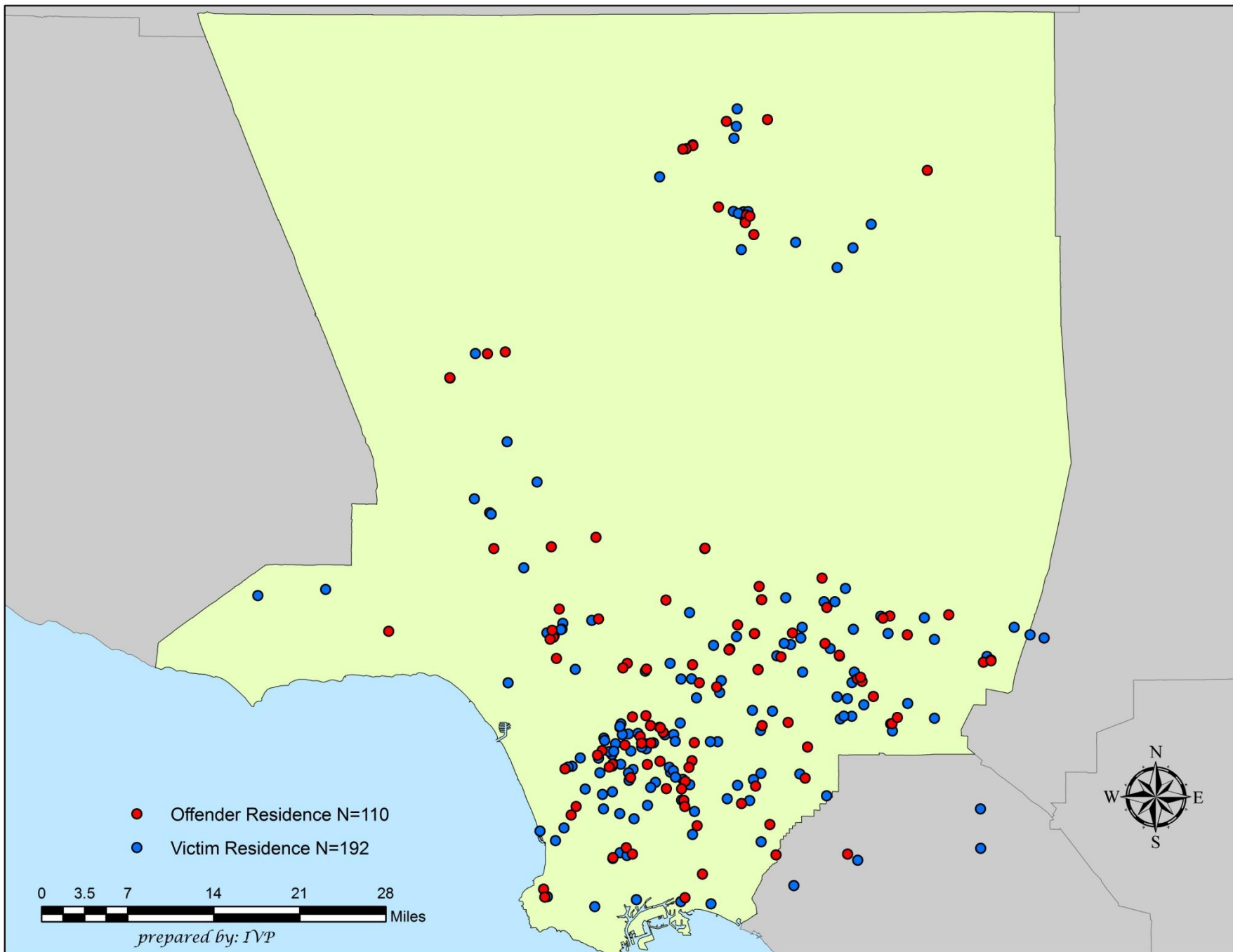
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Offender Residences N=110

Victim Residences N=192

OFFENDER & VICTIM RESIDENCES



Offender Residence to Crime **N=110**

Victim Residence to Crime **N=191**

Offender Residence to Encounter **N=101**

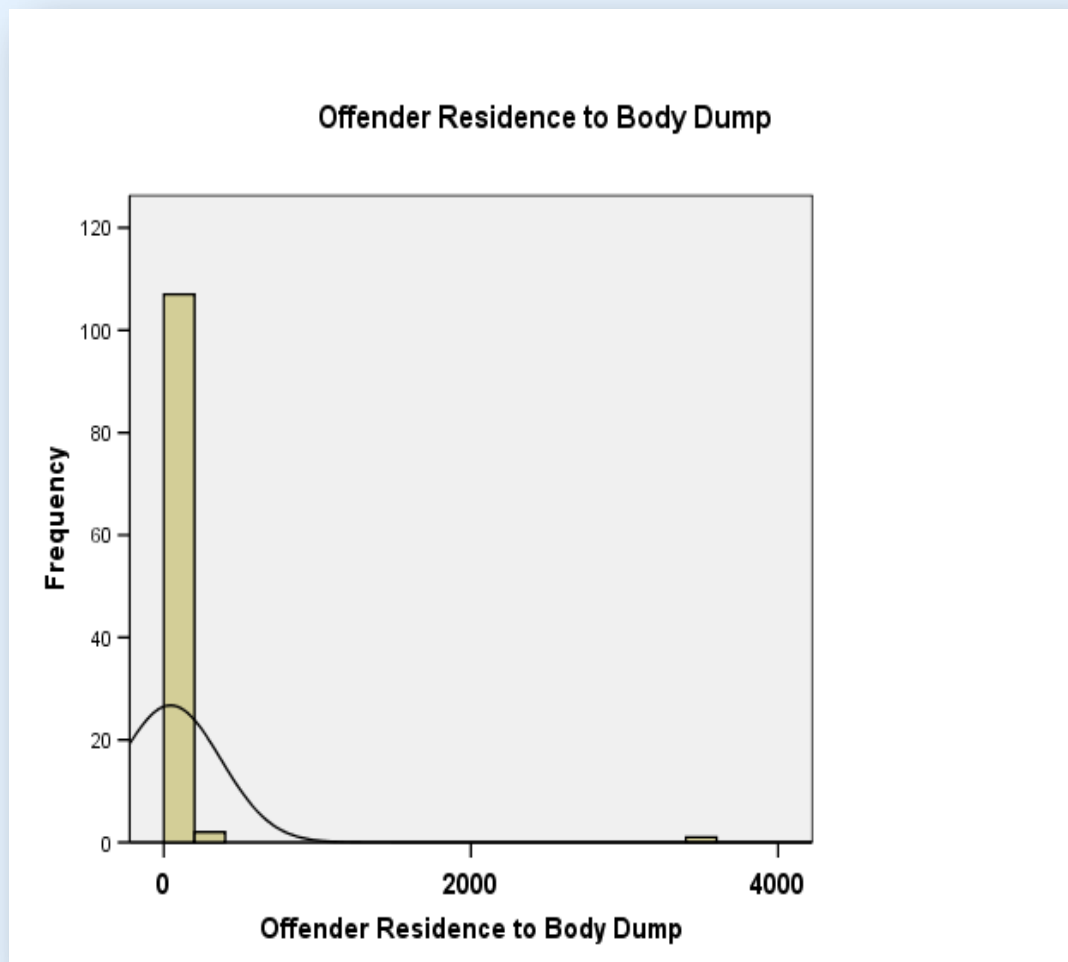
Victim Residence to Encounter **N=133**

Offender Residence to Victim Residence **N=108**

JOURNEY TO CRIME

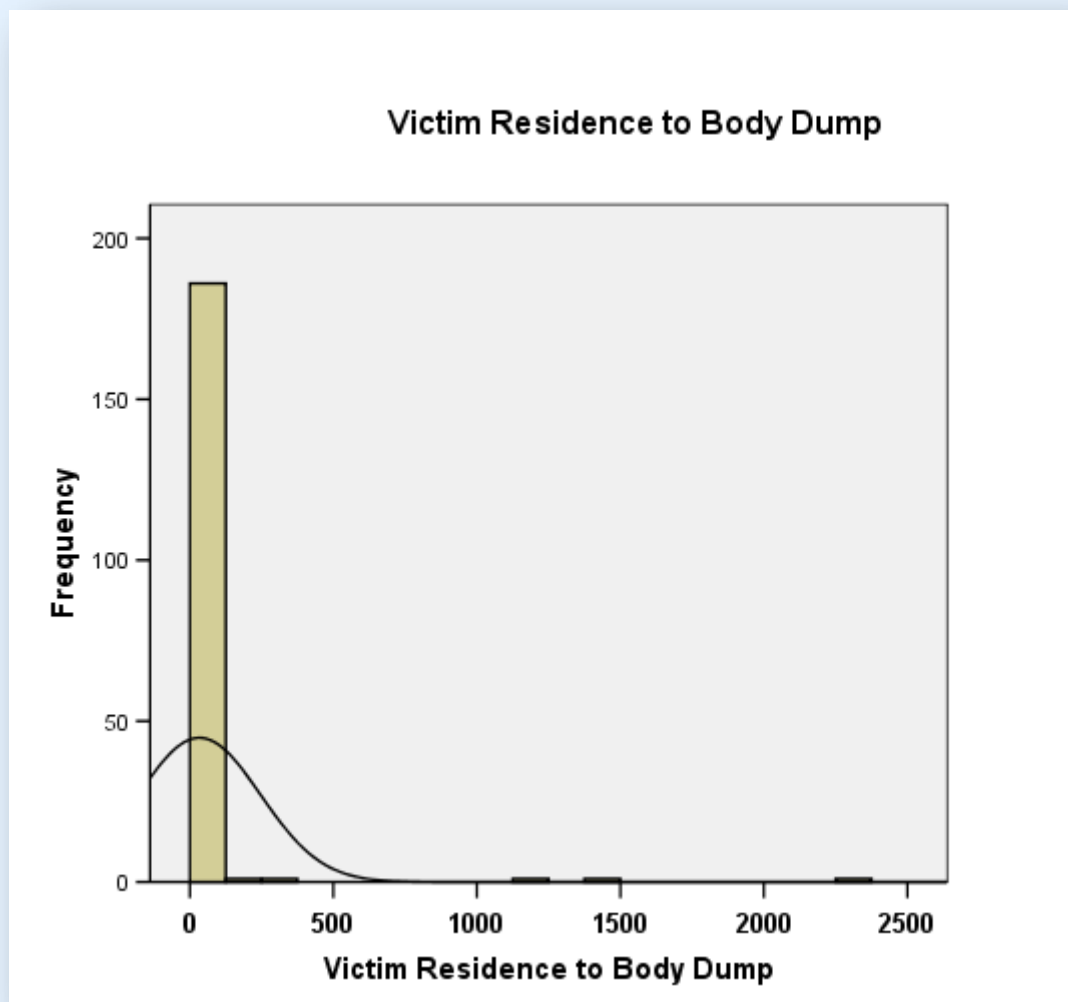
JTC: OR to BD

- N=110
- Mean= 43.86
- **Median= 1.28**
- SD= 327.97
- Min= 0
- Max= 3410.87



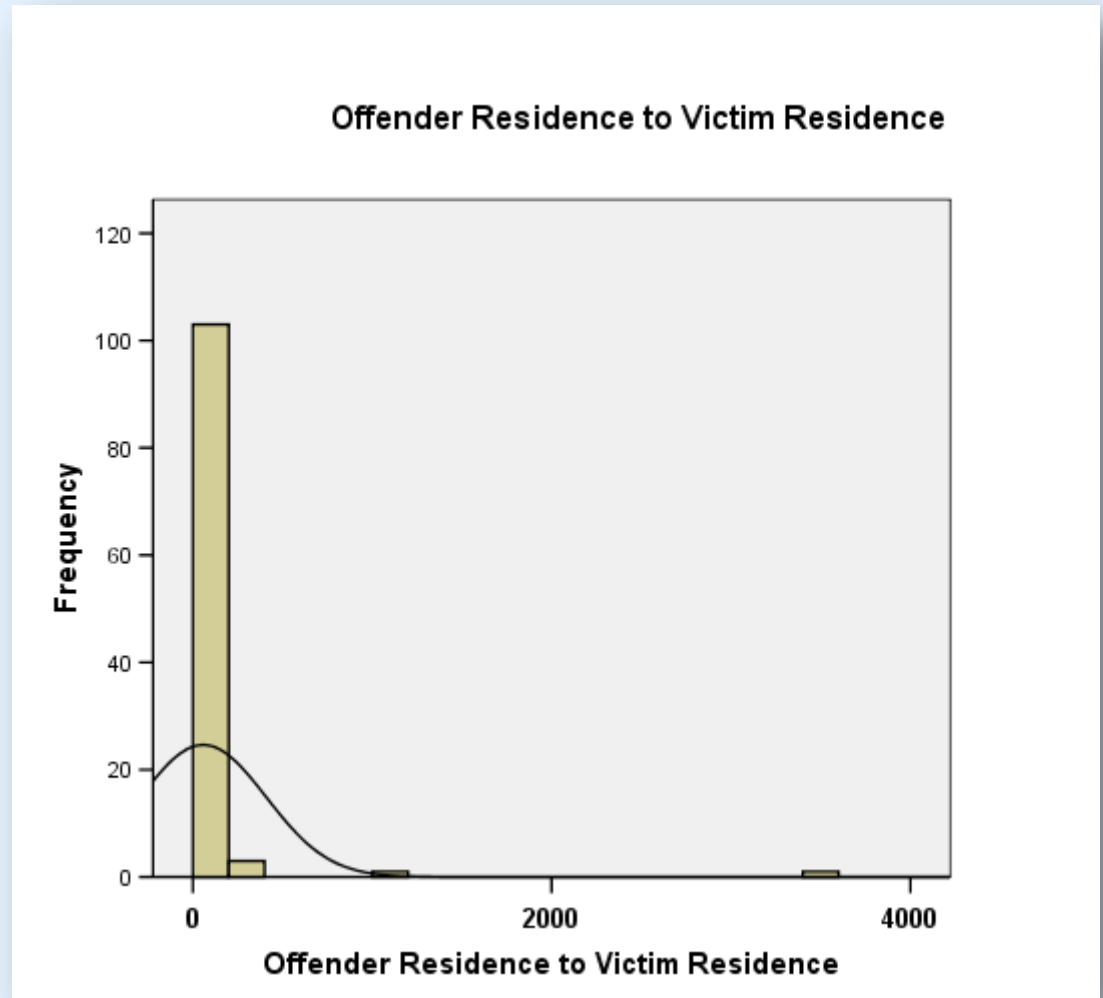
JTC: VR to BD

- N= 191
- Mean= 33.38
- **Median= 0.79**
- SD= 212.46
- Min= 0
- Max= 2276.29



JTC: OR to VR

- N=108
- Mean= 57.71
- **Median= 0.61**
- SD= 342.43
- Min= 0
- Max= 3410.87

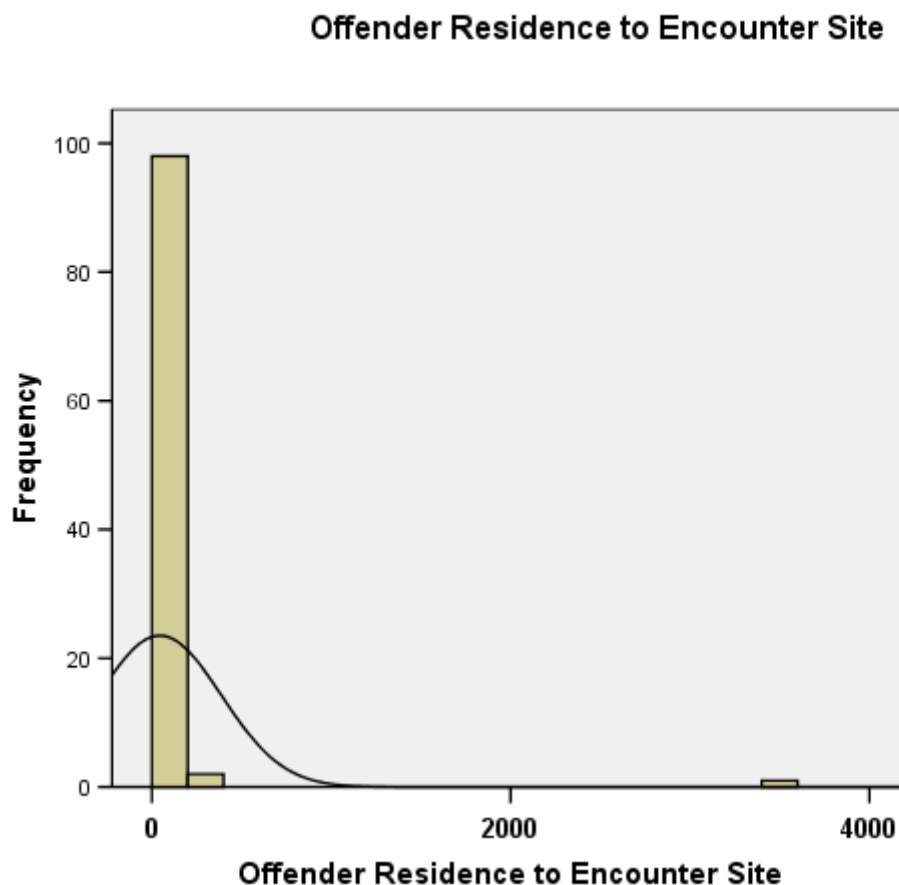


Critical Homicide Sites

- 1) Encounter Site** – where victim and offender first meet
- 2) Attack Site** – where first criminal attack occurs
- 3) Murder Site** – where actual murder occurs
- 4) Body Dump** – where the body is left
- 5) Post-offense** – *journey after crime*

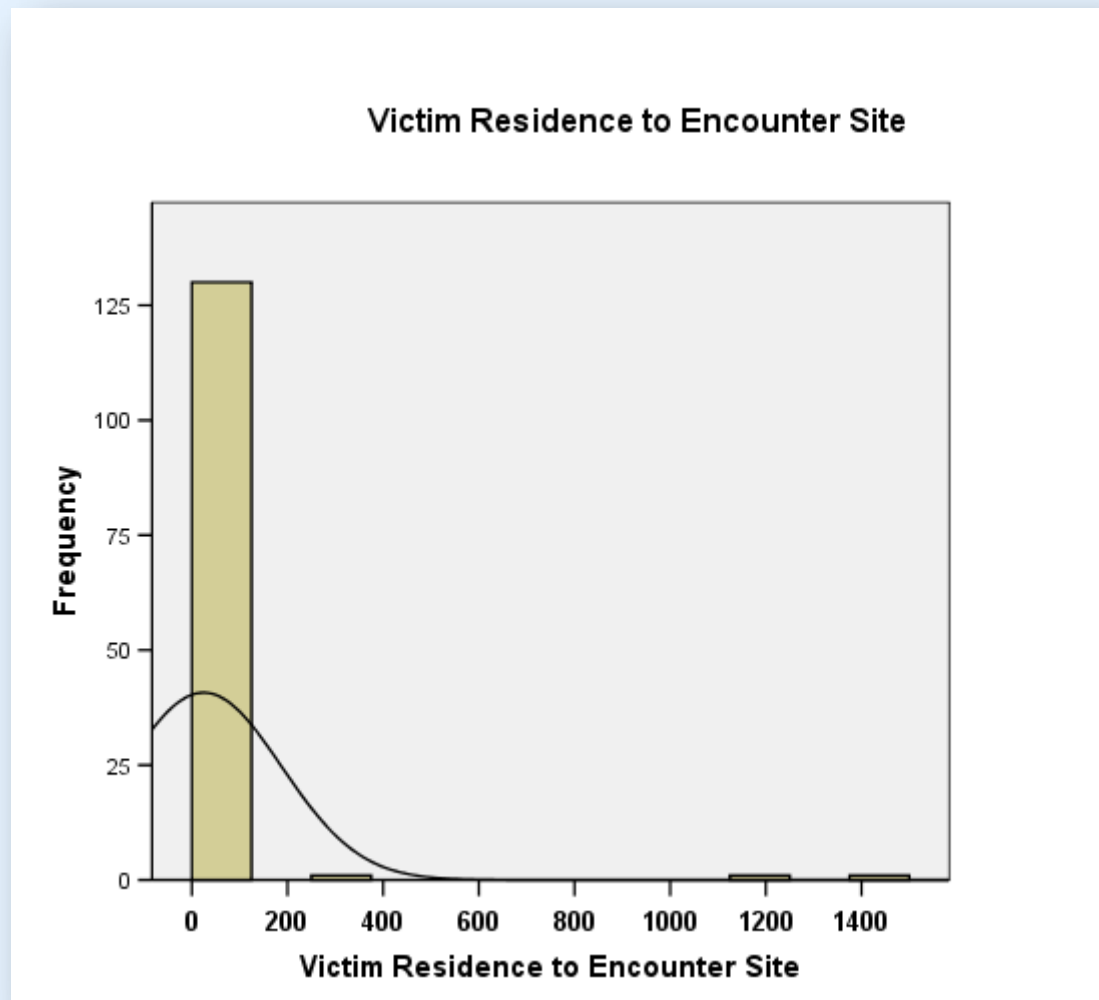
JTC: OR to Encounter

- N= 101
- Mean= 44.83
- **Median= 0.61**
- SD= 342.43
- Min= 0
- Max= 3410.87



JTC: VR to Encounter

- N= 133
- Mean= 24.69
- **Median= 0**
- SD= 162.71
- Min= 0
- Max= 1429.38



Offender Residence to Body Dump

Victim Residence to Body Dump

Offender Residence to Encounter

Victim Residence to Encounter

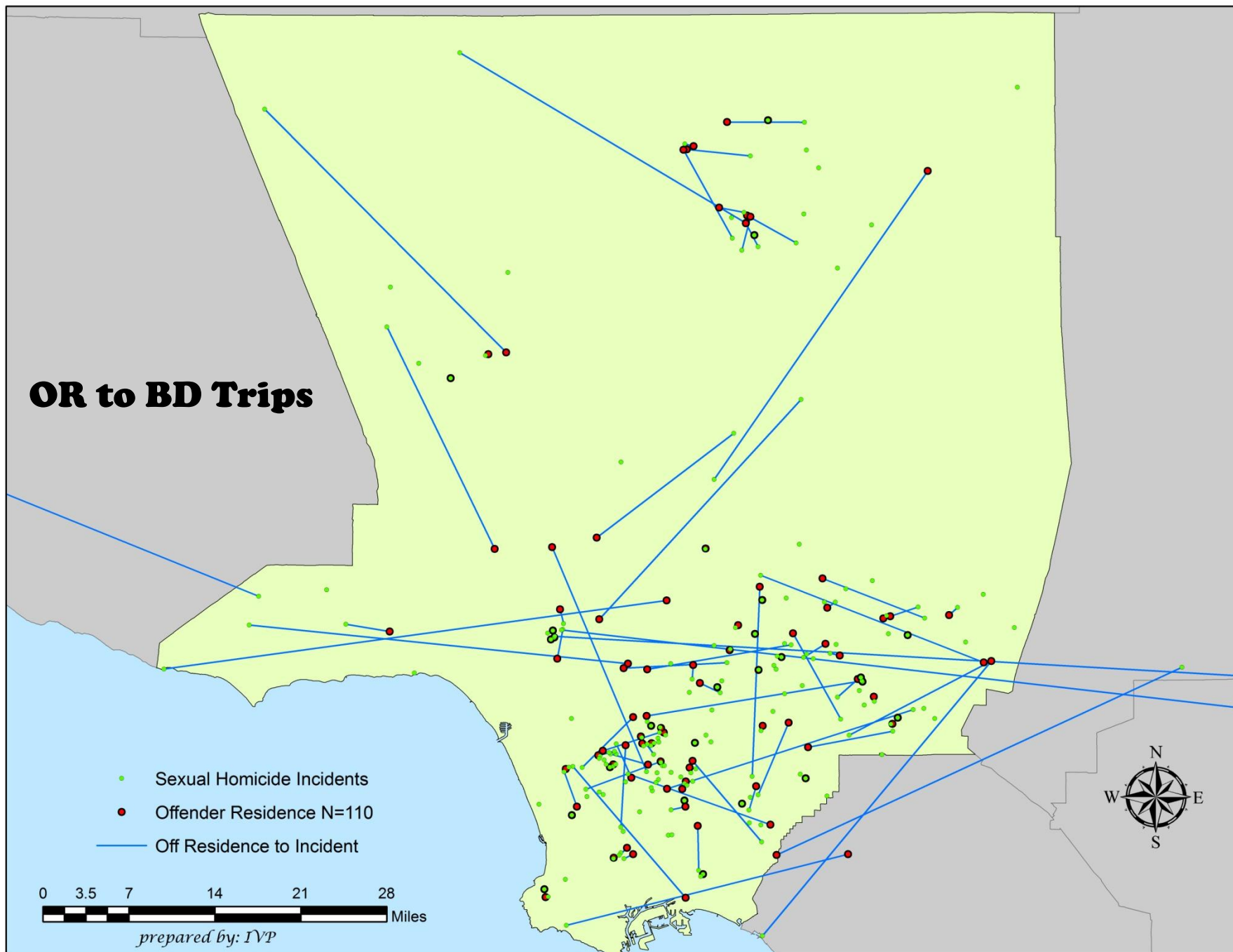
JOURNEY TO CRIME MAPS

OR to BD Trips

- Sexual Homicide Incidents
- Offender Residence N=110
- Off Residence to Incident

0 3.5 7 14 21 28 Miles

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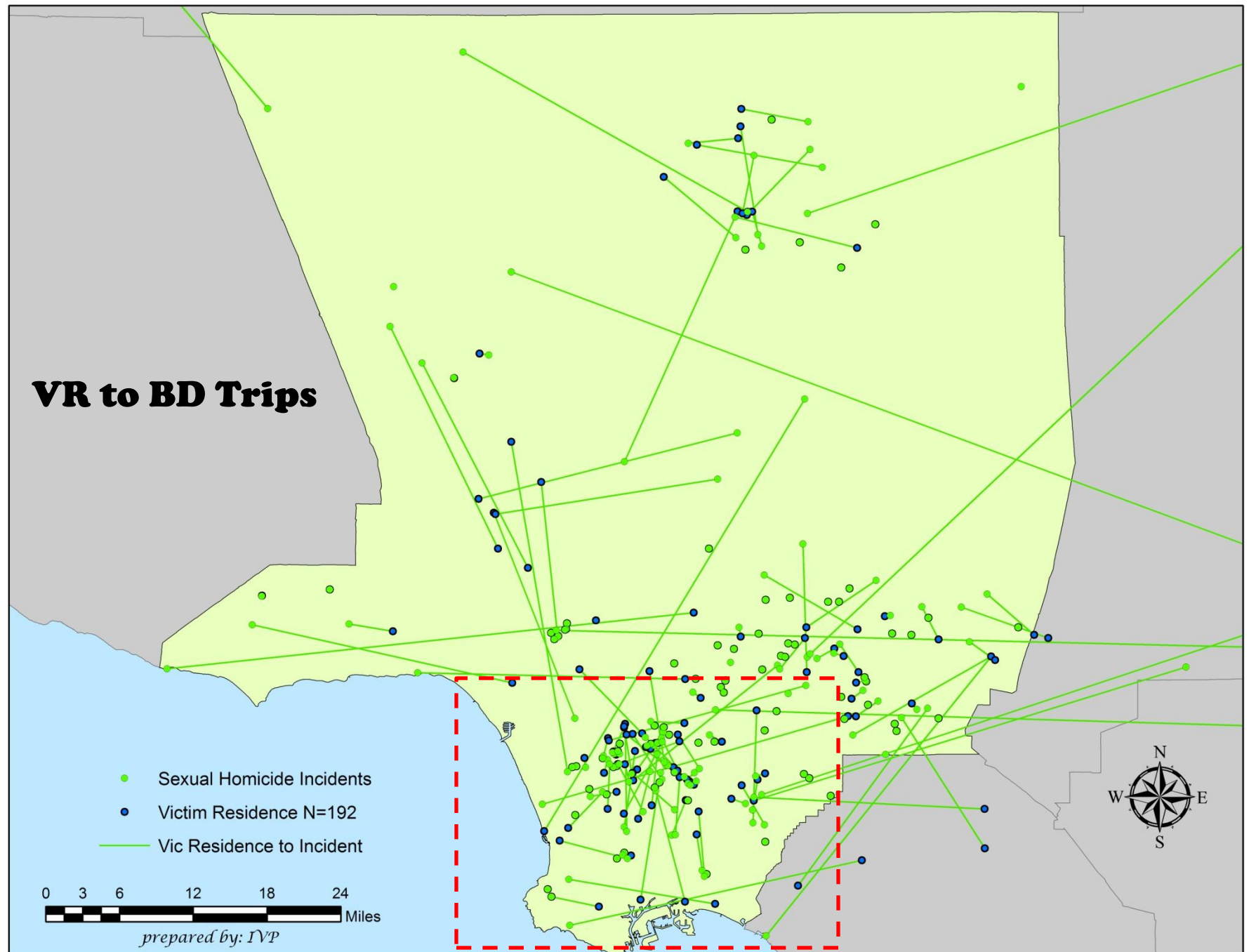


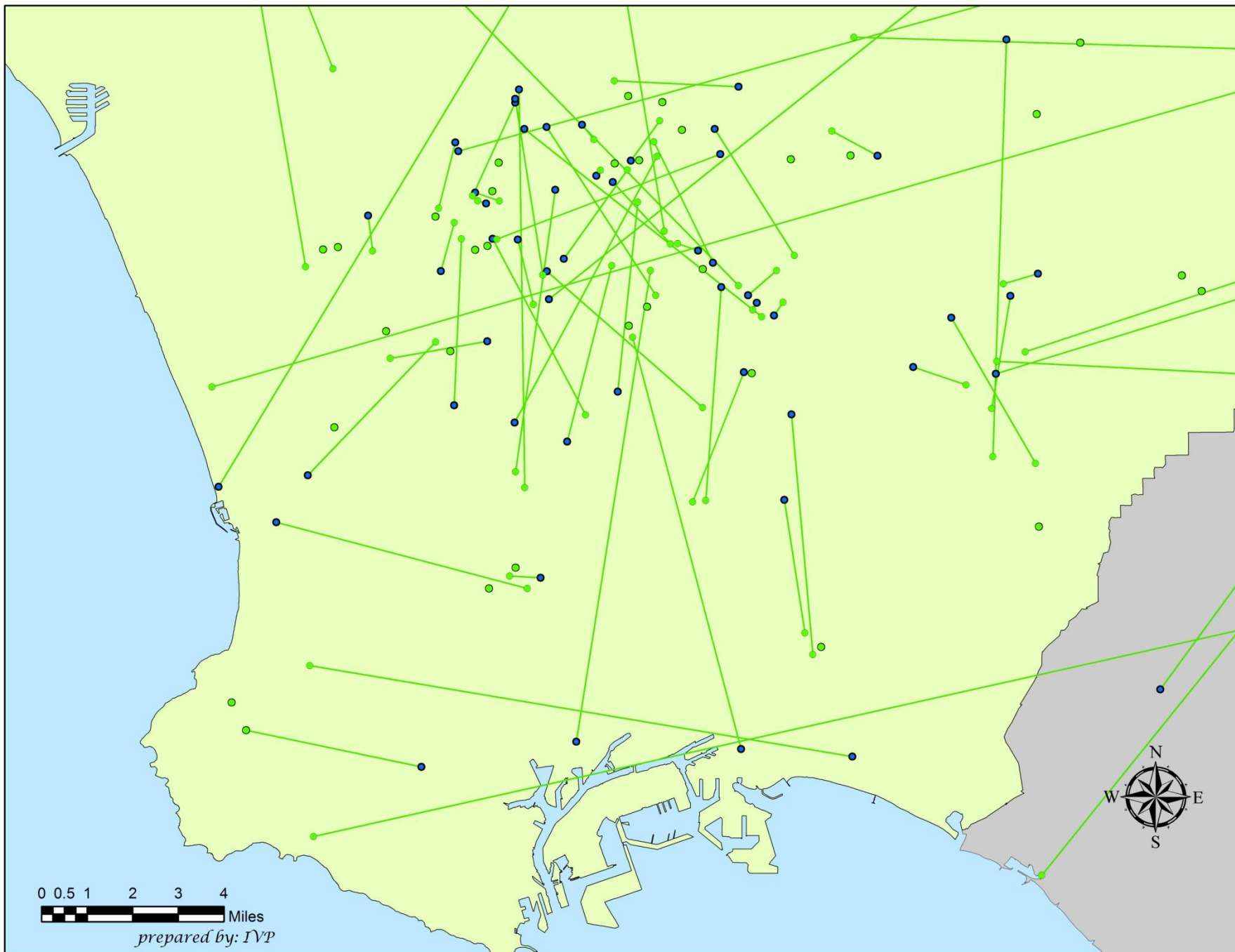
VR to BD Trips

- Sexual Homicide Incidents
- Victim Residence N=192
- Vic Residence to Incident

0 3 6 12 18 24 Miles

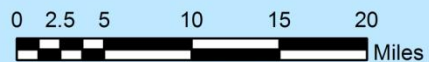
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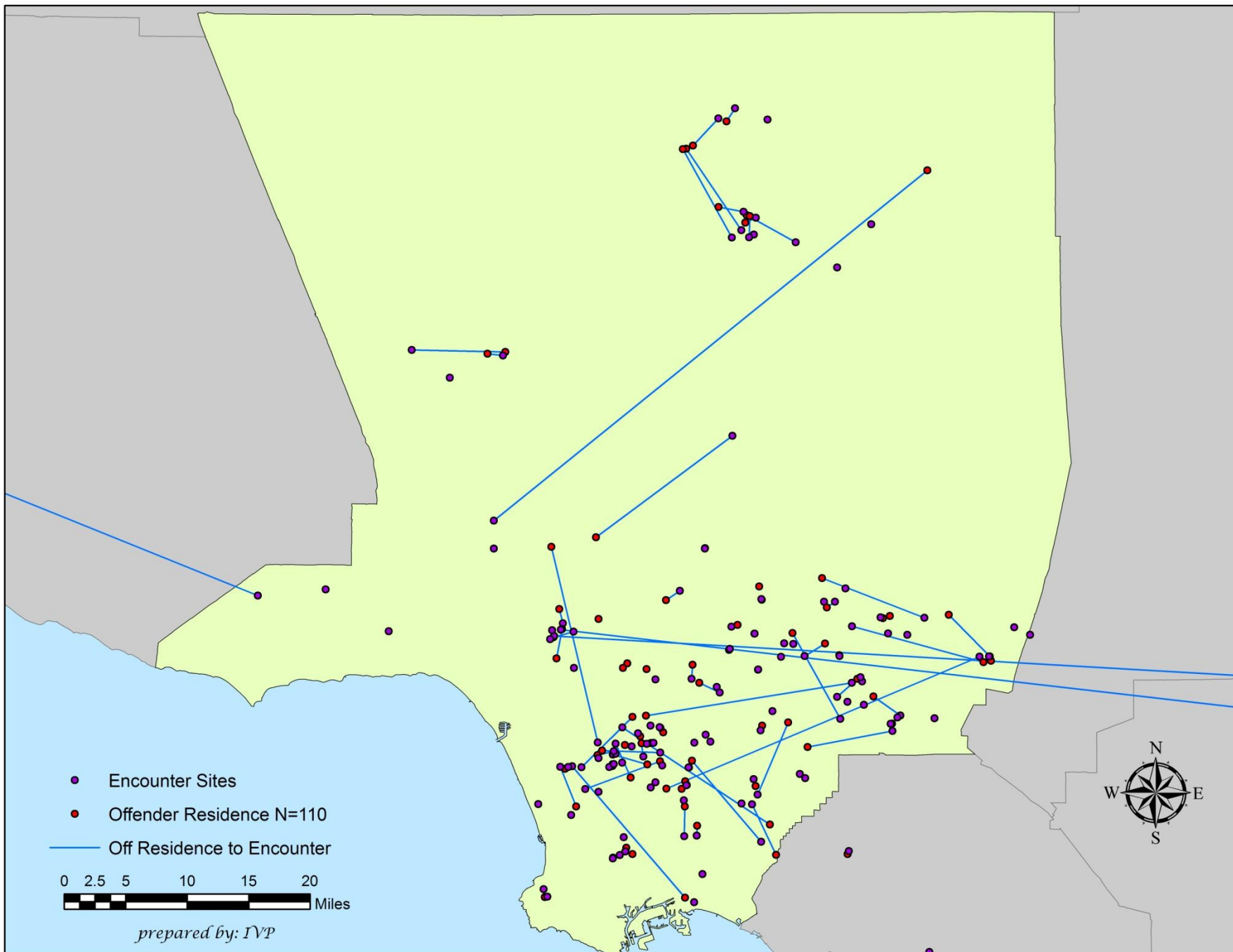
Encounter Sites over Incident Sites

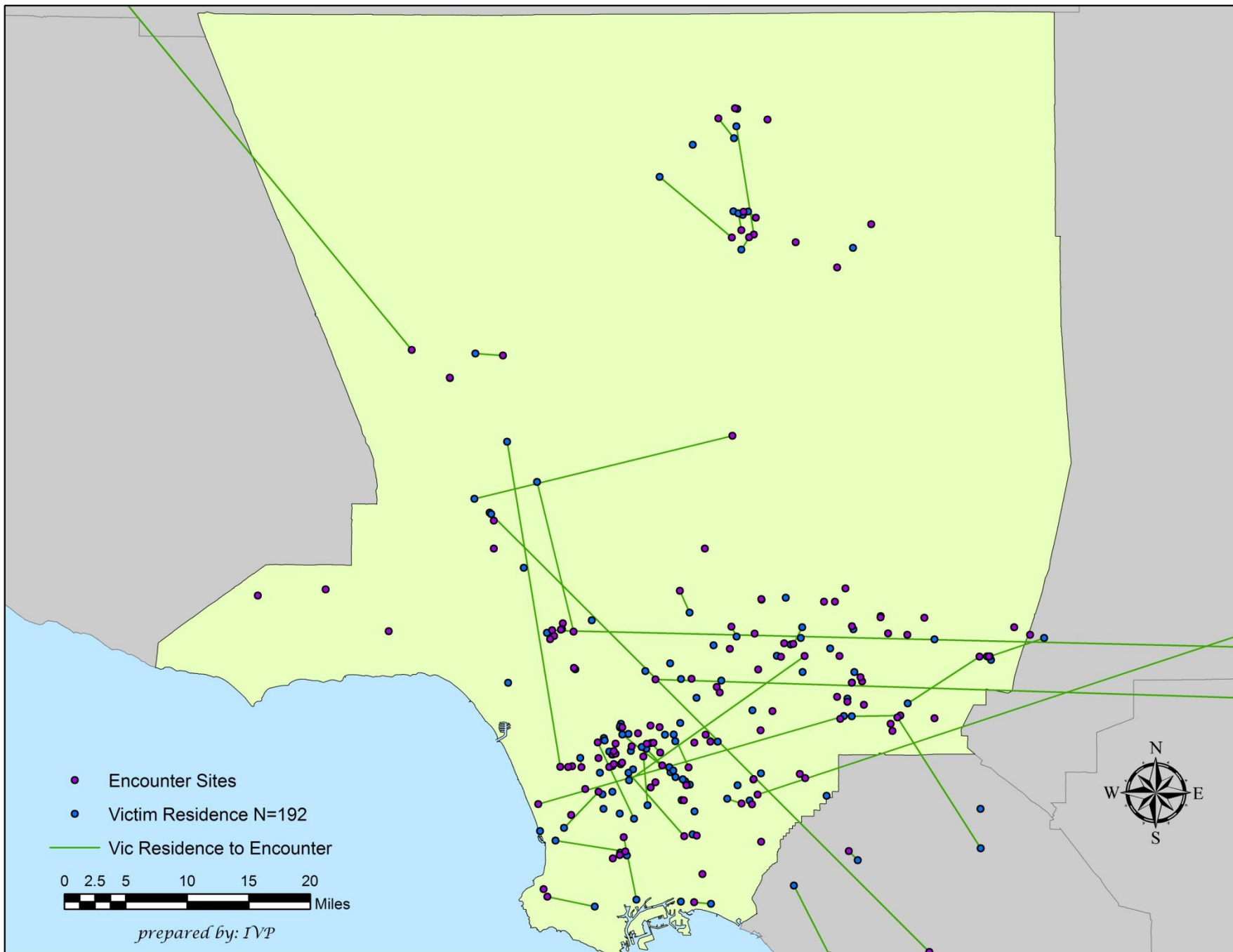
- Encounter Sites
- Sexual Homicide Incidents



prepared by: IVP







Neighborhood

Predatory

Intrusion

Offense Mobility

Total Mobility

MOBILITY TRIANGLES

Tita & Griffiths, *JRCD*, 2005

- Examines the joint mobility of offender, victim, crime location
- Five types based on census tracts
 - Internal
 - Predatory
 - Intrusion
 - Offense Mobility
 - Total Mobility

Groff & McEwen, *ILJ Report*, 2006

- Extension of Tita & Griffiths
- Used distance as an analog of neighborhood rather than census tract
- Five types
 - Neighborhood
 - Offender Mobility
 - Victim Mobility
 - Offense Mobility
 - Total Mobility

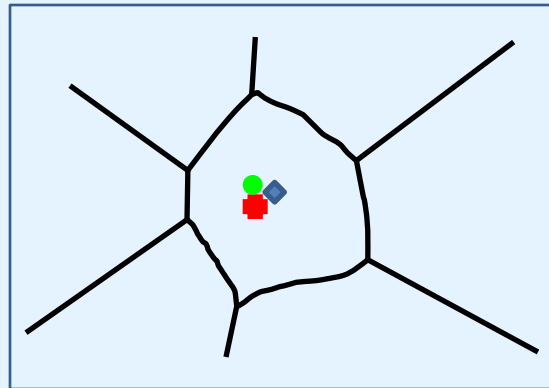
Current Study

- Uses distance as neighborhood analog
 - Half mile radius (one quarter square mile) defines “neighborhood”
- Five Type Hybrid
 - Neighborhood
 - Predatory
 - Intrusion
 - Offense Mobility
 - Total Mobility

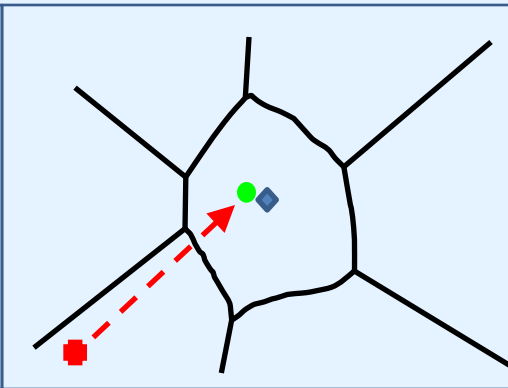
Mobility Triangles

- Vic Residence
- + Off Residence
- ◆ Incident

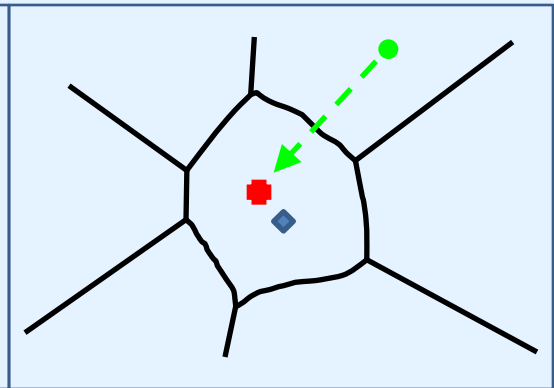
Neighborhood



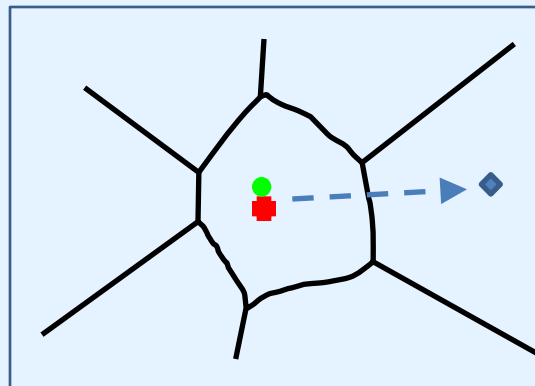
Predatory



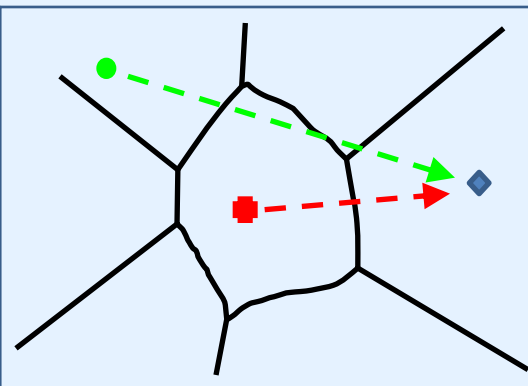
Intrusion



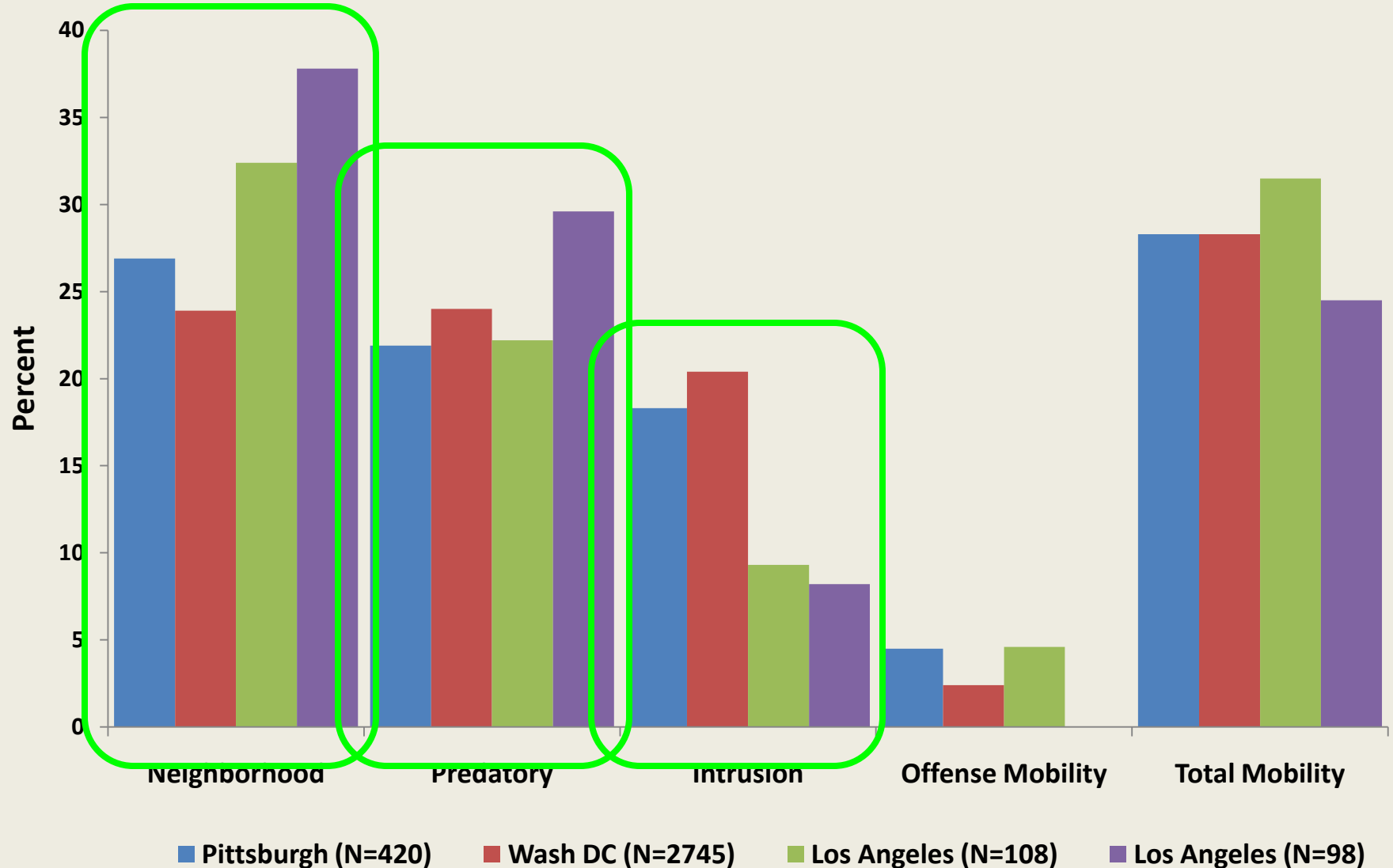
Offense Mobility




Total Mobility

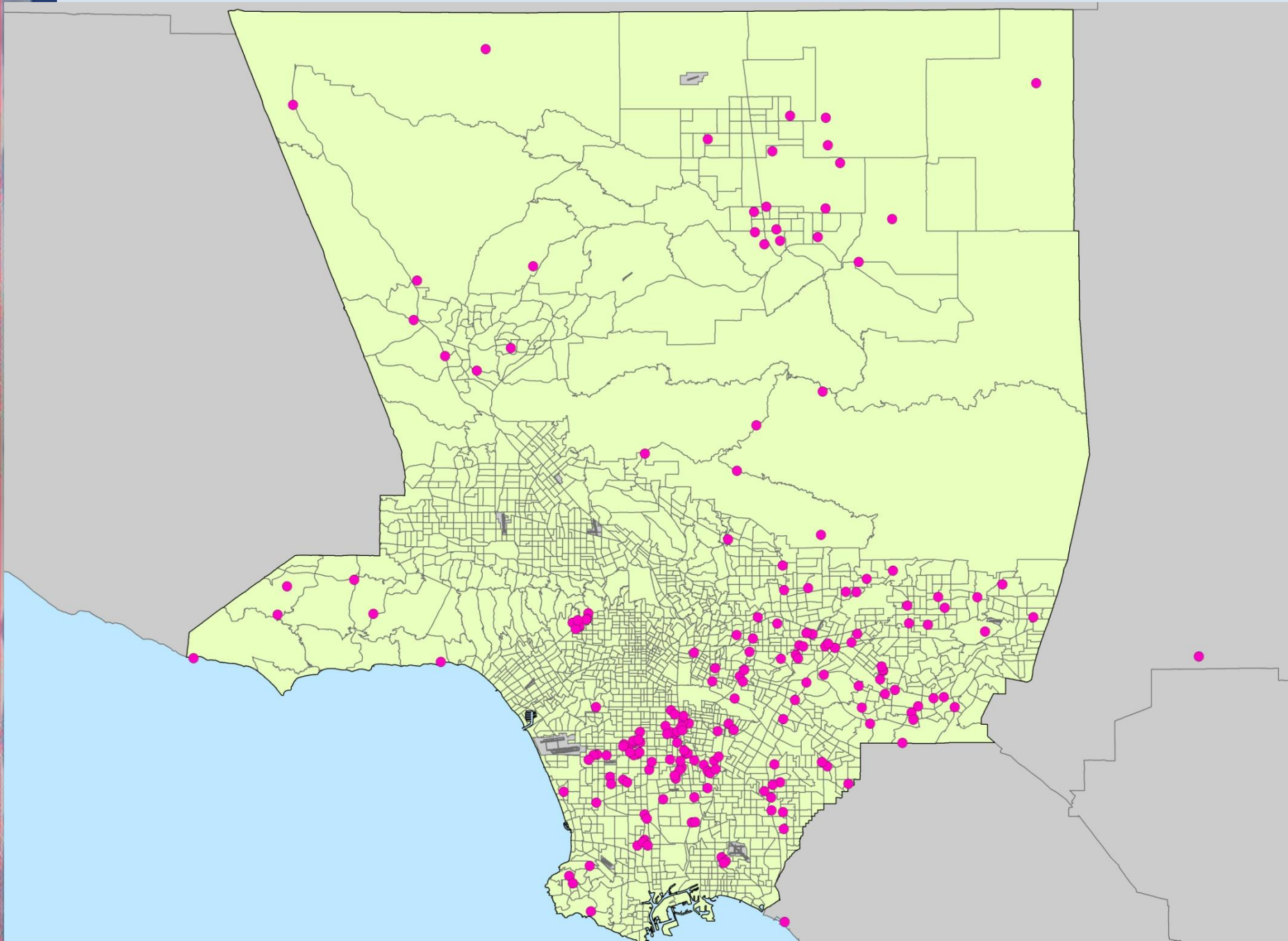


Mobility Triangle Comparison

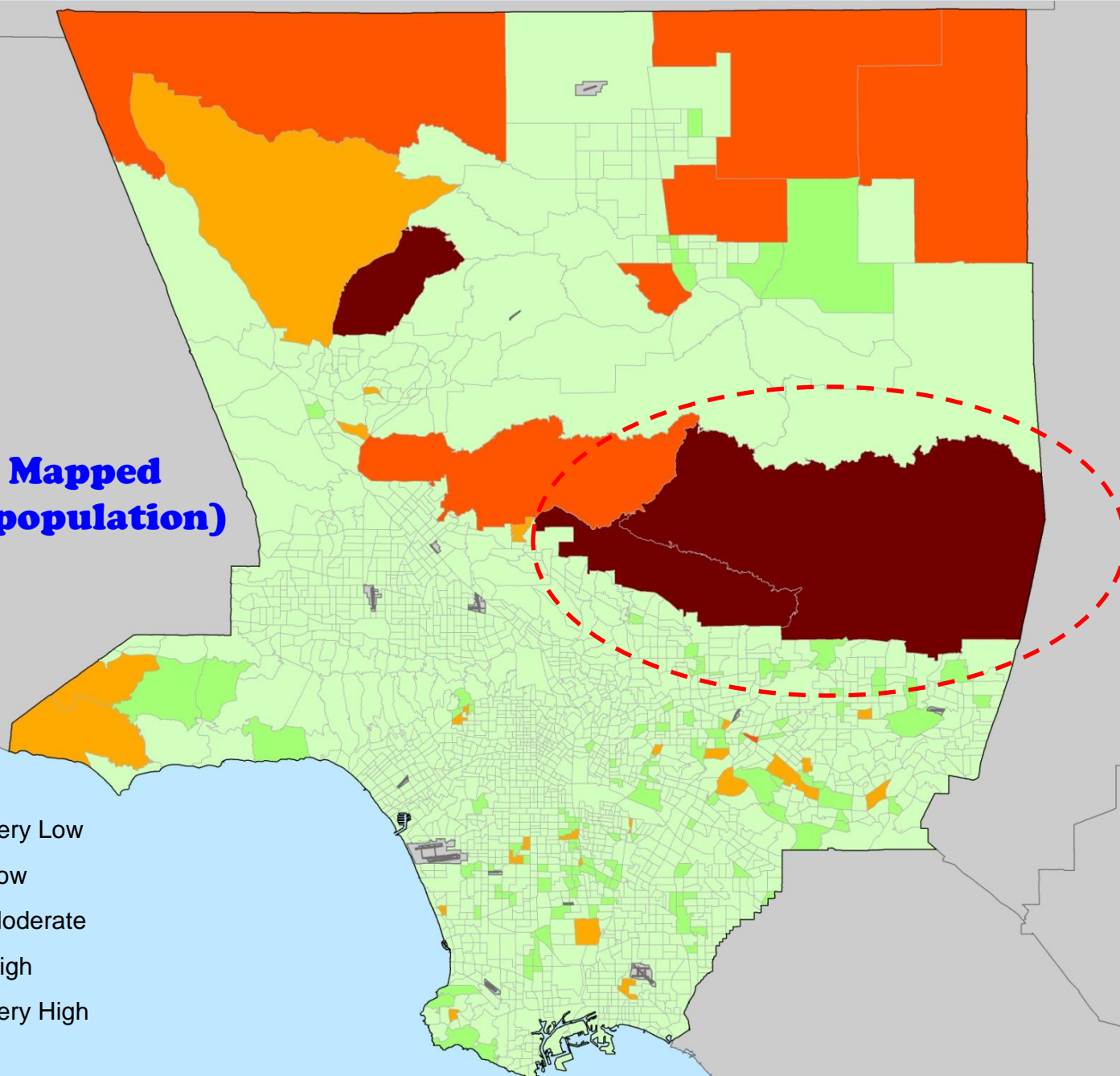
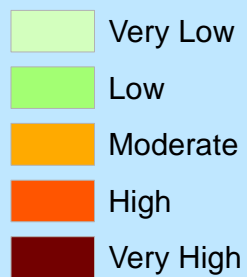


The logo of Radford University is located on the left side of the slide. It features a vertical banner with a plaid pattern on the left and a blue background on the right. The text "RADFORD UNIVERSITY" is written vertically in red, serif, all-caps font.
$$\text{CCI} = \frac{\text{Crimes per Tract} / \text{Area per Tract}}{\text{Total Crimes} / \text{Total Area}}$$

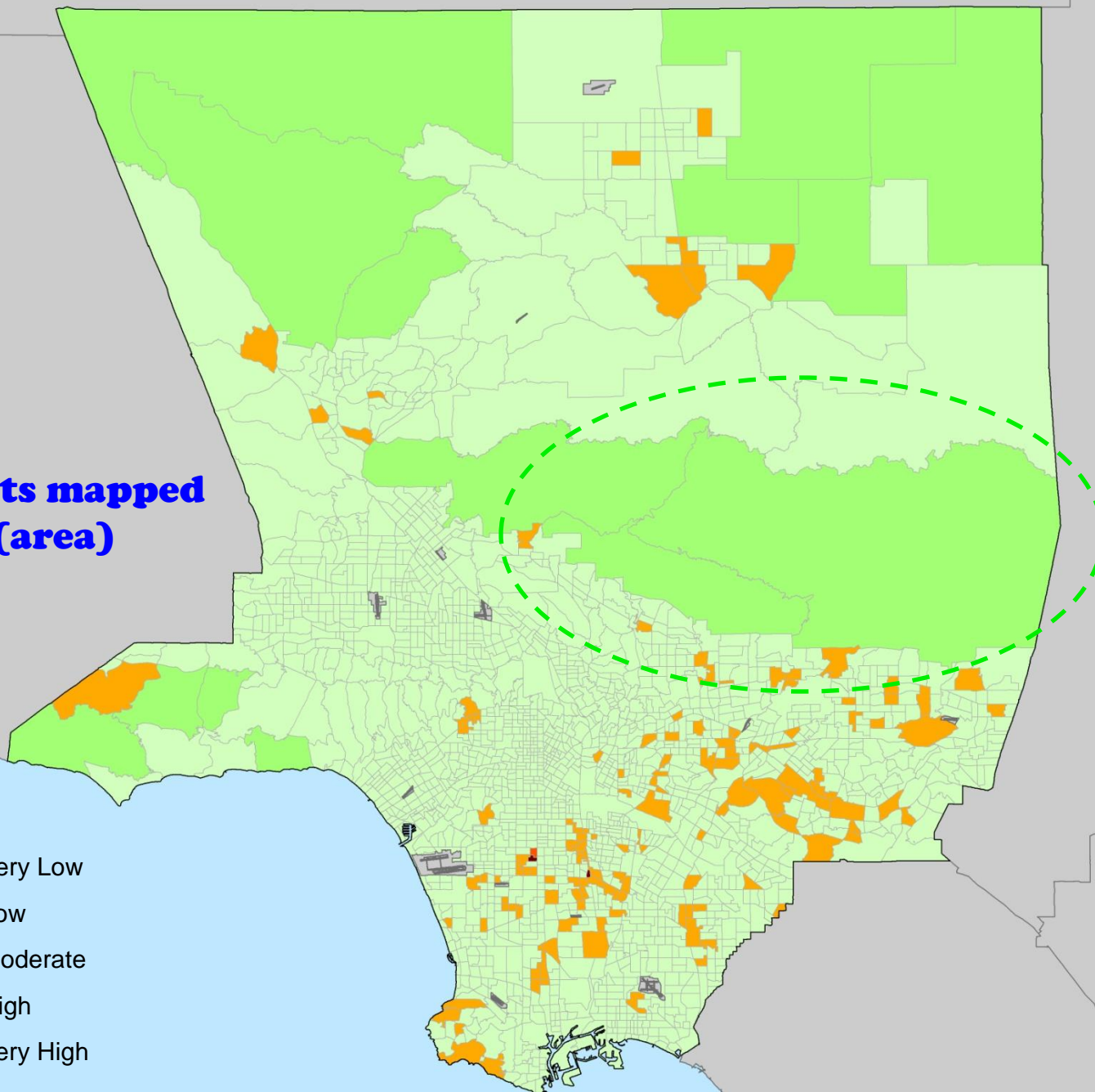
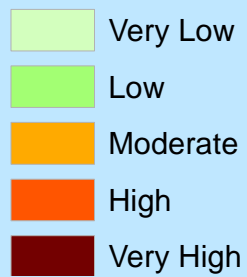
**RATES VERSUS
CRIME CONCENTRATION INDEX
IN A FIRST ORDER HOT SPOT ANALYSIS**

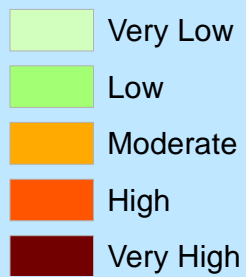


**Incidents Mapped
by Rate (population)**

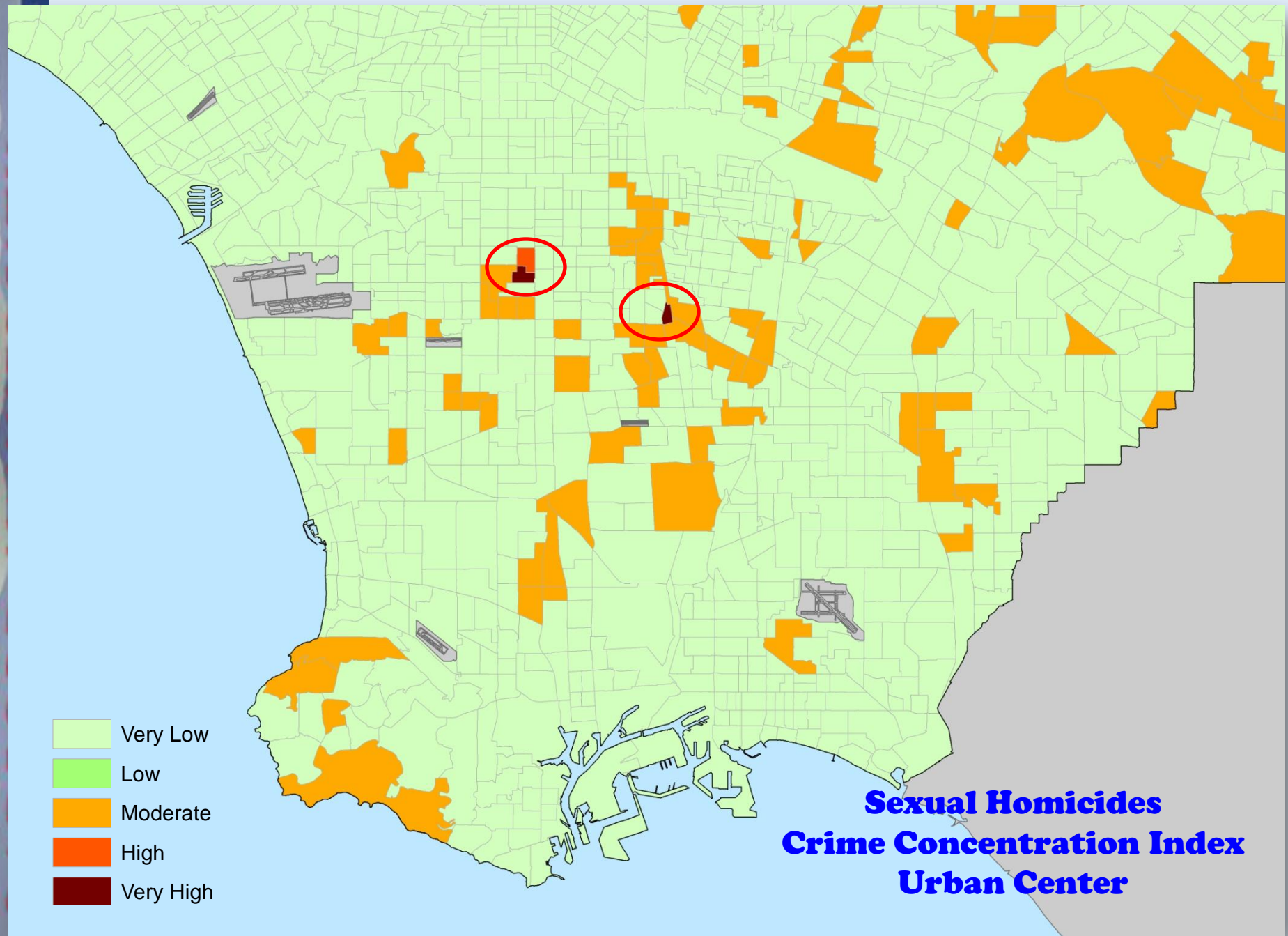


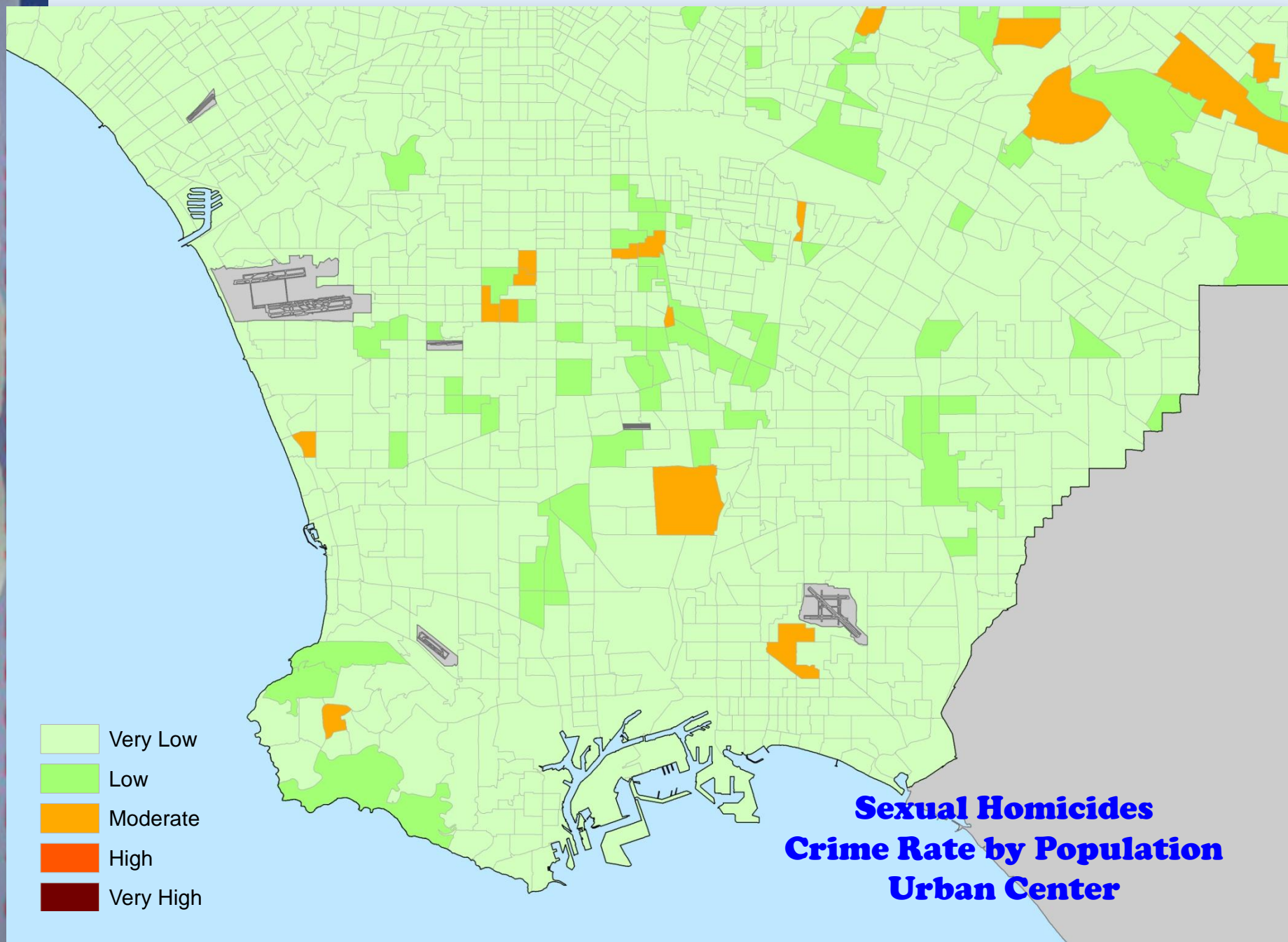
**Incidents mapped
by CCI (area)**



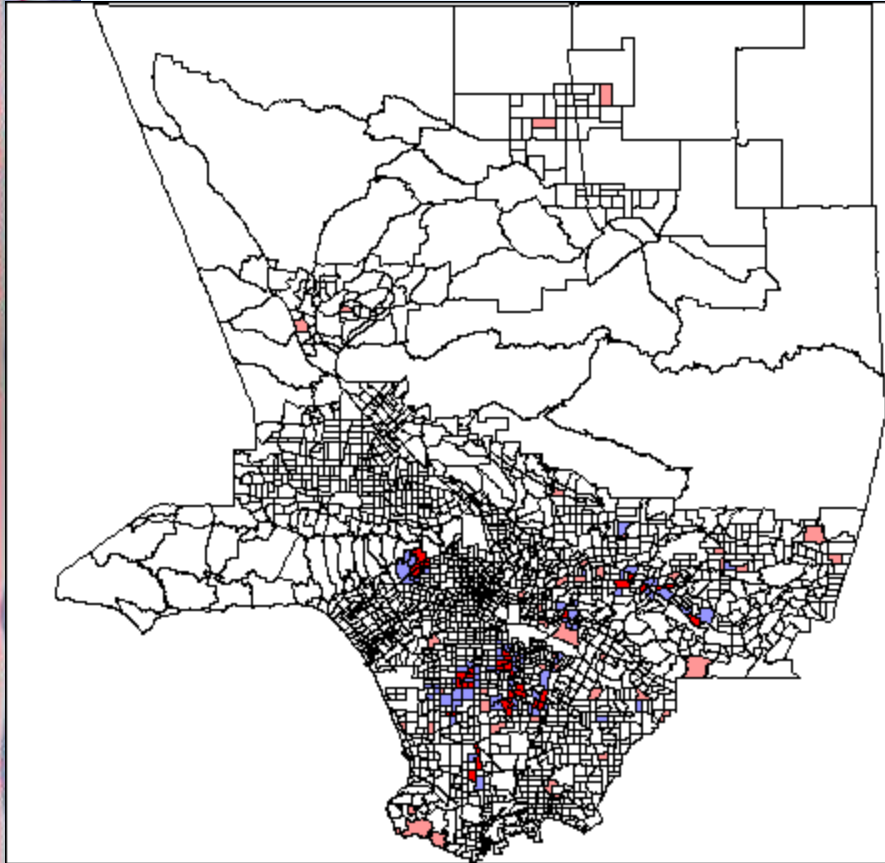


**Sexual Homicides
Crime Concentration Index
Urban Center**

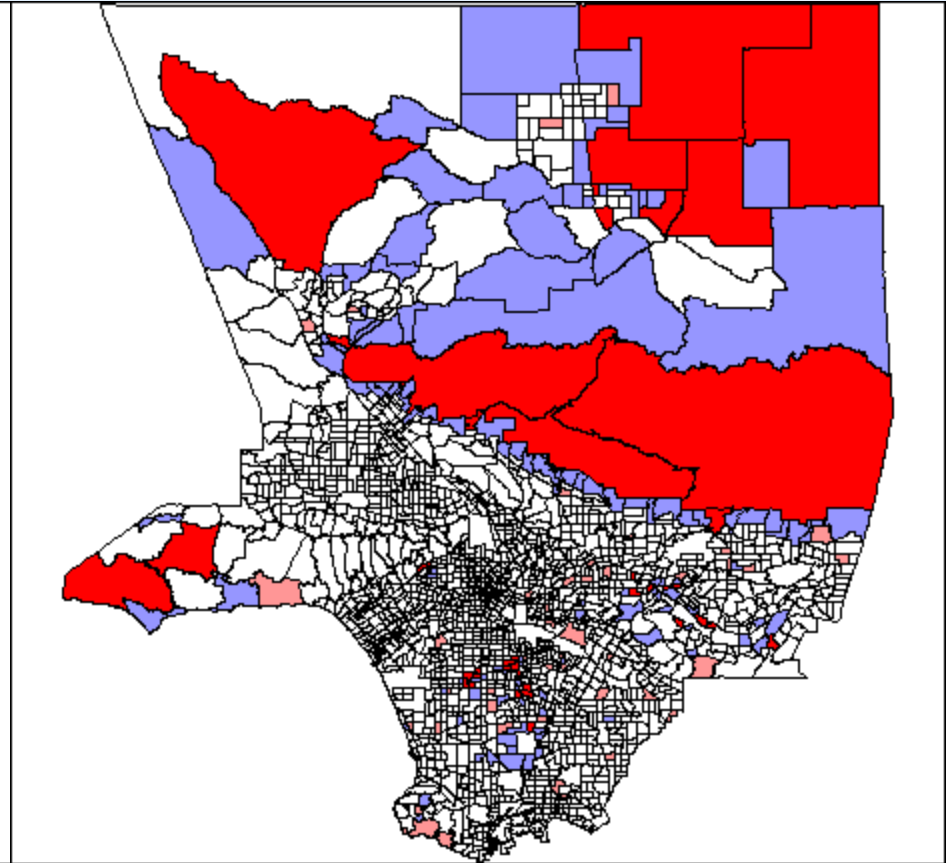




LISA: CCI v. Rate

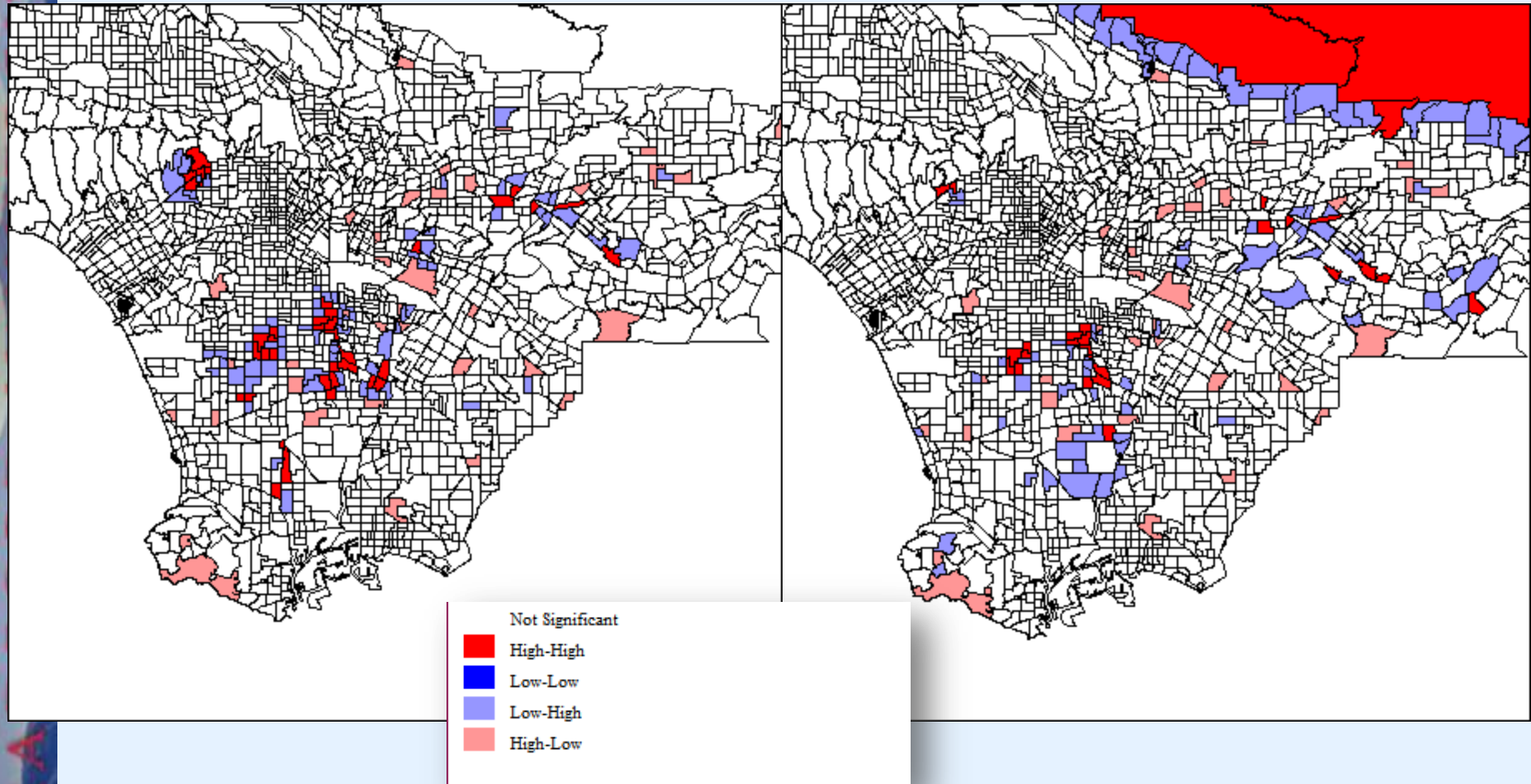


CCI



Rate

LISA Comparison Zoomed In





"Th-th-th-that's all folks!"

**Slides will be posted next week at:
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