

INTRODUCTION TO PROBLEM ANALYSIS

International Problem-Oriented Policing Conference
November 2018
Providence, RI

MENTAL MAPS

- Take out a blank piece of paper
- Think about your jurisdiction/beat/district
 - Draw the major roads and landmarks
- Think about the 3 most common calls for service and/or crimes in your area
- Use letter symbols to note “hot spots” (aka repeat locations)
 - V = Vehicle Crime (Theft from and Theft of)
 - B = Burglary
 - D = Disturbance
 - Etc.

WHY IS ANALYSIS IMPORTANT FOR POP?

To reduce crime...

we need to know what causes it.

PROBLEM ANALYSIS

An approach/method/process conducted within the police agency in which formal criminal justice theory, research methods, and comprehensive data collection and analysis procedures are used in a systematic way to conduct in-depth examination of, develop informed responses to, and evaluate crime and disorder problems.

WHY TAKE A PROBLEM SOLVING APPROACH?

- Offenders rarely caught
- High-intensity enforcement not sustainable
- Criminal Justice system overburdened
- Most of what police are expected to address isn't crime
- Residents care most about non-crime issues

PROBLEM ANALYSIS IN CHULA VISTA: DISORDER AT BUDGET MOTELS

- 1,200 CFS per year (27 motels)
 - Most common CFS: disturbance
- 5 motels accounted for 28% of rooms, but 53% of CFS
- Most motel users local



ANALYZING A LONG-TERM PROBLEM



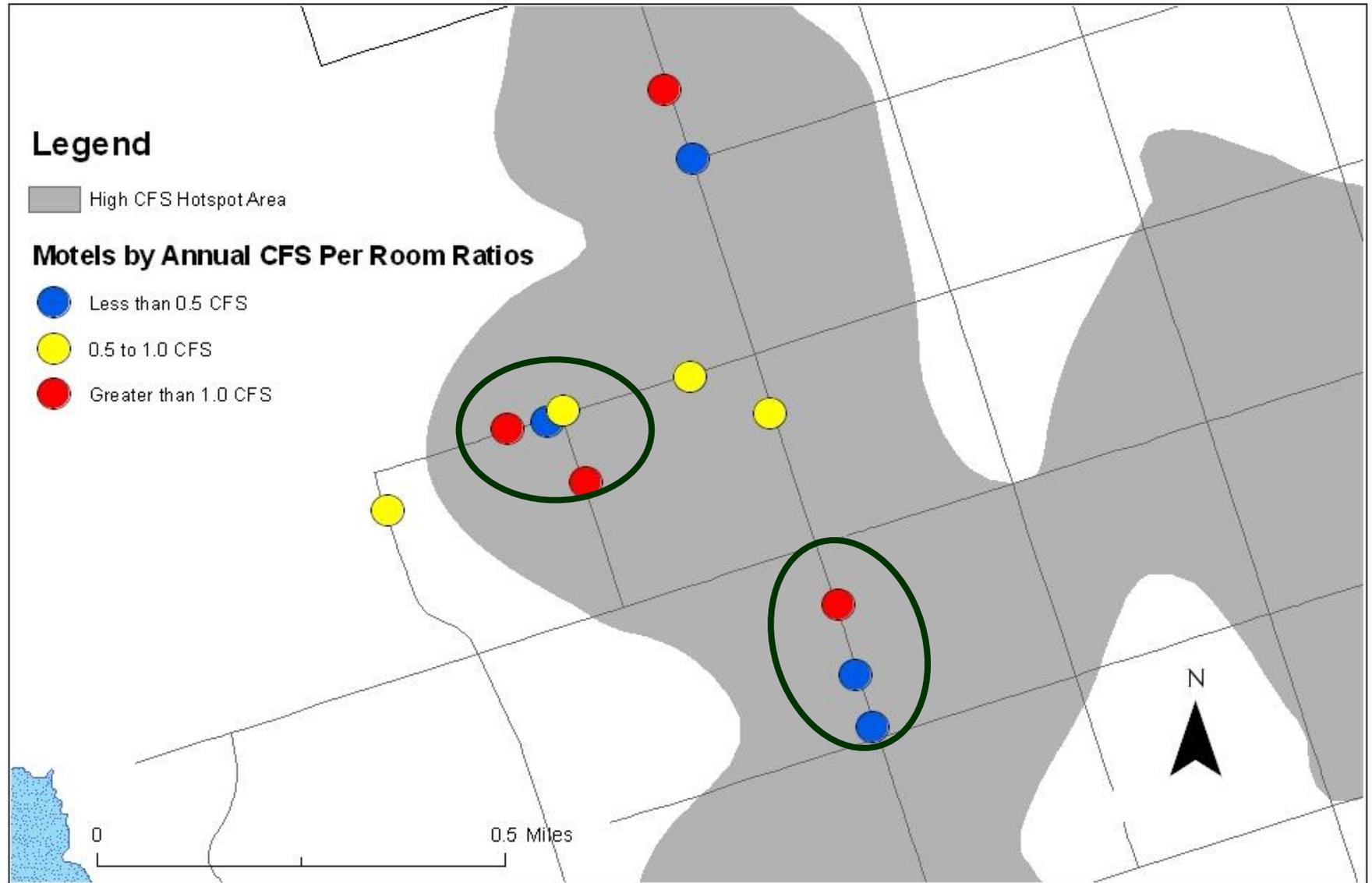
- Initial CFS analysis
- Observations
- Motel “user” surveys
- Manager interviews
- Environmental surveys
- Literature review/site visits
- Investigating causes

INVESTIGATING CAUSES

- Bad neighborhood
- Low room price
- Local clientele
- Insufficient police attention
- Poor management practices



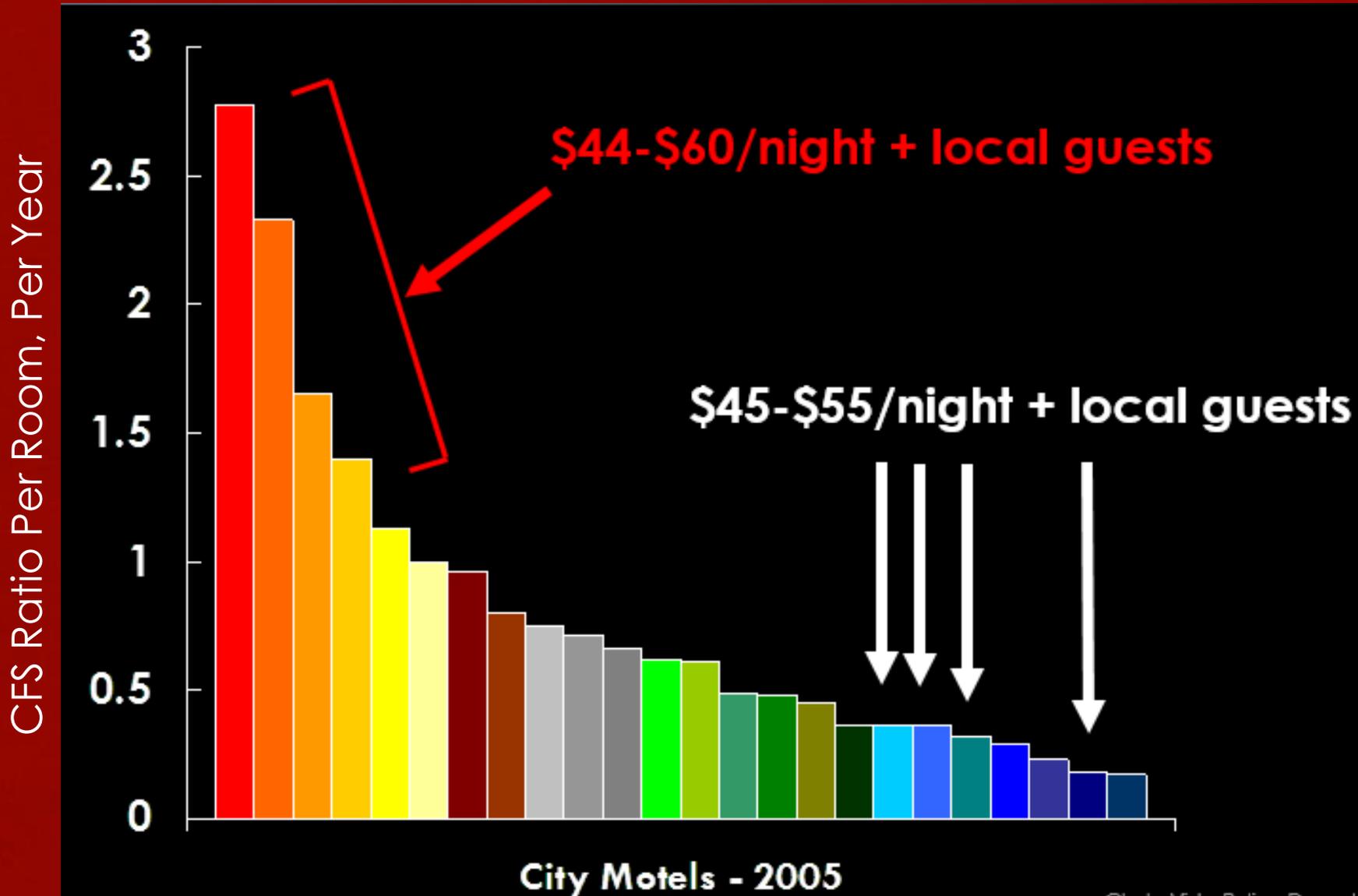
Northwest Chula Vista Motels and Hotels by Annual CFS Per Room Ratios: 2003



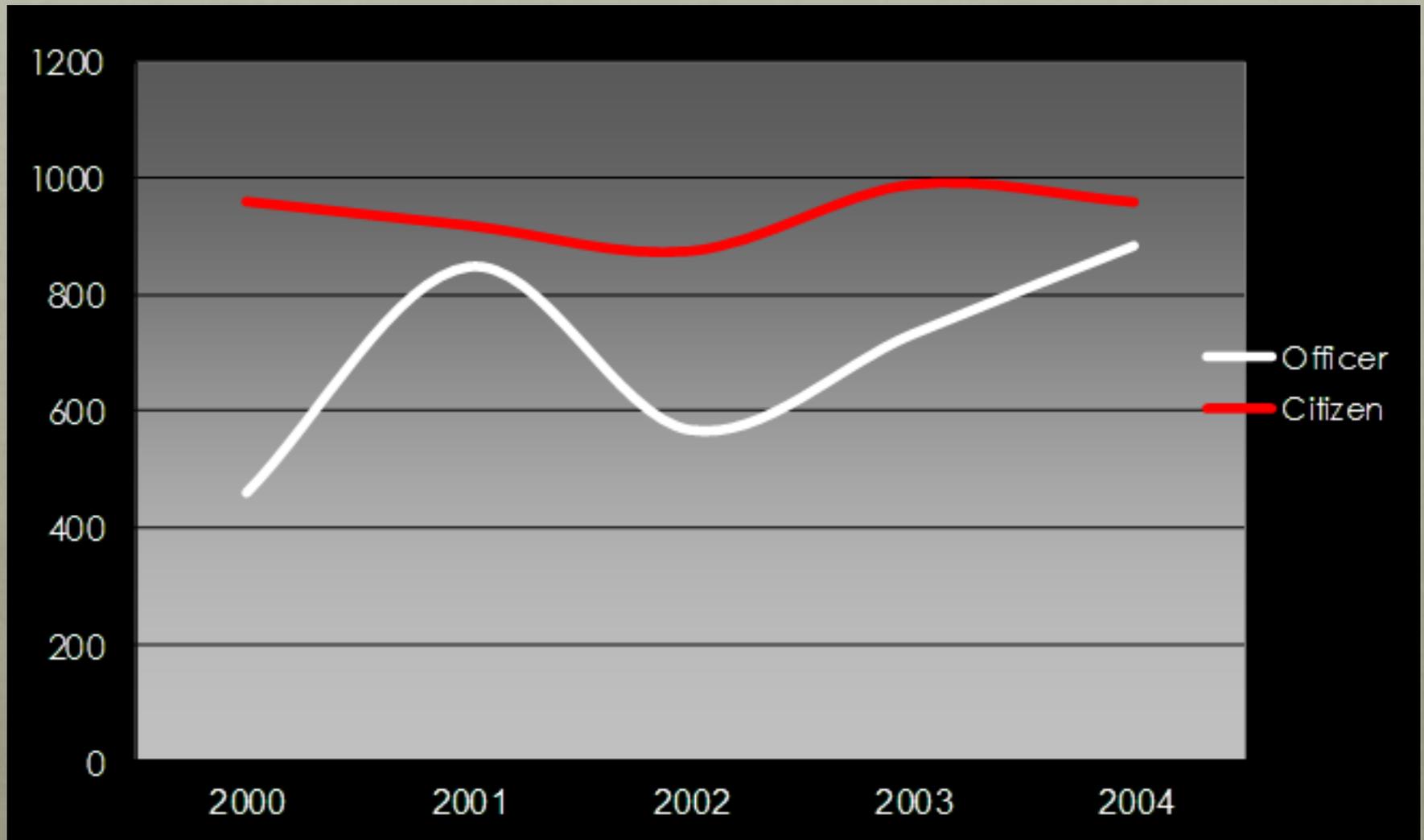
Prepared By:
CVPD Research & Analysis Unit (K. Schmerler)

Sources:
Chula Vista Information Technology Services,
Geographic Information Systems,
Chula Vista Police Department

CALLS FOR SERVICE RATE



CITIZEN-INITIATED CALLS NOT AFFECTED BY ENFORCEMENT



DEVELOPING RESPONSES: GOLDSTEIN HIERARCHY



Bringing a civil action

Legislation mandating prevention

Charging a fee for police service

Withdrawing police service

Public shaming

Creating organization to assume ownership

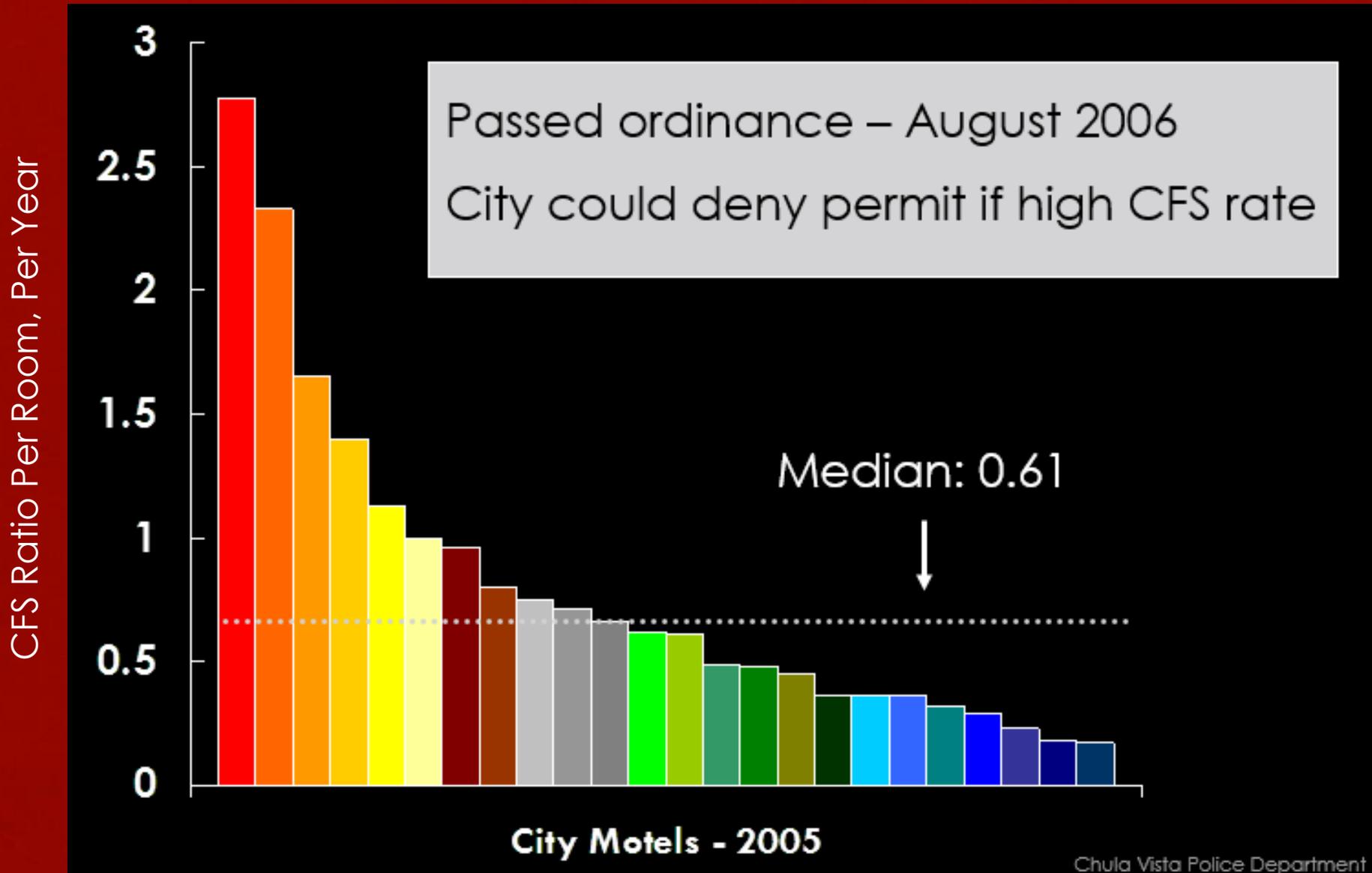
Engaging another existing organization

Targeted confrontational requests

Straightforward informal requests

Educational programs

ESTABLISHED CITY STANDARD

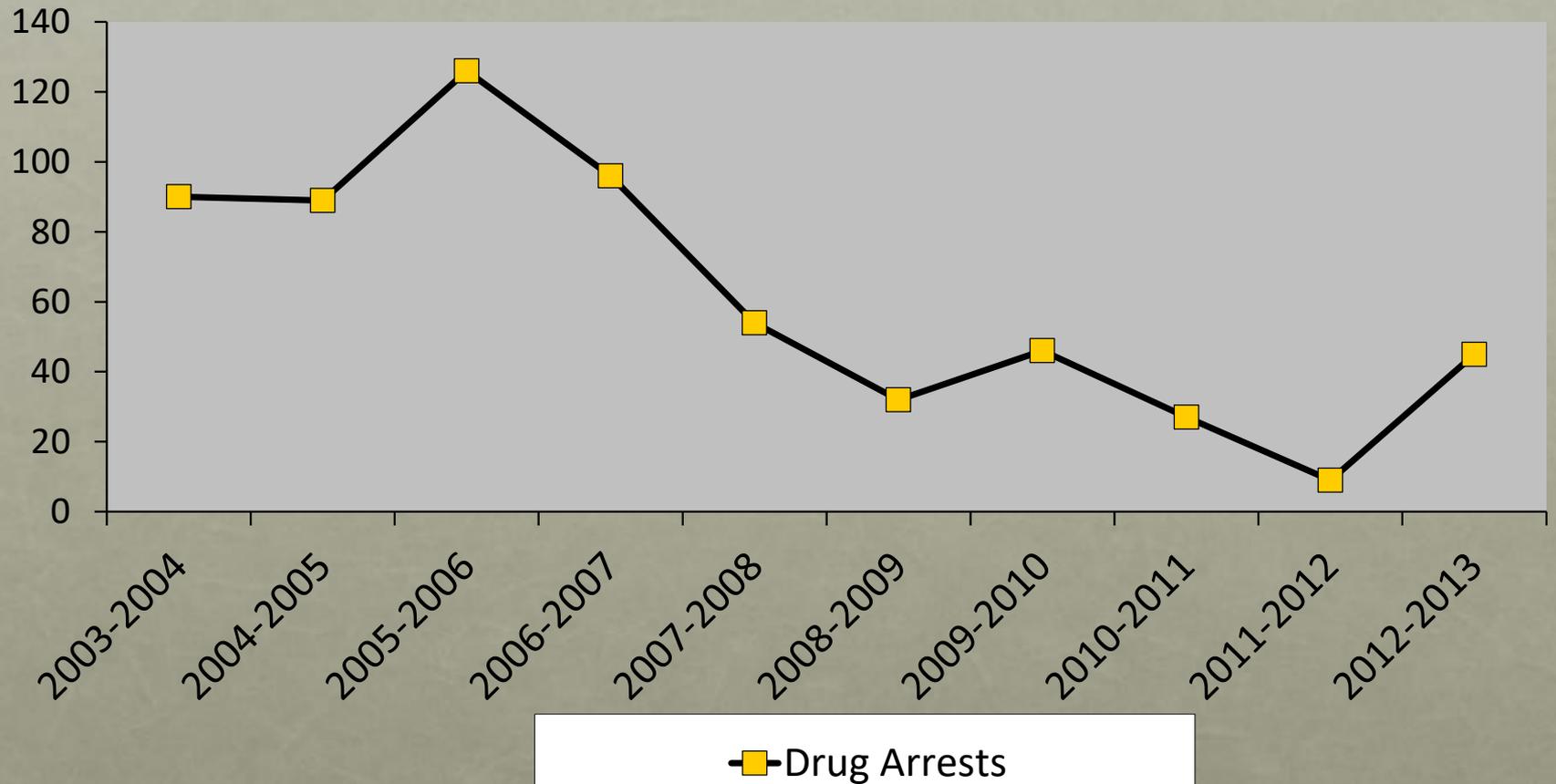


SHIFTED OWNERSHIP OF PROBLEM

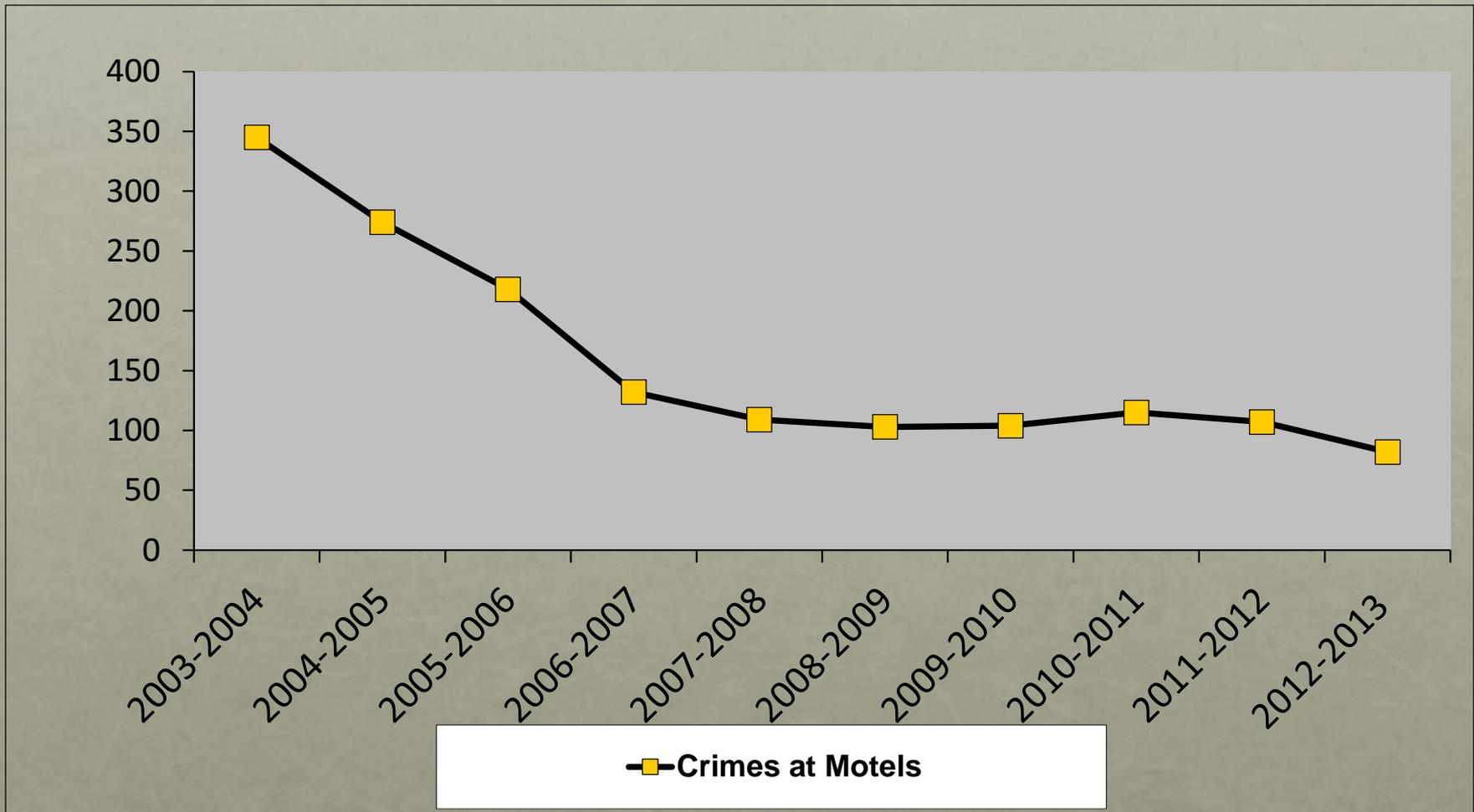
- Motels decided what steps to take
 - Guest/visitor screening
 - Access control
 - Private security
 - Rules



DRUG ARRESTS AT MOTELS REDUCED 73%



CRIMES AT MOTELS REDUCED 70%

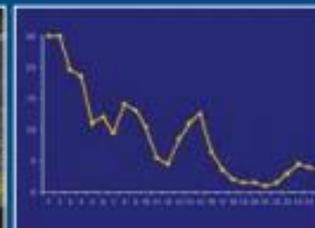


Data includes drug crimes against the state logged as crime cases. If these incidents are excluded, overall reduction is 65%. Crimes in city are by calendar year, beginning in 2003



COPS

COMMUNITY ORIENTED POLICING SERVICES
U.S. DEPARTMENT OF JUSTICE



CRIME ANALYSIS FOR PROBLEM SOLVERS

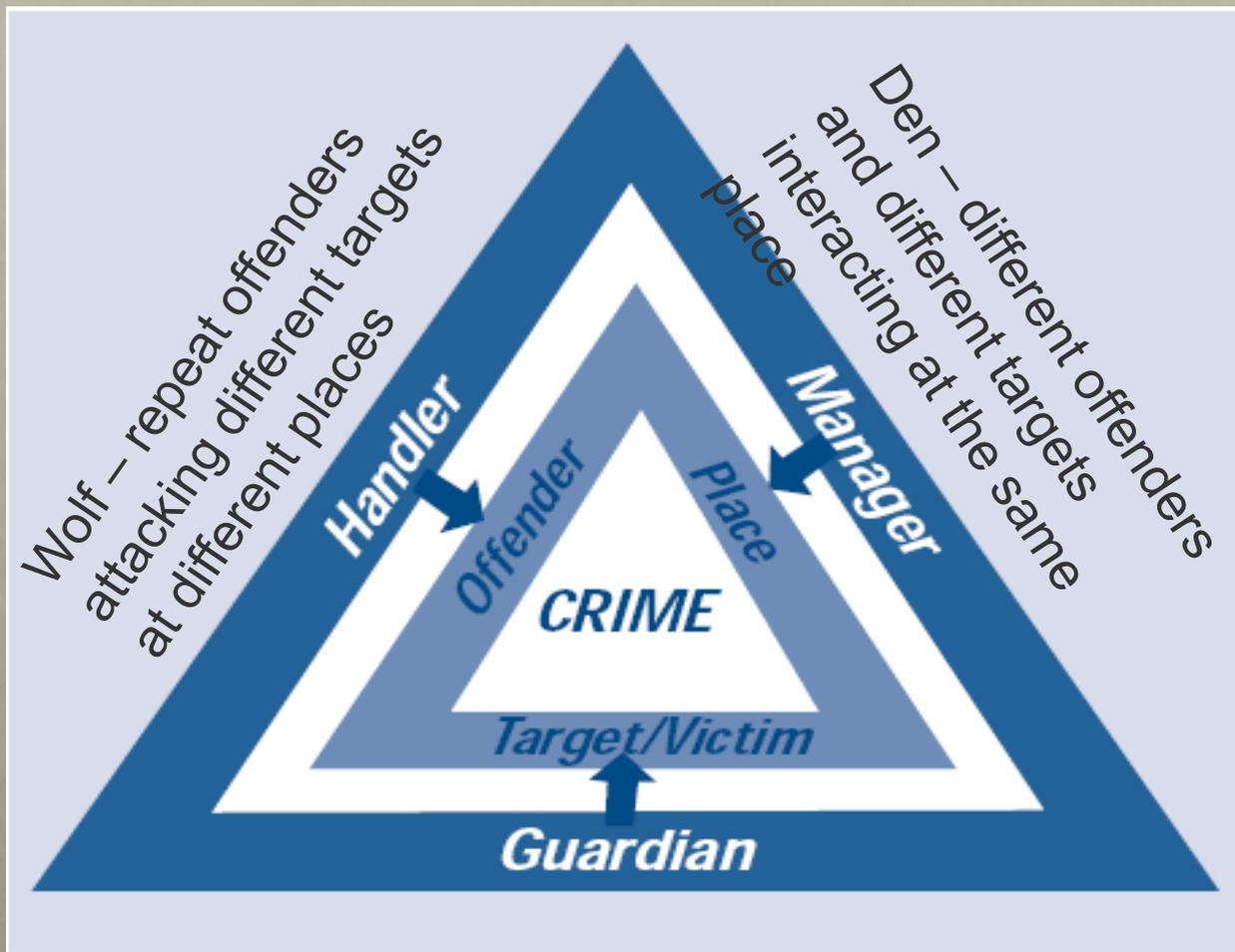
In 60 Small Steps

Ronald V. Clarke & John E. Eck

LET'S TALK ABOUT CRIME

- Why is it important to be specific?
 - Correctly identifying the underlying problem
 - Asking the right analysis questions
 - Having the most appropriate response strategies
- Don't settle for UCR categories!
 - Rape
 - Robbery
 - Assault

USE THE CRIME/PROBLEM ANALYSIS Δ



Duck – repeat victims repeatedly attacked by different offenders

KNOW OPPORTUNITY MAKES THE THIEF

Suppose all situational controls were to be abandoned: no locks, no custom controls, cash left for parking in an open pot for occasional collection, no library check-outs, no baggage screening at airports, no ticket checks at train stations, no traffic lights, etc. would there be no change in the volume of crime and disorder?



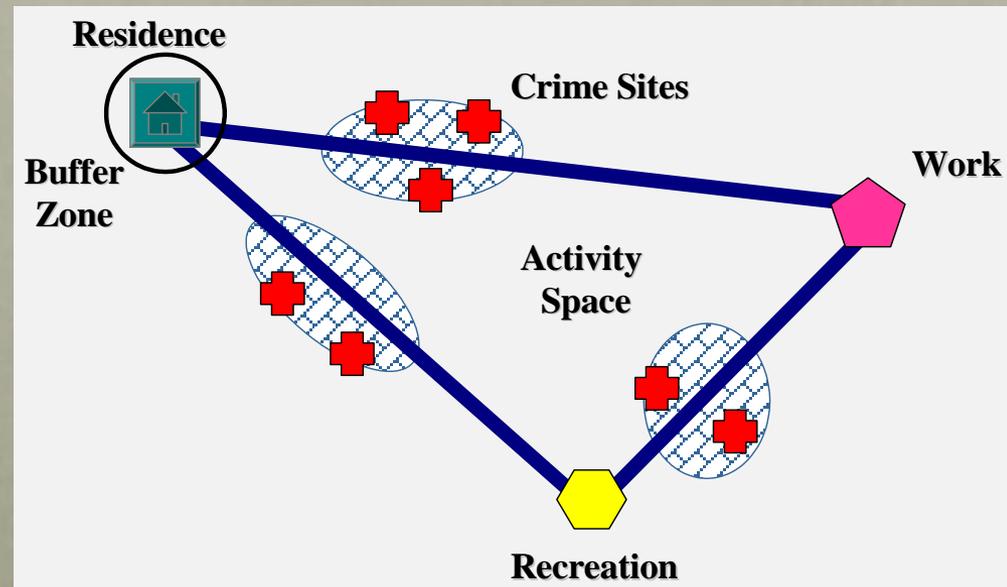
-- Gloria Laycock and Nick Tilley, Jill Dando Institute

DON'T BE DISCOURAGED BY DISPLACEMENT DOOMSTERS

- Geographical
 - Crime moves to a different place
- Temporal
 - Crime moves to a different time
- Target
 - Changes from 1 target to another
- Tactical
 - A new method of committing the crime occurs
- Crime Type
 - A different crime occurs

STUDY THE JOURNEY TO CRIME

- Crime Pattern Theory
 - Nodes
 - Paths
 - Edges
- Ways that offenders find suitable targets:
 - Personal knowledge of victim
 - Work
 - Overlapping “activity spaces”
- Offenders – local vs. not local



KNOW HOW HOT SPOTS DEVELOP

Crime Generators

- Places where large numbers of people are attracted for reasons unrelated to crime
- CAUSE: Many unprotected targets
- What circumstances are targets vulnerable and how to change that?

Crime Attractors

- Places affording many criminal opportunities well known to offenders
- CAUSE: Attractive to offenders
- What is attracting the offenders and how to change that?

Crime Enablers

- Situations when there is little regulation of behavior at places: rules of conduct are absent or not enforced
- CAUSE: Erosion of controls
- Who could control behavior and how can this be encouraged

LEARN IF THE 80-20 RULE APPLIES

- Small proportion of X are responsible for a large proportion of outcomes
 - Repeat Offenders
 - Repeat Victims
 - Hot Spots
 - Hot Products
 - Risky Facilities

	Address	No. Robberies	% Robberies	Cum. % Robberies	% Addresses (N=106)	Cum. % Addresses
1	134 E Main St	25	9.23%	9.23%	0.94%	0.94%
2	254 S Clover Av	17	6.27%	15.50%	0.94%	1.89%
3	8012 N Grand Blvd	15	5.54%	21.03%	0.94%	2.83%
4	8210 N Grand Blvd	10	3.69%	24.72%	0.94%	3.77%
5	1430 E Main St	9	3.32%	28.04%	0.94%	4.72%
6	365 W Haverty Rd	9	3.32%	31.37%	0.94%	5.66%
7	3401 N Staple Dr	8	2.95%	34.32%	0.94%	6.60%
8	210 S Daisy Rd	7	2.58%	36.90%	0.94%	7.55%
9	4598 N Roan Rd	5	1.85%	38.75%	0.94%	8.49%
10	132 E Main St	5	1.85%	40.59%	0.94%	9.43%
	Addresses with 4 (5)	20	7.38%	47.97%	4.72%	14.15%
	Addresses with 3 (15)	45	16.61%	64.58%	14.15%	28.30%
	Addresses with 2 (20)	40	14.76%	79.34%	18.87%	47.17%
	Addresses with 1 (56)	56	20.66%	100.00%	52.83%	100.00%
	Total	271	100.00%		100.00%	

COLLECT YOUR OWN DATA

- Crimes
 - Arrests
 - Calls for Service
 - Field Interviews
 - Traffic Data (cites and collisions)
-
- Don't restrict yourself to the common police data!

HOW DO WE COLLECT DATA THAT'S NOT IN A SYSTEM?

Visual assessments

Environmental surveys

Maps

Time graphs

Photos/videos

Intelligence info

Police interviews

Police records

Stakeholder canvass

Neighborhood surveys

Business surveys

Student surveys

School personnel surveys

Parent surveys

Offender interviews

Victim interviews

NEIGHBORHOOD AND CRIME/PROBLEM SPECIFIC SURVEYS

1. Where exactly in the Loma Vista Housing Development does the drug use occur? If you know of more than one location, pick the one you think is the biggest problem.

- Basketball court on Jones St.
- Tot lot next to the parking lot.
- In the parking lot.
- In a specific apartment building (please provide address) _____
 - In the building entryway.
 - In the hallway of this building.
 - In a specific apartment in the building (please provide apt. number) _____
 - In the laundry room of the building
 - On the stoop.

2. What days does the drug use occur at this location? (Circle all that apply.)

Mon. Tues. Wed. Thurs. Fri. Sat. Sun.

3. What times does the drug use occur at this location? (Fill in the blanks.)

From _____ a.m or p.m? to _____ a.m. or p.m?

4. Who is involved in the drug use at this location? (Check all that apply.)

- Adult residents
- Adult nonresidents
- Children or relatives of residents
- Other (please specify who) _____

5. What kind of drugs are being used at this location? (Check all that apply.)

- Marijuana
- Cocaine
- Heroin
- Other (please specify who) _____

6. Why do you think they pick this location to use drugs (for example, poor lighting, easy escape routes, away from public view, resident allows it)? Please describe:

REWARD: When you return this survey, you will receive a coupon for a free movie.

KNOW HOW TO USE RATES AND DENOMINATORS

- Examining rates helps to understand if the number of targets contributes to the problem.
- Rates describe the number of crimes/incidents per target at risk, during a time period.
- Calculating rates
 - Be careful of the denominator!
 - What denominator would you use for...
 - Vehicle break-ins on the street
 - Drug use in parks
- Emphasis on high numbers or rates?

COMPARING RISK RATES

■ Which lot is riskier to park in?

■ *Swap meet*

- Huge (2,500 spaces)
- Open only 2 days a week
- Park time: 1.5 hours

OR

■ *H Street Trolley*

- Tiny (300 spaces)
- Open 7 days a week
- Park time: 8 hours



IDENTIFY RISKY FACILITIES

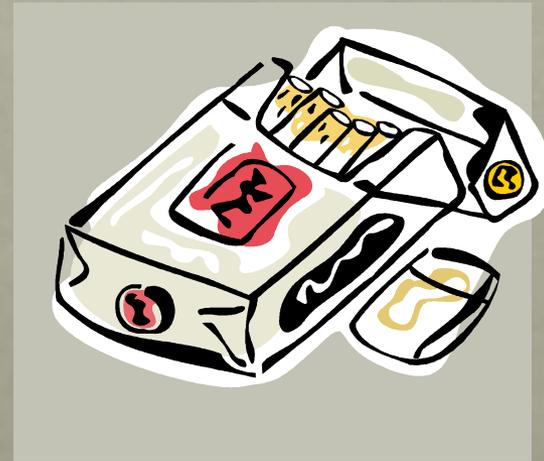
■ What are risky facilities?

■ Why are they risky?

- Random variation
- Reporting practices
- Many targets
- Hot products
- Location
- Repeat victimization
- Crime attractors
- Poor management

REPEAT VICTIMIZATION

- Hot Dots
- Hot Products
- Hot Spots
- Hot Targets
- Hot People



LIGHTNING STRIKES TWICE, BUT WHEN?

The risk of a home being re-burglarized is highest:

A) within 24 hours

B) 1 to 3 days

C) 4 to 30 days

D) 1 to 2 months



D) 1 to 2 months

ONE BURGLARY VICTIMIZATION INCREASES RISK OF FUTURE EVENTS

Once a home has been burglarized, the risk of re-victimization increases:

A) By a factor of 2

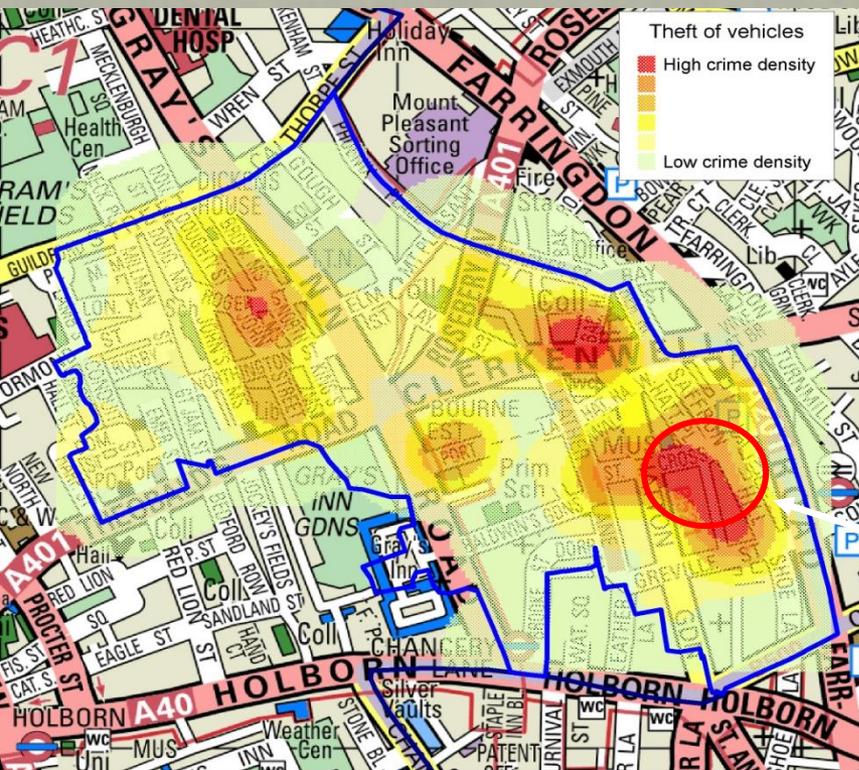
B) By a factor of 4

C) By a factor of 6

D) By a factor of 8

B) Once hit, a house is 4 times more likely to be burglarized than those never burglarized.

CLERKENWELL HOTSPOT



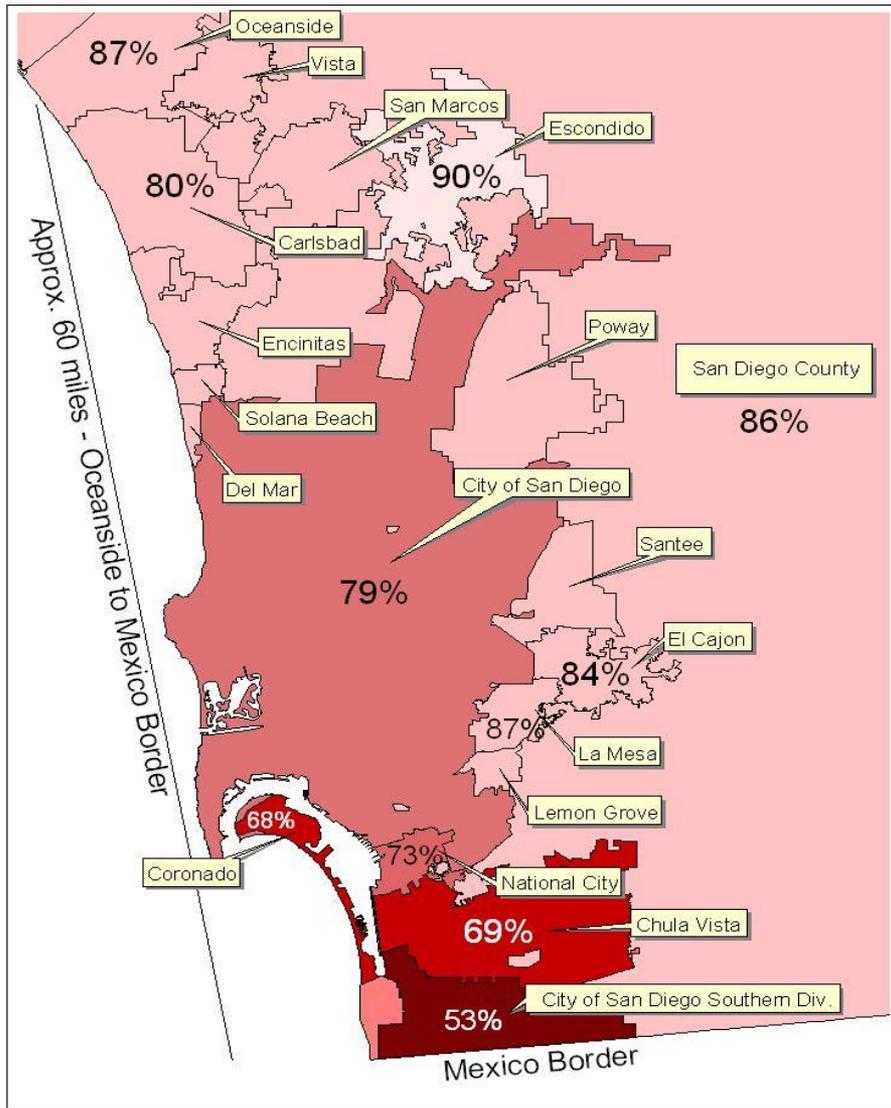
Vehicle type	Camden	Clerkenwell (n)	Clerkenwell(%)
Car	51%	41	18%
Sports or convertible	3%	5	2%
Scooter or moped	26%	95	42%
Motor cycle	13%	70	31%
Van	5%	3	1%
Other	2.0%	10	4%
Not known	0.5%	0	0%

From wheredunit to whodunnit

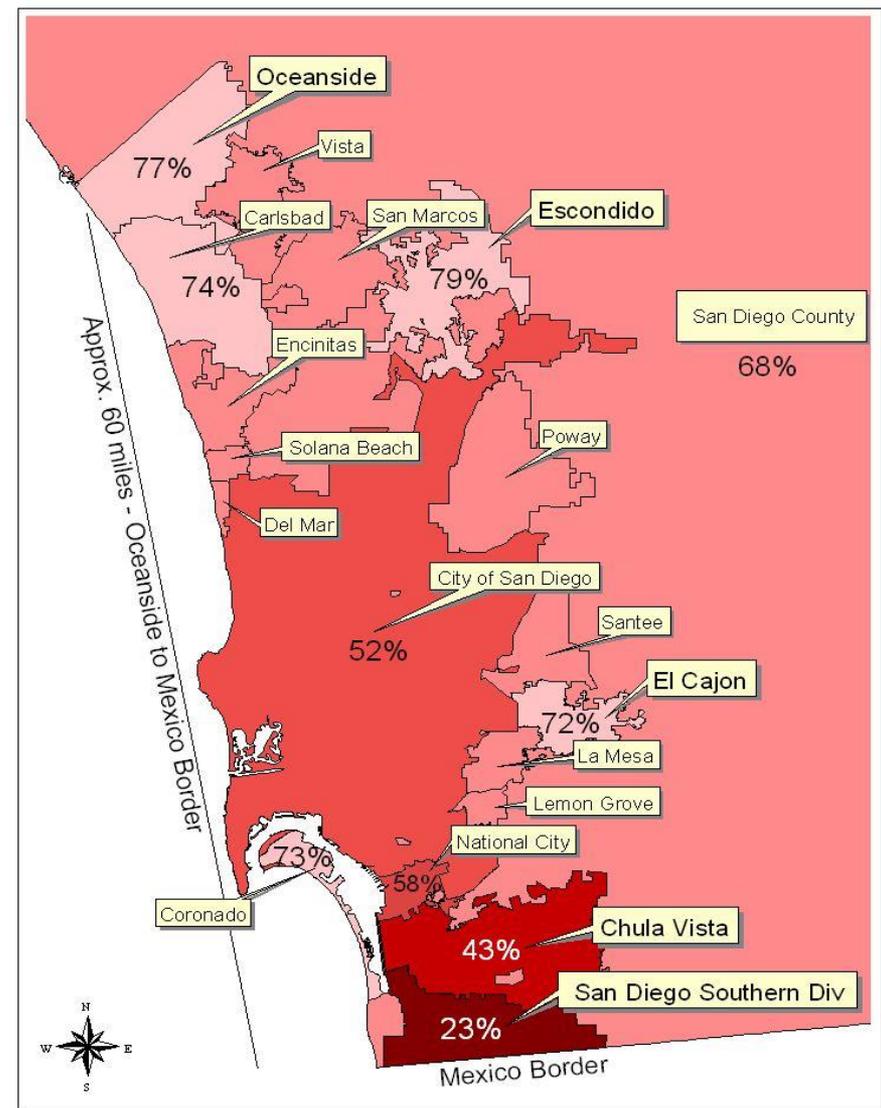


USING MAPS FOR ANALYSIS

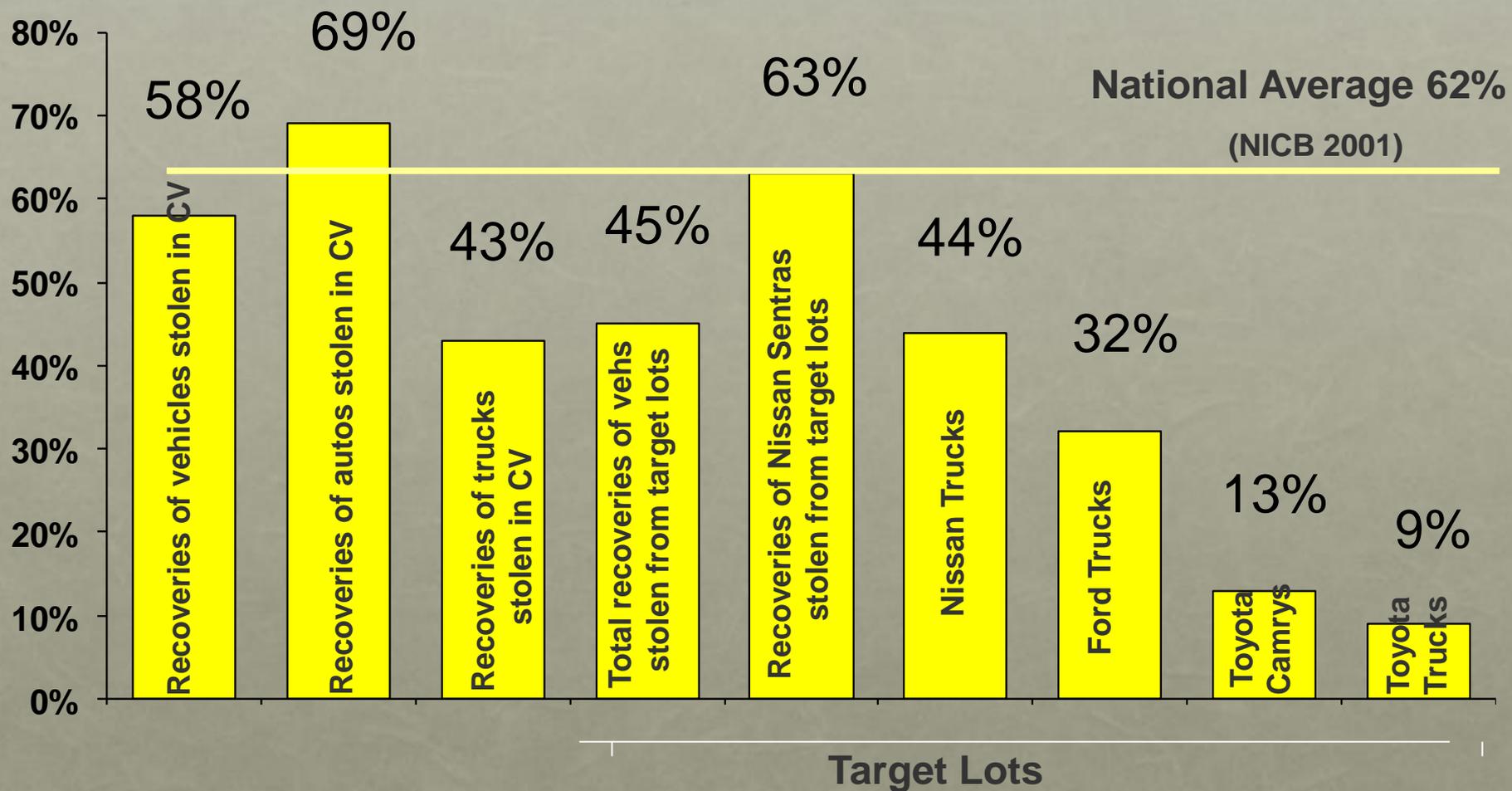
2001 Recovery Rates - Cars



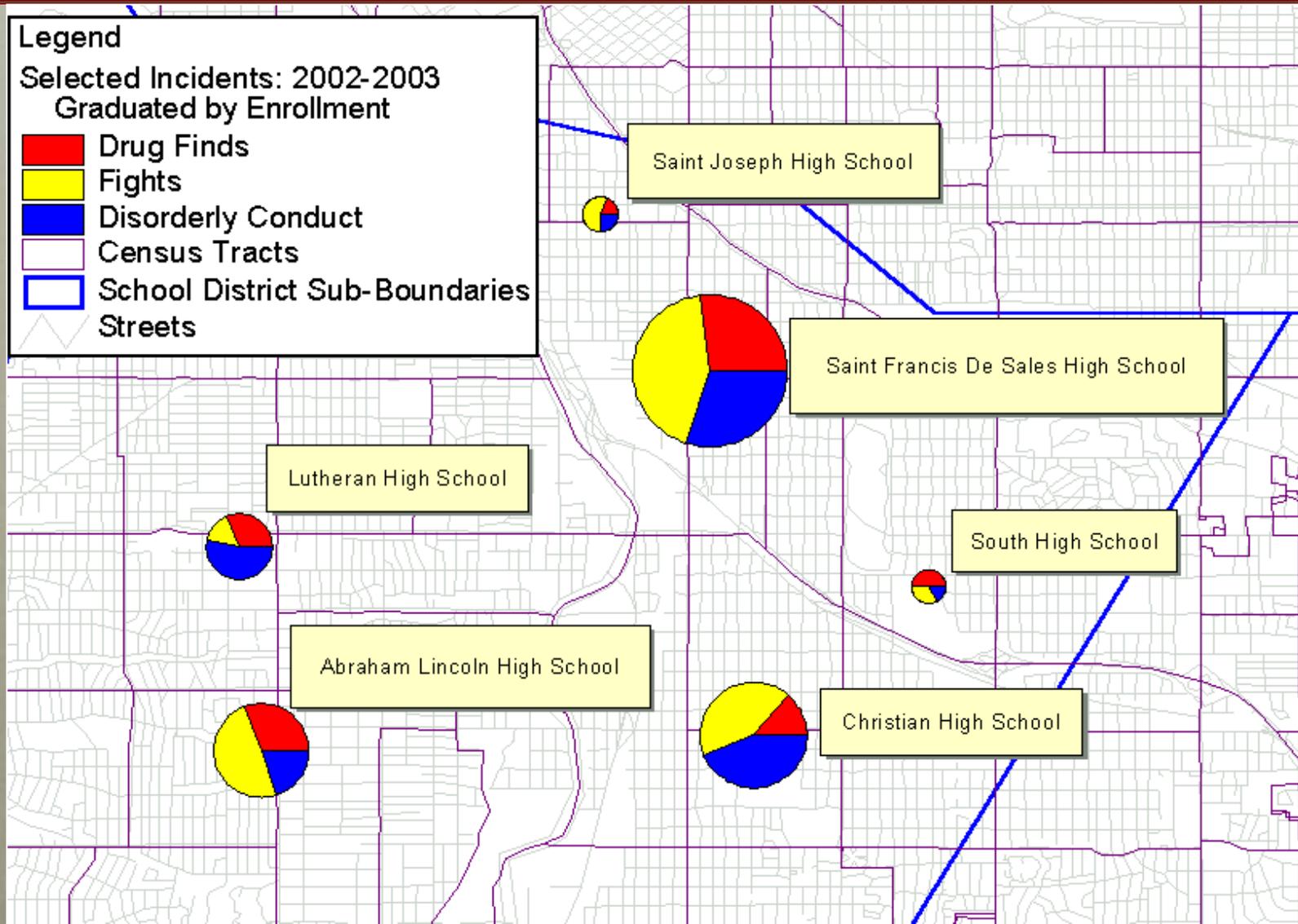
2001 Recovery Rates - Trucks



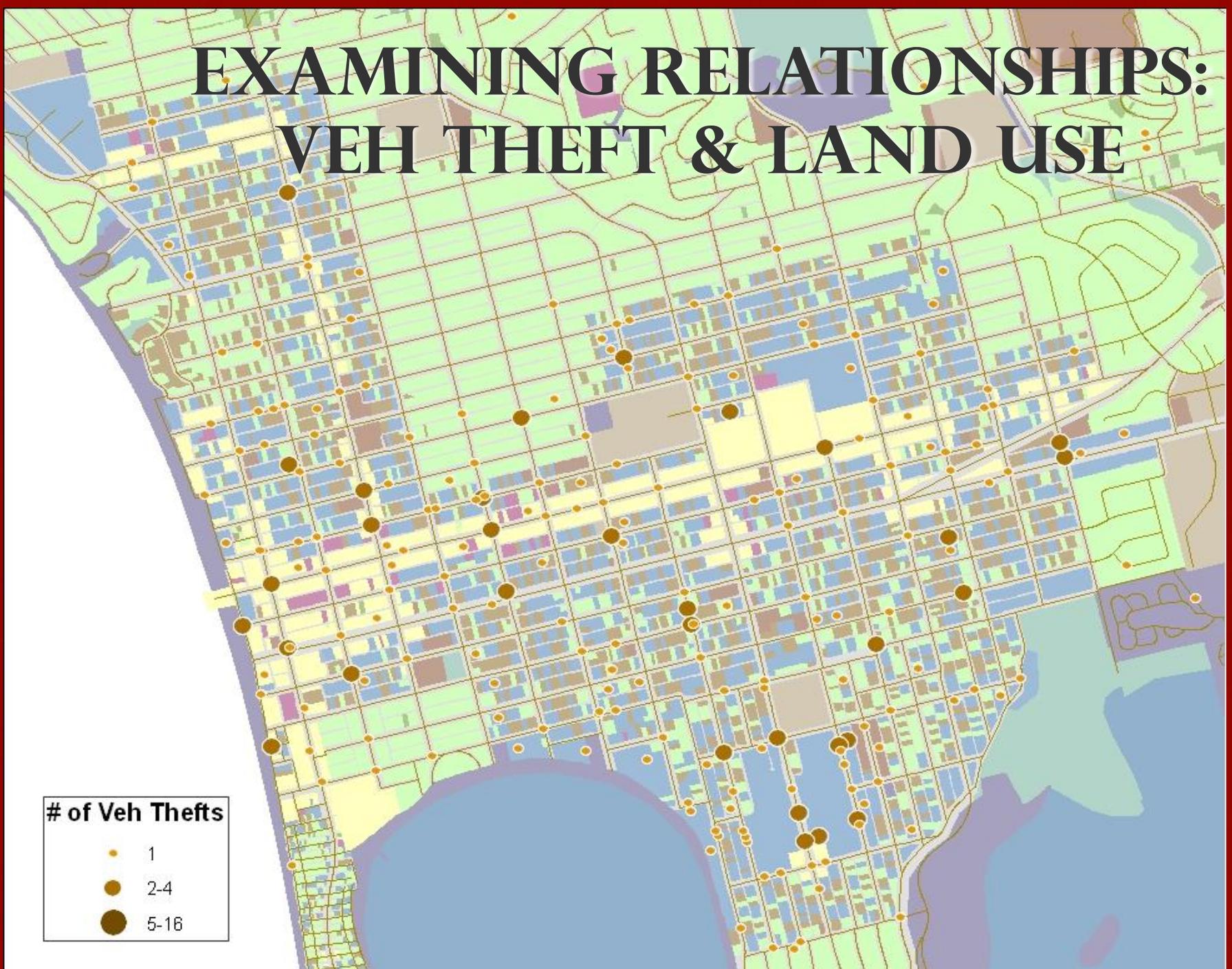
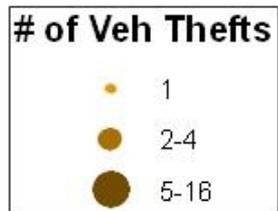
USING CHARTS IN CONJUNCTION W/MAPS



LOOKING AT MULTIPLE FACTORS



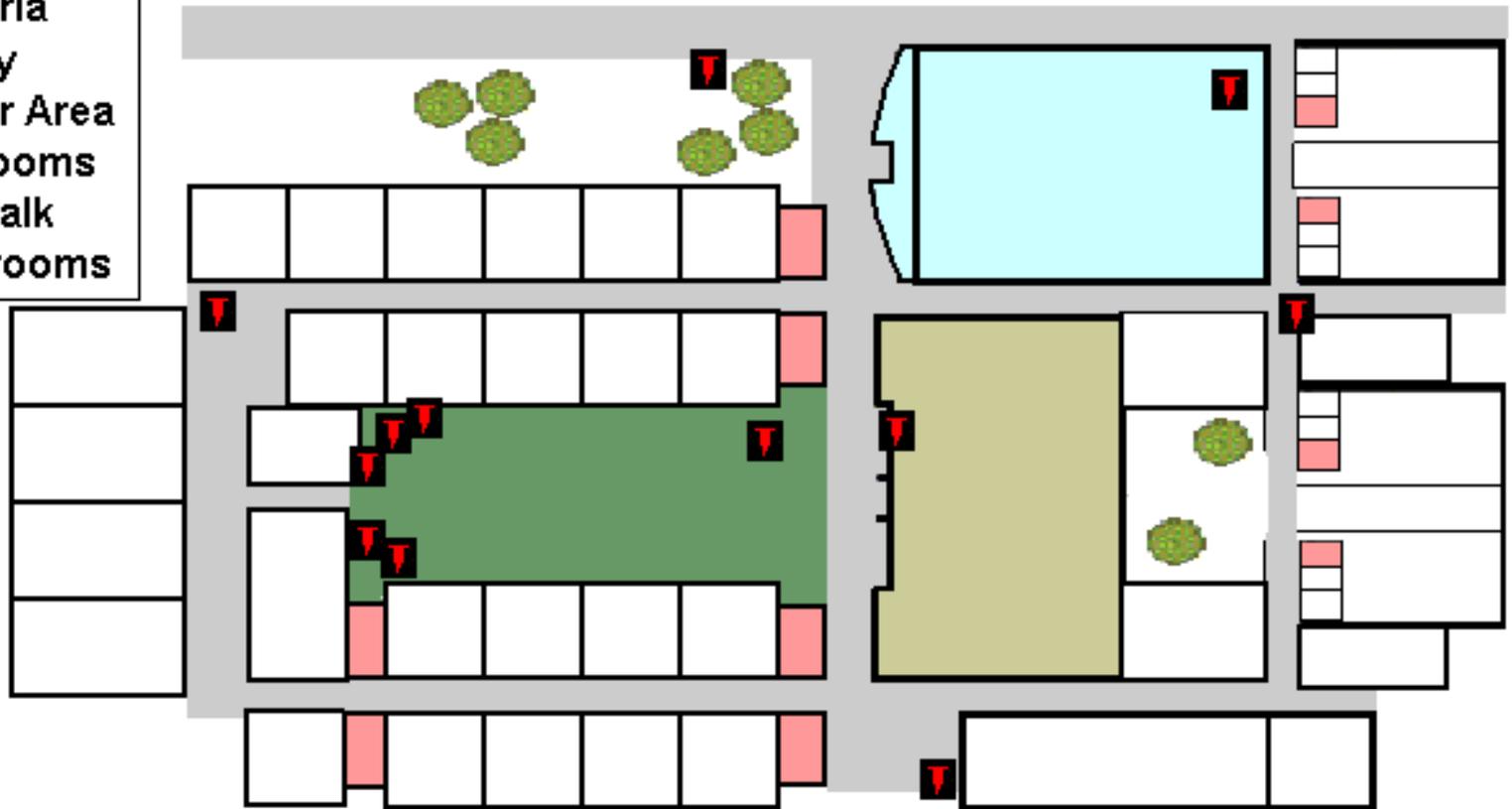
EXAMINING RELATIONSHIPS: VEH THEFT & LAND USE



USING HIGH DEF MAPS

Legend

- ▼ Drug Finds
- Cafeteria
- Library
- Locker Area
- Bathrooms
- Sidewalk
- Classrooms



SITUATIONAL CRIME PREVENTION: OPPORTUNITY BLOCKING

Increasing
Perceived
Risk



Increasing
Perceived
Effort



Decreasing
Perceived
Reward



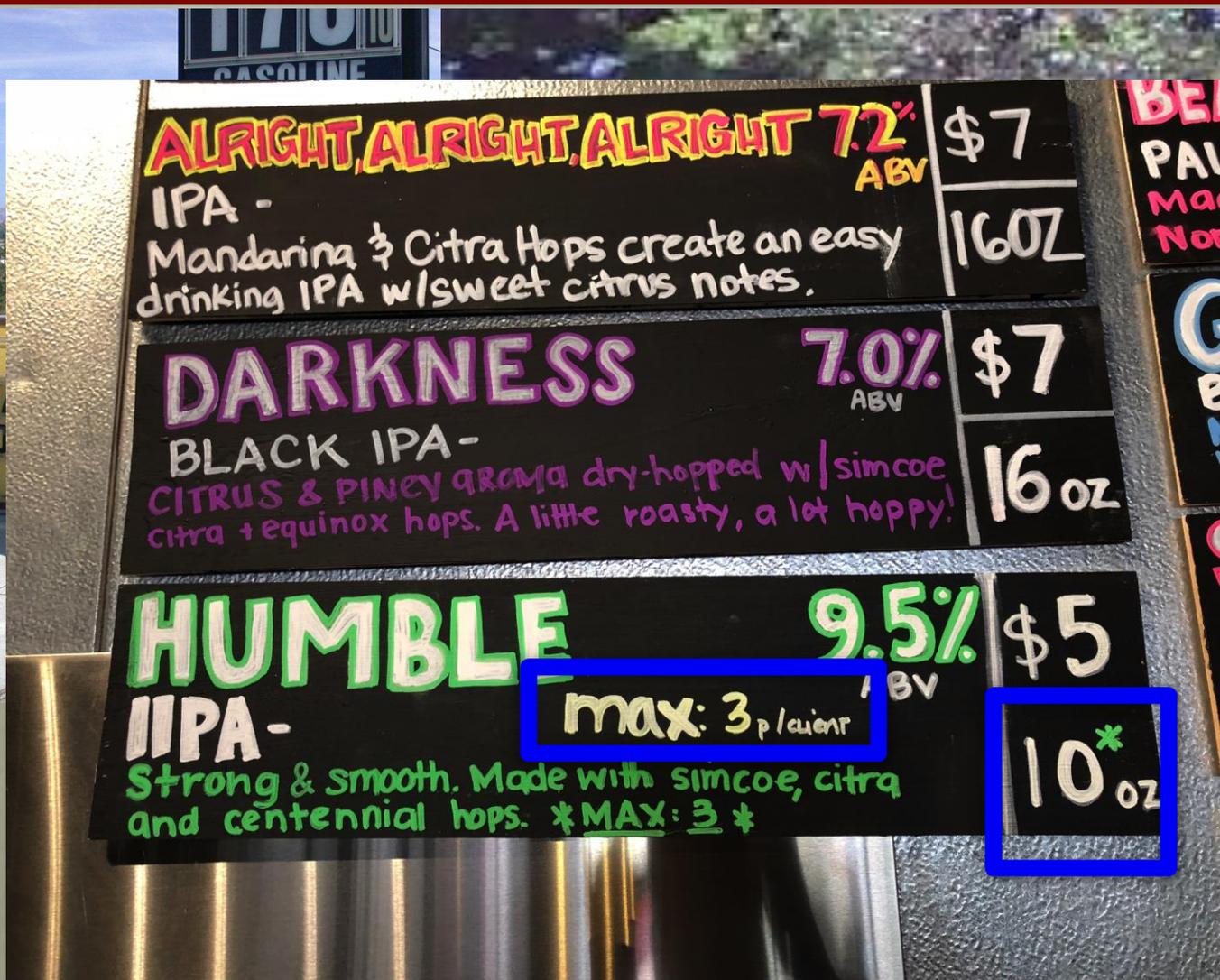
Removing
Excuses



Reducing
Provo-
cations



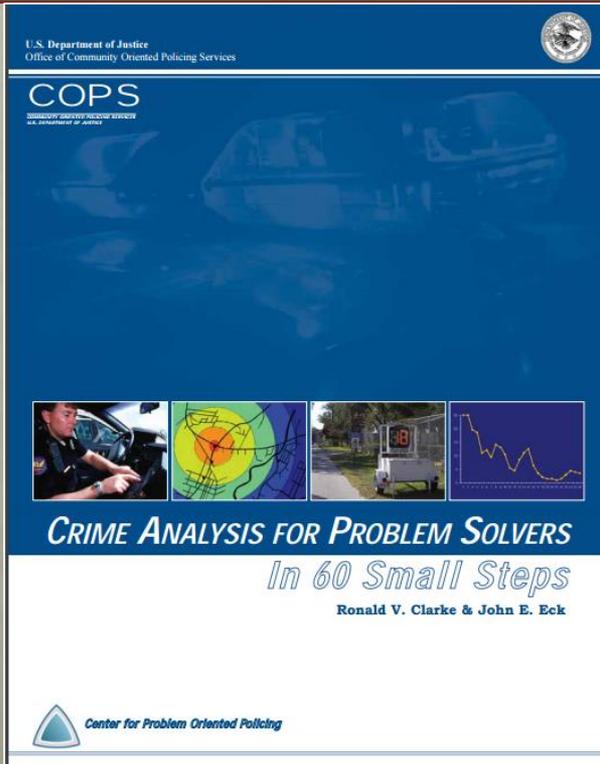
SITUATIONAL CRIME PREVENTION?



max: 3 p/client

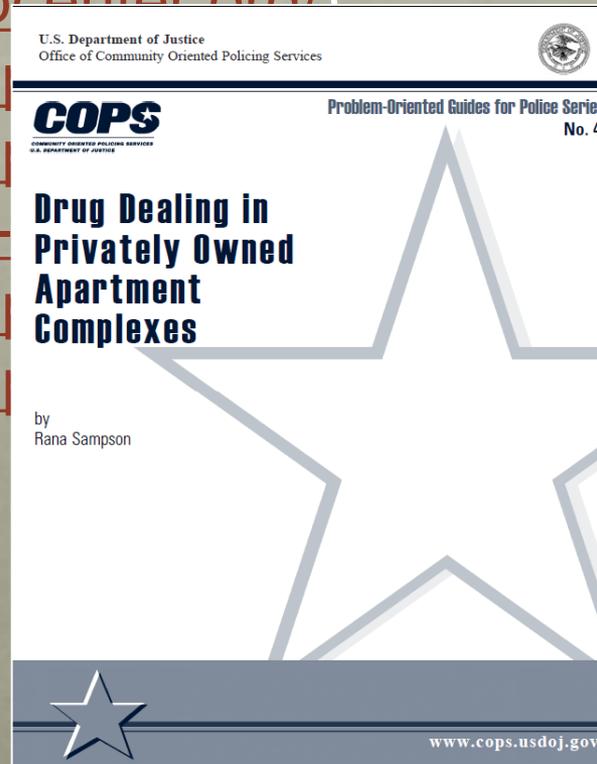
10*oz

RESOURCES TO SUPPORT PROBLEM ANALYSIS

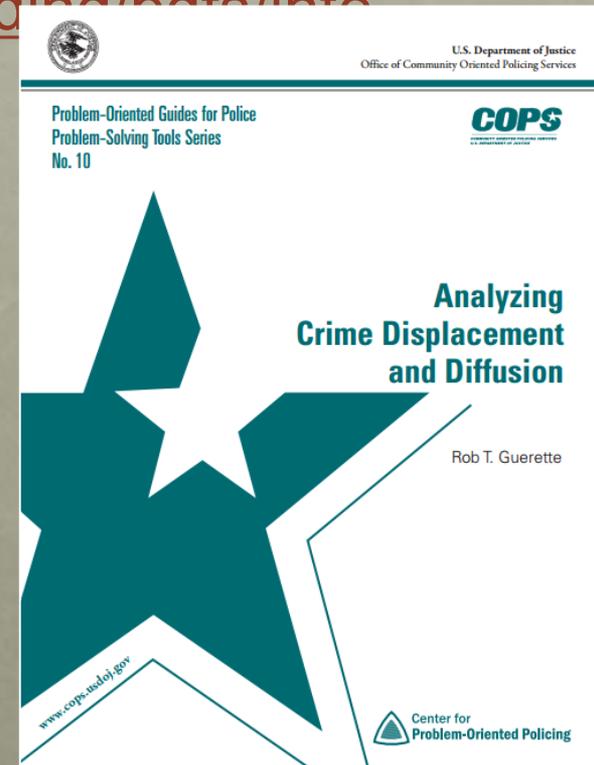


Problem Oriented Policing

copscenter.org/



60steps/reading/pdf/intro



RESEARCHING YOUR PROBLEM: INTERNET RESOURCES

- National Criminal Justice Reference Service:
<https://www.ncjrs.gov/>
- Jill Dando Institute of Crime Science: www.ucl.ac.uk/jdi
- UK What Works Centre: <http://whatworks.college.police.uk/>
- Australian Institute of Criminology: <https://aic.gov.au/>
- George Mason Center for Evidence Based Crime Policy:
<http://cebcp.org/>
- Rutgers Center on Public Security: www.rutgerscps.org
- LISC Safe Neighborhoods: <http://www.lisc.org/our-initiatives/safe-neighborhoods/>
- Simon Fraser Institute for Canadian Urban Research Studies:
<https://www.sfu.ca/icurs.html>

THANK YOU.

QUESTIONS? COMMENTS?

- Julie Wartell
- julie.wartell@att.net
- 858.204.3887