



# Welcome to the National Smart Policing Initiative Meeting Day 2

*September 7-8, 2011 - Alexandria, VA*



# Day 2 Overview

Chip Coldren, *CNA SPI Project Director*

September 8, 2011



# Thematic Panel: Placed-based Policing

8:45-9:45

September 8, 2011



# Place-based Policing

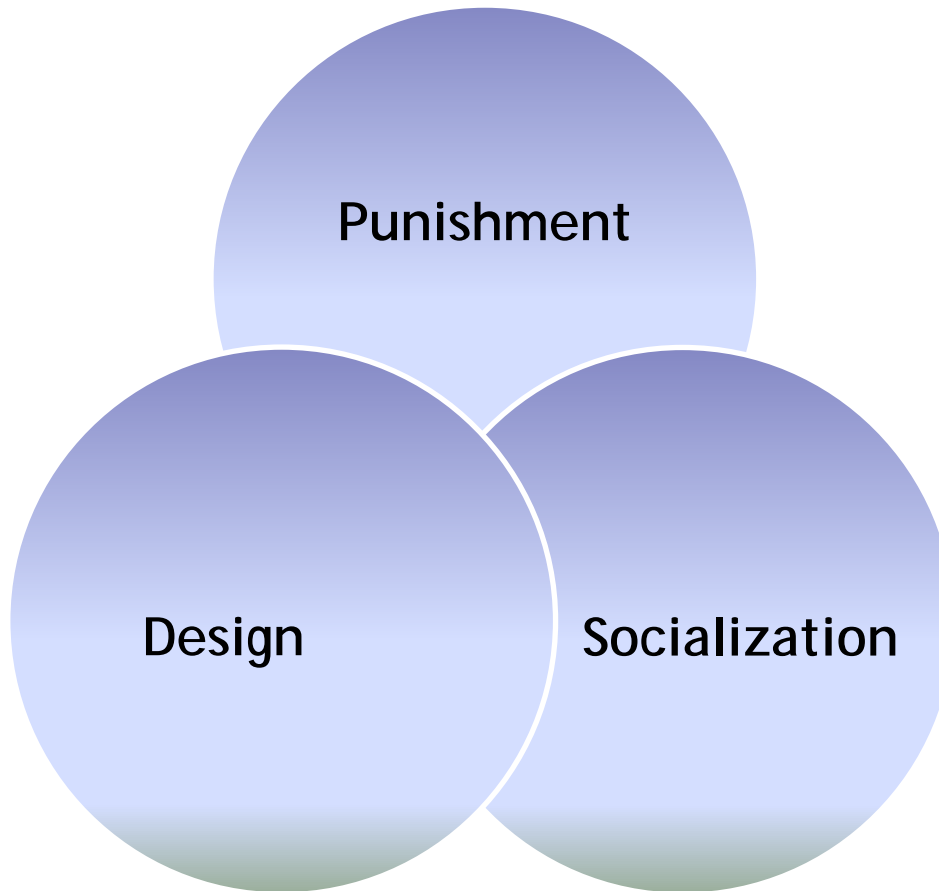
Mike Scott

*Center for Problem-Oriented Policing*  
*University of Wisconsin Law School*

September 8, 2011

This project was supported by Grant No. 2009-DG-BX-K021 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

# Crime and disorder control



# Spectacular failures



# Pruitt-Igoe in St. Louis









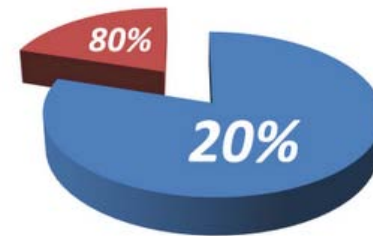
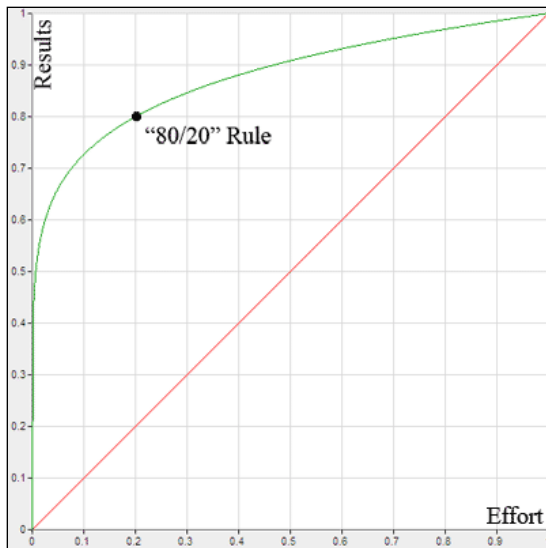
# Crime & disorder is concentrated

## 80-20 Rule

10% of Victims = 40% of victimizations

10% of Offenders = 50% of offenses

10% of Locations = 60% of calls



# Routine Activity Theory

Crime will occur when a **motivated offender** converges with a **suitable victim** in the absence of a **capable guardian**

## 11

[illegible]

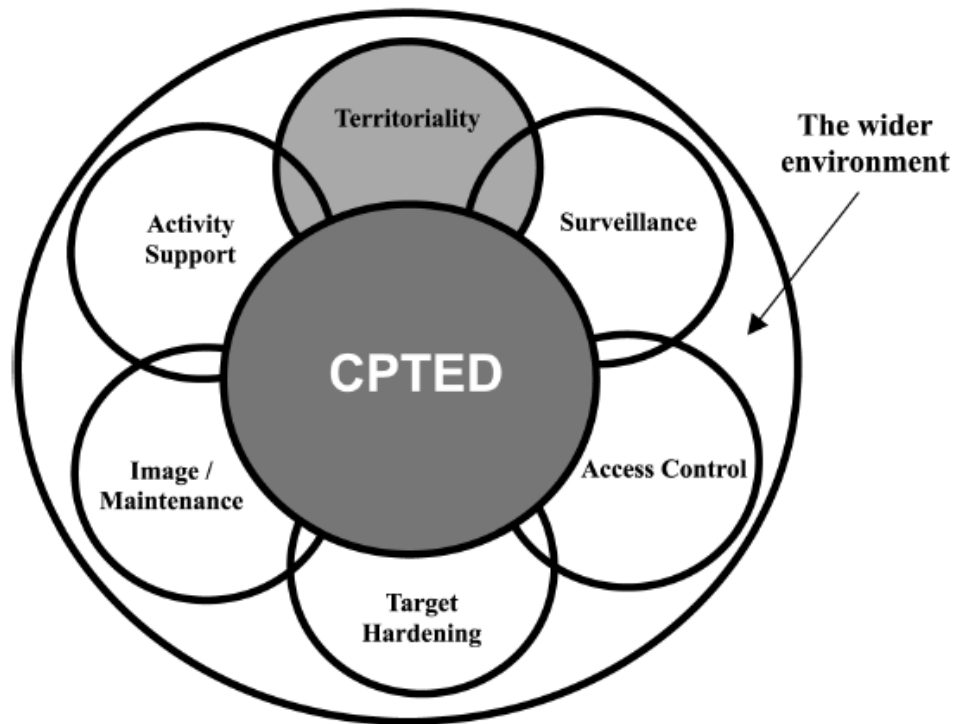
# Crime Triangle



# Defensible space



# Crime Prevention Through Environmental Design (CPTED)

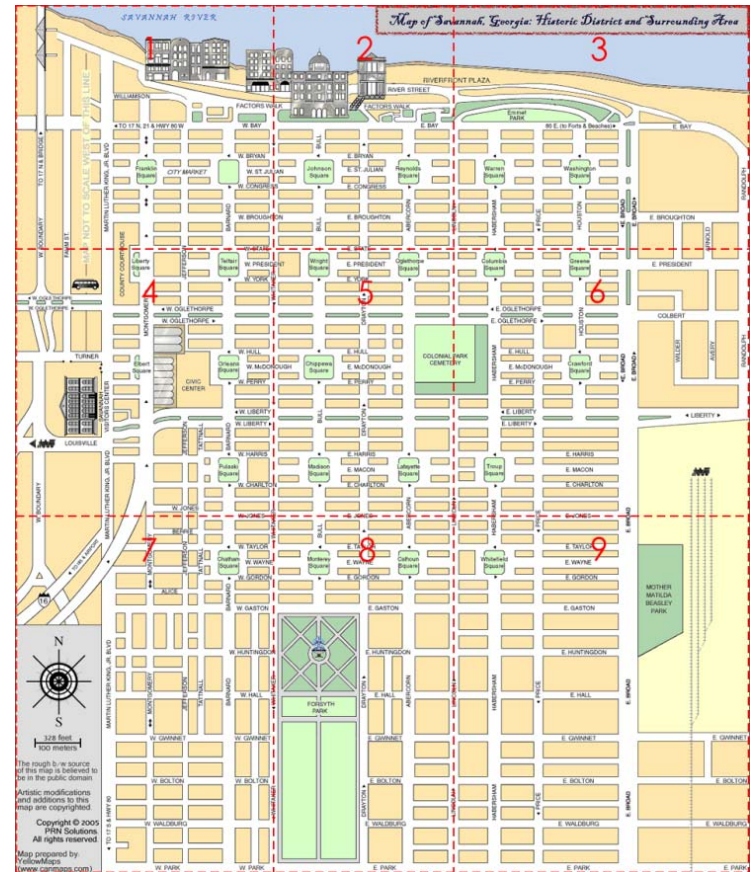
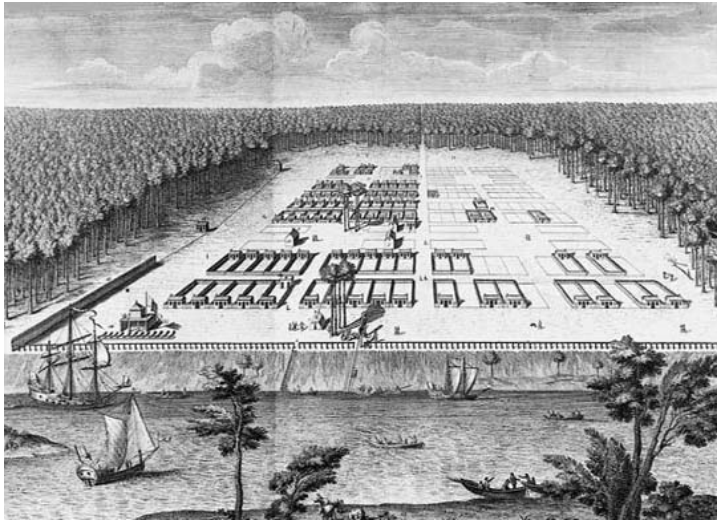


# Natural surveillance





# Public squares of Savannah



# Access control/target hardening





# Private streets



# Alley gating

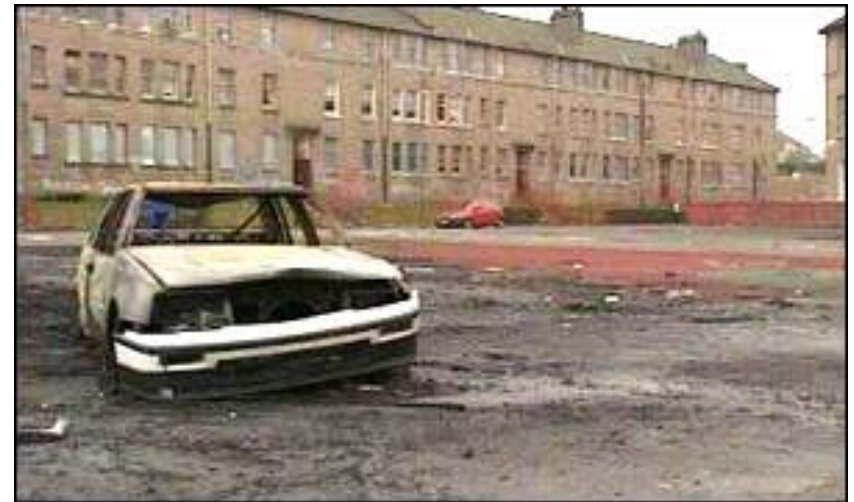


# Territoriality

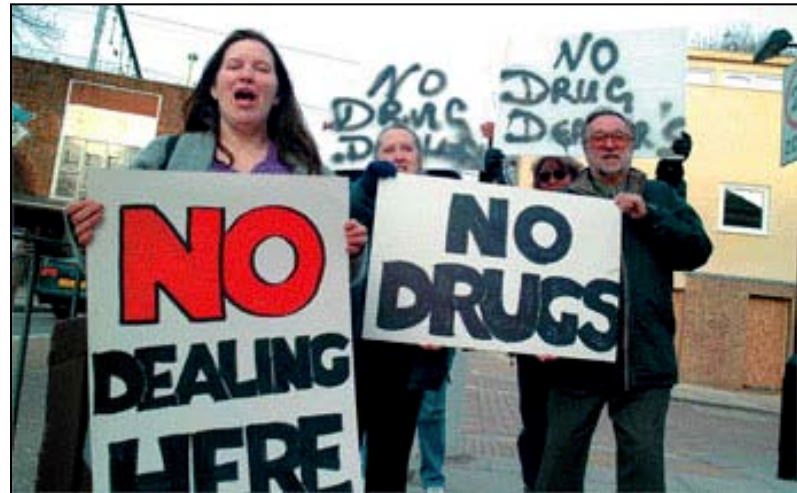




# Image & maintenance



# Activity support



**BOYS & GIRLS CLUBS  
OF AMERICA**

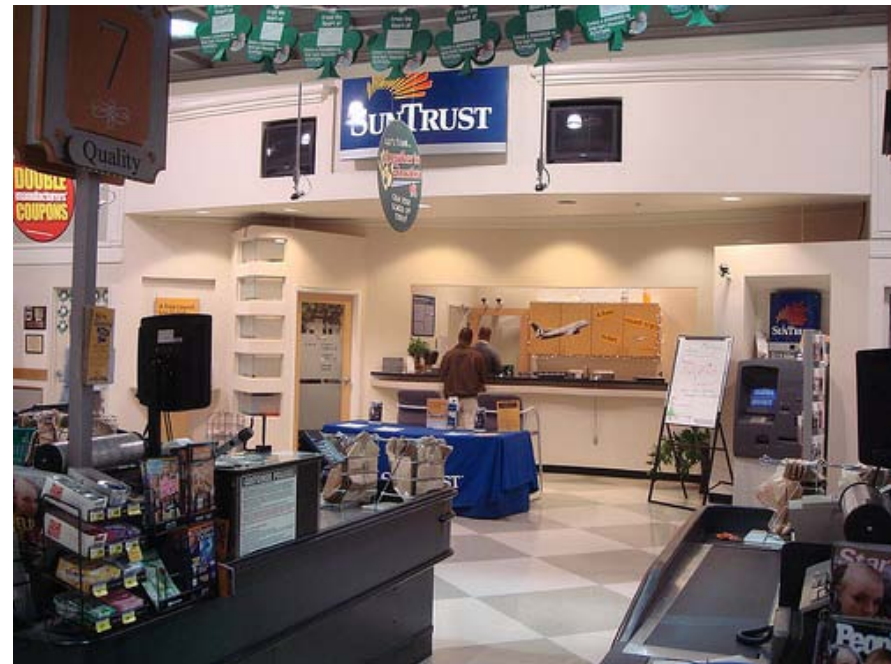


# Specific problems

# Robbery



# Robbery

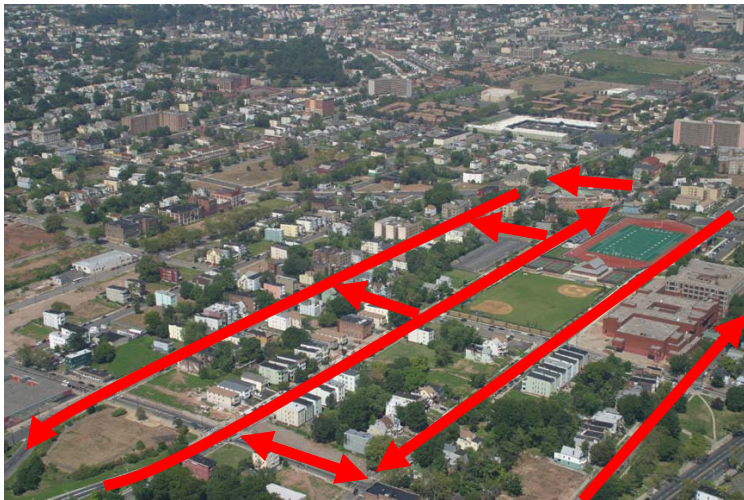


# Theft in parking facilities





# Open-air drug markets



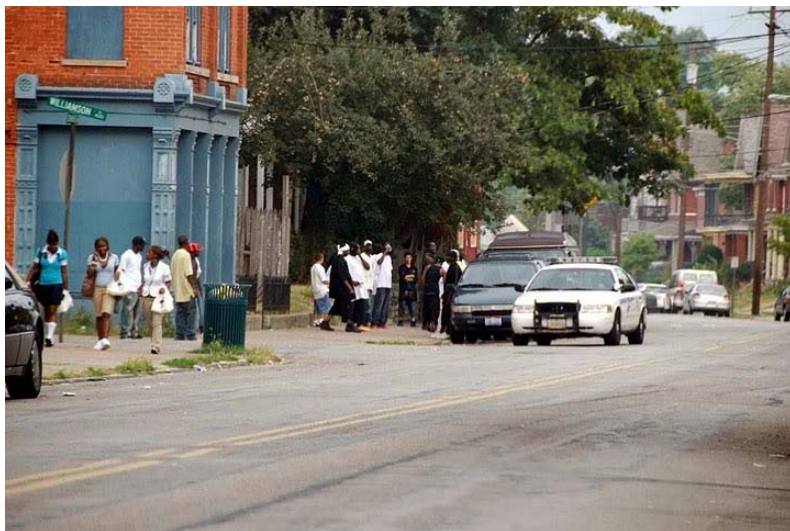
# Speeding



# Place-based policing techniques



# Hot spot patrol



# Place-based problem solving



# Street closing







# Potential implications for local government

- ❖ Zoning
- ❖ Promoting home ownership
- ❖ Security regulation
- ❖ Design guidelines
- ❖ Tax incentives
- ❖ Grant programs
- ❖ Inspection/grading schemes

# Potential implications for local government

- ❖ Site plan review
- ❖ Product design review
- ❖ Training of architects, designers and planners
- ❖ Training of police
- ❖ Civil liability

# Useful web resources

- International CPTED Association  
[www.cpted.net](http://www.cpted.net)
- Design Against Crime Research Centre  
[www.designagainstcrime.com](http://www.designagainstcrime.com)
- Design Centre for CPTED Vancouver  
[www.designcentreforcpted.org](http://www.designcentreforcpted.org)



# Useful web resources

- Secured by Design

[www.securedbydesign.com](http://www.securedbydesign.com)

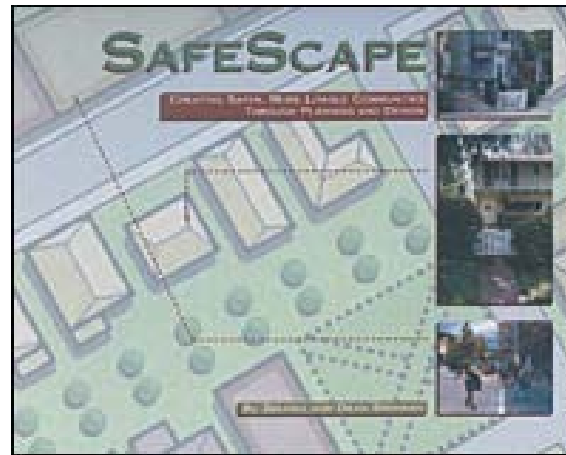
- Local Initiatives Support Corporation

[www.lisc.org](http://www.lisc.org)

- Center for Problem-Oriented Policing

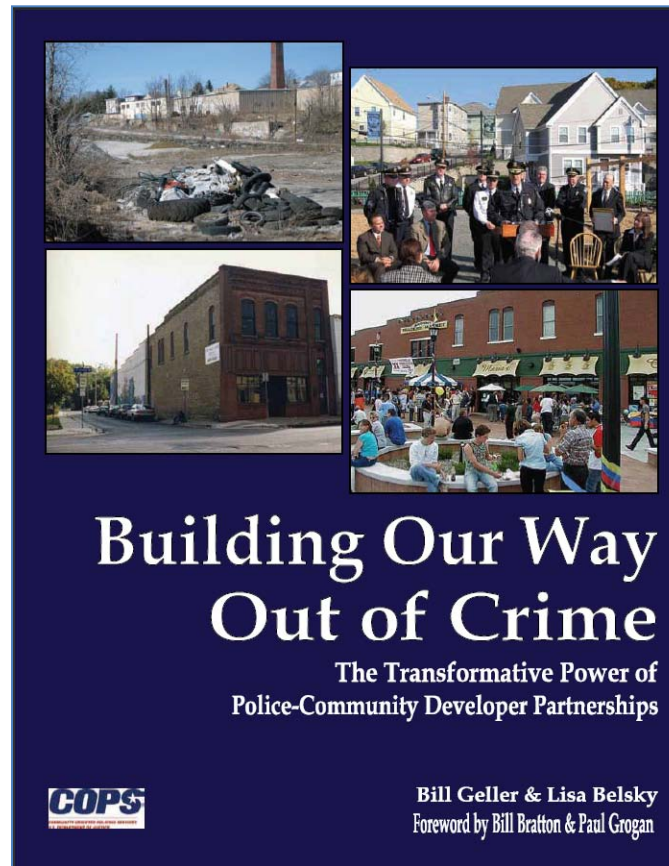
[www.popcenter.org](http://www.popcenter.org)

# Useful publications

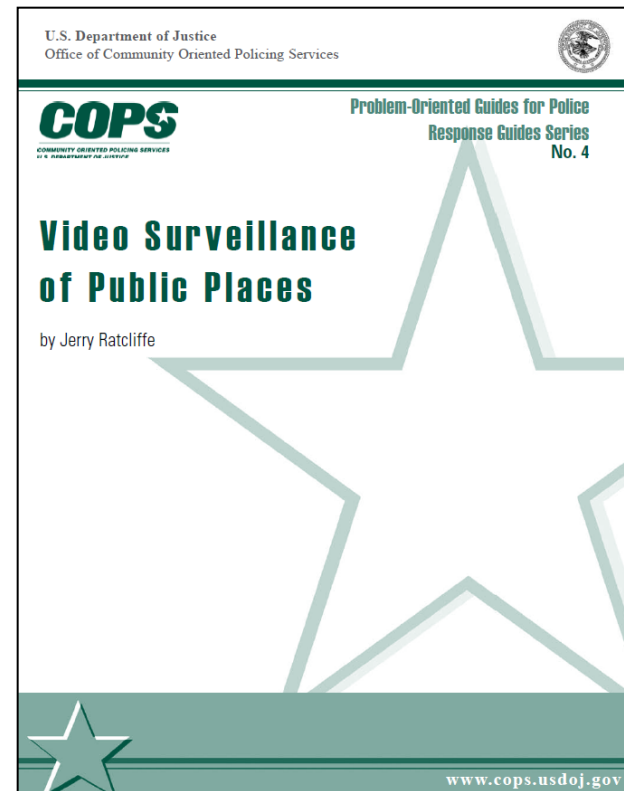
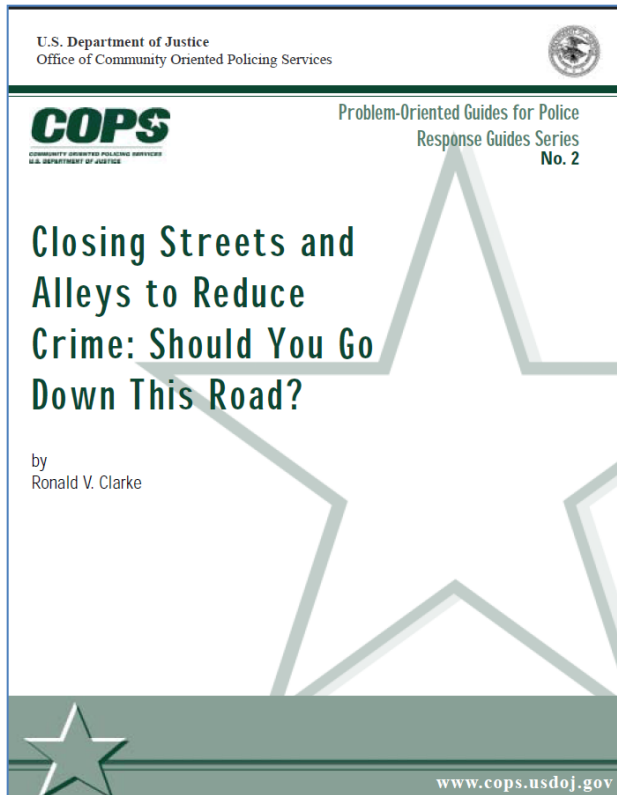


## **SafeScape: Creating Safer, More Livable Communities Through Planning and Design** by Dean Brennan and Al Zelinka

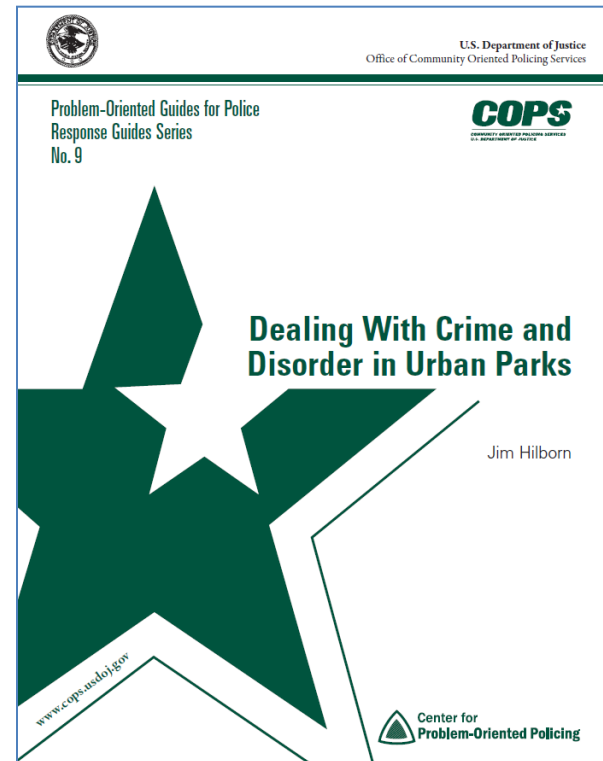
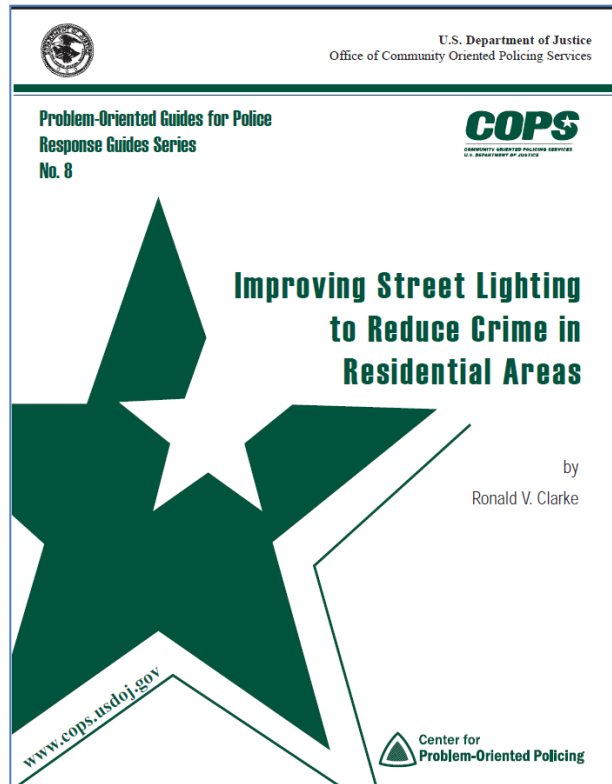
# Useful publications



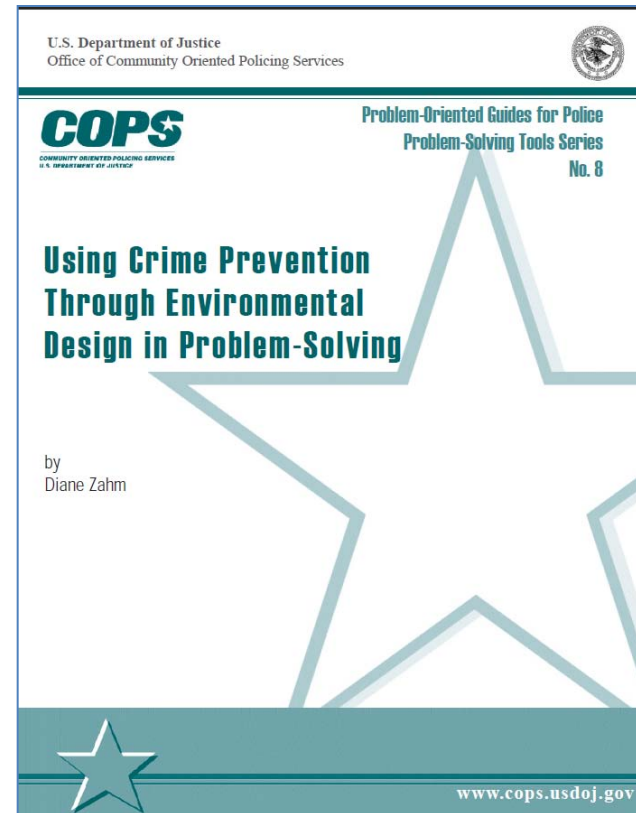
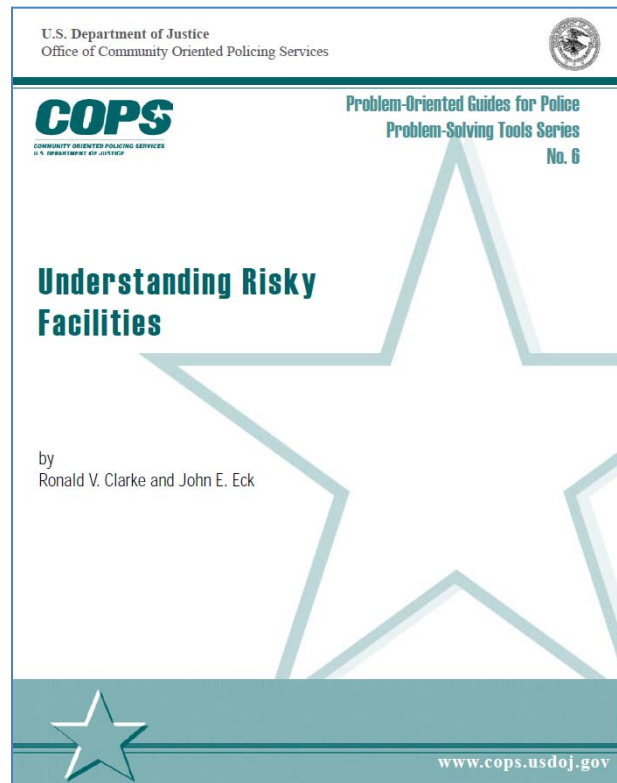
# POP Guides



# POP Guides



# POP Guides





# Philadelphia

## Placed-Based Policing: Considerations from two perspectives

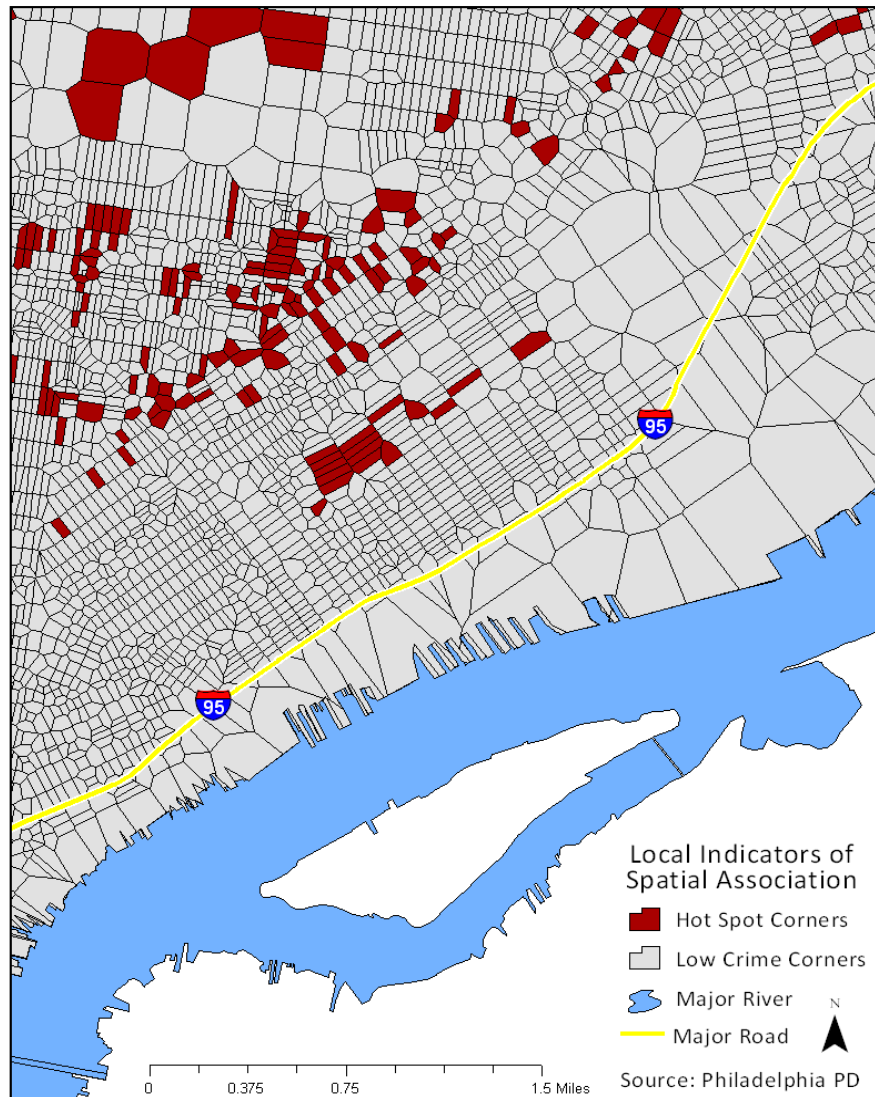
8<sup>th</sup> September 2011

This project was supported by Grant No. 2009-DG-BX-K021 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

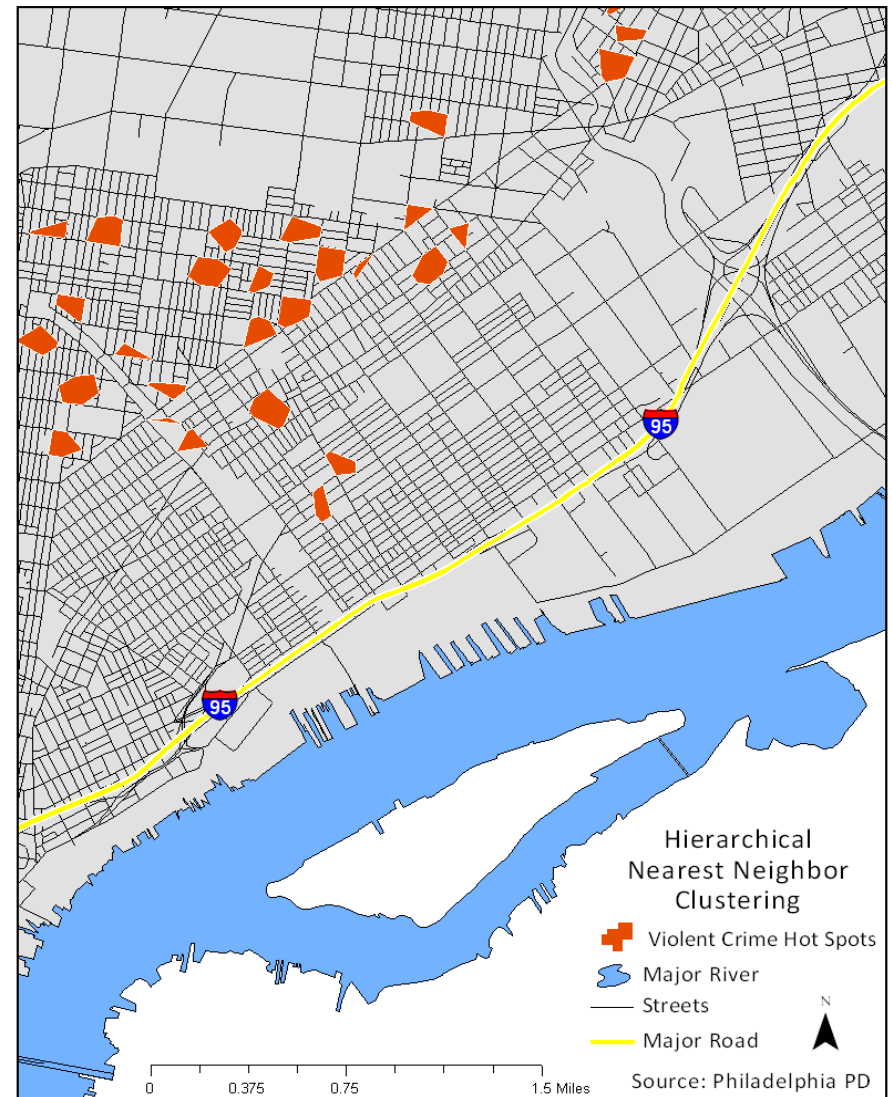


# Which analysis technique?

## Local Indicators of Spatial Association

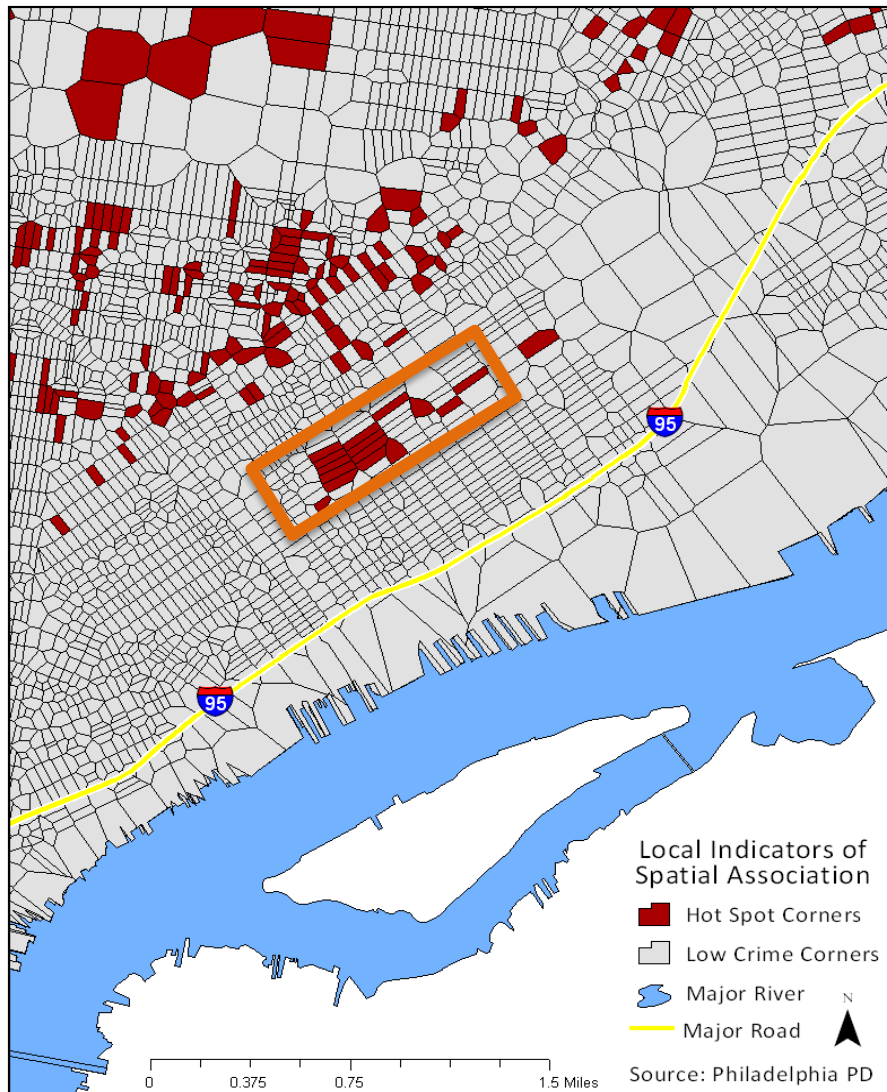


## Hierarchical Nearest Neighbor Clusters

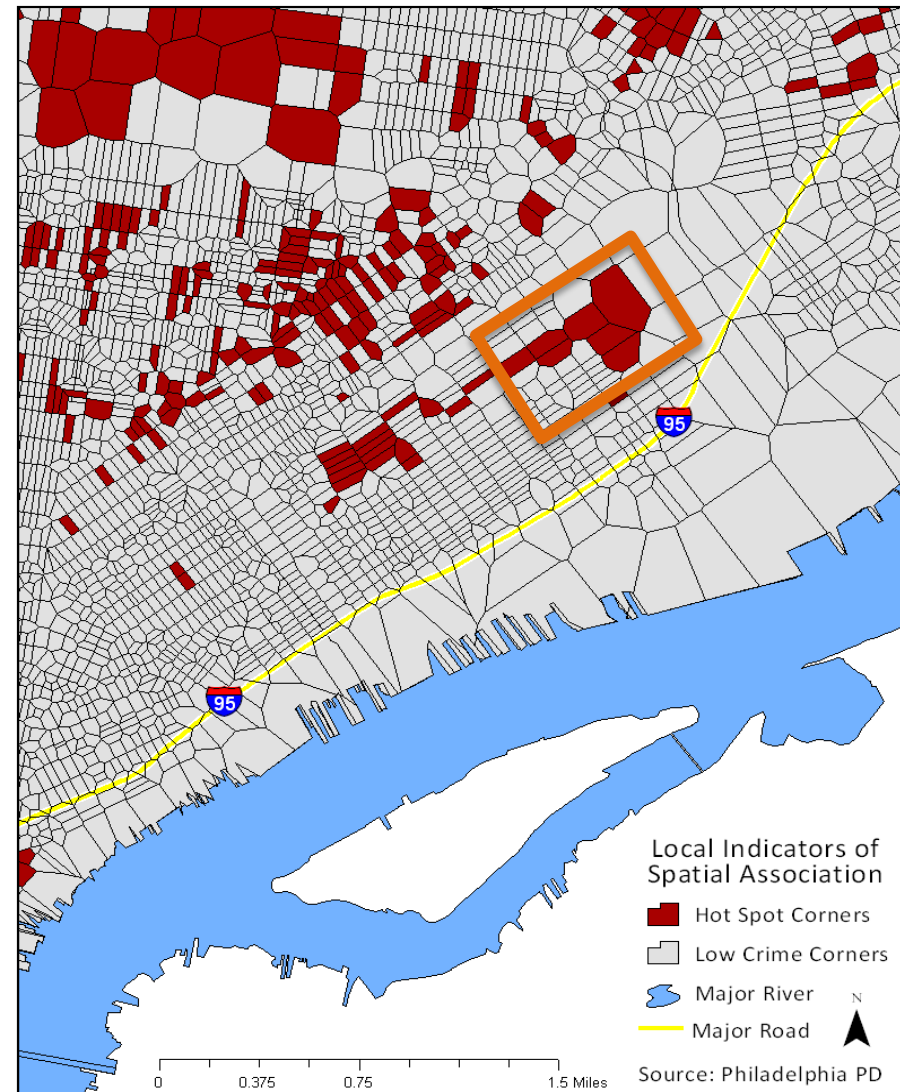


# What data time frame?

1 year prior to implementation



90 days prior to implementation



# Now we have hot spots...

## Researchers' considerations

### 1. Finding enough hot spots

Statistical power

### 2. Hot spots of hot spots

Mixing treatments

Measuring displacement





# Commanders' considerations

## 1. Research design v. Police operations

Mutual respect

Data collection is labor intensive

Personnel's willingness to participate

Technology support

## 2. Citizens' expectations

Where'd my officers go?



# Commanders' considerations

## 3. Culture change

Traditional policing

Collaboration



## 4. Sustainability

Committed leader

Continuous follow up





# Philadelphia SPI

**Cory Haberman**

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**Deputy Commissioner Kevin Bethel**

Kevin.bethel@phila.gov



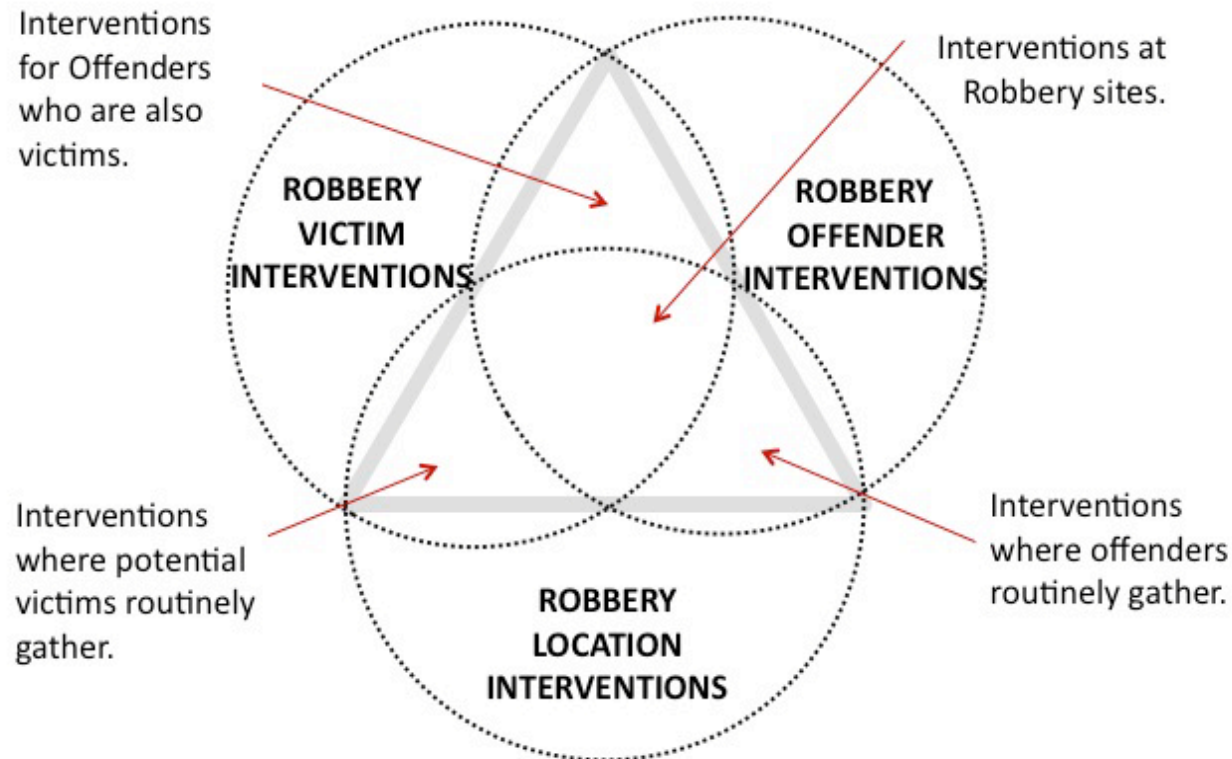


# Place Based Policing in Cincinnati

## Street Robberies

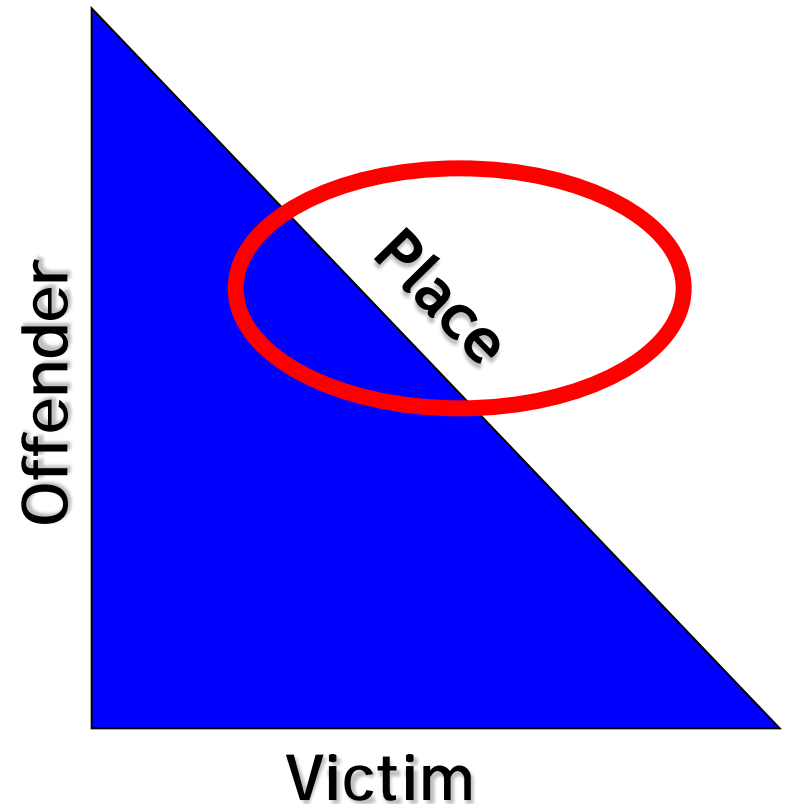
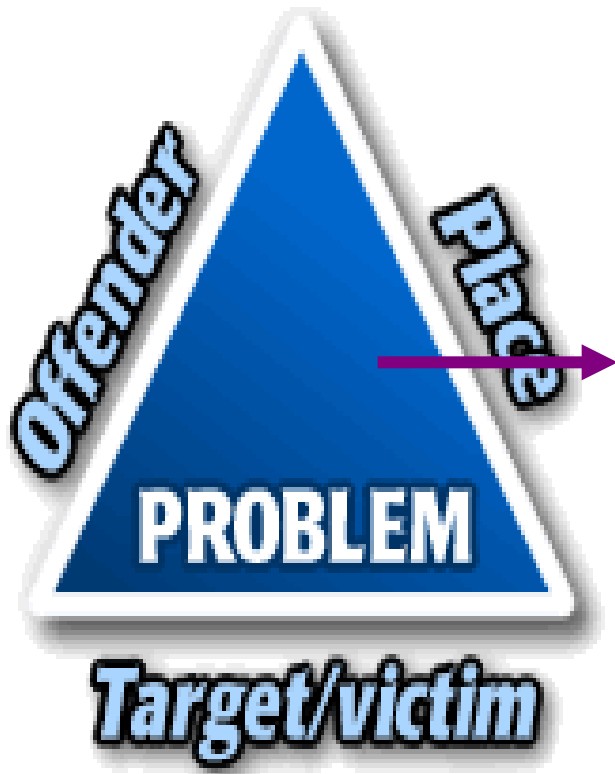
September 8, 2011

## Attacking the Street Robbery Problem from all Three Sides of the Crime Triangle allows the CPD to Develop Anti-Robbery Interventions for Each Side and the Overlaps.



Adapted from: Eck 2003 and [www.popcenter.org](http://www.popcenter.org)

# Place Based Strategy:



# The 3 forms of crime places we are concentrating on:

## 1. Crime Spots

1. Places where crime is concentrated

1. Robbery offenses

## 2. Convergent Settings

1. Locations where offenders gather and meet

1. Identified through LE data such as CFS, FIRs, etc

## 3. Corrupting Sites

1. Places that foster crime at other places

1. Vacant & abandoned buildings

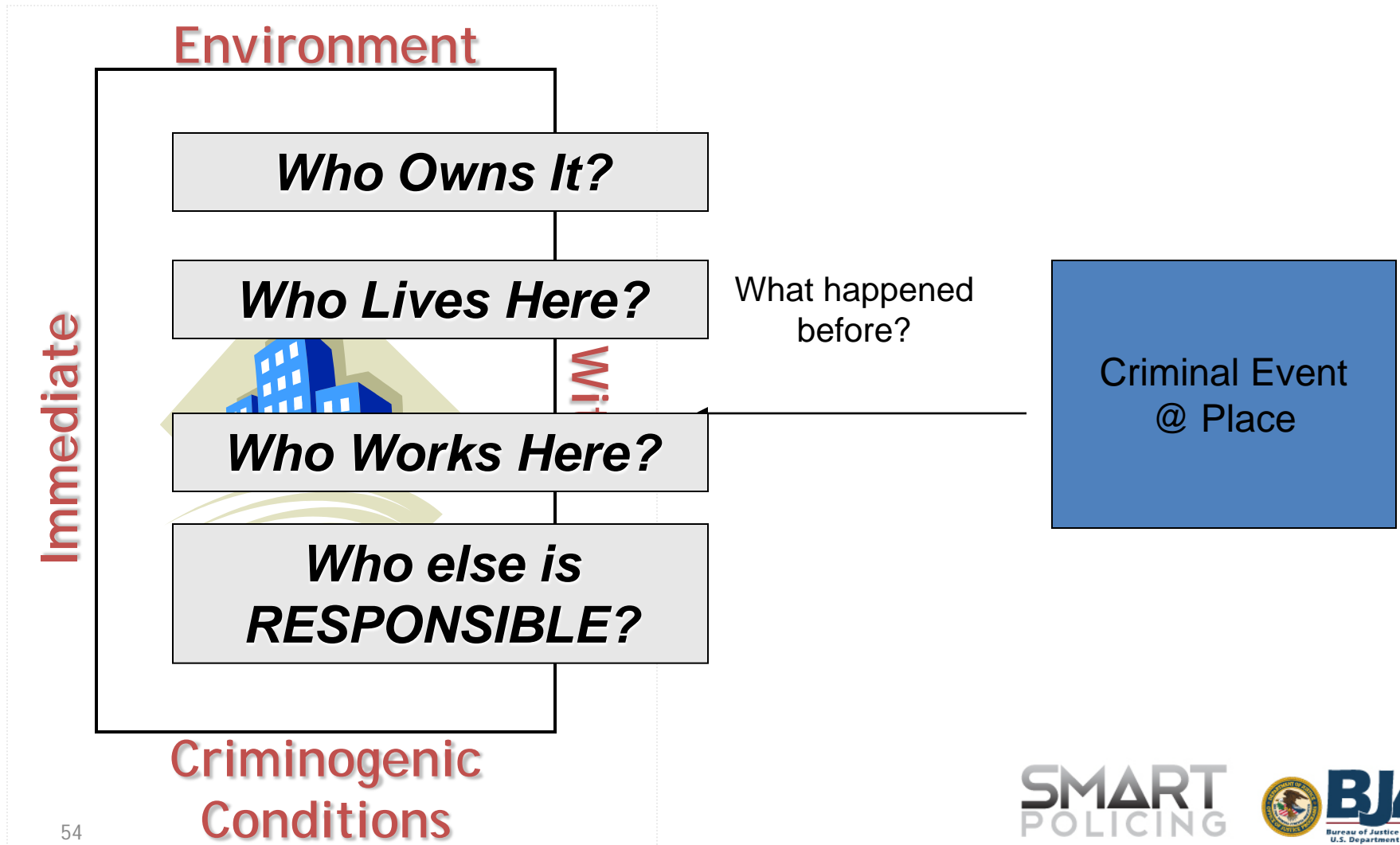
2. Absentee owner/landlord

3. K9 track data



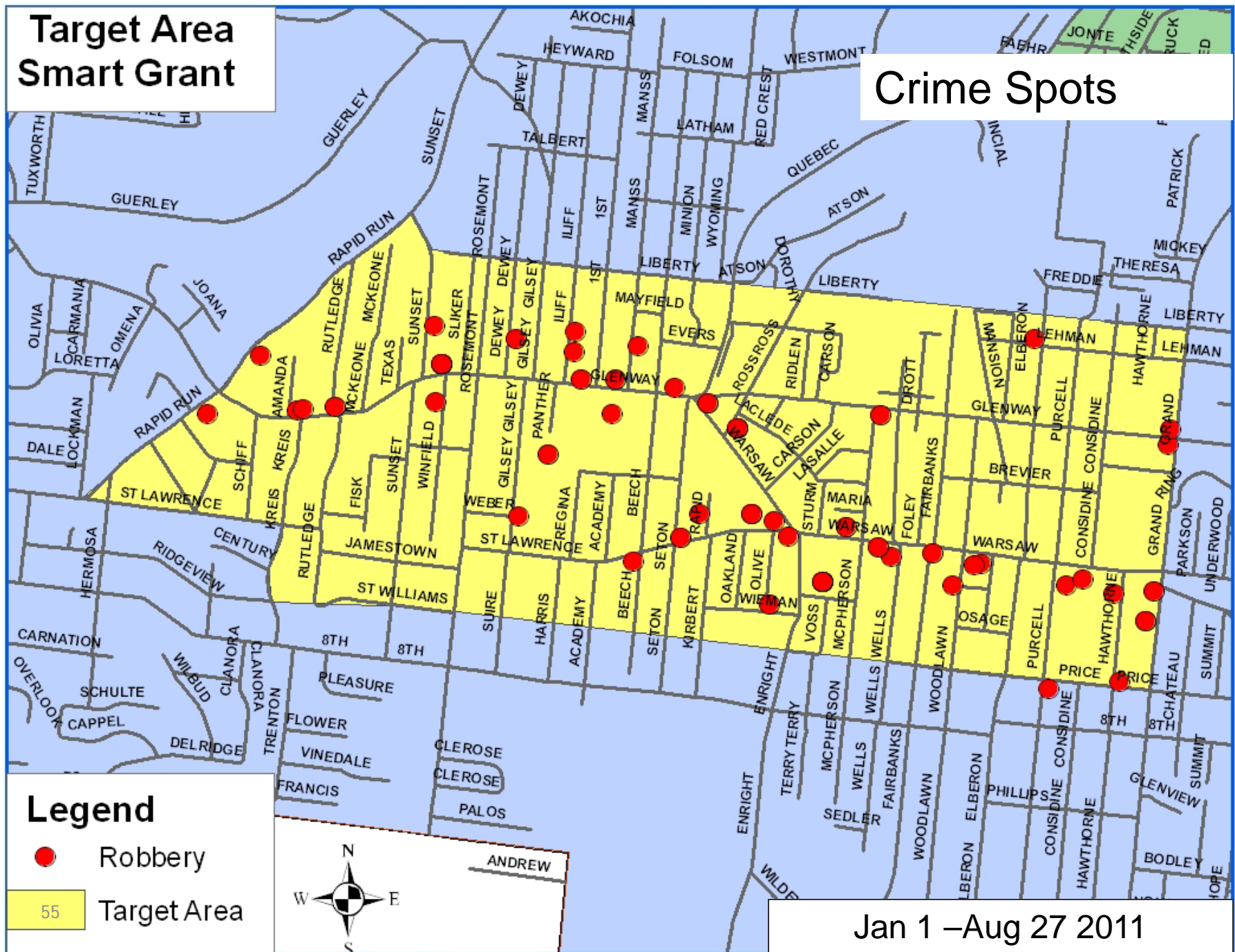
# “Wheredunit, instead of Whodunit?”

(Weisburd, 2008)



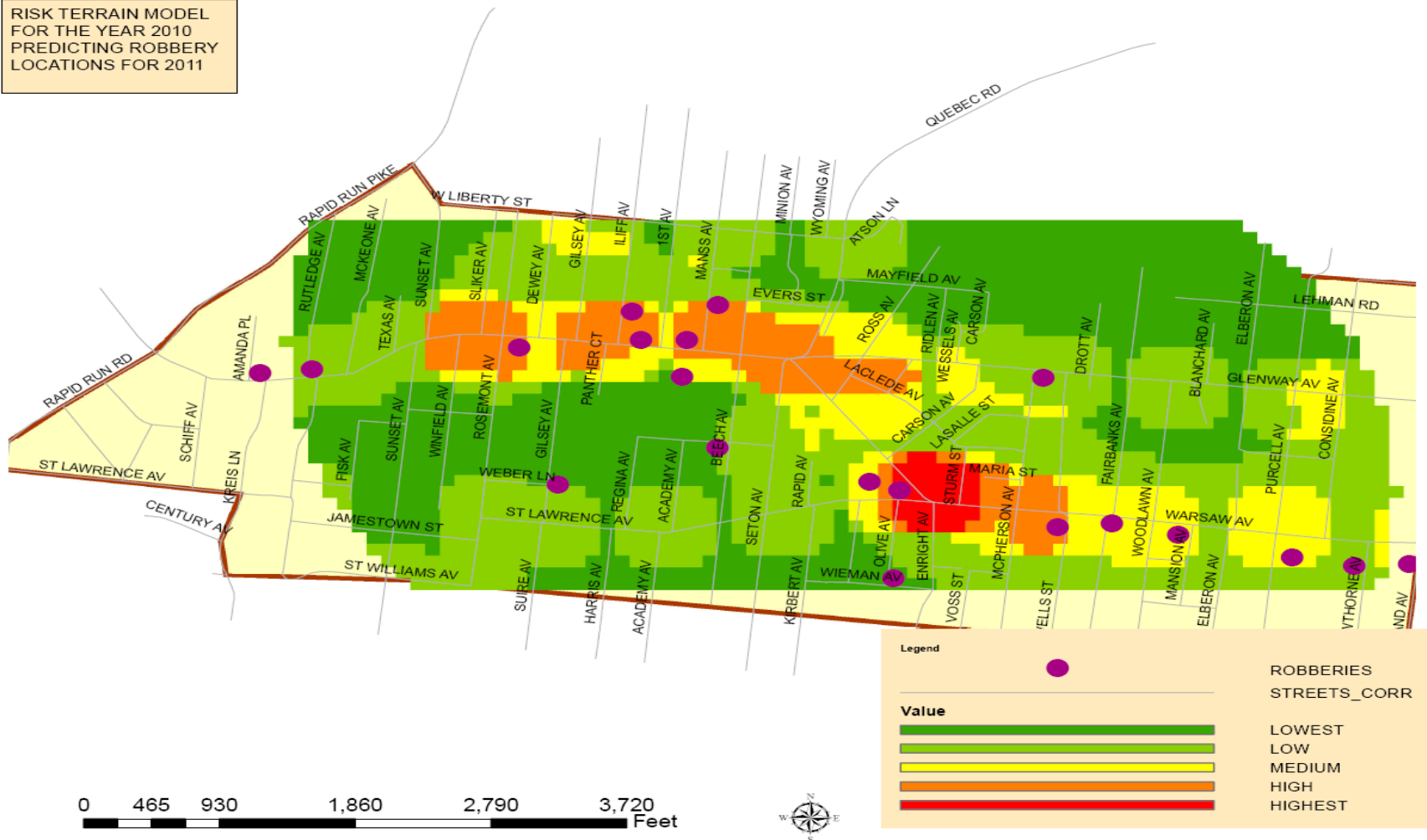
# Target Area Smart Grant

## Crime Spots





# Place Based Software: Risk Terrain Model

RISK TERRAIN MODEL  
FOR THE YEAR 2010  
PREDICTING ROBBERY  
LOCATIONS FOR 2011



# Warsaw Corridor Boundaries (with suspect direction of travel)

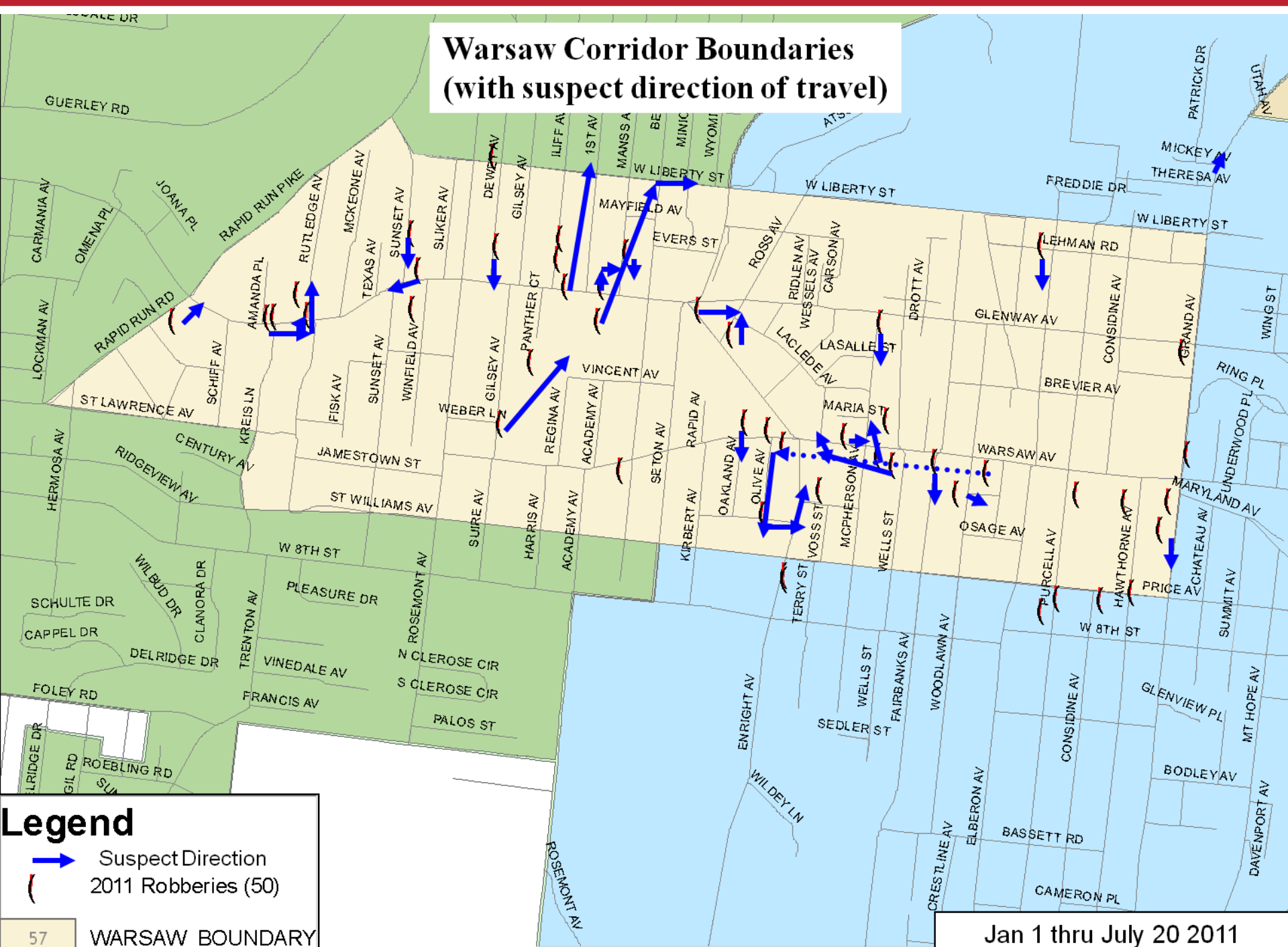
## Legend

-  Suspect Direction
-  2011 Robberies (50)

57

WARSAW\_BOUNDARY

Jan 1 thru July 20 2011





# 1114 Winfield Ave - Single Family Home

DRUG, VIOLENCE DISORDER CFS  
JAN-JULY, 2011



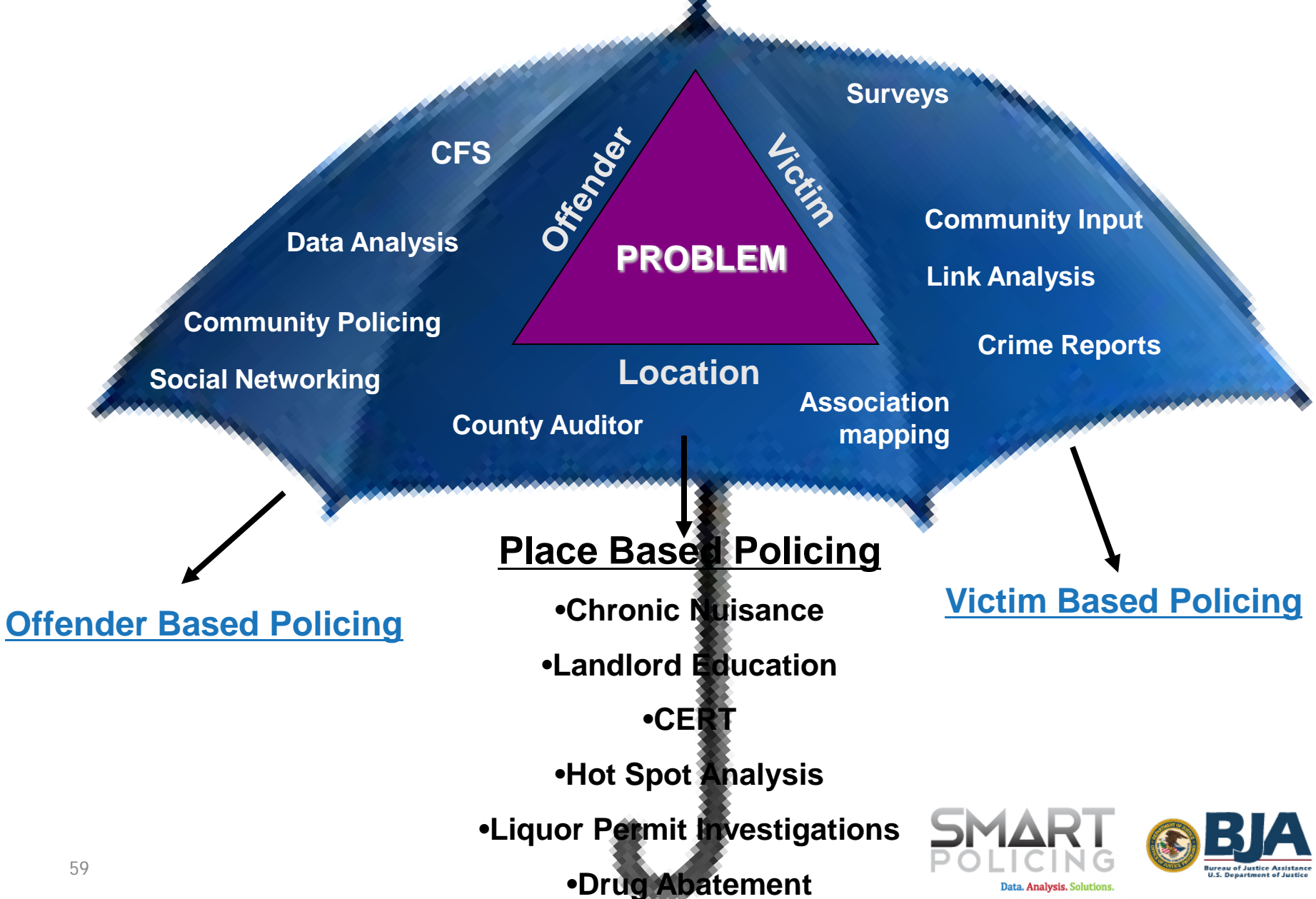
SMART  
POLICING

Data. Analysis. Solutions.





# PROBLEM SOLVING



# What do we do now?



- ❖ CFS run & analyzed
- ❖ Owner identified & contacted
- ❖ Tenants identified & analyzed through LE data
- ❖ "ANON" Neighbors contacted for more information

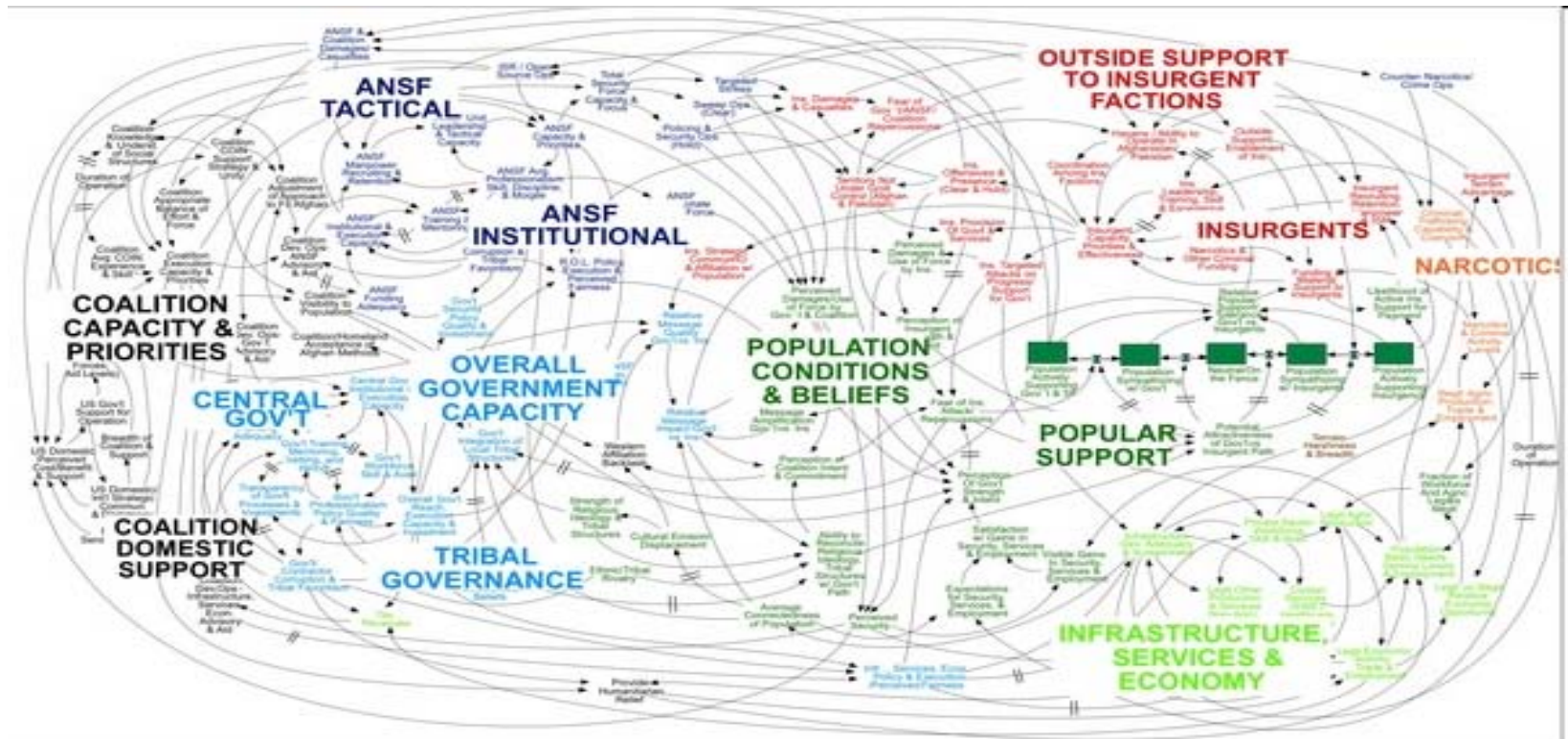


# Thematic Panel: Following the Data

9:45-10:45

September 8, 2011

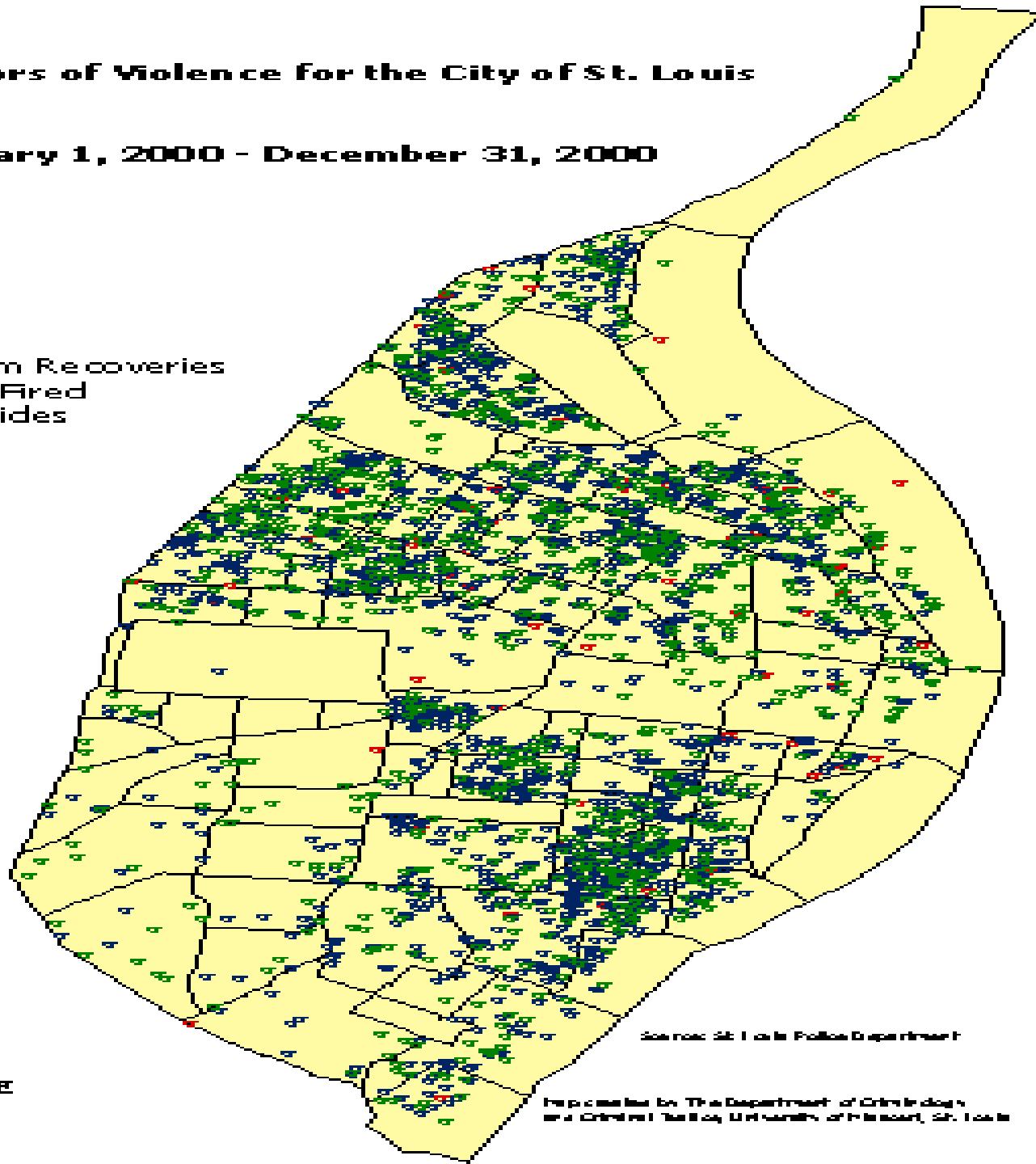
# Death by Powerpoint



# Indicators of Violence for the City of St. Louis

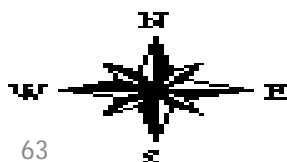
January 1, 2000 - December 31, 2000

- Firearm Recoveries
- Shots Fired
- Homicides



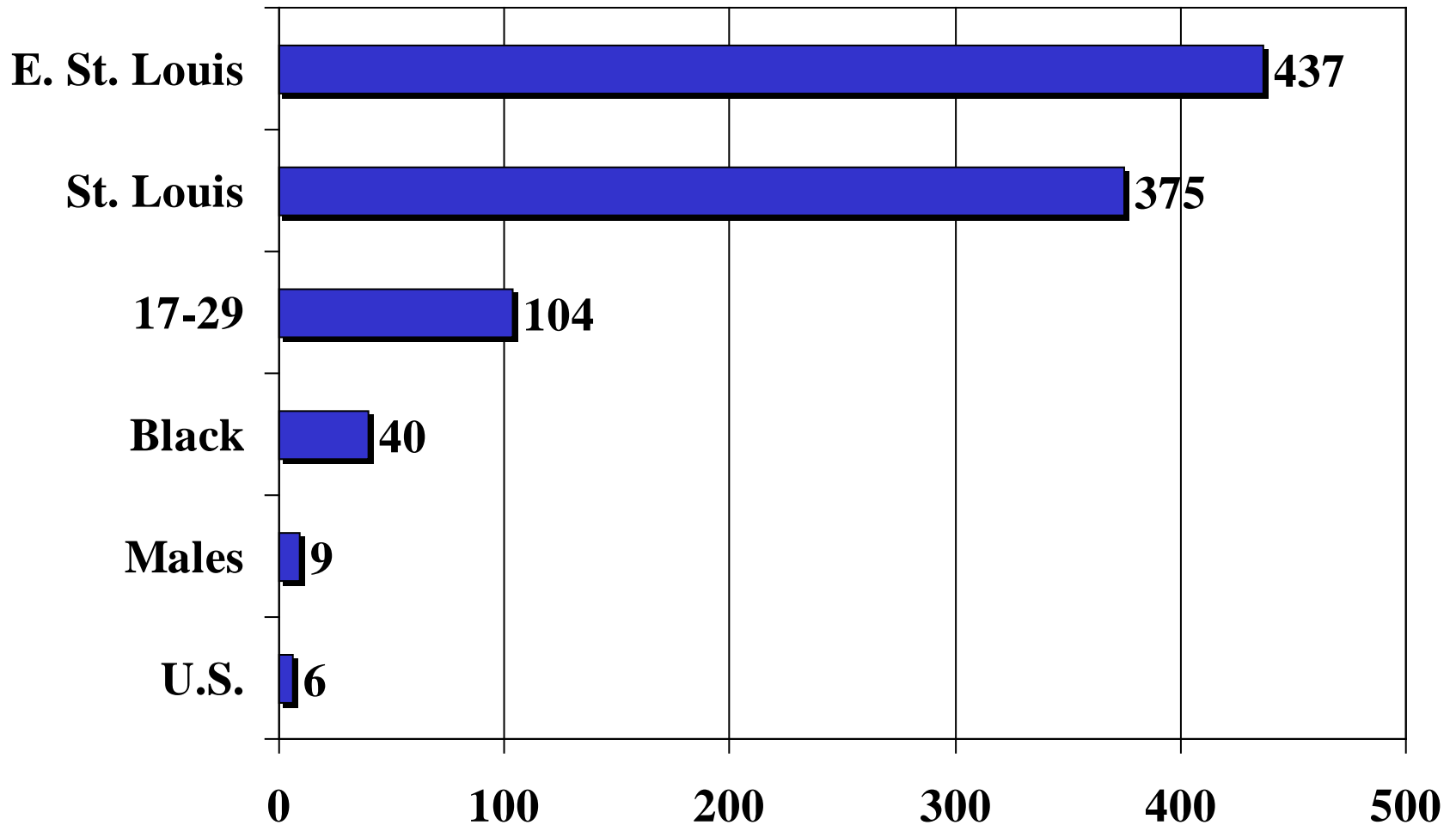
Sources: St. Louis Police Department

Prepared by The Department of Criminology  
and Criminal Justice, University of Missouri, St. Louis





## Average Homicide Rate Per 100,000 (1995-2000)



### U.S.

Pop – 1.2%

Hom – 20% (3531)

### St. Louis

Pop – 4.2%

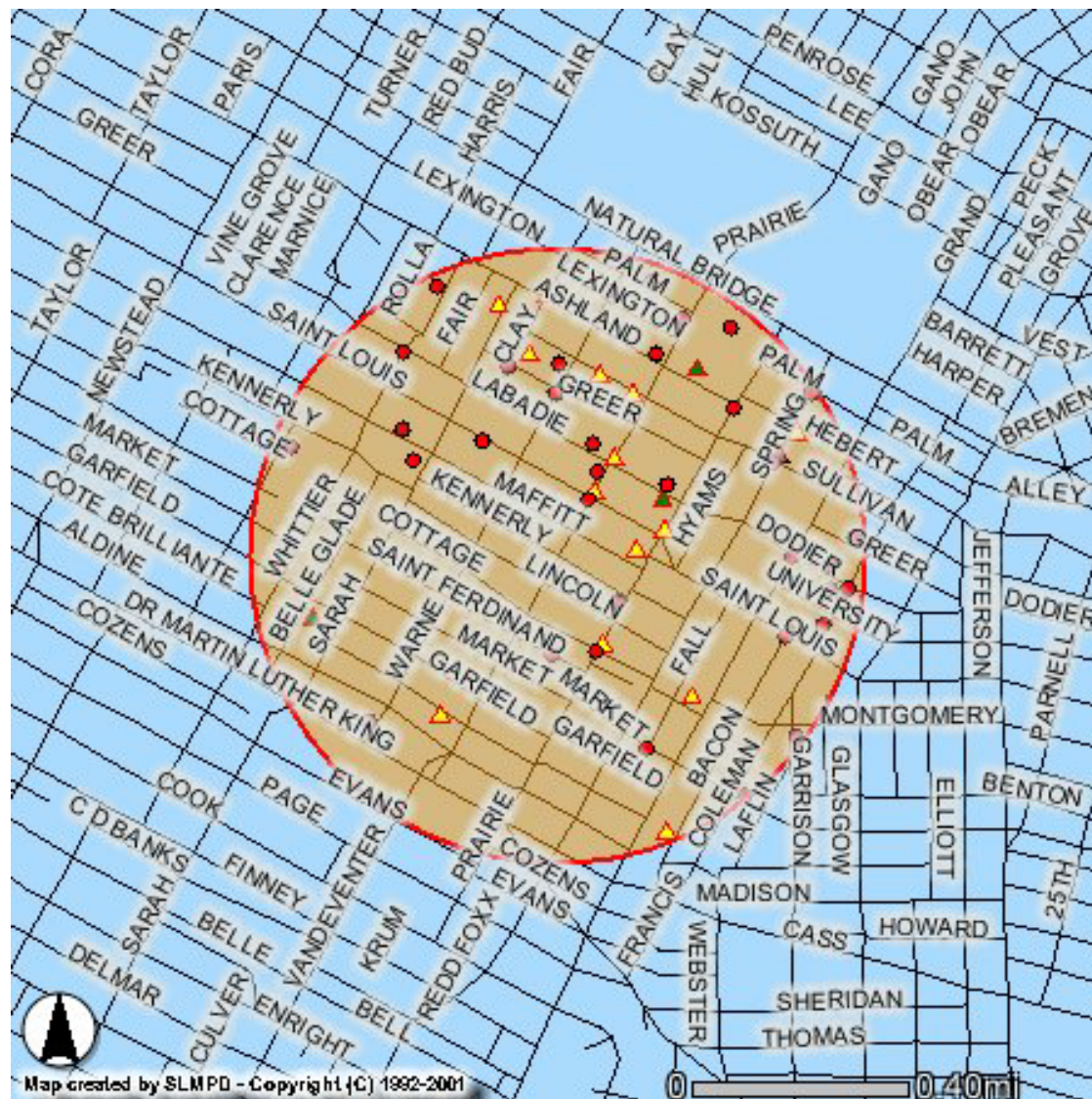
Hom – 40% (55)

### East St. Louis

Pop – 7.4%

Hom – 44% (10)

# Crime Scene Information



## Legend

### Service Calls

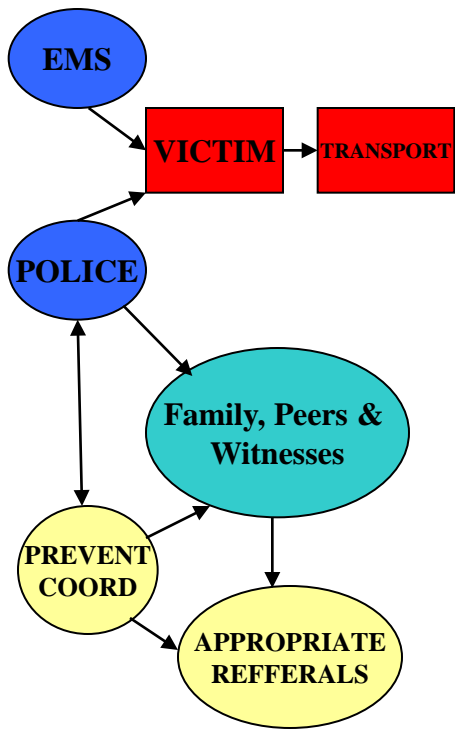
- Shots Fired
- Police Incidents
- Murder
- Armed Robbery
- Serious Assault



“I arrived on the scene approximately 50 seconds after the call was dispatched. When I arrived, I observed the victim laying on the sidewalk at 3958 Kennerly. The victim was being held by Rico Lee.” *P.O. Demetrious T. Easley*



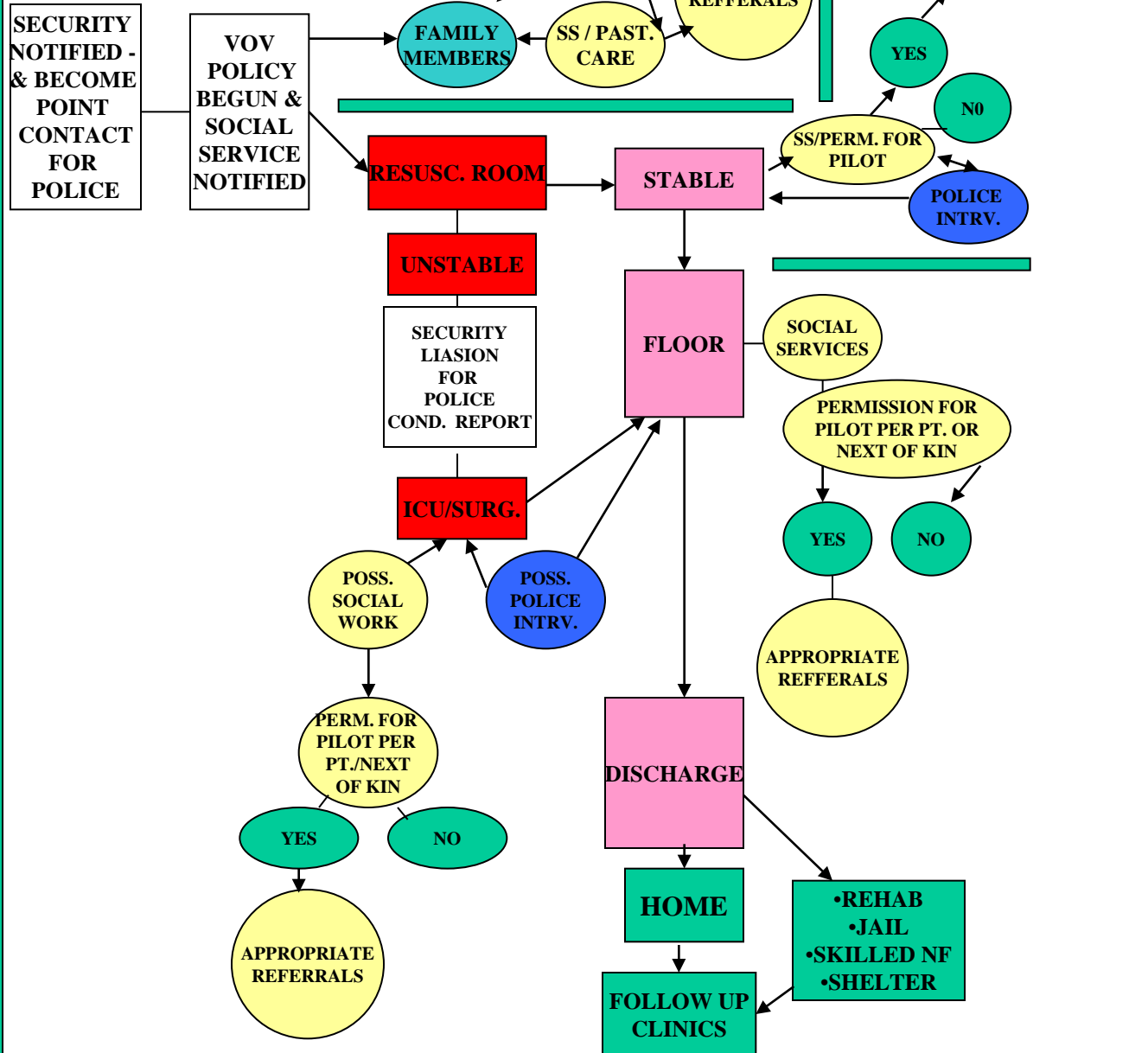
## SCENE



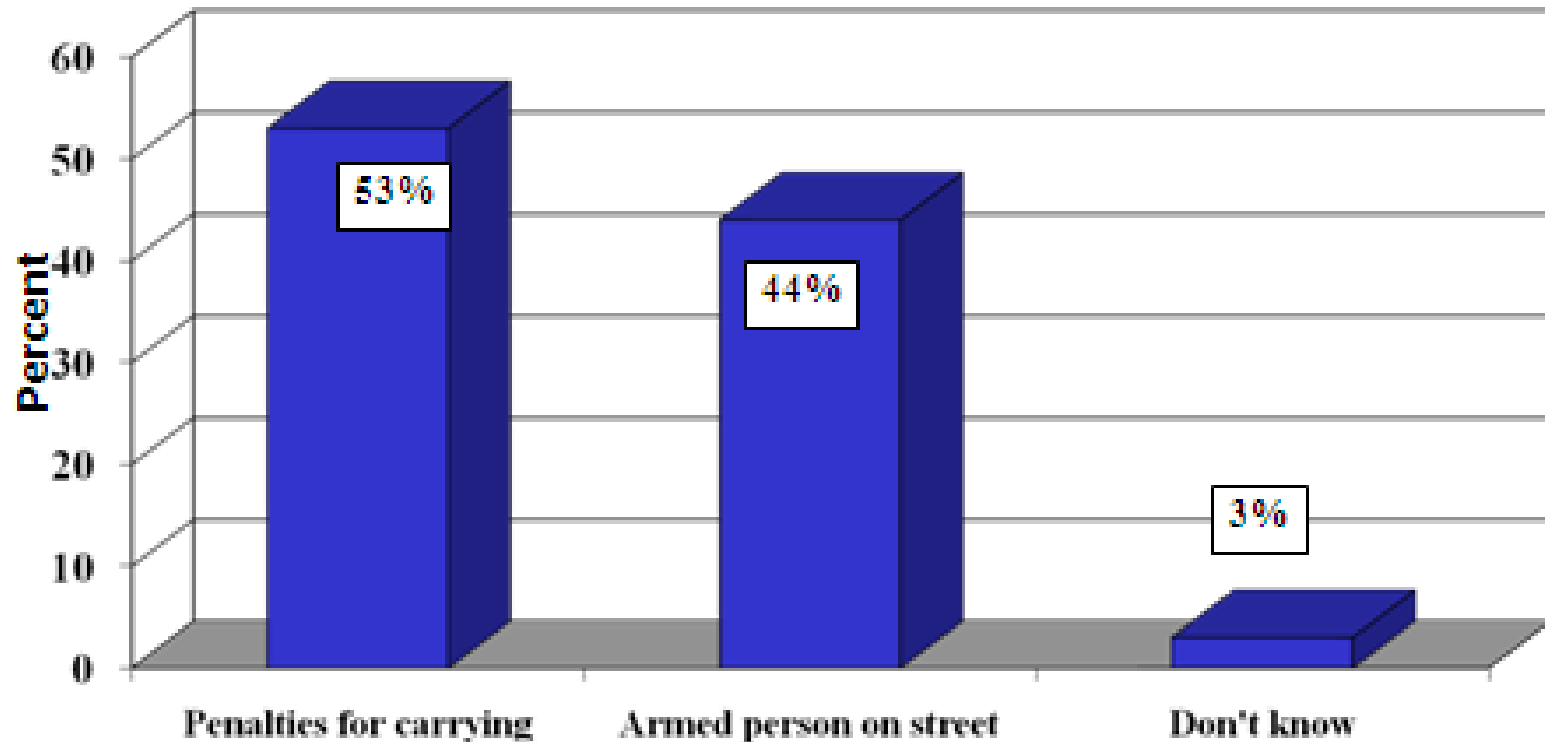
Social Service Agencies

Judicial System

## HOSPITAL



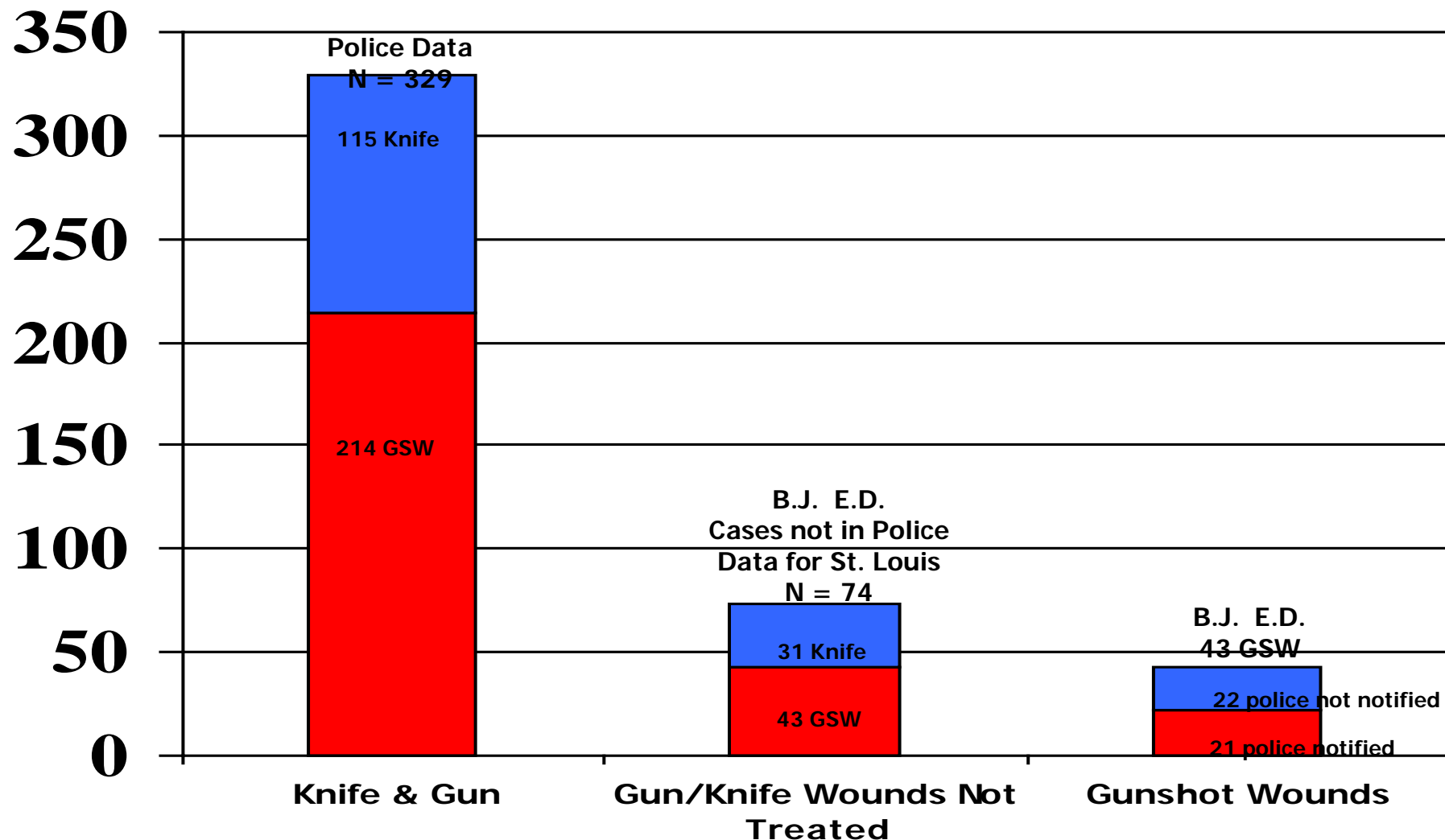
**WHAT IS THE MOST IMPORTANT CONSIDERATION  
IN DECIDING TO CARRY A GUN?**



**VALID RESPONSES**  
**2005: N = 141**



# Reconciliation of Police Knife and Gun Assault Data with Emergency Department Knife and Gun Data City of St. Louis April - June 2001



Source: Barnes Jewish Hospital Emergency  
St. Louis Police Department



# Baltimore

## Gun Violence Reduction Strategy

September 8, 2011

# GUNSTAT - Ongoing Data Analysis

- ❖ Monthly GUNSTAT meetings since June of 2007
- ❖ GUNSTAT uses data to evaluate progress on gun enforcement and prosecution
- ❖ GUNSTAT focuses on felony gun cases and offenders for prioritization by law enforcement, prosecution and supervision agencies in order to bring solid cases to trial and keep gun felons off the street.
- ❖ SPI awarded in October 2010 - Dr. Webster begins in-depth analysis of VCIS, EXILE Call-Ins and the Gun Offender Registry.

# GUNSTAT: Background

## ❖ June 2007

- ❖ GUNSTAT database launched; Bi-weekly meetings held with local, state and federal law enforcement begin

## ❖ Data

- ❖ All felony gun cases excluding homicides; approximately 40 pieces of information for each defendant including charge, bail, criminal history, supervisory status, case disposition and sentence.

## ❖ Purpose

- ❖ GunStat provides real time information about felony gun cases and provides opportunity to adjust practices based on data and trends.

# Partners

## Government

- ❖ Mayor's Office of Baltimore City
- ❖ Governor's Office of Maryland

## Law Enforcement

- ❖ Baltimore City Police Department
- ❖ Baltimore County Police
- ❖ Maryland State Police
- ❖ ATF

## Prosecution

- ❖ State Attorney's Office
- ❖ U.S. Attorney's Office

## Community Supervision Agencies

- ❖ Department of Juvenile Services
- ❖ Parole and Probation
- ❖ Department of Pretrial Services

## Other

- ❖ Johns Hopkins
- ❖ Baltimore City Health Department
- ❖ Baltimore City Solicitor's



# Basic Goals & Benchmarks

- ❖ Less Gun Crime
- ❖ More Gun Arrests
- ❖ More Guns Seized
- ❖ More Pretrial Confinement
- ❖ More Pretrial Supervision
- ❖ Higher Bail
- ❖ More Convictions
- ❖ Longer Sentences
- ❖ More Federal Indictments

# Results: Less Gun Crime

Significant decreases in other types of gun crime were achieved between 2008 and 2010.

	2008	2009	2010	%Change
Homicide	189	193	170	-10%
Agg Assault	1,085	929	817	-25%
Residential Robbery	197	163	183	-7%
Carjacking	179	143	126	-30%
Commercial Robbery	524	457	243	-54%
Street Robbery	1,451	1,141	1,044	-28%
Total	3,625	3,026	2,583	-29%

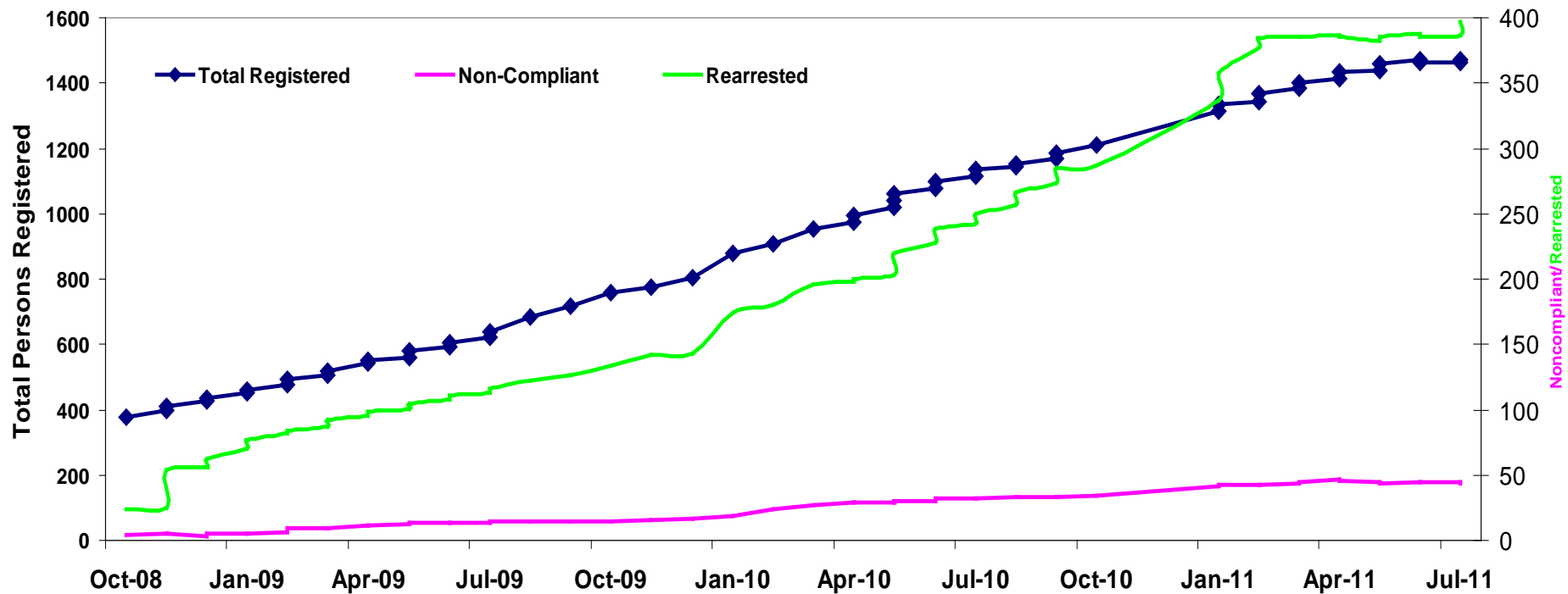
\*Homicides with guns

# Results: More Federal Indictments

Federal Defendants Includes VROs, EXILE and Others		
Year	# of Defendants	%Change
2010	220	7%
2009	206	-1%
2008	209	6%
2007	197	30%
2006	151	23%
2005 (pre-exile)	123	na

# Results: More Persons Registered as Gun Offenders

GORA: Total Registered, Rearrested and Noncompliant



# Smart Policing: Results thus far...

## Estimating the Effects of Call-Ins and Gun Violence Suppression Units on Gun Violence in Baltimore

Daniel Webster, ScD, MPD

Professor and Co-Director

Johns Hopkins Center for Gun Policy & Research



# Methods

- ❖ Study Design: Neighborhood-level, multiple interrupted time-series with comparisons
- ❖ Data: monthly panel data (2003-2010) for police posts in the 75<sup>th</sup>-100<sup>th</sup> percentile in gun violence for 2003-2006. Police incident and arrest data.

# Estimation Approach

- ❖ Negative binomial regression models which adjust standard errors for clustering of data by post.
- ❖ Outcomes - homicide and NFS incidents
- ❖ Examined aggregate and disaggregated effects of Exile call-ins, Violent Crime Impact Section deployment
- ❖ Control for post and year fixed effects, Safe Streets (CeaseFire) public health interventions, lagged arrests for drugs & weapon offenses

# Estimated Effects on Homicides & Non-Fatal Shootings Incidents

	% change	signif.
Exile call-ins - Northwest	-36	.071
Exile call-ins - West	-5	.752
VCIS deployment - Northwest	-27	.523
VCIS deployment - West	-18	.175
VCIS deployment - Eastern	-6	.462
VCIS deployment - Southeast * 1 post for 7 months, coincided with <i>Safe Streets</i>	-73	<.001

# Moving Forward....

- ❖ Dr. Webster's findings will be discussed at the next GUNSTAT meeting on September 15<sup>th</sup>
- ❖ Discussion will include ways in which these findings can be used to refine Baltimore's overall strategy to reduce gun violence.



# The City of Lowell, Massachusetts

Following the Data

September 8, 2011



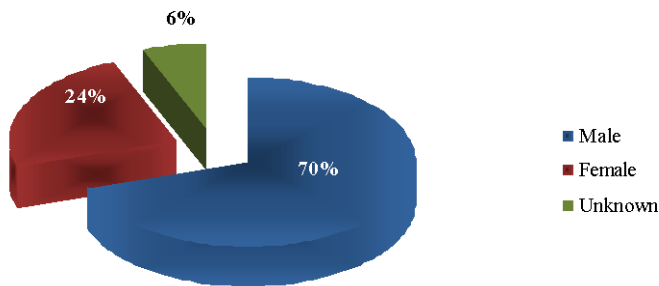
# Data-Driven Strategies used in Lowell, MA

- ❖ Conducted an analysis of LPD arrest data to verify the hypothesis that drug dependency is fueling increases in property crime and robberies.
- ❖ Utilized Lowell Health Department overdose data to conduct further analysis on hypothesis.
- ❖ Analyzed 18 months of incident data to identify historical hotspots to target for place-based strategies.
- ❖ Created an offender target list by interviewing staff, analyzing criminal histories, Compstat data, and conducting interviews with targets and their families.

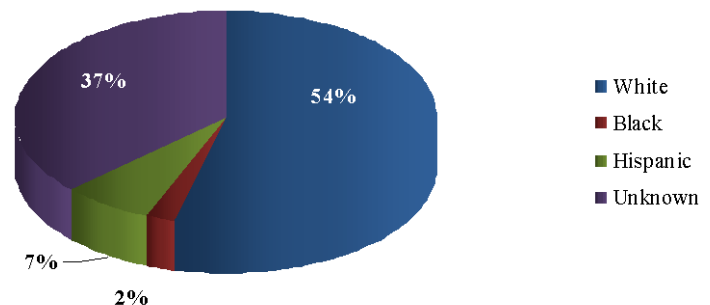
# Drug Overdose Death Analysis

- ❖ Between 2005 & 2008 the Lowell Health Department identified 140 individuals with OD as cause of death on their death certificates
- ❖ 75% had at least 1 entry on their criminal history
- ❖ 49% had at least 1 drug crime

**Figure 1: Gender**



**Figure 2: Race**



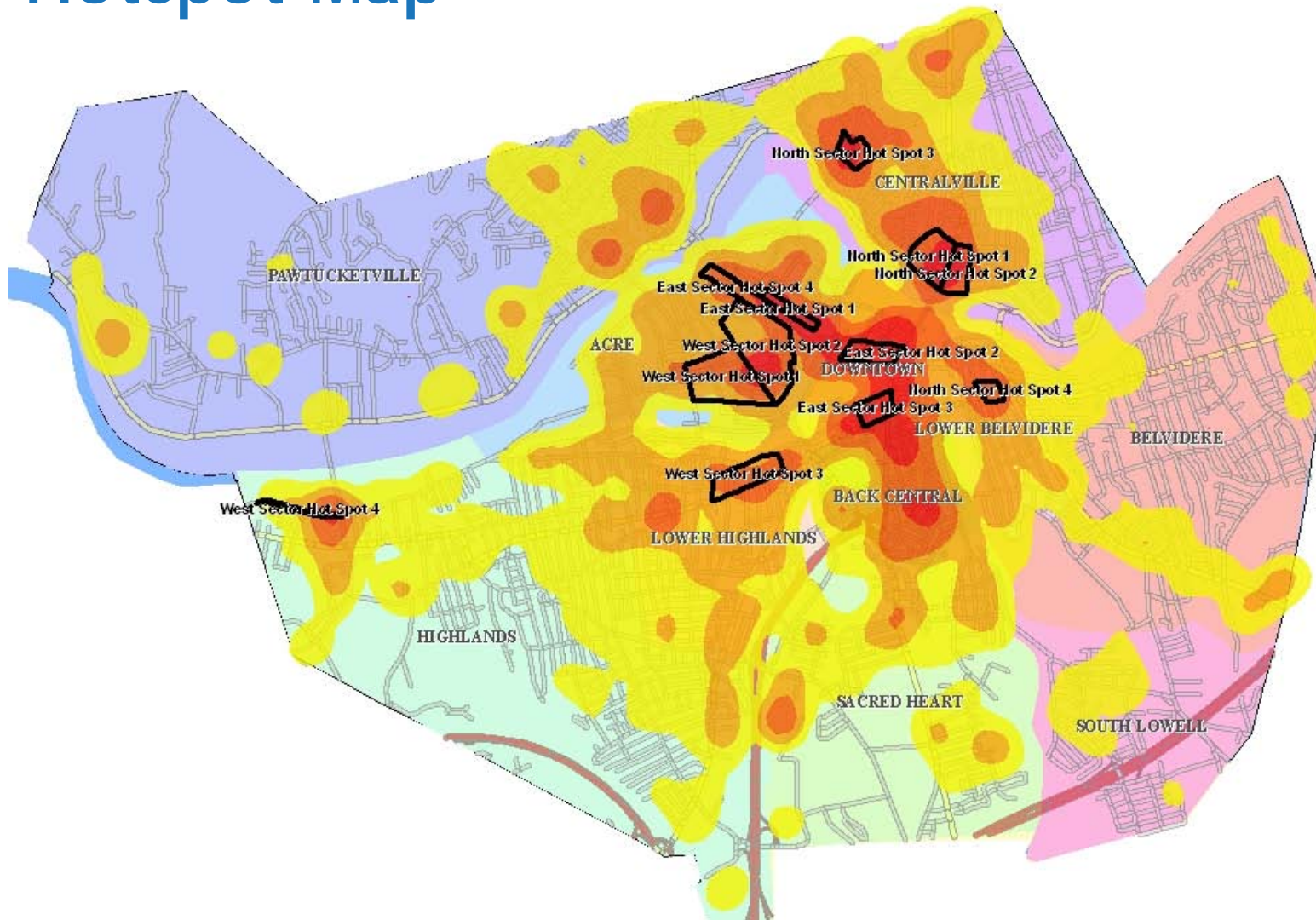
## OD Analysis findings

- ❖ Individuals with a drug crime charge had a higher rate of property crime on their probation record.
  - ❖ Individuals with a heroin charge were 4x more likely to be charged with a property crime than those without heroin charges.
  - ❖ Those with other drug charges on their record were 20% more likely to have a property crime charge than those without other drug charges on their record.
- ❖ As the age of first contact with the PD increases by 1 year, property crime entries decrease.

# Targeted Hotspot Locations

- ❖ Analyzed property and robbery crimes Jan 1, 2008 – June 30, 2010 to identify areas with historically high crime rates
- ❖ Obtained input from Captains regarding hotspot locations
- ❖ Compared hotspot maps from original hotspot study (Braga/Bond) to the new SPI intervention hotspots
- ❖ Worked with research partners to match comparison (control) spots
- ❖ Created pre-intervention profiles to include incident data, anecdotal data from officers and Sector Captains, descriptive data, maps and photos

# Hotspot Map






# Targeted Offenders

- ❖ Detectives, Lieutenants (SIS and CIB) and Sector Captains nominated known and suspected offenders to the offender list
- ❖ Analyzed criminal histories for drug and property charges; those without listed charges were removed from the list
- ❖ Conducted home visits of the targeted offenders and spoke with offenders and their family members
- ❖ Created offender database to be listed on internal website

# Example of Offender Bio

Name: Michelle Smith

	SS#: [REDACTED] PCF #: [REDACTED] DOB: 10/10/1985 Height: 5'7" Weight: 145 Scars, Marks, Tattoos:	LKA: 1 Main St Lowell MA  Parent Info: Mom - Donna Silva; Dad - Gerald 1 Main Street. Husband - Sam Smith Husband fled state with children Known Associates:
	DV History: No history on BOP Vehicle: MO:	Areas known to frequent: Appleton Street

History of drugs: Parents and husband state Michelle has serious addiction to Heroin BOP History:  16 Entries - unarmed robbery, A/B, larcenies, armed robbery, theft of firearms, armed assaults	Probation/Parole Conditions:
--	------------------------------

Field Interviews:											
Date:											
FI #:											
Date:											
FI #:											

Home Visit Information:											
Officer:											
Date:											
Officer:											
Date:											

New Information: Michelle is currently a suspect in a Breaking and Entering of her parent's home at 1 Main Street. During the investigation it was learned that Michelle is addicted to Heroin. Her habit is substantial and she will do anything to feed her habit. Her husband (Sam) has fled the state with their children because of her addiction. He believes that drug dealers have contacted the family looking for money owed by Michelle for narcotics purchased. Threats have been made that the family will be held responsible for the debts. Michelle's parents are also in fear; they currently do not feel safe due to their daughter's drug addiction.
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# Using Data Throughout Implementation

- ❖ Monitor activity within hotspots & targeted offenders
  - ❖ Crime data and mapping
  - ❖ Weekly meetings to discuss strategies
  - ❖ Tracking OT activity
  - ❖ Tracking usage of FI cards
  - ❖ Utilize internal website to share information across shifts within sectors
- ❖ Measure progress
  - ❖ Research partners conducting bi-weekly surveys
  - ❖ Identifying and collecting both output and outcome data to ensure SPI is reaching its goals
  - ❖ Documenting the process to assess organizational changes within LPD
- ❖ Continue weekly SPI meetings to discuss successes and challenges



# Following The Data: Winston-Salem, NC

Dr. Denise Nation, *Winston-Salem State University*

September 8, 2011

# Winston-Salem Original IL-POP Goals

- ❖ To expand and further develop a statistical crime analysis program which allows for timely and accurate review and dissemination of crime information for operational planning and implementation in the community
- ❖ To make neighborhoods safer from violent and quality of life crime issues



# IL-POP Impetus

- ❖ The Winston-Salem Police Department and partners wanted to continue community-based programs and crime analysis through:
  - Work with various community partners to use a systematic and planned program to reduce crime in the community, and
  - Development of a plan to do this in an efficient and effective manner.

# Identifying Our Problem

- ❖ Conducted research and data analysis of crime calls for service and community reporting;
- ❖ Officer observations identified violent crime and quality of life issues; and
- ❖ Deployed personnel into communities to develop community-based crime reduction initiatives with a specific criteria and planning process.
- ❖ The SPI initiative is an expansion and improvement of current initiatives involving *analysis of crime* and *deployment of personnel*.

# Changing the Focus

- ❖ The original IL-POP proposal was to establish a DMI in a Weed and Seed area, however after building our intelligence-based tools and utilizing them to analyze our crime data we found that a DMI was not warranted.
- ❖ It should be noted that when our original grant proposal was written, there was the pre-conceived belief that we would find our leading crime problem to be an open-air drug market within a designated Weed & Seed site.
- ❖ Our original grant narrative and budget were then created based upon this belief.

# Changing the Focus

- ❖ After following the principles set forth in the Smart Policing Initiative, we found ourselves looking at analyses of crime data that did not support our initial pre-conceived beliefs.
- ❖ We were then forced to decide whether to pursue our original intent of our grant proposal and create a DMI within a Weed & Seed site and try to make it fit the SPI model, or to follow the SPI findings and pursue a new strategy based upon the analyses of the crime data.
- ❖ We chose to follow the SPI model and develop a new strategy based upon our findings.

# Utilizing Data Analysis

- ❖ In reviewing our crime data, we discovered that we did have a section of our city, commonly referred to as the West Salem area, which was experiencing an increased amount of Part I, Part II, and Quality of Life crimes.
- ❖ The West Salem area exists within one of our Weed & Seed communities known as the Twin City East West Partnership.

# Utilizing Data Analysis

- ❖ In further analyzing the crime data, the IL-POP team identified key offenses, locations, and offenders involved.
- ❖ The team believed that we could significantly impact the crime within this community by following established evidence-based policing strategies as well as through developing a partnership with the community.
- ❖ The evidence-based policing strategies involved strategically deploying resources to focus on these key locations, offenders, and offenses utilizing proven methods to impact crime.



# Utilizing Data Analysis

- ❖ The changes from the original grant involved replacing the DMI strategy with a new strategy more responsive to the crime issues identified as well as the budget required to support the new strategy.
- ❖ The new strategy involved proven offender-based, location-based, and offense-based strategies previously established through evidence-based practices.

# Utilizing Data Analysis

- ❖ With the BJA approved revised strategy, the IL-POP team has been able to proceed with the creation and adoption of integrated intelligence operations for the use of tactical, strategic, evidentiary and operational intelligence.
- ❖ Additionally, the team has begun the process of establishing linkages of decision making, planning, strategic targeting and crime prevention with intelligence operations for the consistent delivery of quality police services.

# Utilizing Data Analysis

- ❖ Following the data led to the change in the SPI strategy and the initiation of three tasks associated with the intelligence process - the synthesizing of data, enhancing police community partnerships and the selection of evidence-based policing practices.



# Break

10:45-11:00

September 8, 2011

**PODCAST: LOS ANGELES (Hickory) and BALTIMORE (Poplar)**



# Cost-Benefit Analysis Revisited

Chip Coldren and Robert Parker

September 8, 2011

This project was supported by Grant No. 2009-DG-BX-K021 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

# Introduction

- ❖ Economic analysis of crime prevention is a cornerstone of Smart Policing
- ❖ Once we establish an 'effect' (benefit, crime reduction, improvement in community conditions), several questions come up:
  - ❖ What if it worked, and it costs more money?
  - ❖ What if it worked, and it costs the same?
  - ❖ What if it worked, and it costs less money?
  - ❖ What if we find no effect and it costs less money?
  - ❖ What if we find negative effect and it costs more money?

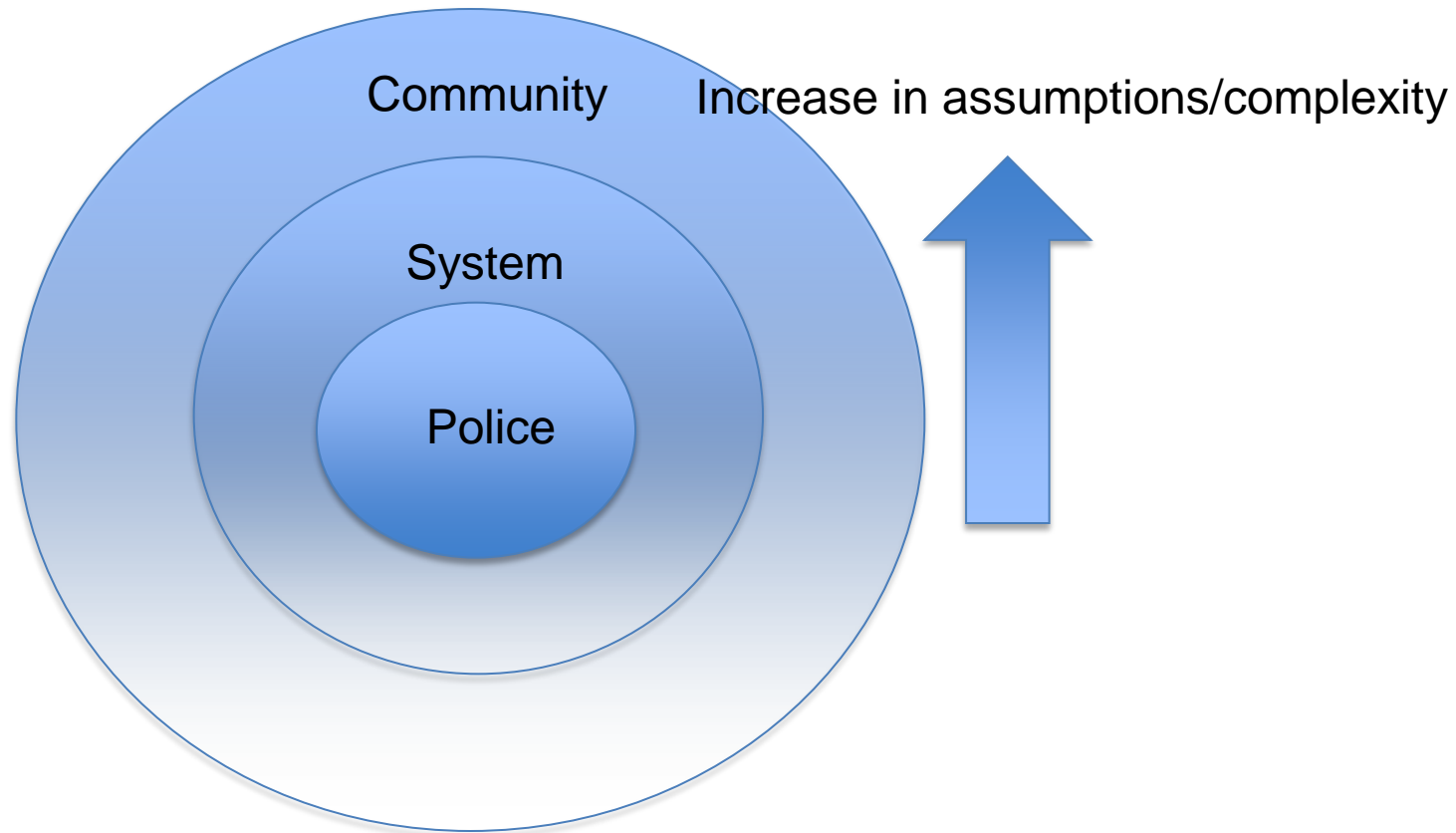


# Introduction

- ❖ Given any combination of outcomes, why should we bother to make any (permanent) changes?
- ❖ If we make a difference, is it worth it?
- ❖ This forces us to think about several important dimensions of economic analysis and crime prevention
- ❖ Three objectives for today
  - ❖ Discuss concepts and dimensions
  - ❖ How is this measurement being done?
  - ❖ Specific example from Indio, CA

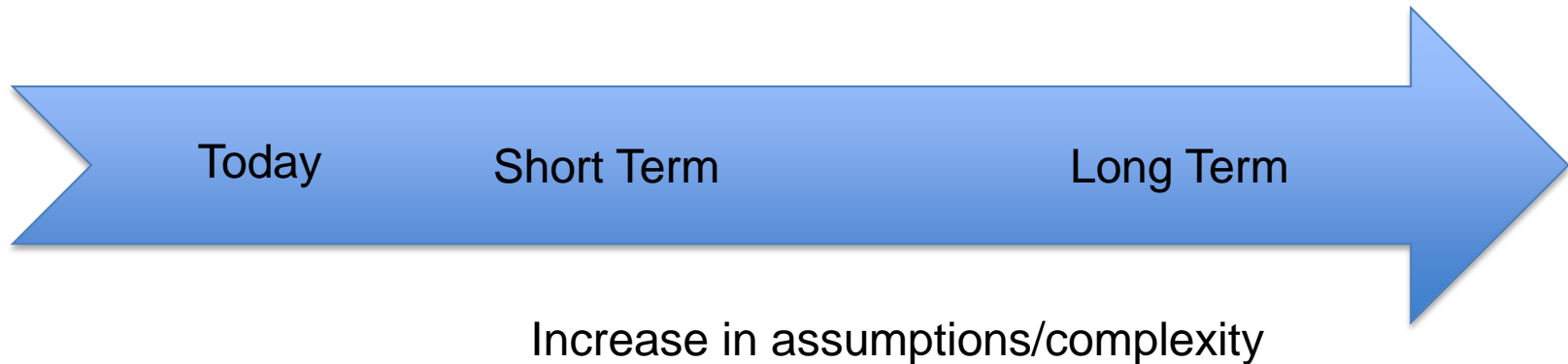
# Economic Analysis Dimensions

- ❖ Human dimension - who are we concerned about?



# Economic Analysis Dimensions

## ❖ Time - Future Time



# Economic Analysis Dimensions

- ❖ “Technology” transfer
  - ❖ Costs/benefits of expanding or ‘going to scale’
  - ❖ Implementation costs
- ❖ Magnitude of Effect
  - ❖ Is the difference achieved large enough (effect size), and would it continue over time?
  - ❖ How confident are we in the calculation of the difference?

# It's Complicated

- ❖ Now we know why so few jurisdictions tackle this issue head on (from a research perspective).....it's complicated
  - ❖ Many variables and perspectives to think about
  - ❖ Many things to measure, and data is often lacking
  - ❖ What if we're right? What if we identify a benefit that should be implemented system wide or community wide? That's complicated.

# Hypothetical Example

- ❖ Again, assuming we have strong evidence of impact.....
- ❖ How do we figure out if the results are “worth it”?
- ❖ How do we establish the magnitude or level of the “worth” (how much impact do we need to have a positive economic outcome?)



# Hypothetical Example

- ❖ For example, a Smart Policing jurisdiction reports that it achieved a 19% reduction in robbery compared to the previous year (and assuming the comparative methodology was strong enough to warrant confidence in this finding)
- ❖ What is the cost of a robbery?
  - ❖ To the police? (investigation & arrest)
  - ❖ To the justice system? (prosecution, conviction, punishment)
  - ❖ To the victim? (real and other costs)
  - ❖ To the community/society? (real and other costs)

# Hypothetical Example

- ❖ We will calculate different costs depending on who we are concerned about (or who we need to convince)
- ❖ Is there a threshold?
  - ❖ Will sufficient benefits be realized if we reduce robberies by 5%, 10%, 15%, 20%; is there a point of diminishing returns?
- ❖ What methods should we use to calculate the costs/benefits (more on this later)?
- ❖ Is the 19% sustainable? Does it have to be?
  - ❖ “term limits” on focused initiatives
- ❖ How much does it cost to make the system change?

# Economic Analysis and Crime Prevention

- ❖ Three types of cost/economic analysis
- ❖ Cost Effectiveness Analysis: Which intervention most efficiently achieves the objective (e.g., youth supervision v. graduation incentives v. parent training v. early childhood home visits; from the Rand study)
- ❖ Cost Benefit Analysis: Will the intervention recoup its costs (e.g., will a 19% reduction in robbery, if sustained, produce more savings than the outlays made to sustain the intervention?)
- ❖ Cost Utility Analysis: Calculating and comparing, aggregating costs per unit, permitting comparison across different types of programs

# Calculations

- ❖ Measuring costs:
  - ❖ Top down approach = Gross Costing
    - ❖ DOC costs \$1.3 billion in operating costs per year
    - ❖ Avg. annual prison pop. = 45,000
    - ❖  $\$1.3 \text{ billion} / 45,000 = \$28,888$  cost per prisoner per year (vs. \$15,000 intensive community-based mental health treatment)
  - ❖ Bottom up = calculating the cost to deliver a unit of intervention
    - ❖ DOC: intake + food + security + medical + programs + HQ + misc. + release + HQ + capital costs = cost to incarcerate one person for one year

# Calculations

- ❖ Measuring effects (of an intervention):
  - ❖ On offending (e.g., -19% burglaries)
  - ❖ Short-term vs. Long-Term
  - ❖ Effects on: Employment, Health, Education attainment, Family (children)
    - ❖ Did the 19% reduction have any impact in these areas, individually, in the community?
- ❖ Need a good research design to isolate the effect in the first place

# Calculations

- ❖ Establishing 'value'
  - ❖ Different perspectives: police, victim, community
  - ❖ Based on jury awards: examine the types of monetary awards made by juries in civil cases (e.g., injuries, theft, accidents), and determine if those values have meaning in your situation
  - ❖ Based on "stated preference": survey citizens to find out what they would pay.....
    - ❖ How much would you pay for a 10% reduction in violent crime?
    - ❖ Relative choices - how much would they pay for different options?



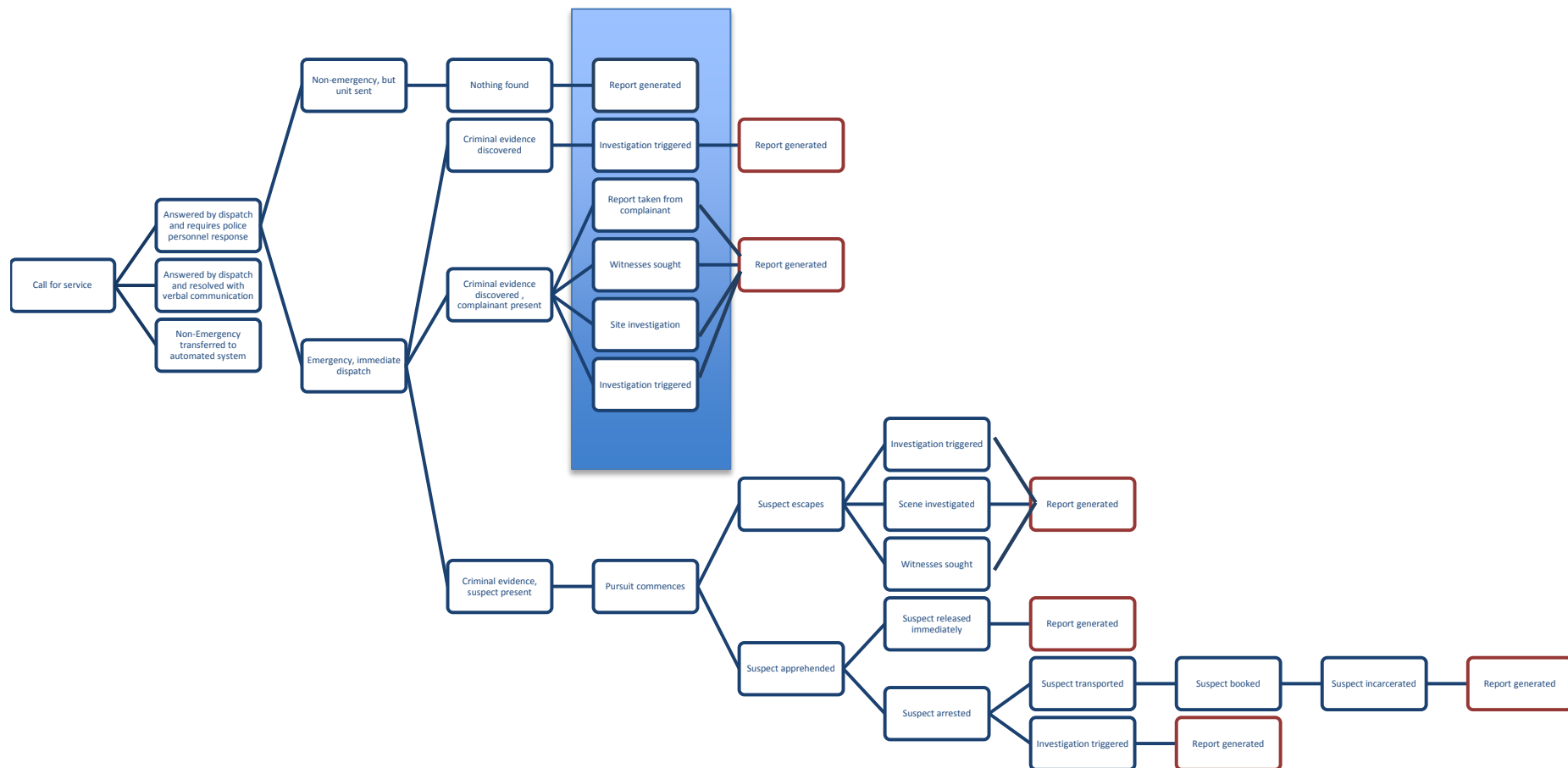
# Calculations

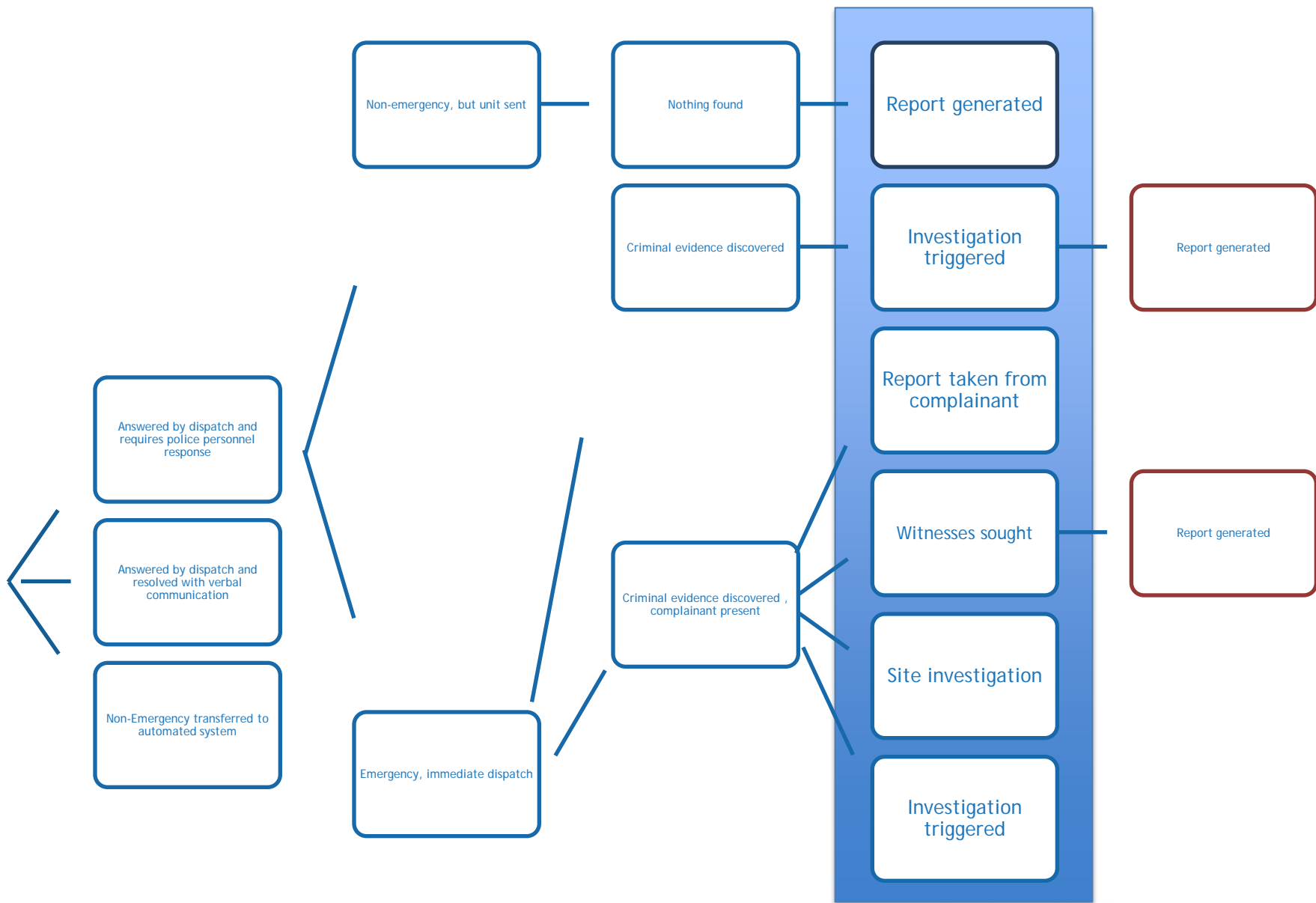
## ❖ Valuing benefits

- ❖ For example, if a car theft is estimated to cost the police \$800 (on average)
- ❖ If the program costs \$30,000 to run for a year
- ❖ And if a good analysis estimates that 50 car thefts were prevented in a year
- ❖  $50 * \$800 = \$40,000$  “saved”
- ❖ Thus, a benefit exists
- ❖ But, \$10,000 doesn't go back into the city account, so there's no savings (no direct savings to taxpayers); but there is benefit (efficiency), depending on how you look at it

# Calculations

- ❖ Several things to consider:
  - ❖ Implementation costs, cost of sustaining the program, cost of expanding the program
  - ❖ Costs to, and benefits to, the justice system
  - ❖ Indirect impacts:
    - ❖ Victims (savings, productivity, less fear, less avoidance behavior)
    - ❖ Potential offenders - diversion to positive, or less harmful, behavior, thus downstream savings
- ❖ Not a zero sum game - the savings are not always 'real'





# Example: Indio data for Burglary cases, Step 1, Costs of personel and equipment

- ❖ Costs assessed for each person or thing involved in response
  - ❖ Dispatchers: Ave Comp, 43.46 per hour; .724 per minute
  - ❖ Uniform Officer: 68.25 per hour or 1.138 per minute
  - ❖ Tech/Analyst: 41.63 per hour or .694 per minute
  - ❖ Phone system: .60 per call answered

## Example 1: Step 2, time per incident

- ❖ Total Number of incidents and total personnel time spent
  - ❖ Uniform: 22 minutes per dispatch; 45 minutes per complaintant interview
  - ❖ Dispatch: 3 minutes per call
  - ❖ Tech: 5 minutes per calls for service documentation; 20 minutes per crime report
  - ❖ Vehicle: 17.58 per response trip
  - ❖ Computer equipment/software 7.45 per crime report



## Step 3: Apply numbers from Steps 1 and 2 to incidents

- ❖ Back to case trace diagram:
  - ❖ Call and dispatch
    - ❖  $.60 + 3 \times .724 + 22 \times 1.138 + 5 \times .694 + 17.58 =$
    - ❖  $.60 + 2.172 + 25.04 + 3.47 + 17.58 = 48.862$
    - ❖ Total costs for all dispatch for burglary is  $48.862 \times$  number of burglaries
  - ❖ Complainant interview, trigger investigation, and crime report
    - ❖ 44 minutes Officer time for interview and paper work; 2 officers so  $88 \times 1.138 + 20$  minutes for crime report x tech  $(.694) = 100.14 + 13.88 + 7.45$
    - ❖ Total for interview/report: 121.47

## Total thus far

- ❖ Total for two steps in case trace is 170.33;
- ❖ 950 cases in Indio:  $950 \times 170.33 = 161813.50$
- ❖ Intervention leads to 20% reduction (costs of intervention need to be case traced as well; say intervention costs 20,000 per year)
- ❖  $161,813.5 + 20,000 - (190 \times 170.33) =$ 
  - ❖  $181,813.5 - 32362.7 = 149,450.80$  or a savings of 18%
- ❖ JUST FIRST 2 STEPS OF CASE TRACE PROCESS

# Resources: Economic Analysis

- ❖ <http://www.vera.org/project/cba-knowledge-bank>
- ❖ <http://benefitcostanalysis.org/>
- ❖ <http://www.wsipp.wa.gov/>



# Lunch – Guest Speaker Chief Mark Marshall

12:00-1:00

September 8, 2011

**PODCAST: 12:00-12:15 - MEMPHIS (Hickory) and PHILADELPHIA (Poplar)**

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# Integrating and Institutionalizing Smart Policing

James K. "Chips" Stewart, James R. "Chip" Coldren, Jr., Ph.D., & Arthur Ryan, Jr.

September 8, 2011

This project was supported by Grant No. 2009-DG-BX-K021 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

# Introduction

- ❖ Goal of Smart Policing is to influence police policy and practice
- ❖ Integrating findings and lessons learned is crucial
- ❖ Research and documentation is essential
- ❖ Important lessons to be learned from the Smart Policing sites about leadership, communication, effective formats of communication, and more
- ❖ This session will review some of the challenges and successes regarding integration and institutionalization experienced by the sites
- ❖ Challenge us to make the most of these lessons

# Defining “institutionalization”

- ❖ Process and Outcome aspects to this:
  - ❖ Process = how do we insure that positive innovation becomes routine in the organization (and how do we keep this a ‘dynamic’ process)?
  - ❖ Outcome = how do we know when successful integration and institutionalization has occurred?
  - ❖ Examine outcomes first, then turn attention to how we get to outcomes



# Institutionalization Outcomes

- ❖ We know a desired innovation has become institutionalized when.....
  - ❖ Officers use it
  - ❖ Line level commanders ask for it
  - ❖ Information is no longer considered new
  - ❖ Culturalized
  - ❖ Name-recognition
  - ❖ When promotions are based on it
  - ❖ No one is talking about it anymore
  - ❖ When implementers remind you that you have forgot it
  - ❖ When it is a line item in your budget
  - ❖ When a veteran thanks you

# Institutionalizing Outcomes

- ❖ We know a desired innovation has become institutionalized when.....
  - ❖ Organization behavior changes
  - ❖ Organization policies change
  - ❖ Organization rewards and incentives change
  - ❖ Organization language (meaning) changes, reflects the new policy or practice
  - ❖ The innovation is no longer considered 'new'
  - ❖ Resistance lessens or disappears
  - ❖ People anticipate or request the new policy or practice

# Institutionalization Process

- ❖ In order to support institutionalization of desired innovations, we must.....
  - ❖ Communicate - positively to patrol officers
  - ❖ Leverage other resources
  - ❖ Practice what we preach
  - ❖ Understand existing culture
  - ❖ Document process and have evidence to support
  - ❖ Get consistent feedback from district to reinforce the innovation
  - ❖ Reward and recognize
  - ❖ Demonstrate a benefit

# Institutionalization Process

- ❖ In order to support institutionalization of desired innovations, we must.....
  - ❖ Develop credible evidence that the change is desirable
  - ❖ Develop credible evidence about how the innovation came about
  - ❖ Effectively communicate the need for the innovation at all levels
  - ❖ Provide opportunity structures (policies, incentives, 'space') for the change to occur
  - ❖ Proactively demonstrate the benefits of the change

# Challenges to Institutionalization

- ❖ Complacency
- ❖ Lack of vision, lack of a plan
- ❖ Internal differences
- ❖ Lack of support from the top
- ❖ Lack of resources
- ❖ Lack of understanding from the lower echelons
- ❖ Poor communication, lack of communication
- ❖ Lack of incentives

## How Smart Policing Sites Support Institutionalization

- ❖ SPI training (roll call, on-line, special sessions)
- ❖ Communication vehicles (bulletins, newsletters, media)
- ❖ Presentations to command staff, leadership, key units and divisions
- ❖ Integration of SPI into COMPSTAT meetings
- ❖ Focused community education and outreach

# Small steps.....long road

Organizational change takes time (and planning, and energy)

- ❖ Change can happen in different ways
  - ❖ Formally – policies, procedures, re-organization, reallocation of resources, accountability mechanisms
  - ❖ Informally – language, communication, outreach and in-reach, having an ‘attitude’ about evidence, asking tough questions



# Institutionalizing Smart Policing in Lowell, MA

# Institutionalization...taking stock

- ❖ What opportunities for formal and informal influence have been created and taken advantage of, or missed?
  - ❖ Who are the change agents in your department, and how are they integrated or aligned with Smart Policing (leadership, training, support division, operations division, intel, crime analysis)
  - ❖ What specific things can you do to support institutionalization of Smart Policing

# Session wrap-up

- ❖ Comments from participating sites
- ❖ Creating opportunities for institutionalization
- ❖ Communication at all lines of responsibility
- ❖ Multiple formats of communication
- ❖ Planning for institutionalization
- ❖ Be conscious of the 'process'
- ❖ Model the behaviors you want to institutionalize
- ❖ Have an attitude about evidence

# Peer-to-Peer Activity: Generating Buy-In

Return at 2:30pm

September 8, 2011



- What challenges did you experience in implementing your SPI project?
- Was this resistance anticipated from the beginning, or was it a surprise?
- What approaches or techniques have you found to be successful in addressing the issue of internal resistance?
- What advice would you give new sites for generating buy-in?



# Thematic Panel: The Future of SPI

Alissa Huntoon, *Bureau of Justice Assistance Policy Advisor*  
Chip Coldren, *CNA SPI Project Director*

September 8, 2011

# Introduction

- ❖ Growth of SPI, new sites funded in FY11
- ❖ Goal is to encourage and support SPI efforts throughout law enforcement, leveraging limited funds and resources
- ❖ New “SPI Affiliate” Program/efforts – purpose, scope, reach
- ❖ Expanded use of online/Internet based applications and communications

# Training and Technical Assistance Provided

- ❖ Webinars:
  - ❖ Place-Based Policing (John Eck)
  - ❖ Performance Measurement (Cynthia Lum)
  - ❖ Outreach and Collaboration (Hildy Saizow)
  - ❖ Offender Targeting (Scott Decker)
- ❖ Social Marketing Guide
- ❖ SPI Website (several features)
- ❖ Focused TA (one-on-one, site-to-site)
- ❖ National Meetings (peer-to-peer exchanges)



# Proposed/Contemplated Future Efforts

- ❖ Dissemination of SPI concepts, practices and lessons learned
  - ❖ National law enforcement conference for approx. 75 agencies, to share, promote, learn about SPI
  - ❖ Presentations at national meetings and conferences (IACP, IACAC, NSA, others)
  - ❖ Series of publications: reports, job aids, podcasts, etc.
    - ❖ How to.....
    - ❖ Sample documents (e.g. MOUs, Operating Procedures)
    - ❖ Handy field tools and aids
    - ❖ Practical research tools

# Proposed/Contemplated Future Efforts

- ❖ Expanded Internet capabilities and outreach
  - ❖ Mobile/hand-held capability
  - ❖ On-line education
  - ❖ Site-specific pages
- ❖ Promote SPI site implementation
- ❖ Targeted TA from project SMEs and others
- ❖ Multiple grantee meetings to encourage networking, peer-to-peer exchange of information and ideas, and support project evaluation

# SPI Site Commentary and Suggestions

- ❖ San Diego
- ❖ Palm Beach
- ❖ Reno
- ❖ Cincinnati

# Participant Commentary/Suggestions

- ❖ Who do you most prefer to obtain assistance and suggestions from?

# Participant Commentary/Suggestions

- ❖ What learning formats are most appealing (online, web-based, face-to-face, big conference, regional meeting)?

# Participant Commentary/Suggestions

- ❖ What SME expertise is needed?

# Participant Commentary/Suggestions

- ❖ What's the best way to accomplish a productive site visit?



# Participant Commentary/Suggestions

- ❖ What type (s) of information would you like to see delivered at a national conference aimed at a broader law enforcement audience?

# Wrap-up

- ❖ Summarize suggestions, input, next steps



# Meeting Wrap-Up

Chip Coldren, *CNA SPI Project Director*

September 8, 2011

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