



Integrating and Evaluating Multiple PSN Strategies in Chicago

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The Northern District of Illinois

- Taskforce included:
 - Chicago Police Department
 - ATF
 - US Attorney's Office
 - Cook County State's Attorney's Office
 - Illinois Department of Corrections
 - Cook County Probation
 - City Officials
 - Multiple Community Organizations/Actors
 - Research Partners (University of Chicago and Columbia University)

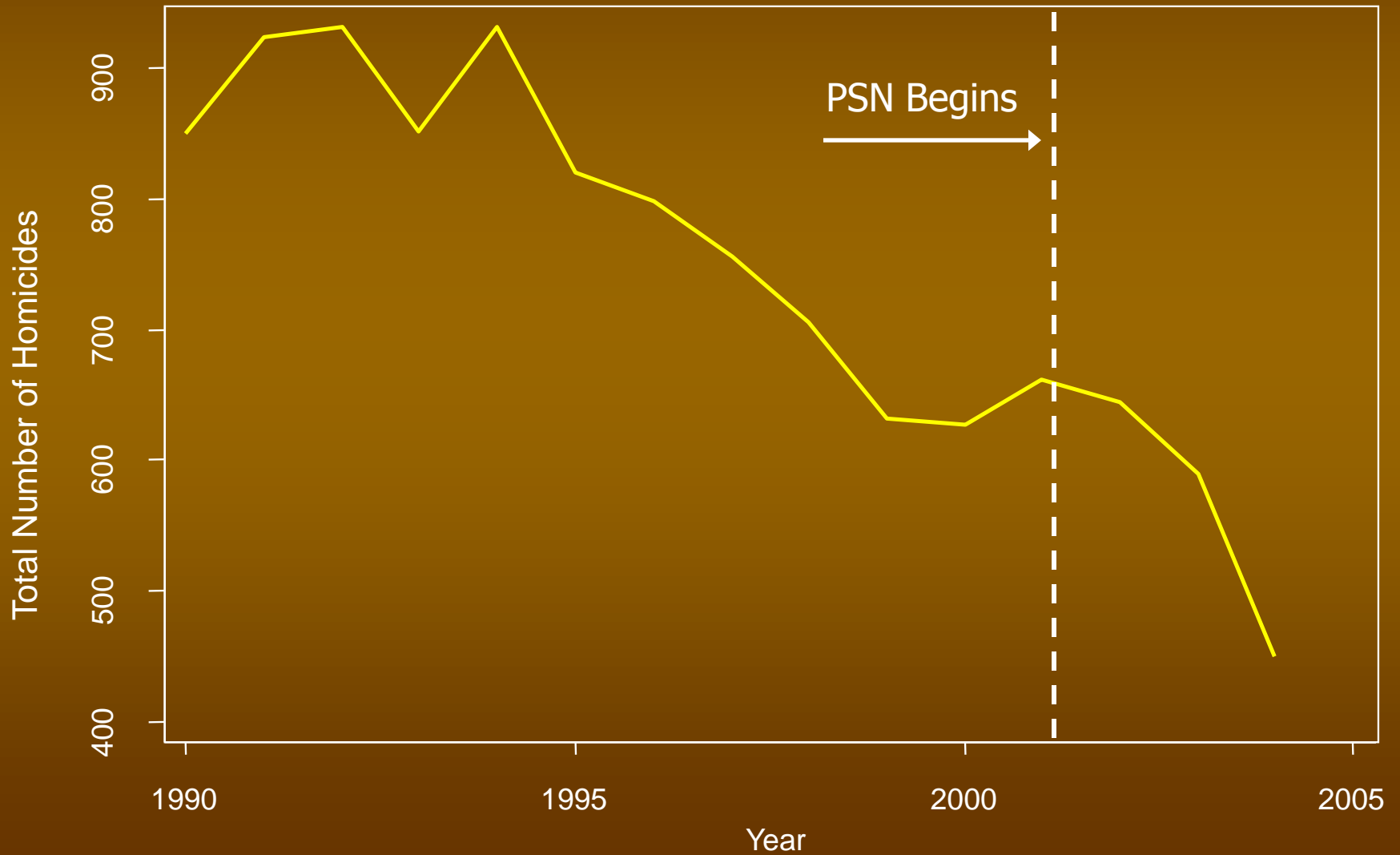


The Problem

Homicides: Guns and Gangs on
the West-Side

Goal 1a – *Reduce Gun Homicides*

Annual Homicide Counts in Chicago, 1990 to 2004



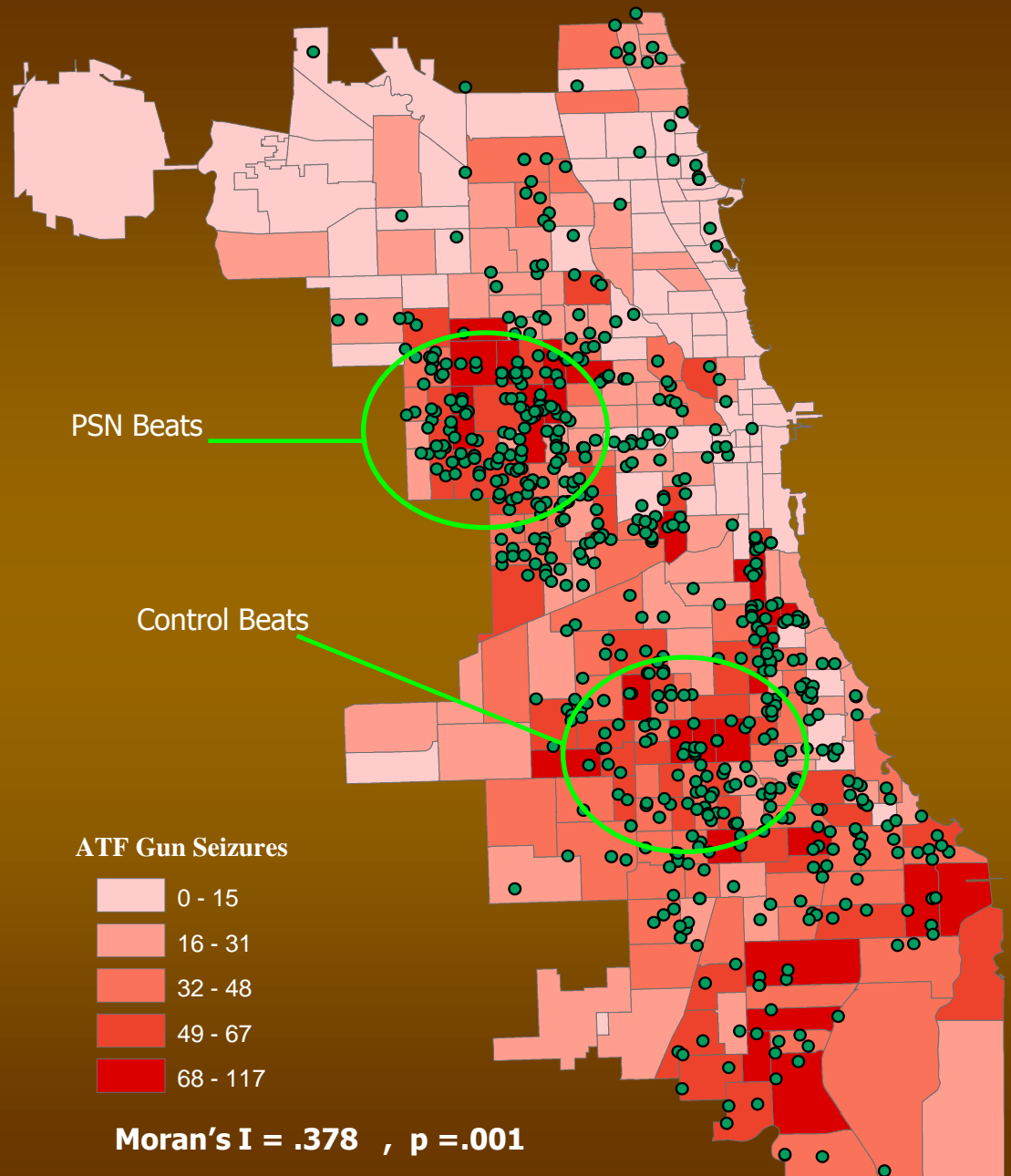
Gangs, Guns, and Drugs

Total and Gang Homicides, 1990 to 2004



Goal 1b: Going after the guns and gun offenders

- Guns and Homicides are *not* randomly distributed
- Treatment:
 - 24 beats on West Side
- Control:
 - 30 beats on South side



Crime Indicators

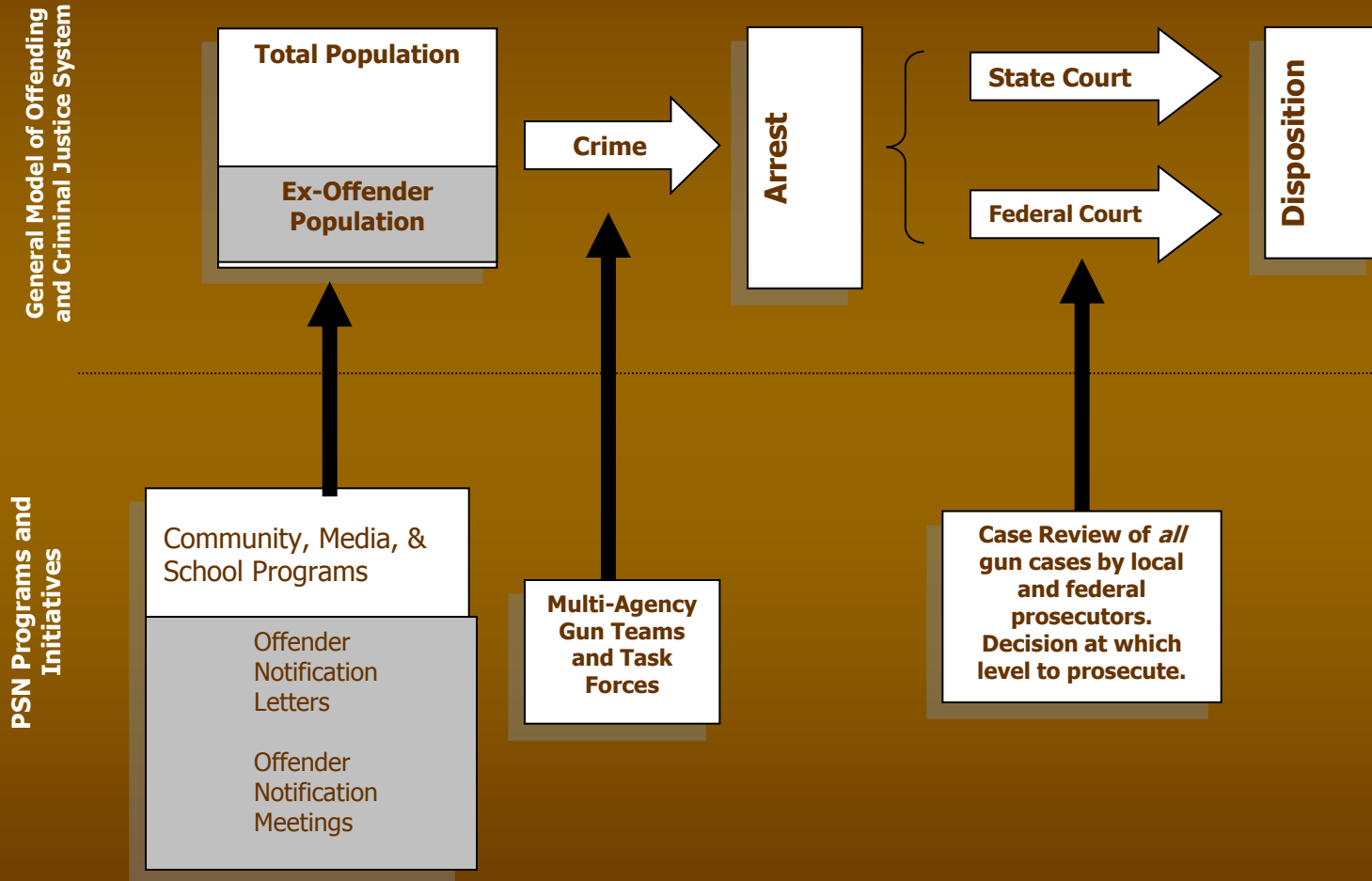
| | City (All Beats) (N = 281) | Control Beats (N = 30) | PSN Beats (N = 24) |
|---|-------------------------------|---------------------------|-----------------------|
| 2002 Homicide Rate | 22.3 (648) | 49.6 (102) | 75.5 (115) |
| 2002 Gang-Related Homicide Rate | 4.5 (133) | 7.8 (16) | 13.8 (21) |
| 2002 Aggravated Assault & Aggravated Battery | 862.2 (25005) | 1851.9 (3812) | 2005.4 (3053) |
| 2002 Average ATF Gun Seizure Rate | 215.6 (6252) | 438.2 (902) | 620.8 (945) |

PSN Strategies



Ex-Offenders, Gun Teams, and
Prosecutions

PSN Chicago - Program Design



PSN Interventions

1. Increased Federal Gun Prosecutions

- Deterrence

2. Increased Federal Prison Sentences

- Incapacitation

3. Increased Firearms Policing

- Supply-side strategies

4. Offender Notification Meetings

- Deterrence
- Normative change

Evaluation

Quasi-Experimental Design



Research Design

- Quasi-Experimental Panel Design
 - Use Near-Equivalent Control Group
 - Panel data of every “neighborhood” in Chicago from 1999 to 2004
 - Multi-level modeling strategy to assess within and between group variation
- Data
 - Multiple sources – CPD, ATF, IDOC, and the Census
 - Geocoded to *police* beat – (~ to “neighborhoods”).
 - Quarterly from January 1999 to December 2004

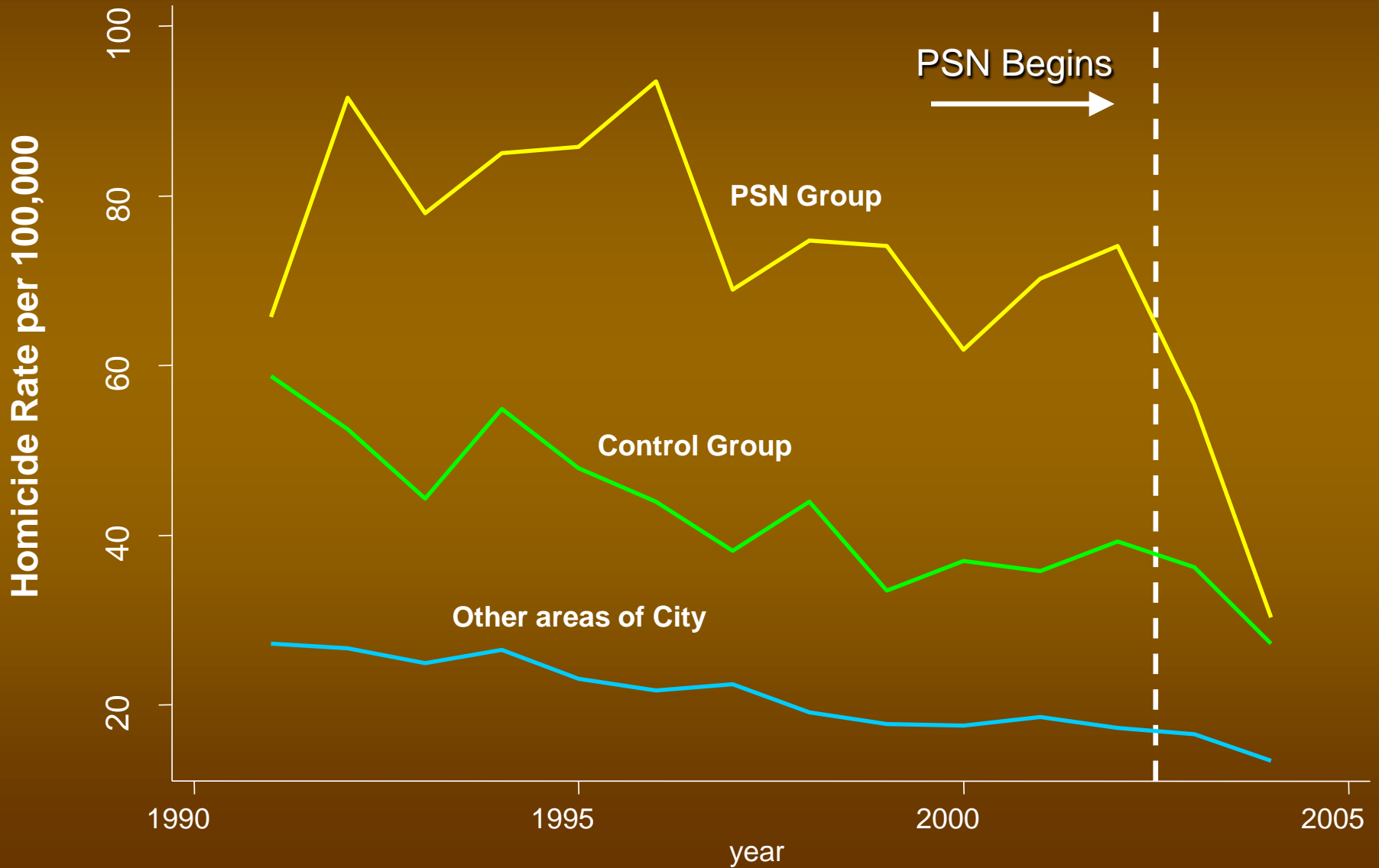
Variables

- Dependent Variables / Outcome Measures:
 - Homicide Rate (logged)
 - Gun Homicide Rate (logged)
 - Gang-Related Homicide Rate (logged)
 - Aggravated Assault and Battery Arrest Rate (logged)
- Neighborhood Social Indicators:
 - Deprivation
 - Concentrated Immigration
 - Residential Stability
 - Spatial Lag of beat-level Homicides (Moran's I)

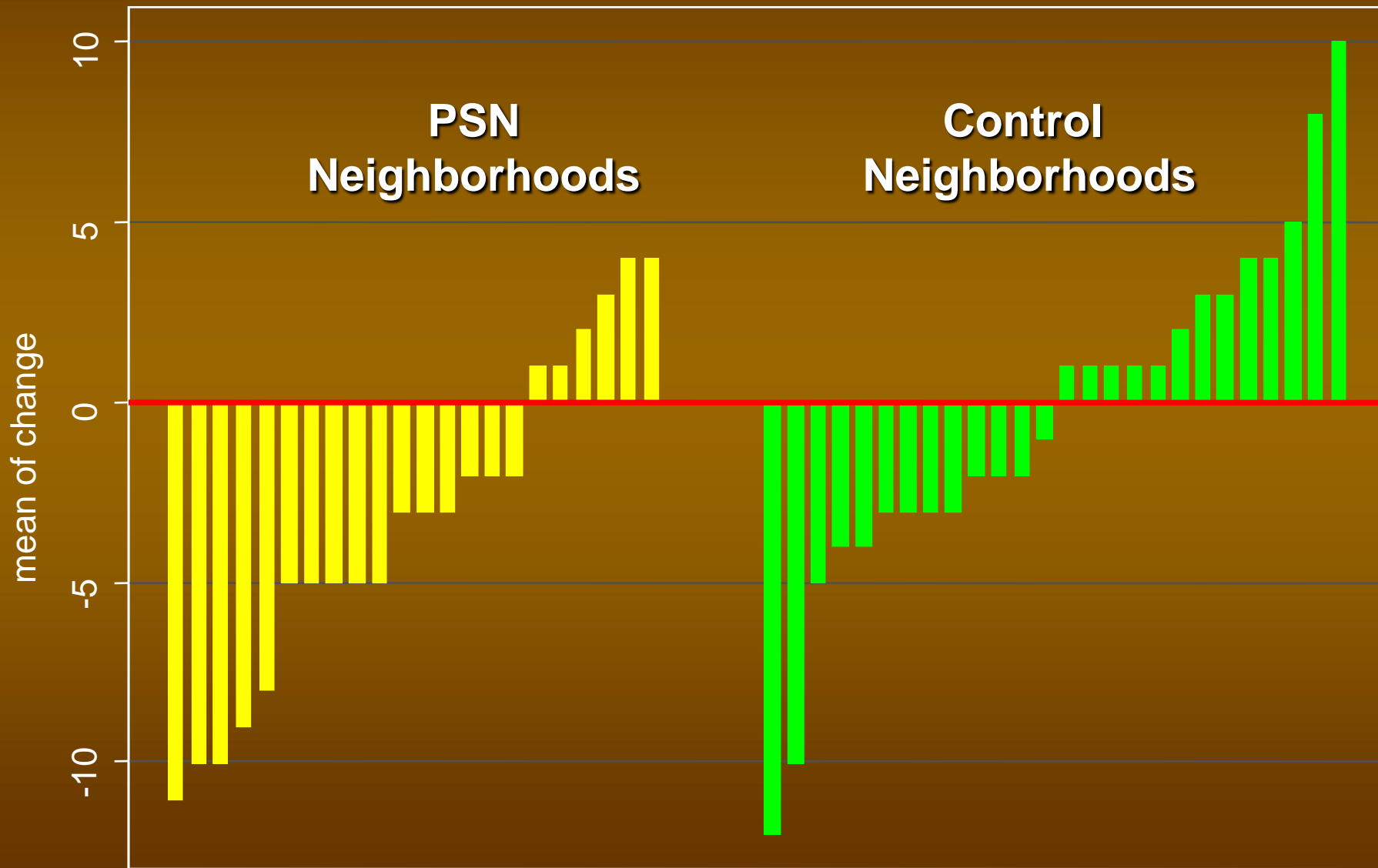
PSN Treatment Variables

1. Offender Notification Meetings – percent of offenders in beat who have attended a meeting
2. Federal Prosecutions – number of prosecution in beat (logged)
3. Federal Prison Sentences – person-month sentences (logged)
4. ATF Gun Seizures – number of guns seized by beat (logged)
5. Index of Components – additive score of where each beat falls on quintiles of other predictors (ranges from zero to 20).

Annual Homicide Rates, 1991 to 2004



Change in Neighborhood Homicide Rates, Before and After Start of PSN



Change in Monthly Homicide Rates in PSN Area

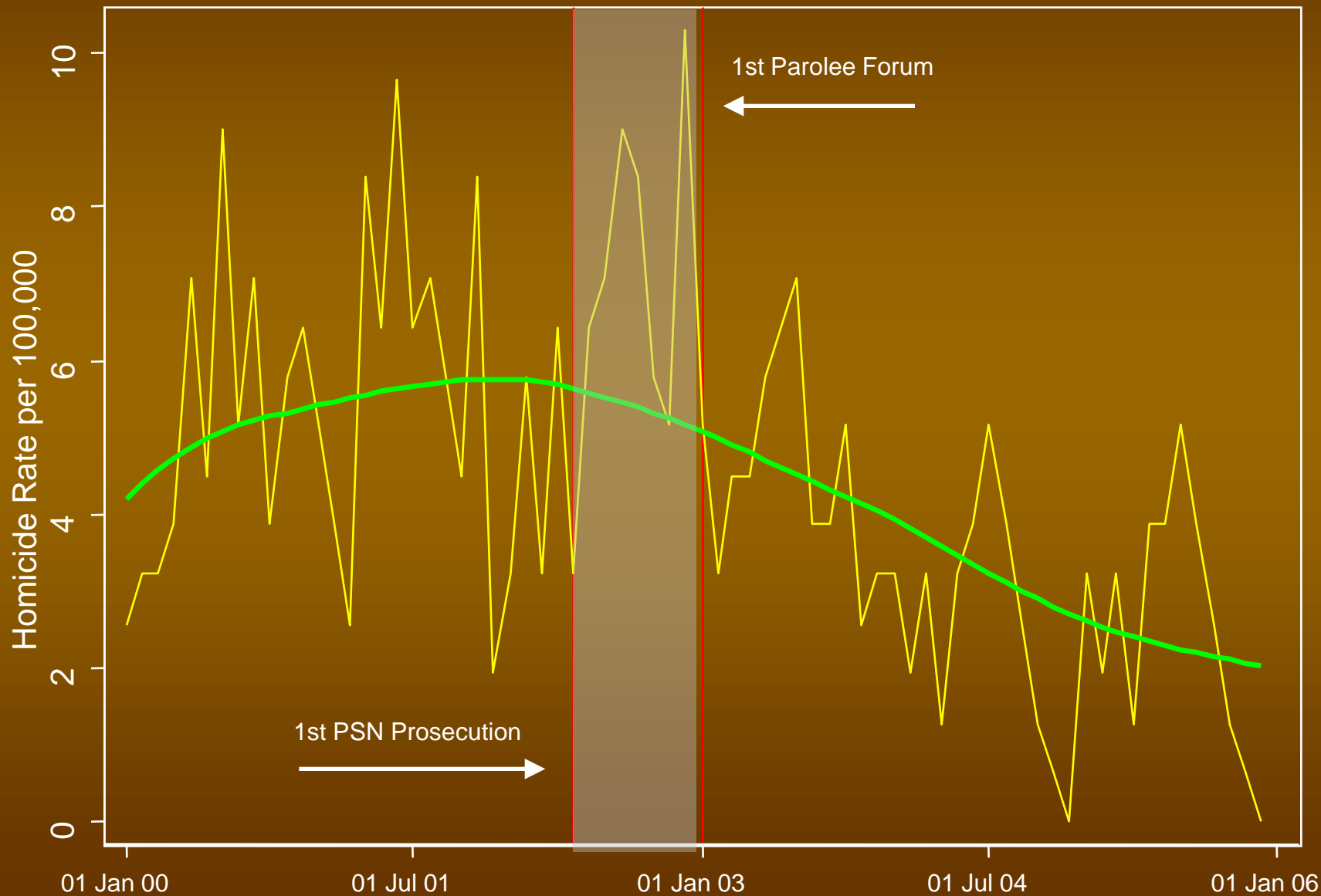
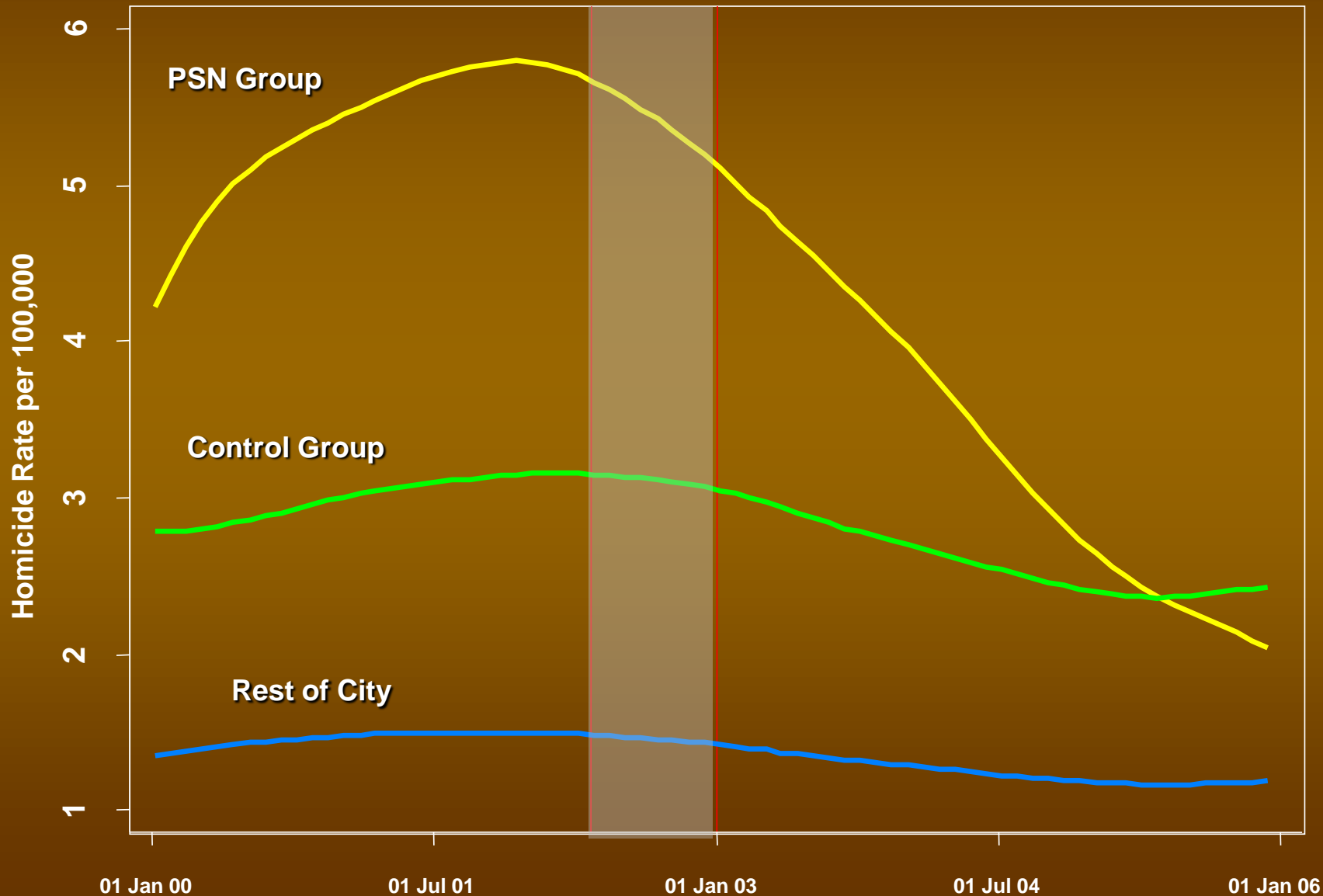


Figure 3. Change in Quarterly Homicide Rates by Assignment Groups

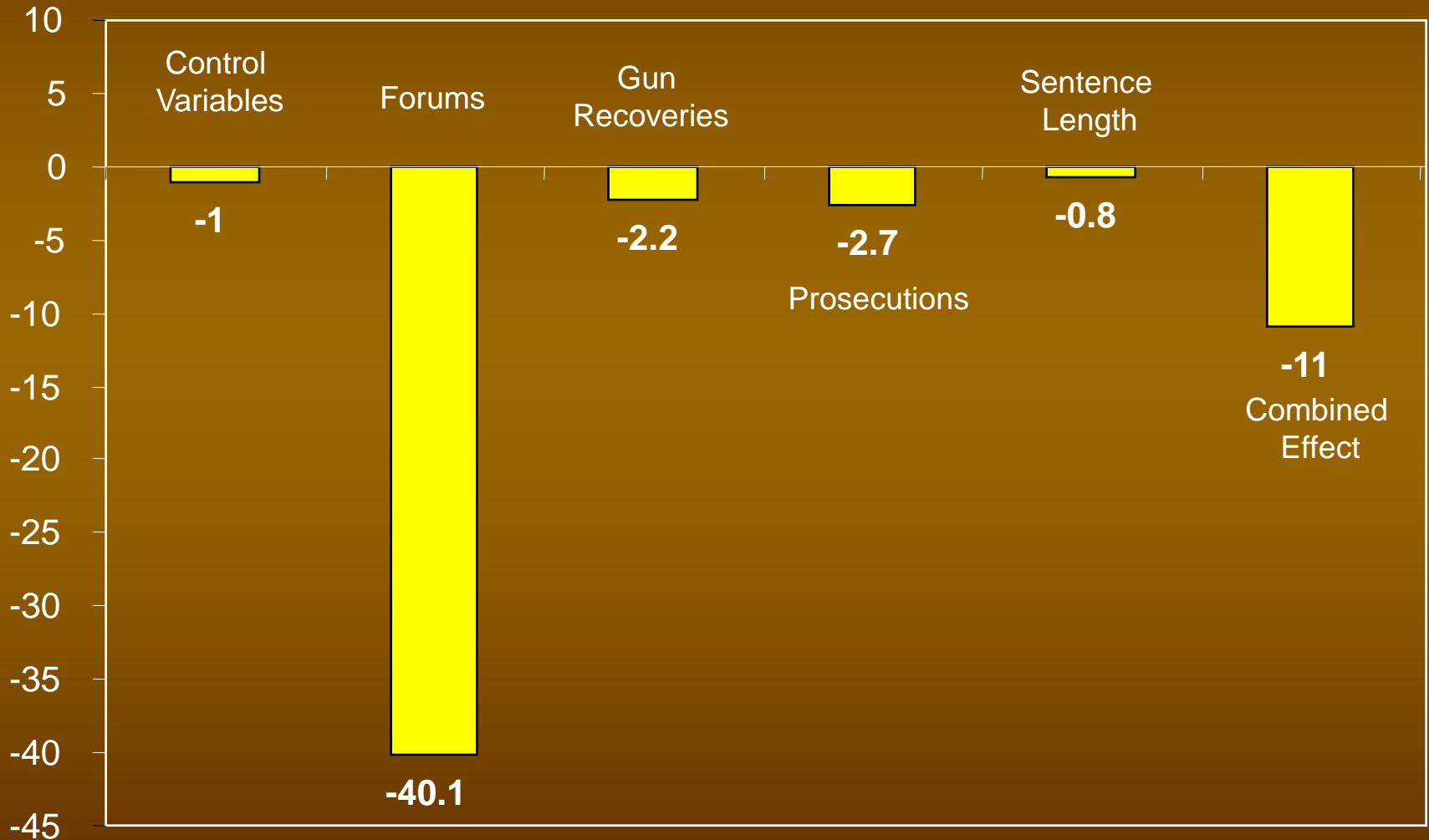


Summary of Findings

- Find *negative* effect on Homicides for:
 - Forums – largest effect.
 - Prosecutions
 - ATF Seizures
 - Additive Index
- No significant effect of:
 - Sentence Length on Homicides
 - Any predictor on Agg. Battery and Agg Asslt.

Summary of PSN "Treatment" Effects on Quarterly Neighborhood Homicide Rates

Percentage decrease in Log(Homicide Rate) associated with a one-unit increase in PSN "treatment"



***N.B.: Random Effects Poisson Regression*

Conclusions

- The observed drop in homicide is larger in the treatment vs. control area (35 percent).
- Find a significant negative relationship between various PSN interventions and homicide
- Forums appear to be having the largest effect, but there is a clear additive effect.

This paper can be found at. . .

- Social Science Research Network:

www.ssrn.com

Direction

- Individual Level data:
 - Recidivism of those who attend the forum as compared to non-attendees?
- The Chicago Gun Project
 - Offender perceptions of legitimacy/legal authority?
 - The role of social networks in:
 - Gun markets
 - Patterns of Offending
 - Nexus between community and offender capital