

The Smart Policing Initiative: Recent Research and Findings

American Society of Criminology 2022



November 16, 2022

International 3, International Level
9:30 – 10:50 AM ET



Panel Agenda



- Panel Introductions
- Overview of SPI
- Syracuse SPI: Offender-Focused Policing
- St. Louis SPI: Mobile Surveillance Trailers
- Discussion
- Q&A

Panel Introductions



Dr. Chip Coldren
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SPI Goals



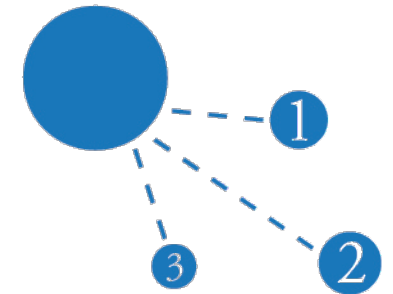
Establish and/or expand evidence-based programming in police agencies to increase their ability to **effectively and sustainably prevent and respond to crime.**



SPI Goals



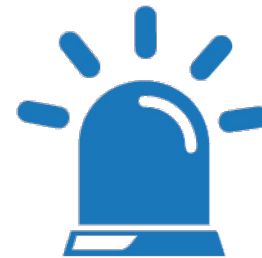
Use **technology, intelligence, and data in innovative ways** that enable police agencies to focus resources on the people and places associated with high concentrations of criminal behavior and crime.



SPI Goals



Advance the state of policing practice and science for the benefit of the entire field.



What Has Happened?



86 AGENCIES AND RESEARCHERS
FUNDED FOR **114 SPI PROJECTS**



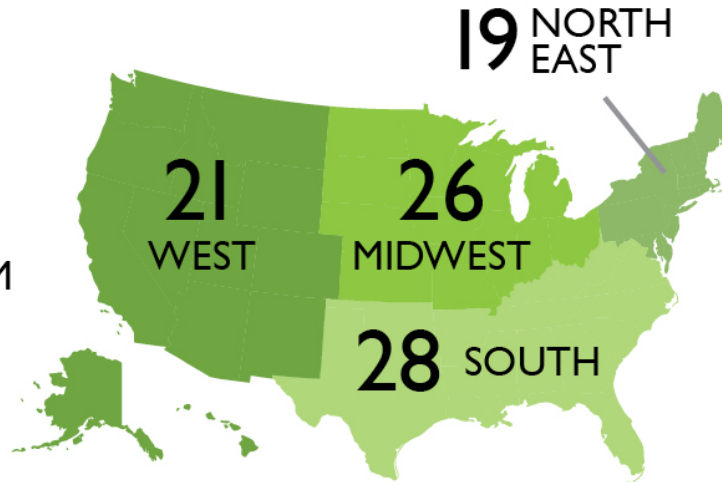
19
SMALL



40
MEDIUM



35
LARGE



82
LOCAL POLICE
DEPARTMENTS



10
SHERIFF'S
OFFICES



2
STATE
POLICE

Following the Evidence Leads to Interesting Innovations



Chicago, IL	Strategic Decision and Support Centers (SDSCs) – a real-time crime center approach within each district
Rochester, NY	Dispute risk assessment tool
Detroit, MI	Partnership with local businesses to reduce violent crime and build technology infrastructure
Boston, MA	Violence reduction → focus on homicide clearance rates
Portland, OR	Community outreach officer activity via mobile app

Offender-Focused Policing in Syracuse: An Outcome Evaluation

Robert E. Worden, Madison A. Bryant, & Kenan M. Worden

Chronic Offender Strategies

- Date to the 1970's.
- Proliferated with Project Safe Neighborhoods in the 2000's.
 - St. Louis, Indianapolis, Atlanta, Detroit, Rochester
- Common strategic components:
 - Explicit, objective selection criteria applied in standardized procedure.
 - Patrol contacts.
 - Warrant enforcement.
 - Post-arrest case enhancement.
 - Priority prosecution.
 - Enhanced supervision.
 - Intensive surveillance.

Chronic Offender Recognition & Enforcement

- Initiated in 2008.
- Revised in 2017 (CORE 2.0), based partly on findings of Philadelphia's Policing Tactics Experiment.
- List of ~30-35 formed through application of a scoring system to (mainly) gang and group members.
 - New list every 6 months.
- Element of focused deterrence: custom notifications.
- Multi-agency accountability ("PerpStat") meetings.
- CORE 2.0 partnership:
 - Syracuse Police Department, Onondaga County District Attorney's Office, Onondaga County Sheriff's Office, Onondaga County Probation Department, New York State Department of Corrections and Community Supervision, Federal Probation
- Supported through BJA's SPI, NYS GIVE.

CORE Offenders by List

	List 1	List 2	List 3	List 4	List 5	List 6	List 7
	7/2017 – 12/2017	1/2018 – 6/2018	7/2018 – 12/2018	1/2019 – 6/2019	7/2019 – 12/2019	1/2020 – 6/2020	7/2020 – 12/2020
Number of offenders on list	36	38	42	33	30	30	26
Number of offenders affiliated with Southside gangs/groups	27	29	34	23	24	22	20
# under 18 years old	8	7	10	5	5	4	0
# on probation	13	13	8	12	16	10	5
# on parole	2	7	10	3	3	3	1

The Forms of Enforcement

- Surveillance.
- Proactive enforcement.
 - Stops, arrests, warrants.
- Priority prosecution.
- Probation/parole home visits.
- Strategic organization.
 - Each offender assigned primarily to one or two of the partner agencies
 - Agencies paired with offenders on the basis of several factors, including supervision status, their place of residence, the location of their crimes, legal vulnerabilities, and the agency's familiarity with the offender.

Accountability and Implementation

- PerpStat Meetings.
 - Designed to facilitate communication, hold partners accountable.
 - Co-chaired by representatives from the OCDA and SPD.
 - Frequency:
 - Biweekly meetings from July 2017 – June 2019.
 - Monthly meetings after June 2019.
 - Review CORE offenders.
 - Slideshow containing individual CORE offenders presented to the group.
 - Discuss criminal activity, contacts, addresses, associates, other updates.
 - Operational strategies explored and discussed.

Enforcement Outputs by List (Lists 1-7)

Rate (10,000 days)	Pre-CORE	List 1	List 2	List 3	List 4	List 5	List 6	List 7
	7/2016 – 6/2017	7/2017 – 12/2017	1/2018 – 6/2018	7/2018 – 12/2018	1/2019 – 6/2019	7/2019 – 12/2019	1/2020 – 6/2020	7/2020 – 12/2020
# Individuals on List	36	36	38	42	33	30	30	26
Time on list at risk (days)	12160	6031	5669	6306	4395	4281	4113	4050
<i>Arrests</i>	73.2	102.8	107.6	50.7	72.8	53.7	43.8	59.3
Violent offenses	2.5	5.0	8.8	3.2	4.6	7.0	4.9	4.9
Weapons offenses	5.8	13.3	3.5	7.9	4.6	9.3	4.9	12.3
Drug offenses	32.1	48.1	56.4	19.0	36.4	11.7	24.3	22.2
<i>Stops</i>	146.4	162.5	301.6	103.1	166.1	156.6	72.9	79.0
Proactive arrests	46.1	53.1	63.5	23.8	41.0	16.4	24.3	24.7

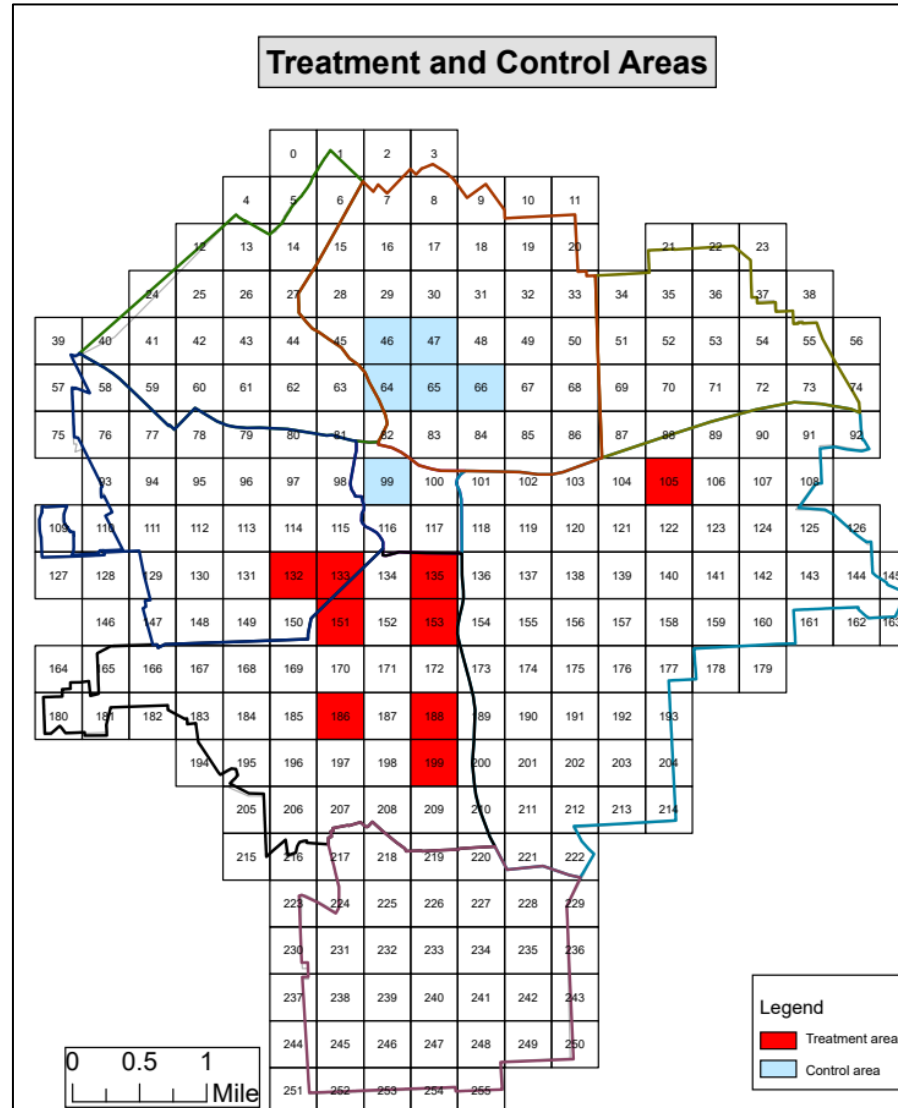
Enforcement Against CORE Offenders Compared to Next-Level Offenders

Rate (10,000 days)	7/2016 – 6/2017	7/2017 – 12/2017		1/2018 – 6/2018		7/2018 – 12/2018	
	Pre-CORE	CORE List 1	Next Level List 1	CORE List 2	Next Level List 2	CORE List 3	Next Level List 3
# Individuals on List	36	36	34	38	31	42	31
Time on list at risk (days)	12160	6031	5120	5669	2867	6306	4654
<i>Arrests</i>	73.2	102.8	97.7	107.6	108.1	50.7	77.4
<i>Stops</i>	146.4	162.5	156.3	301.6	226.7	103.1	107.4
Proactive arrests	46.1	53.1	70.3	63.5	59.3	23.8	34.4

Outcome Evaluation Design

- Longitudinal analyses of:
 - High-crime areas, pre-/post-CORE.
 - CORE offenders' violent victimization.
 - CORE offenders' associates' offending.

Treatment and Control Areas



Spatial Analysis

Bi-monthly Mean Count of Violent Crimes, Pre-CORE (July, 2014 – June, 2017)	
Control areas (N=6)	5.13
Treatment areas (N=9)	4.52
Regression estimates	Δ violent crime
July 2014 – June 2018	
Treatment X Post-CORE	+27%
July 2014 – June 2019	
Treatment X Post-CORE	+16%
July 2014 – December 2019	
Treatment X Post-CORE	+16%

CORE Offenders' Violent Victimization

	Δ victimization	
	CORE	CORE ever after
Original models – all CORE offenders (N=106)	-8.4%	-53.2%
Excluding offenders who relocated (N=104)	-4.2%	-49.3%
Excluding offenders who relocated or died (N=102)	-9.8%	-50.8%
Excluding offenders who relocated, died, or were removed due to inactivity (N=87)	-10.7%	-46.4%
Including only offenders who were on community supervision (N=52)	-44.8%	-61.7%
Including only offenders who were not on community supervision (N=54)	+35.3%	-46.4%

CORE Associates' Violent Offending

	Gun offenses		Part I violent offenses	
	I	II	I	II
Count of connections to offenders on CORE	+1.0%	--	+8.0%	--
Any connection on CORE	--	+2.3%	--	+18.9%

Key Takeaways

- Collection and analysis of intel sound; forms list of high-risk offenders.
- PerpStat has served its purposes: sharing intel; inter-agency coordination; accountability (with room for improvement).
- Custom notifications may be a weak link.
 - Many delivered indirectly (and therefore subject to distortion or loss).
- Some questions about the level of enforcement intensity that was achieved.
- Evidence of deterrent effects in findings regarding victimization.
 - Effect holds mainly or only for probationers/parolees.
 - Given limited resources, an option is to concentrate on the highest-risk offenders who are under supervision in the community.

Mobile Surveillance Trailers in St. Louis: Evaluating the Impact of a Randomized Control Trial

Dennis Mares,¹ Lindsay Maier,² Emily Blackburn³

1. Professor, Southern Illinois University Edwardsville. dmares@siue.edu
2. Manager Crime Analysis Unit, Saint Louis Metropolitan Police Department.
3. Director Geospatial Collaborative, University of Missouri St. Louis

Mobile Surveillance Trailers (MST)

- Flexible solution for monitoring specific sites.
 - No need for power/data.
- Typically include cameras, but can also include license plate reader capability and gun shot detection.
- Interoperability can link to existing police capacities such as real-time crime centers (RTCCs).



St. Louis' SPI project 2018-2022

- Problems:
 - High gun violence.
 - Limited network capacity in residential communities for fixed solutions.
- SPI funded purchase of three MSTs with cameras, LPR and gunshot detection. In addition, a fourth trailer with no technology was deployed (dummy/placebo).
- Trailers were systematically deployed in randomized locations.
 - ~3 weeks in residential areas only.
 - Optimized hot spots procedure was developed to determine highest concentrations of violence and vehicle related thefts.
 - Top 8 sites in rotating police districts were assigned randomly to treatment/control.

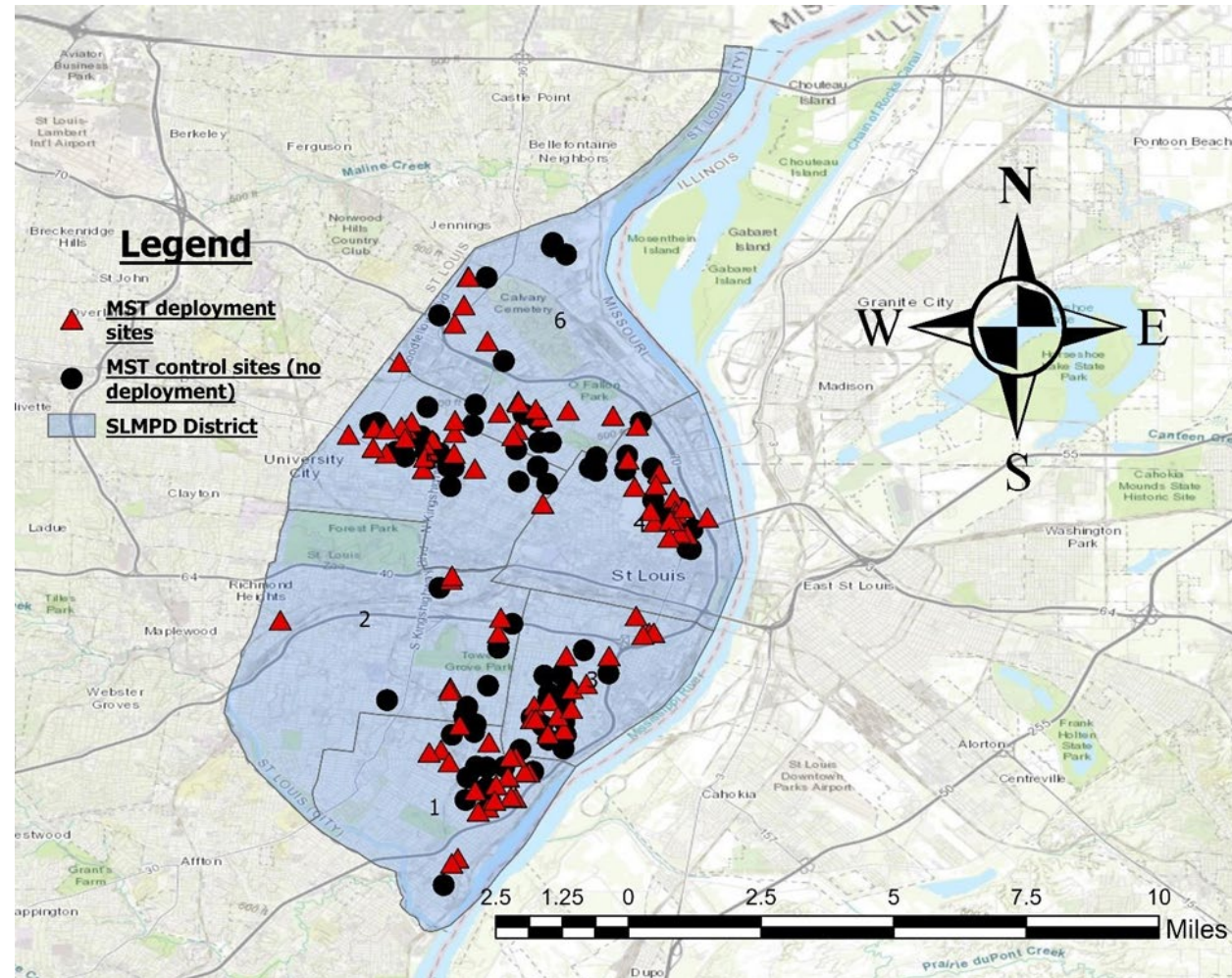
Hypothesis:

- Mobile Surveillance Trailers reduce crime through deterrence.
- Units are high visibility with lights → General Deterrence.
- Increase investigative capacity → Specific Deterrence.

Implementation Issues

- COVID delayed delivery and deployment.
 - Began in June 2020.
- Initial problems with wiring of units.
- Personnel attrition in latter stages.
- Resident complaints about flashing lights.

MST (n=95) and Control (n=95) Deployments



Process evaluation

- Deployments were mostly consistent, but length varied, especially toward end.
- Two waves of surveys among personnel showed substantial increase in awareness of trailers with consistent support for the technology.
 - Results indicated strong support for technology overall and growing knowledge of MSTs.
- Gunshot detection was inaccurate and cumbersome to set up
- Cameras and license plate readers functioned generally well with 2 limitations.
 - Limited view - pan, tilt, zoom (PTZ) cameras.
 - Zoom function would stay stuck.

Impact Evaluation

- Despite a high overall crime rate, crime in small geographic deployment locations remains a rare event.
- Trends in crime were quite variable during deployment period.
- Deterrent effects appear limited to about 500 feet, which is smaller than anticipated.
- → low statistical power.

Crime impacts

- Crime typically decreased during deployment periods in both MST and control sites (compared to prior and post deployment).
- Neg. Binomial difference in difference (DID) analysis shows some modest reductions near trailer locations with a tapering off the further from the trailers for gunfire alerts and larcenies, but we found no reductions for violent crime. However, results were not statistically significant.
- We found no substantial differences in impact between functioning MSTs and dummy/placebo MST.
- Conclusion: results are encouraging, but certainly not definitive.

DID coefficients comparing before and after to deployment & control

	Larceny	Gunfire Alerts (ShotSpotter
0-500 feet	.714452	.7809175
500-1,000 feet	.8660611	.8761386
1000-1,500 feet	.9784826	.9566834

Limitations

- One big question that remains is how technology improves investigative outcomes. This was indicated in surveys among personnel, but cannot be easily shown with data.

2020	No evidence	Evidence only	Suspect identified	Arrest	unknown	n
Camera	3.8%	35.1%	32.8%	19.8%	8.4%	131
ALPR	5.3%	21.2%	13.6%	50.8%	14.4%	132
MST	13.5%	35.1%	10.8%	5.4%	35.1%	37
ShotSpotter	60.9%	29.1%	0%	1.8%	8.2%	110
2022	No evidence	Evidence only	Suspect identified	Arrest	unknown	Total #
Camera	3.4%	29.5%	27.5%	20.8%	18.8%	149
ALPR	4.3%	12.9%	15.3%	34.4%	33.1%	163
MST	12.3%	30.1%	9.6%	5.5%	42.5%	73
ShotSpotter	46.5%	28.7%	0%	.6%	18.8%	129

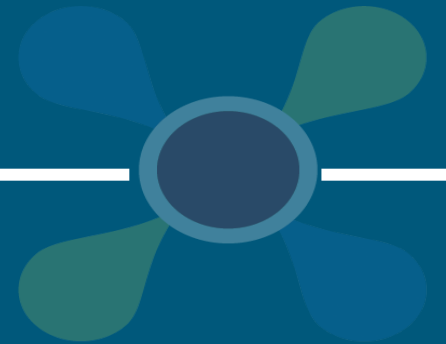
Lessons learned

- Deploying more sophisticated technology does not mean it works as expected: Gunshot detection and PTZ cameras.
 - Technical expertise of personnel is critical in detecting and fixing issues
- Results of MSTs mirror those of studies on cameras, appearing to impacting primarily property related offenses, but not violent crime.
- Tracking of technology investigative impacts is not well developed.



Discussion

Dr. Shila Hawk



Slides Posted on SPI Website



- Available at:
 - <https://www.smart-policing.com/events/november-2022-american-society-criminology-conference>



Questions?



Thank you!

- SPI TTA Team -

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