Project Safe Neighborhoods - A National Program to Reduce Gun Crime: Final Project Report

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Edmund F. McGarrell, Ph.D.
Michigan State University

Natalie Kroovand Hipple, Ph.D.
Michigan State University

Nicholas Corsaro, Ph.D.
Southern Illinois University Carbondale

Timothy S. Bynum, Ph.D.
Michigan State University

Heather Perez, M.A.
Michigan State University

Carol A. Zimmermann, Ph.D.
Saginaw Valley State University

Melissa Garmo, MS
Michigan State University

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Michigan State University
School of Criminal Justice
560 Baker Hall
East Lansing, MI 48824-1118

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Project Safe Neighborhoods Executive Summary

In 2001, the United States Department of Justice developed a major initiative known as Project Safe Neighborhoods (PSN). PSN was intended to be a comprehensive national program to reduce gun violence at the local level. It was implemented in all 94 U.S. Attorney districts nationwide to respond to firearms crime problems in each respective district. An estimated three billion dollars was allocated through Fiscal Year 2008 to fund local and Federal prosecutors; provide resources for law enforcement; support research and community outreach partners; fund a national media campaign; and provide training, technical assistance, and research functions for the initiative (Office of Management and Budget). PSN built on what were viewed as successful approaches utilized in the Boston Ceasefire project, the ten-city Strategic Approaches to Community Safety Initiative (SACSI), and Richmond's Project Exile. It was designed as a collaborative problem solving initiative utilizing a strategic research-based model to reduce firearms violence through enforcement, deterrence, and prevention.

At the core of the strategy was the increased federal prosecution of illegal gun use and illegal gun possession by prohibited persons. Increased federal prosecution was intended to incapacitate chronic violent offenders as well as to communicate a credible deterrent threat to potential gun offenders. However, it was also recognized that exclusive reliance on increased federal prosecution was of limited utility given the reality that most gun crime is prosecuted in state and local courts. Further, there was recognition of the large variability across communities in the U.S. in terms of the level and nature of gun crime and therefore the program would need flexibility to adapt to local context.

To address these issues, PSN was framed on five key components: 1) partnerships; 2) strategic planning and research integration; 3) training; 4) outreach; and 5) accountability. The intent was that these components would maximize the investment of federal resources through a focus on the contexts driving gun crime in particular jurisdictions. Research would assist in focusing resources and local and state partners would bring understanding of local conditions as well as resources to the interventions. The goal was to significantly reduce gun crime.

This report presents findings on the development and implementation of these various components of PSN. Additionally, the report presents research findings on the impact of PSN on gun crime at the local level.

The key findings include:

Implementation Patterns

- Two findings were continually reinforced in interviews and observations of PSN practices but were difficult to measure systematically across districts and were thus not part of the quantitative analyses presented herein. The first related to the importance of leadership in the United States Attorney's Office and to distributed leadership. The second related to the extent to which PSN task forces focused on specific high gun crime places and contexts as opposed to spreading resources across an entire district.
    - Interviews continually reinforced the power of the U.S. Attorney (USA) and the U.S. Attorney's Office (USAO) to exert a leadership role in local crime control and prevention programs. PSN districts exhibiting high

levels of implementation almost uniformly witnessed a high level of commitment and involvement by the USA and his/her leadership team within the USAO.
    - Similarly, interviews suggested that successful task forces developed "distributed leadership." Specifically, the leadership of key agency leaders such as the USAO, the Chief of Police, the local prosecutor, the chief of probation and parole, and the Mayor or City Manager, was observed in many high functioning task forces. Similarly, it was not only the agency head but leaders from throughout the participating agencies who made the task force function on a day-to-day basis. A number of task forces struggled with the loss of key leaders through turnover. In other instances task forces moved forward significantly when the right constellation of leaders aligned.
    - Many U.S.A.'s experienced a tension between the desire to serve their entire judicial district and the recommendation heard in PSN trainings to focus resources on those places, people, and contexts generating gun crime in the district. A number of PSN task forces that appeared to have successfully implemented their program were able to navigate this tension by serving the entire district at one level (e.g., accepting key cases for prosecution, media campaign coverage) while at the same time focusing most of the enforcement, intervention, and prevention resources at specific cities or specific police districts or neighborhoods that had experienced high levels of gun crime.
- Virtually every PSN task force was able to establish partnerships with other agencies to implement PSN. Most common were partnerships with other law enforcement agencies at the federal, state, and local level as well as with other criminal justice agencies. Yet the partnerships were not exclusive to other criminal justice agencies as three-quarters of task forces reported partnerships with community leaders and organizations beyond the criminal justice sector.
- A high level (70 to 80%) of the PSN task forces and research partners reported some degree of integration of research and strategic planning processes. Almost all the task forces conducted some type of local level assessment of gun crime and utilized multiple sources of data.
- The most common barrier to research integration was the availability of crime data. This typically reflected the availability of timely and electronic crime data as opposed to administrative or legal barriers to information. Particularly problematic was the lack of crime data specific to gun crime. As PSN increasingly focused on gangs and gang crime, the lack of crime data specific to gangs became a similar obstacle. Local level prosecution data were often not available in useful form.
- Data and research were considered most useful for the task force when there were available crime information systems and the research partner was included as an active member of the task force.
- PSN task force implementation was measured as a composite of the increase and level of federal prosecution, the number and range of formal PSN task force partners, and the integration of research.

- The integration of research positively related to number of formal task force partners and to increased federal prosecution.
- Although the level of gun crime (demand or push factor) and prior experience of federal prosecution of gun crime related to implementation of PSN at the bivariate level, in the multivariate analysis the two key factors were information infrastructure and past experience with multi-agency crime control collaborations.
- Information infrastructure and data availability were also related to the number of formal partners and to the level of federal prosecution.
- Federal prosecution increased dramatically in a number of PSN task forces. Yet, there was significant variation across the country and many PSN task forces witnessed either no change or very minimal increases, despite the prioritization by the Attorney General and investment of federal resources.
- The most common strategies employed by PSN task forces were increased federal prosecution; joint federal-local prosecution case screening; directed police patrol; chronic violent offender programs; street level firearms enforcement teams; offender notification meetings; re-entry programs; and firearms supply side interventions. The most common prevention strategies included neighborhood development; education; and school-based prevention programs.
- Every district participated in extensive PSN training offerings and all included a media and/or outreach partner. Further, the national PSN program developed and implemented a major media campaign involving public service announcements broadcast nationally and made available for use by individual PSN task forces. The available measures of the implementation of training and media outreach did not capture significant variation across the districts.
- The accountability dimension of PSN proved challenging. Although there was inclusion of research partners and data were used for problem analysis, reporting of potential performance measures was very limited. At its peak in 2002 only 60 percent of the districts submitted data and by 2005 this dropped to 10 percent. At its peak, only one-third of the data reports were judged to be of good or very good quality in terms of accuracy and completeness. The data submitted by PSN districts could be used for within-district assessment in only a small number of jurisdictions and did not allow for cross-site, much less national, assessment of either program outputs (e.g., arrests, prosecutions, prevention programs, etc.) or outcome measures (e.g., gun crime).

Impact on Gun Crime

- Measuring the impact of a national (full coverage) program such as PSN is very challenging. In effect, PSN occurred everywhere so to what do you compare the trend in violent crime? Several strategies were employed. A series of case studies were conducted in jurisdictions that were considered to represent PSN task forces that had implemented PSN in a serious and significant fashion. The purpose of the case studies was to address the question of whether the evidence suggested PSN could potentially have an impact on crime. The other strategy involved analysis of violent crime patterns in all U.S. cities of 100,000 population or greater. This involved comparisons based on whether the city was a PSN target city and by the level or dosage of implementation. The prediction was that

if PSN had an impact on violent crime it should be apparent in comparing PSN target cities in high dosage jurisdictions to non-target cities and target cities in low dosage districts.

- Two of the cities that were included in the PSN case studies followed a Project Exile type approach that combined a significant increase in federal prosecution with an extensive media campaign communicating a deterrence and "costs of gun crime" theme. These were Montgomery in the Middle District of Alabama and Mobile in the Southern District of Alabama. Both experienced significant declines in gun crime compared to the trend in property crime. Mobile also experienced a decline in gunshot wound admissions to the trauma center (not measured in Montgomery). Both findings were consistent with PSN having an impact on gun crime.
- Five cities followed what was described as a strategic problem solving, multiple intervention strategy that roughly followed the model developed in Boston's Ceasefire (a.k.a. Boston Gun Project) and the Strategic Approaches to Community Safety Initiative. These included Durham, Greensboro, and Winston-Salem (Middle District of North Carolina), Lowell (District of Massachusetts), and St. Louis (Eastern District of Missouri). All of these cities experienced a decline in gun crime following the implementation of PSN. In Durham the decline was not statistically significant. In St. Louis, where PSN was implemented in two particular target neighborhoods, there were also declines in contiguous and control neighborhoods thus making it impossible to attribute the decline to PSN. Additionally, two cities followed a similar model and were subject to rigorous evaluations by the local PSN research partner. Chicago implemented PSN in particular police districts. These target areas experienced very significant declines in gun crime compared to other Chicago neighborhoods and controlling for a number of other factors (Papachristos, Meares, and Fagan, 2007). Stockton implemented a similar strategic approach focused particularly on gang-related violence and witnessed a significant decline in gun crime when compared to a number of other California cities (Braga, 2008). Thus, this series of site specific studies yielded seven tests of the impact of PSN. All seven witnessed declines but one was not statistically significant and another was ambiguous given declines in the controls.
- The study of the trend in violent crime in all cities with a population of 100,000 or more was based on Hierarchical General Linear Modeling that allowed testing of the trend in violent crime while controlling for a variety of other factors known or believed to influence the level of violent crime. The first comparison examined cities designated as PSN target cities (N=82) with non-PSN target cities (N=170) and contrasting levels of implementation dosage. The prediction was that if PSN had an impact on violent crime it should be more apparent in target or treatment cities than non-target cities. The basic results indicated that PSN target cities experienced a 4.1 percent decline in violent crime compared to a 0.9 percent decline in non-target cities. Further, when the level of dosage was included in the multivariate models, it indicated that PSN target cities experienced a greater decline in violent crime as the level of PSN dosage increased, controlling for a number of other factors.

- The next stage in the analysis compared PSN target cities with non-target cities by the level of federal prosecution (as a specific type of dosage). The findings revealed that PSN target cities in high federal prosecution districts experienced a 13.1 percent decline in violent crime. In stark contrast, non-target cities in low federal prosecution districts experienced an increase of 7.8 percent in violent crime. The HGLM models revealed that target cities compared to non-target to target cities, in high prosecution compared to low prosecution districts, experienced a significant decline in violent crime, again controlling for other factors.
- Thus, in every model PSN target cities compared to non-target cities, and as the level of dosage increased, experienced a decline in violent crime. This was consistent with an interpretation of PSN having an impact on the trend in violent crime.
- A rebound in violent crime was observed in all cities in the 2004-2006 period. The increase was most evident in non-target, low dosage cities. PSN target cities in high prosecution districts were able to resist the rebound in 2005 and witnessed a much smaller increase in 2006 than other cities.
- The rebound also raised issues of the sustainability of multiple agency collaborative interventions such as PSN. Two of the cities that served as models for this type of strategic problem solving iniative, and the concept of "pulling levers" in particular, Boston and Indianapolis, experienced increases in homicide during the first decade of the 2000 period. Several of the cities that experienced declines in homicide following implementation of PSN later experienced increases in homicide. And, there was the above mentioned rebound in violent crime observed in 2004-2006. This may indicate a short-term effect of focused deterrence strategies such as those utilized in PSN. It may also indicate the challenge of retaining effective multi-agency collaborations and focused interventions. On the other hand, there are examples such as High Point, North Carolina that have sustained long-term reduction and extended the focused deterrence model to other crime types such as drug markets and robbery. Further, the finding that PSN target cities in high prosecution districts resisted the rebound and had the smallest increase, suggested the possibility that those jurisdictions able to continually re-focus efforts and maintain dosage and intensity could have long-term impact on violent crime.

Recommendations

- The nation's limitations in terms of crime information systems were apparent in PSN. At the local level, although many police departments have developed very sophisticated crime information systems, in many jurisdictions it remains extremely difficult to analyze patterns of gun and gang crime. This was evident in the limited participation and poor quality of data reporting by PSN task forces.
- At a national level, the limitations were also obvious. The UCR crime reporting system is the only consistent national measure of crime at a city level. Yet, its limitations for research are significant. Foremost, there is no category of gun crime. Incident-based reporting systems and the Supplemental Homicide Reporting System do allow breakdown of gun crime, but the incident-based

system is not available in many jurisdictions and neither system is available for timely analysis. As DOJ increasingly emphasizes performance measures, and as policymakers seek more timely information about trends in crime and the impact of a program such as PSN, the limitations of existing crime information systems will serve as a source of continual frustration. In the information age, it seems realistic to expect that one could access trends in homicide on as "real-time" a basis as trends in consumer confidence, the consumer price index, or the cost of gasoline in markets across the country.

- One of the strengths of PSN was the flexibility that allowed PSN task forces to adapt the key components of PSN to the local context. The difference in levels and the nature of gun crime across the 50 states and across the nation's cities are enormous and require local adaptation. Having said this, investment of resources such as those involved in PSN might benefit from the following suggestions:
    - Invest in gun crime reduction based on levels of risk. There is enormous variation in levels of gun crime across the federal judicial districts, across cities, and within cities. Strategic investment of PSN-like resources in those jurisdictions with high levels of gun crime could yield significant benefits in terms of the reduction of homicide, gunshot victimization, incarceration, and enhanced community safety.
    - Conduct needs and capacity assessment prior to investment. The patterns of implementation suggest that jurisdictions with human capital (experience in multi-agency collaboration) and information infrastructure were significantly more prepared to successfully implement PSN than were other jurisdictions. Needs and capacity assessment could distinguish between those districts where investment in research-based, collaborative problem solving crime reduction strategies are likely to "pay-off" and other jurisdictions that might benefit from investment in information infrastructure and/or collaborative network building.
    - The results from the investigation, coupled with prior studies, suggest that this type of intervention holds considerable promise for reducing violent crime. Given the enormous human and fiscal costs of violent and gun related crime, these are important findings. However, the evaluation models too often are based on either single sites or on a population of cities that vary by dosage. Given limited resources, investment in crime control and prevention interventions that allow for systematic comparison of treatment and non-treatment sites is necessary for addressing the question of whether the strategy actually had an impact violent crime. For example, if funding exists for implementation in 10 jurisdictions, enormous value would accrue to creating a pool of 20 potential sites to allow systematic comparison of treatment and control sites. The control or comparison sites could transition to treatment sites in future funding cycles.

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Chapter One: The Design of the National Project Safe Neighborhoods Program

Launched in January of 2001 as one of the Department of Justice's major initiatives, Project Safe Neighborhoods (PSN) represented a comprehensive program to reduce gun violence at the local level. It was implemented in all 94 U.S. Attorney districts nationwide to respond to firearms crime problems in each respective district. An estimated three billion dollars has been allocated through Fiscal Year 2008 to fund local and Federal prosecutors; provide resources for law enforcement; support research and community outreach partners; fund a national media campaign; and provide training, technical assistance, and research functions for the initiative (Office of Management and Budget). Based on what were viewed as successful approaches utilized in the Boston Ceasefire project, the ten-city Strategic Approaches to Community Safety Initiative (SACSI), and Richmond's Project Exile, PSN was designed as a collaborative problem solving initiative utilizing a strategic research-based model to reduce firearms violence through enforcement, deterrence, and prevention.

In each U.S. Attorney District a PSN task force was assembled that included law enforcement and criminal justice agencies at all levels of government. In many jurisdictions the task force also included local government, schools, social service agencies, and other organizations interested in reducing gun violence. The task also included a local research partner who was to collect data to help identify and understand the precise gun violence problem in the particular district. Together these partners were to develop strategies specifically designed to target the problem as defined by the research. The research partner also was intended to monitor the operational agency implementation of the strategies and provide feedback to help refine and improve the program. Although

each PSN district had the flexibility to create their own sets of strategies, they were encouraged through PSN training to include offender deterrence meetings, intensive prosecution of violent gun criminals, interruption of the supply of illegal guns to criminals, and support services to encourage alternative behaviors among at-risk offender populations. Finally, the researcher was to provide an assessment of the impact of the strategies on the gun violence problem targeted.

The PSN program also involved outreach to and involvement of the community in these interventions and a media campaign to raise public awareness of the dangers of firearms violence. Funds were provided to contract with a local outreach technical assistance provider and a national media campaign was supported by the Department of Justice.

Five official core components comprised the design of the PSN initiative:

1) **Partnerships.** As mentioned above, the PSN initiative in each district was a collaborative program conducted by a multi-agency partnership, involving law enforcement/criminal justice agencies at all levels, city and social service agencies, private sector groups (such as businesses, clergy, hospitals), community organizations, and researchers.

2) **Strategic Plan.** PSN was intended to be a problem solving program, based on a strategic planning process in which agencies define the specific components of their gun violence problem with the help of research data and design focused strategies to target these problem components through enforcement/prosecution, deterrence, and prevention. As the practitioner agencies in the partnership implemented the selected strategies, the research partner was to monitor the process and provide feedback to the

collaborative so that strategies could be modified or refined if they were not meeting their objectives.

3) **Training.** A core component of PSN was the provision of extensive training opportunities to local district task forces to assist them in the effective implementation of all aspects of the program. Included were specific training programs in strategic problem solving, in firearms law enforcement, in gun prosecution, and in community outreach, as well as sessions addressing research and other special issues and a series of national training conferences. In addition, specialized technical assistance (TA) for individual districts was available upon request through a national network of TA providers (www.psn.gov).

4) **Outreach.** This PSN component involved both local and national outreach efforts. Locally, districts were encouraged to send a deterrent message to would-be criminals stressing "hard time for gun crime", with simultaneous promotion of educational, recreational, treatment and employment alternatives. This component was supported by funding that was provided to each district to secure the services of an outreach and media resource provider. At a national level, the PSN program partnered with the National Crime Prevention Council and Ad Council to conduct a public service advertising campaign against gun violence, including radio and TV spots, educational and prevention materials, press releases, and news articles.

5) **Accountability.** Each of the districts was required to provide an accounting of their activities through bi-annual reports of their activities, bi-annual reporting of crime, gun violence and related data, and through local monitoring and evaluation by its research partner. Similar to the funding for outreach coordinators, each district was

provided with $150,000 to provide a three-year grant to a research partner to work with the task force on problem analysis, program monitoring, and evaluation. Each district secured the services of a research partner making this a very significant investment in research to support problem solving and evaluation.

Nationally, Michigan State University (MSU) was funded to examine the effectiveness of various types of PSN methods and strategies and to assess the overall PSN collaborative strategic problem solving approach to reducing gun violence at the local level. The MSU team also provided training and technical assistance to the task forces to support the implementation of the strategic problem solving model and the integration of research into the task force process. The MSU team consisted of faculty, research specialists, graduate students, and a network of researchers experienced in collaborative research with criminal justice agencies.

The following represents the final project report of the MSU project. In the following chapter, the logic model of the PSN intervention based on promising criminal justice interventions and supported by strategic problem solving is described. Chapter Three describes the range of MSU activities and provides an overview of the data sources utilized in the study of PSN. The next two chapters focus on implementation of core components of PSN. Chapter Four presents data on implementation from self reports by PSN Project Coordinators and Research Partners, as well as patterns that emerge from data submitted by PSN task forces and federal prosecution data. The next chapter utilizes these data sources to analyze the different patterns of implementation that emerged across the U.S. Attorney's Offices and their PSN task forces. Chapter Six reviews key strategic interventions that emerged in various PSN sites and summarizes findings from a series of

case studies of PSN task forces. Chapter Seven presents research on the impact of PSN on violent crime. The report concludes with a summary of findings, research implications, and policy considerations.

Chapter Two: Strategic Problem Solving and Project Safe Neighborhoods

The last decade of the 20th Century witnessed significant declines in the rate of crime in the United States. This was true for most types of crime, including homicide and serious violent crime.[1] Despite these declines, the level of gun crime in the United States remains higher than that experienced in other western democracies and is a source of untold tragedy for families and communities.[2] Given this context, in 2001 the Bush Administration made the reduction of gun crime one of the two major priorities of the U.S. Department of Justice (DOJ), along with defeating terrorism and enhancing homeland security.

The vehicle for translating this goal into action was Project Safe Neighborhoods (PSN). PSN was intended to represent a commitment to gun crime reduction through a network of local partnerships coordinated through the nation's 94 United States Attorneys Offices. A key component of the PSN strategy was the increased federal prosecution of gun offenders but with a recognition that increased prosecution was likely to have the greatest impact if coupled with strategic problem solving at a local level and communication strategies targeted at both offenders and the general population. With this recognition, PSN expanded from a purely prosecution-based initiative to a strategy based on a comprehensive, coordinated, data-driven, and community-based approach.

PSN Building Blocks

The PSN initiative built on a number of promising crime reduction programs that emerged during the 1990s. These programs included Richmond's Project Exile, the New York Police Department's COMPSTAT Program, the Boston Ceasefire Program, DOJ's Strategic Approaches to Community Safety Initiative, Bureau of Alcohol, Tobacco,

Firearms and Explosives (ATF) illegal firearm market reduction strategies, Weed and Seed, and similar initiatives.

Project Exile

Richmond, Virginia had long experienced high levels of homicide and gun assault. Much of this violence was perpetrated by chronic offenders with prior felony convictions. In the late 1990s, then Managing Assistant U.S. Attorney James Comey decided that these levels of violence were unacceptable and that the full force of federal prosecution would be brought to bear against prior felons possessing or using firearms. Federal prosecutions of gun crime increased significantly. Additionally, the U.S. Attorney's Office worked with a coalition of local law enforcement, local government, and businesses to launch a high profile media campaign to communicate a message that the illegal possession or illegal use of a gun would result in severe federal sanctions. Following the implementation of Exile, homicide levels in Richmond declined significantly from their peak levels.[3]

NYPD COMPSTAT

During the early 1990s, the New York Police Department gained the attention of police leaders and scholars through the implementation of a crime analysis and managerial accountability program known as COMPSTAT ("compare statistics").[4] Regular meetings of the police command staff, area commanders, special units, and prosecutors were convened to review current crime trends, to develop responses to crime problems, and to hold commanders accountable for the level and trend in crime in their precincts. Although the link between COMPSTAT and crime reduction has been debated, the dramatic decline of crime in New York City throughout the 1990s has led

many to a greater acceptance of the value of timely crime analysis and to the idea that the police can influence levels of crime (Silverman, 2006; Weisburd, Mastrofski, Willis, and Greenspand, 2006).

Boston's Ceasefire

Boston's Ceasefire Program, also referred to as the Boston Gun Project, was a strategic problem solving initiative intended to reduce the high level of youth gun violence in the city. Ceasefire was initiated by a multi-agency working group involving the U.S. Attorney's Office, local prosecutors, the Boston Police Department, probation, youth service workers, and a team of researchers from Harvard's Kennedy School of Government. The problem analysis revealed that youth violence was driven by a relatively small number of chronic offenders involved in networks of known offenders. The strategy that emerged was a deterrence-based model whereby the threat of federal prosecution was directly communicated to these groups of known offenders. Following crack-downs on several of the most violent groups, and ongoing communication through meetings with probationers and parolees connected to these offending networks, youth violence declined dramatically. Indeed, Boston went two and one-half years without a youth homicide and youth gun violence declined by approximately 60 percent.[5]

The Boston Project was characterized by several distinctive features. First, a small working group was convened from multiple agencies and linked to a research team that conducted systematic analysis of the firearms crime problem. Second, the deterrence threat was coupled with attempts to link potential offenders to legitimate services offered by youth service workers, traditional service providers (e.g., jobs, education, drug treatment), and non-traditional providers including the faith community. Third, several

distinctive strategies emerged to communicate the deterrence message to potential offenders. These included offender notification meetings and police-probation teams conducting visits to high-risk offenders (Operation Nightlife). Fourth, ATF and the Boston Police Department developed supply-side strategies to disrupt illegal gun markets.[6] Finally, like Project Exile, the U.S. Attorney's Office played a key leadership role by convening local-state-federal resources and bringing the threat of federal prosecution to the issue of illegal gun possession and use.

Strategic Approaches to Community Safety Initiative (SACSI)

Building on the Richmond, New York City, and particularly the Boston project, DOJ developed the Strategic Approaches to Community Safety Initiative (SACSI) in the late 1990s.[7] Federal support was provided to five initial cities (Indianapolis, IN, Memphis, TN, New Haven, CT, Portland, OR, and Winston-Salem, NC) and a second set of cities (Albuquerque, NM, Atlanta, GA, Detroit, MI, St. Louis, MO, and Rochester, NY). The U.S. Attorneys were asked to convene multi-agency working groups. Local research partners were asked to be part of the working groups to assist in problem solving research including problem identification and analysis, development of crime reduction strategies, and assessment of implementation and impact.

SACSI demonstrated the utility of using strategic problem solving to tailor a federal initiative to local contexts that varied considerably across the 10 SACSI sites. It also provided the opportunity for further testing of problem solving approaches and strategies initially developed in Boston's Ceasefire. Thus, for example, a number of SACSI jurisdictions found value in using systematic reviews of homicide incidents and gun assaults to uncover patterns of offenders, victims, locations, and network connections

that could then suggest intervention strategies. Many of the SACSI sites implemented offender notification meetings to communicate the deterrence message and offer the opportunity for linkage to legitimate services. The offender notification meetings were coupled with Richmond-style billboards, bus posters, and public service advertisements warning against illegal gun possession and use. Similarly, many of the SACSI sites adapted the Nightlife strategy of pairing police and probation teams to enhance supervision of high-risk offenders and increase the credibility of the deterrence message.

The SACSI process also allowed for cross-site learning among the 10 jurisdictions. As a result, many of these communities developed "Smart Prosecution" processes whereby federal and local prosecutors, ATF agents and local police, systematically reviewed all gun cases to decide on whether a case could most effectively be prosecuted at the state or federal level. Additionally, the processes helped to identify and fix system gaps that had previously allowed gun cases to fall through the cracks and avoid prosecution. Many of the jurisdictions developed lists of the most violent offenders to increase officer safety, suggest targets for proactive investigation, and prioritize cases for prosecution.

Several promising findings emerged from SACSI research reports at about the same time that PSN was being developed. For example, Indianapolis experienced significant reductions in homicide and gun violence similar to that witnessed in Boston.[8] Winston-Salem saw continued reductions in youth violence and declines in youth recidivism and Portland experienced a large reduction in drive-by shootings.[9] Additionally, Memphis experienced declines in sexual assault, the target of its SACSI program.[10] Roehl and colleagues' comparison of crime trends in the SACSI cities to

comparable cities, suggests that declines in homicide and violent crime were more pronounced in the SACSI sites.[11] Consequently, the multi-agency, strategic problem-solving model, as well as many of these strategic interventions, became components of the PSN initiative, and were supported by training and technical assistance.

Core Components of PSN

The basic elements of this aggressive strategy to reduce gun crime were operationalized by DOJ through five core components: partnerships, strategic planning, training, outreach, and accountability.

Partnerships

The PSN program was intended to increase partnerships between federal, state, and local law enforcement agencies through the formation of a local gun crime enforcement task force. The PSN design recognized the limited role of federal prosecutors in many aspects of local crime control and prevention and thus sought to increase partnerships with many elements of the local community. Coordinated by the U.S. Attorney's Office, the PSN task force typically included both federal and local prosecutors, federal law enforcement agencies (particularly ATF and U.S. Marshals), local and state law enforcement agencies, and probation and parole. PSN coordinators were also been encouraged to consider inclusion of local government leaders, social service providers, neighborhood leaders, members of the faith community, business leaders and health care providers.

Strategic Planning

Recognizing that crime problems, including gun crime, vary from community to community across the United States, that state laws addressing gun crime vary

considerably, and that local and state resources vary across the federal judicial districts covered by U.S. Attorney's Offices, the PSN program also included a commitment to strategic planning whereby the federal PSN program would be tailored to local context. Specifically, PSN provided resources for the inclusion of a local research partner who would work with the PSN task force to analyze the local gun crime problem and to share the findings with the task force for the development of a proactive plan for gun crime reduction. The inclusion of the research partner was also intended to assist in ongoing assessment in order to provide feedback to the task force.

Training

PSN has involved a significant commitment of resources to support training. This program has included training provided to law enforcement agencies on topics including gun crime investigations, gun crime identification and tracing, and related issues. Training on effective prosecution of gun cases has been provided to state and local prosecutors. Additional training has focused on strategic problem solving and community outreach and engagement. DOJ estimates that by July 2005, nearly 17,000 individuals had attended a PSN-related training program. [12]

Outreach

The architects of PSN within DOJ also recognized that increased sanctions would have the most impact if accompanied with a media campaign to communicate the message of the threat of federal prosecution for illegal possession and use of a gun. Consequently, resources were provided to all PSN task forces to work with a media partner to devise strategies for communicating this message to both potential offenders and to the community at large. This outreach effort was also supported at the national level by the creation and distribution of Public Service Announcements and materials

(ads, posters). These materials are direct mailed to media outlets and are also available to local PSN task forces.[13]

> "… the genius of Project Safe Neighborhoods is the marketing of our product …. Our product is fear in the hearts of the criminal…. If gun carrying is a big enough liability we can change the minds of would be gun carrying thugs."
>
> Deputy Attorney General James Comey,
> PSN National Conference, June 16, 2004.

The outreach component was also intended to support the development of prevention and intervention components. Since FY 2003 PSN provided block grant funding to the local PSN partnerships that could be used to support a variety of initiatives including prevention and intervention. Many were built on existing programs such as school-based prevention, Weed and Seed, or juvenile court intervention programs.

Accountability

The leadership of the PSN initiative at DOJ emphasized that PSN would focus on outcomes – i.e., reduced gun crime -- as opposed to a mere focus on outputs such as arrests and cases prosecuted. That is, PSN would be measured by the reduction in gun crime. This accountability component was linked to strategic planning whereby PSN task forces, working with their local research partner, were asked to report levels of crime over time within targeted problems and/or targeted areas.

The basic elements and DOJ's five core components of PSN are illustrated in Table 1.

Table 1: PSN Foundations

Basic Elements	DOJ's Core Components
• Increased Federal Prosecution	• Partnerships -Local, state, federal coordinated enforcement -Community prevention and intervention -Research Partner • Strategic Planning -Data driven proactive plan
• Focused Deterrence Strategies	• Training -Enforcement training -Prosecution training -Strategic problem solving -Outreach and community engagement
• Communication Strategy	• Outreach -Communicate deterrence message -Prevention and Intervention • Accountability -Meaningful implementation -Impact on gun crime

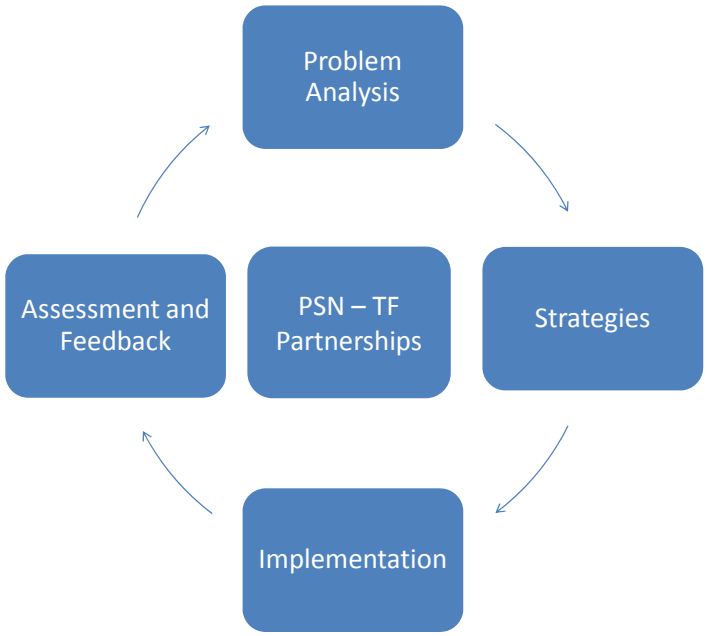
Strategic Problem Solving Model

The Project Exile components of PSN, increased federal prosecution and communication strategy, coupled with the Boston Ceasefire focused deterrence approach, were further developed by the strategic problem-solving model developed in the SACSI program. Specifically, the core components and essential elements of PSN were given structure through a strategic problem solving process and a set of strategic approaches and interventions developed in Boston, the SACSI sites, and similar crime reduction efforts.

The strategic problem-solving model (see Figure Two) was based on systematic analysis of the local gun crime problem. Specifically, crime analysis would be used to identify the geographic patterns of gun crime across a PSN district and within specific jurisdictions of the district. The analysis should also uncover patterns such as linkages to drug sales and distribution, gangs, chronic offenders, domestic violence, illegal gun sales,

and related patterns of people, place, and context. On the basis of this analysis, specific strategies would be developed and implemented to address these patterns. As strategies are implemented, the research partner would monitor the level of intervention (dosage) as well as assess evidence of impact. This information could be shared with the task force to allow for revision or modification of strategy. The process was intended to be dynamic and ongoing, allowing for continual revision with the ultimate goal of reducing gun crime. By the end of FY2003, 92 of the 93 PSN task forces had received training on strategic problem solving and all task forces were working with a research partner.[14]

Figure 1: PSN Strategic Problem Solving Model



Core Themes

The strategic problem-solving model, which was presented to PSN task members in a series of trainings, was also based on a set of core themes. These include focusing resources, using research to help guide action, and expanding the boundaries of involvement.

Focusing Resources

Despite the infusion of significant resources to address gun crime, most jurisdictions across the United States still face too many problem locations, gun offenders, probationers and parolees, outstanding warrants, and former inmates returning to the community, to address solely through the PSN program. Thus, a core theme of the strategic problem-solving model was to maximize the impact of interventions (e.g., increased prosecution, media campaign, probation/parole supervision) by focusing on the most serious elements of the local gun crime problem (people, places and things). Thus, although it may be impossible to increase the supervision of all probationers with a background of firearms possession, it may be possible to identify those suspected to be involved in high-risk activities (gang networks, drug sales) and subject this subgroup of probationers to police-probation home visits. Although PSN was designed before the publication of the influential National Academies of Science report on the effectiveness and fairness of policing, the model was very consistent with the key finding of this report that the most effective efforts to reduce crime are those that are most focused and tailored to the problem (National Research Council, 2005).

The notion of focusing resources also included attention to recurring problems that may be lost in the routine processing of cases.[15] Thus, in a jurisdiction where gun

cases not involving actual violence were found to be routinely dismissed, revised procedures that ensure that every case involving a firearm receives particular attention from police and prosecutors may be an important "system-fix" that can change the message sent to offenders about illegal gun possession.

Using Research to Guide Action

A core ingredient of focusing resources was to use data to identify the people, places, and things driving gun crime at the local level. Experience has indicated that at a certain level there are common elements of much gun violence. Particularly in the nation's urban areas, it tends to involve young men, with offenders and victims often sharing extensive prior histories in the justice system, and to be concentrated in particular neighborhoods. These basic patterns, when assessed by the local task force, can help to begin to focus PSN resources. Beyond these patterns, however, there tends to be variation across communities along a number of dimensions such as the link to drug trafficking, the tie to gangs or networks of offenders, the nature of the illegal gun market, and particularly in rural areas, the tie to domestic violence. Thus, by involving a research partner with the task force, PSN was geared toward identifying these patterns to focus suppression (law enforcement, prosecution), intervention, and prevention resources.

The research partner, as mentioned above, was also intended to monitor implementation of PSN and provide continual feedback to the task force to support ongoing revision of strategies.

Expanding the Boundaries of Involvement

As demonstrated in Figure Two, the partnership component of PSN was also a core component of the strategic problem-solving model. At a minimal level, the U.S.

Attorney's Office was dependent on local, state, and federal law enforcement agencies to bring gun cases for federal prosecution. The strategic problem-solving model also suggested that the inclusion of other criminal justice system partners could further maximize the impact of interventions. Thus, inclusion of the U.S. Marshal and federal-local fugitive task forces could provide a vehicle for strategic warrant service on offenders thought to be at high-risk for gun crime. Similarly, the inclusion of probation and parole officers might yield police-probation-parole home visits to high-risk probationers and parolees to discourage the illegal possession of firearms. In both examples, the notion was that increased federal prosecution of gun crime offenders may have greater impact if part of a proactive, comprehensive strategy focused on the people and places driving gun crime at the local level. Specifically, increased prosecution coupled with multiple strategies to communicate to potential offenders the increased certainty and severity for illegal possession and use of guns was central to the focused deterrence strategy.

Similarly, inclusion of community partners, service providers, the faith community, and other local partners was intended to provide additional resources for the development of prevention and intervention programs geared toward reducing gun crime. Community based prevention programs aimed at the children or younger siblings of gun offenders could potentially yield long-term prevention benefits. Faith-based or victim advocate intervention with shooting victims were hoped to prevent retaliation. Ex-offender mentoring and job placement programs could provide important resources for offenders returning to the community from prison. The value of the strategic model was

that limited resources could most effectively be targeted to the critical components of gun violence in the community.

Finally, the inclusion of community members and community leaders was seen as crucial to establishing legitimacy and support for PSN. There was a recognition that aggressive prosecution of gun crime offenders was likely to have a differential impact on particular communities. This was particularly true of urban, minority neighborhoods that have been most victimized by gun crime. Focusing resources on the key people and places driving gun crime would disproportionately affect these neighborhoods. Demonstrating that the focus was data-driven based on levels of gun crime victimization, that prevention and intervention strategies would accompany aggressive prosecution, and that community leaders would be included in PSN, were suggested as critical steps in building community support.

Strategic Interventions

Building on the core components of PSN, as well as the strategic problem-solving model, a series of strategic practices and interventions emerged in PSN sites across the country (see Figure Three). These were drawn from the experience in Boston, Richmond, and the SACSI sites. Not all have been utilized in all PSN sites, and those that were implemented were adapted to fit local context. Yet, these strategic interventions and practices were utilized by a number of PSN task forces with promising results. The strategies are described in more detail in Chapter Six.

The strategies included incident reviews whereby police officers, investigators, and special unit personnel (e.g., gangs, narcotics), and often prosecutors and probation/parole officers, came together and systematically reviews homicides and

shootings to better understand the dynamics driving gun violence in the local jurisdiction. The goal was to generate both strategic intelligence on the people, places, and contexts generating gun violence, as well as tactical intelligence that could lead to enforcement, intervention, and prevention actions.

A second strategy employed in many jurisdictions was the development of a chronic violent offender list identifying individuals believed to be at greatest risk of committing violent gun crime. These individuals became the focus of investigations and the information was shared with law enforcement and prosecutors with the goals of increasing officer safety and ensuring that these individuals not "slip through the cracks" of the justice system if arrested.

A strategy derived from Boston Ceasefire and employed in many SACSI sites was the use of offender notification meetings in which at-risk probationers and parolees, often with network or gang affiliations, heard directly from justice officials about the renewed focus on gun crime and the commitment to aggressive prosecution for the illegal possession and use of a gun. The deterrence message was coupled with offers of assistance and social support.

Given the threat of federal prosecution communicated in offender notification meetings and in media campaigns, as well as the PSN DOJ commitment to increasing the level of federal prosecution for gun crime, the task forces needed to develop mechanisms to bring gun cases to the U.S. Attorney's Offices and to decide the appropriate venue for prosecution (federal or local). In many jurisdictions, joint case screening processes were developed whereby Assistant U.S. Attorneys, county or state's attorneys (local

prosecutors), ATF agents, and local police officers, jointly screened gun crime cases to determine if the case should be prosecuted federally or locally.

In a number of jurisdictions these strategies were intended to be mutually reinforcing. Thus, incident reviews were used to identify groups of chronic offenders believed to be at-risk for being involved in violence as perpetrators or victims who could then be called in to an offender notification meeting. Incident review information could be combined with systematic analysis of arrest and conviction data to identify individuals to be included on most violent offender lists. This information could then be used in case screening decisions in terms of prioritizing the most serious and chronic violent offenders for aggressive federal prosecution. The results of federal prosecution could then be communicated in offender notification meetings to reinforce the focused deterrence message.

A number of jurisdictions also attempted to implement the focused deterrence and incapacitation goals were through additional strategies. Building on "promising practices" research evidence[16], police departments in a number of jurisdictions utilized directed police patrol in gun crime hot spots. ATF implemented supply side efforts, re-entry programs were developed, police-probation-parole teams conducted home visits, nuisance abatement teams targeted problem properties and a variety of prevention activities were developed as part of PSN. These efforts were implemented with greatly varying levels of intensity and greater and lesser integration with other PSN strategies. At least at the logic model level, however, the notion of the strategic problem solving process would suggest that they be focused on those people, places, and contexts that the data analysis suggested as the sources of the gun crime problem.

Table 2: Strategic Problem Solving

Core Themes	
• **Focusing Resources** -Maximizing the impact of interventions -Targeting the most serious gun crime problems (people, places context) -Addressing reoccurring problems -Fixing system gaps • **Using Research to Help Guide Action** -Unpacking the local gun crime problem -Continually adjusting strategies • **Expanding Boundaries of Involvement** -Criminal justice system partners (local, state, federal) -Community partners (expand resources, build legitimacy	• **Strategic Practices and Interventions** -Incident reviews -Chronic violent offender lists -Gun case screening processes - Offender notification meetings -Data driven proactive plan • **Additional Strategic Interventions** -Illegal gun markets/supple side strategies -Re-entry -Police-Probation-Parole teams -Directed patrol (gun crime hotspots) -Problem properties/nuisance abatement -Prevention (street workers, school-based, juvenile gun courts, etc. and Intervention

Summary

Project Safe Neighborhoods represents a major, multi-year, program designed with the goal of reducing levels of gun crime and violence in the United States. The multi-component nature of the initiative, coupled with the flexibility for local adaptation, makes it difficult to describe the specific elements of the program. The MSU research team's involvement with a wide variety of officials at DOJ who were responsible for designing and overseeing Project Safe Neighborhoods suggests that the architects of PSN evolved in their thinking of what the program was. Initially, it appeared that the main focus was on replicating Richmond's Project Exile with a focus on increased federal prosecution for gun crime and a media campaign intended to communicate a deterrent message. Although this was one model that PSN task forces could follow, the program was expanded to include the strategic problem solving model presented above. This was evident through the funding provided to contract with local research partners as well as

through the series of trainings provided to all PSN task forces on problem solving, integration of research, and the types of strategic interventions represented in Table 2. Although this reality makes a description of PSN challenging, and it creates enormous challenges for evaluation of impact, it does account for the extreme variation across the country in the nature of local gun crime problems and the inherently complex nature of the criminal justice system response to gun crime in a federated governmental structure.

Chapter Three: PSN Training and Technical Assistance: MSU's Role

Background and Initial Involvement

In 2002, a research team from Michigan State University (MSU) was awarded a Cooperative Agreement from the National Institute of Justice (NIJ) to serve as the national research partner for Project Safe Neighborhoods (PSN). The Cooperative Agreement included three basic roles: develop a training program on strategic problem solving and the integration of research to be delivered to all 94 PSN task forces; provide ongoing technical assistance to the task forces on research, problem solving, and strategic interventions as well as to the Firearms Enforcement Assistance Team (FEAT) at DOJ that was responsible for the implementation of PSN; and conduct research on PSN.

The MSU team included faculty and staff who had been involved as local researchers in the SACSI initiative (Indianapolis and Detroit). This capacity was expanded by including nationally known researchers who had been involved in SACSI and who brought expertise in problem solving, gun and gang violence. This national team worked cooperatively with NIJ and the DOJ FEAT team on the training and technical assistance programs. The research team from MSU with its cadre of researchers also implemented a series of research activities that are described in subsequent chapters. This chapter describes some of the key training and technical assistance activities provided by the MSU team.

PSN Curriculum Development

The MSU team relied heavily on the SACSI program to develop the strategic problem solving curriculum. Migima Designs, a small firm that had been enlisted to document the SACSI process, was enlisted to work with MSU on a base strategic

problem solving training curriculum. DOJ officials and subject matter experts were convened for a systematic curriculum review that culminated with a pilot training.

Additional curricula were developed for subsequent trainings and workshops. Specifically, continued collaboration with DOJ, PSN partners, and with consideration of the district task force needs resulted in the creation of materials for a series of advanced and specialized workshops offered on a regional basis.

PSN Training

Strategic Problem Solving

The first pilot PSN training occurred on September 30-October 1, 2002, in Chantilly, VA. Six PSN districts were selected based on task force progress. Representatives from the six districts, the FEAT team, and NIJ were tasked with critiquing the training materials and format. Also in attendance to provide feedback were members of 11 organizations[17] that were part of DOJ's national PSN training and technical assistance team.

Following these revisions, the national training program on strategic problem solving was implemented. Over the course of 12 months, from September 2002 to September 2003, more than 900 participants from 92 PSN task forces participated in the Strategic Problem Solving Training (SPST).[18] Table 3 presents a comprehensive list of the Strategic Problem Solving Trainings.

Table 3: Strategic Problem Solving Trainings

Training #1: September 30-October 1, 2002 Chantilly, Virginia	Training #4: November 20-21, 2002 Destin, Florida	Training #7: February 26-27, 2003 Destin, Florida	Training #10: May 13-14, 2003, Philadelphia, Pennsylvania
1. Massachusetts	25. Arkansas- Eastern	49. Arkansas- Western	76. Alaska
2. Wisconsin- Eastern	26. Alabama- Middle	50. Florida- Middle	77. Delaware
3. Missouri- Eastern	27. Alabama- Southern	51. Georgia- Northern	78. Pennsylvania- Middle
4. Missouri- Western	28. Alabama- Northern	52. Michigan- Eastern	79. New York- Eastern
5. Virginia- Eastern	29. Florida- Southern	53. New York- Western	80. New York Northern
6. Pennsylvania- Eastern	30. Florida- Northern	54. North Carolina- Eastern	81. New York- Southern
	31. Georgia- Middle	55. North Carolina- Middle	82. Tennessee- Western
	32. Georgia- Southern	56. North Carolina- Western	
	33. Louisiana- Eastern	57. Puerto Rico	
	34. Mississippi- Southern	58. Rhode Island	
	35. Mississippi- Northern		
	36. Virgin Islands		
Training #2: October 28-29, 2002 Chicago, Illinois	**Training #5: December 12-13, 2002 Los Angeles, California**	**Training #8: March 26 -27, 2003 Chantilly, Virginia**	**Training #11: September 23-24, 2003 Las Vegas, Nevada**
7. Illinois- Central	37. California- Central	59. Connecticut	83. Arizona
8. Illinois- Northern	38. California- Northern	60. District of Columbia	84. California- Eastern
9. Illinois- Southern	39. California- Southern	61. Maine	85. Idaho
10. Kansas	40. Ohio- Southern	62. Pennsylvania- Western	86. Louisiana- Middle
11. Kentucky- Eastern	41. Oklahoma- Eastern	63. Vermont	87. New Hampshire
12. Michigan- Western	42. Utah	64. West Virginia- Southern	88. North Dakota
13. Ohio- Northern	43. Washington- Eastern		89. South Carolina
14. Oklahoma- Western	44. Washington- Western		90. South Dakota
15. Tennessee- Eastern			91. Virginia- Western
16. Wisconsin- Western			92. West Virginia- Northern
Training #3: October 30-31, 2002 Chicago, IL	**Training #6: January 22-23, 2003 Plano, Texas**	**Training #9: April 28-29, 2003 Denver, Colorado**	
17. Iowa- Northern	45. Texas- Eastern	65. Colorado	
18. Iowa- Southern	46. Texas- Northern	66. Guam	
19. Indiana- Northern	47. Texas- Southern	67. Mariana Islands	
20. Indiana- Southern	48. Texas- Western	68. Hawaii	
21. Kentucky- Western		69. Louisiana- Western	
22. Nebraska		70. Montana	
23. Oregon		71. New Jersey	
24. Tennessee- Middle		72. Nevada	
		73. New Mexico	
		74. Oklahoma- Northern	
		75. Wyoming	

Evaluation scores from the trainings were very positive. Overall scores consistently fell in the Very Good (4) to Excellent (5) range. Attendees were particularly positive about the opportunity to interact with their peers from other districts.

Advanced and Specialized Workshops

Given the enthusiastic response to the SPSTs, DOJ requested that MSU develop a series of advanced and specialized workshops for PSN task forces. In September 2003, a training development seminar was convened in Detroit. In attendance were the national MSU research team and representatives from NIJ and the FEAT team. Based on MSU's outreach to PSN project coordinators (see subsequent discussion) and the reports of project coordinators to DOJ, training needs and topics were identified and reviewed. Workshop curricula were drafted and later developed by the MSU team. The curricula was piloted and approved in December 2003, in San Diego. From January to June 2004, three specialized workshops were delivered. Table 4 summarizes the specialized workshops.

Table 4: Specialized Workshops

Specialized Workshop for PSN Coordinators and Research Partners	Specialized Workshop for PSN Coordinators and Research Partners	Rural Focused Specialized Training Session for PSN Coordinators and Research Partners
Workshop #1	Workshop #2	Workshop #3
January 14-15, 2004 New Orleans, LA	February 26-27, 2004 San Diego, CA	April 28-29, 2004 San Antonio, TX
1. Alabama- Northern 2. Arkansas- Eastern 3. Arkansas- Western 4. California- Central 5. California- Northern 6. Delaware 7. Florida- Middle 8. Georgia- Middle 9. Georgia- Southern 10. Illinois- Northern 11. Iowa- Northern 12. Iowa- Southern 13. Louisiana- Eastern 14. Louisiana- Western 15. Massachusetts 16. Mississippi- Southern 17. Missouri- Eastern 18. Missouri- Western 19. District of Nebraska 20. North Carolina- Eastern 21. North Carolina- Middle 22. Ohio- Northern 23. South Carolina 24. Tennessee- Eastern 25. Texas- Northern 26. Virginia- Eastern 27. Wisconsin- Western	28. Arizona 29. California- Central 30. California- Southern 31. Colorado 32. Connecticut 33. Florida- Northern 34. Georgia- Northern 35. Illinois- Central 36. Illinois- Southern 37. Indiana- Northern 38. Indiana- Southern 39. Kentucky- Eastern 40. Maryland 41. Michigan- Eastern 42. Michigan- Western 43. New Jersey 44. New Mexico 45. New York- Eastern 46. New York- Northern 47. New York- Southern 48. New York- Western 49. North Carolina- Western 50. District of Ohio 51. District of Oklahoma 52. Oregon 53. Pennsylvania- Eastern 54. Pennsylvania- Western 55. Puerto Rico 56. Rhode Island 57. Tennessee- Western 58. Texas- Southern 59. Texas- Western 60. District of Utah 61. Washington- Eastern 62. Washington- Western 63. District of Columbia 64. Wisconsin- Eastern	65. Alabama- Middle 66. Alabama- Southern 67. District of Alaska 68. Florida- Southern 69. Georgia- Southern 70. Guam 71. Mariana Islands 72. District of Hawaii 73. District of Idaho 74. District of Kansas 75. Kentucky- Western 76. District of Maine 77. Michigan- Western 78. Minnesota 79. Montana 80. New Hampshire 81. North Dakota 82. Oklahoma- Eastern 83. Pennsylvania- Middle 84. South Dakota 85. Texas- Eastern 86. District of Vermont 87. Virgin Islands 88. Virginia- Western 89. Washington- Western 90. West Virginia- Eastern 91. West Virginia- Western 92. Wyoming

Similar to the SPSTs, the three specialized workshops were very well received by attendees. The overall rating averaged 4.3 on a 5-point scale (4=very good; 5=excellent). Attendees noted the value of plenary presentations immediately followed by breakout sessions. The breakouts allowed comparable districts time to engage one another in facilitated discussion.

Regional Training

The next stage in PSN problem solving training involved a series of regional trainings beginning in 2005. MSU relied heavily upon telephone contacts with Project Coordinators and Research Partners. During routine telephone calls with these two groups, the following sample topics emerged as concerns for the district task forces:

- Engaging the community, community involvement, selecting key partners, getting started
- Balancing PSN responsibilities with a regular caseload (for AUSA's in the role of project coordinator), prioritizing, getting support from management.
- Innovative programs/strategies/initiatives from other PSN districts.
- New PSN coordinators need basic information/training (coordinators who came on board after the initial trainings).
- Share the latest technology for case tracking databases, crime labs, etc.
- Measurement of outcomes, particularly prevention strategies?

These recommendations were included in sessions of the PSN national conferences and included as research tracks within the conference.

Peer to Peer Training and Technical Assistance

During the first half of 2007, MSU worked with American University, American Probation and Parole Association, and Institute for Law and Justice, to develop a peer-to-peer training and technical assistance program. The goal of the program was to facilitate

peer-to-peer workshops whereby task force members could learn about "best practices" as well as interact with their peers from other PSN task forces. The initial series of workshops included three topical areas: probation and parole strategies; community partnerships; and smart prosecution/case screening. MSU's role included participation in all three peer-to-peer programs. MSU focused on placing the program in the context of PSN strategic problem solving, best practices from across all PSN task forces, and with a focus on performance measures and evaluation.

The first of these day and one-half programs occurred in the District of South Carolina and focused on probation and parole strategies. The trainings were relatively small with typically three to five PSN task forces in attendance. In total, five peer-to-peer trainings have been held.

PSN Technical Assistance

Training and Technical Assistance (TA) were companion pieces for equipping the PSN task forces with current and relevant information for PSN implementation and maintenance. Beginning in the fall of 2002, when technical assistance was provided to three districts, in excess of 325 requests were fulfilled by the MSU team (through 2008). Nearly every district made some form of TA request.

TA was provided in multiple forms including on-site interaction, support for peer-to-peer travel between districts, meetings at PSN National Conferences and training sessions, and telephone conversations. Primarily requests were initiated by PSN project coordinators (PCs) and research partners (RPs). TA requests covered a wide range of topics. Examples include:

- Data Collection & Reporting/ Gaining Access to Data Sources
- On-Site TA/ Training
- IRB/ Humans Subjects/ Data Confidentiality Issues
- Database development
- Information on Programs from Other Districts
- Survey Instruments and Related Research Tools
- Task Force Cooperation Issues
- MOUs/ Partnership Agreements
- Requests for PSN Resource Materials including Spanish speaking documents
- ATF Gun Tracing Data
- Assistance with Media Campaign
- Assistance with Data Interpretation and Presentation
- Research Partner Expectation Issues
- Strategy Specific Information (e.g., Reentry, Most Violent Offender, Offender Notification/ Lever-Pulling, Case Screening, Incident Reviews, Gangs)
- Requests for Contact Information
- Requests for Speakers for Conferences or Meetings
- Publishing Findings from PSN Data
- BJA Reporting Requirements
- Evaluation Methodology

The largest number of requests pertained to data collection and reporting and gaining access to data sources. One example of MSU working to address a multi-faceted, interrelated request was collaboration with DOJ to create data collection instruments and instructions for PSN task forces to provide data on firearms crime and firearms enforcement. Similarly, MSU worked with the Western District of Missouri to make available a data base on case processing that had been developed by the district's task force.

MSU and American University (AU), a National PSN Training Team member, developed a site visit protocol as well as a TA request tracking database. The database was maintained by AU and served to coordinate TA requests and delivery as well as reporting to DOJ.

Conferences and Meetings

Since the initial PSN National Conference in 2003 where MSU hosted seven sessions in support of research and problem solving components of PSN, MUS was a consistent participant in the planning and delivery of the conference. Among the topics covered were Evaluation Methods and Measures, Targeting Strategies to Solve Problems, Integrating Multiple Strategies to Reduce Gun Violence, Building and Sustaining Effective Partnerships, Gang Strategies, and participation in the PSN Technical Assistance Providers sessions.

Other conferences where MSU team members presented on PSN included, but are not limited to: the National Institute of Justice's Annual Research and Evaluation Conference, the International Association of Chiefs of Police Annual Conference, the annual meeting of the American Society of Criminology, Academy of Criminal Justice Sciences, and Office of Juvenile Justice and Delinquency Annual and Gang Conference.

Focus Groups

In 2005, at MSU's School of Criminal Justice, a focus group on chronic violent offender lists was held with project coordinators, research partners, and criminal justice officials. PSN task forces in attendance included the Northern and Southern District of Georgia, the Middle District of North Carolina, the Eastern District of Missouri, Southern District of Illinois, District of New Mexico, District of Massachusetts, Southern District of Indiana, Eastern District of Michigan, and Western District of New York. This small group of individuals was able to exchange ideas on what works and what are the challenges of creating and maintaining chronic violent offender lists. Information

garnered from the focus group was used in part to write the Strategic Case Study on Chronic Violent Offender Lists.

Telephone Contacts

A member of the MSU PSN Training Team contacted each district's PSN Project Coordinator (PC) bi-annually, shortly following submission of the Attorney General's Semi-Annual Progress Reports. A structured interview questionnaire was developed as well as a tracking form. Telephone calls were initiated in the first six months of 2003. MSU's telephone calls built upon the AG Reports, but did not duplicate them. The PC phone contacts provided information on the role of the PC, partnerships/task forces, strategic problem solving efforts, research, and training and technical assistance. Likewise, routine calls were made to the Research Partners (RP). Specifically, the RPs were surveyed on the integration of research into PSN activities and decision-making, the benefits of research partnerships, and the challenges and issues experienced by research partners. The primary benefit of the calls, above and beyond the information collected, was the rapport built with the PCs and RPs.

Gun Tracing Workstations

MSU worked with a research team at Northeastern University to provide gun-tracing workstations to three pilot cities (Chicago, IL, Indianapolis, IN, and Phoenix, AZ). Through collaboration with the Bureau of Alcohol, Tobacco, and Firearms (BATF), a research team at Northeastern University developed the workstations. The goal was to support the development of strategic and tactical analytical models to support supply side interventions. Site visits and discussion with personnel in the three pilot sites indicated that the type of data was potentially quite valuable. However, the data were soon out-of-

date and of limited utility. This feedback was provided to Northeastern and BATF and efforts are underway to develop an online program that would have real- or near real-time data available.

Databases

Technical Assistance

As mentioned previously, MSU created a database to track the numerous, diverse Training and TA requests. Requests were entered into an Access database. Tracking of such requests was used for DOJ reporting and to gauge training and TA needs in the districts.

PSN District Data

As part of the BJA award to local PSN Research Partners (RPs), the PSN task forces were asked to compile and submit bi-annual data on outputs (arrests, prosecutions, etc.) and outcomes (gun crimes) to DOJ. The reporting was to MSU who compiled the data and served as a data repository for DOJ. MSU created a database to store and analyze the information. Upon receipt of the data, MSU would clean the data and enter it into an Access database. The database was often used to provide DOJ with district target area information. The reporting expectation was not a formal grant requirement and RPs submitted data in various degrees of completeness (see Chapter Four).

City Violent Crime and Homicide Data

Given the limitations with the data reporting from the districts, MSU sought to develop additional sources of data to support assessment of the impact of PSN on violent crime. MSU developed a comprehensive city-level homicide and violent crime file using

census, Uniform Crime Report (UCR) homicide data, supplemental homicide reports, and UCR violent crime data from data sources available through the National Criminal Justice Data Archive. Homicides were coded by date thereby offering a long-term trend data for every city over 100,000.

Development of Case Studies

In the second half of 2003, the MSU team used a variety of information sources to identify districts with promising practices. An initial set of case study reports were developed focused on specific gun violence reduction strategies. These were then supplemented by a series comprehensive case studies on specific districts. A list of case studies is displayed in Table 5. The case studies are reviewed in more detail in subsequent chapters.

Table 5: Case Studies

Strategic Interventions	Comprehensive
Gun Prosecution Case Screening: Case Study #1	Middle District of Alabama: Case Study #5
Offender Notification Meetings: Case Study #2	District of Massachusetts: Case Study #6
Crime Incident Review: Case Study #3	Eastern District of Missouri: Case Study #7
Chronic Violent Offender Lists: Case Study #4	District of Nebraska: (submitted to DOJ November 2006)
Strategic Problem-Solving Responses to Gang Crime and Gang Problems: Case Study #8	Southern District of Alabama: (submitted to DOJ March 2007)
Violent Crime Impact Teams (submitted to DOJ August 2008)	Middle District of North Carolina: (submitted to DOJ October 2007)

Products

As mentioned throughout the chapter, numerous PSN "products" were developed. Table 6 displays the products developed by MSU either alone or in collaboration with other PSN National Team members (see, http://www1.cj.msu.edu/~outreach/psn/).

Table 6: MSU PSN Products

Product	Purpose	Format
Training Curriculum	Guide for districts to implement, maintain, and evaluate PSN	Print Electronic (PDF) PSN website
Technical Assistance Site Visit Protocol	Guide for the MSU Training Team members making on-site Technical Assistance visits	Print, Electronic (PDF), PSN website
Human Subjects/Case Study Protocol	Guide for the MSU Training Team members gathering information and data to form case studies of strategies and selected districts	Print Electronic (PDF) PSN website
Tracking Databases (technical assistance, contacts with PSN PCs, and district specific information like target crime, target area, possible interventions, facilitator feedback on training, and other strategic problem solving variables)	Reference for MSU Training Team members	Microsoft Access
Case Studies	Reports featuring promising strategies and districts with comprehensive approaches and positive results	Print Electronic (PDF) PSN website
Various Resource Materials (e.g., incident reviews, White Paper on privacy, confidentiality and data sharing, Indianapolis video tape of offender pulling meetings, and a bibliography of books, articles, and papers related to firearms violence and interventions)	Suggestions for districts	Print Electronic (PDF) CD-ROM
PowerPoint Presentations	Resource for training, technical assistance, and presentations	PowerPoint, PSN website
PSN website	Comprehensive resource for the public	Website http://www1.cj.msu.edu/~outreach/psn/

PSN: Evolution to Gangs and Drug Markets

Given reports of increasing gang activity and the role of gang members in gun crime, the national PSN program provided support to PSN task forces to develop gang prevention, intervention, re-entry, and suppression strategies beginning in 2006. Support was provided to all PSN districts and more fundamental support to particular districts through the Comprehensive Anti-Gang Initiative (CAGI). Initially six sites were selected to participate in the CAGI initiative. This was later expanded to four additional sites and more recently two additional sites were selected. As part of its PSN role, MSU provided two trainings on promising gang interventions as well as TA support related to collection of performance measures. MSU is conducting an evaluation of CAGI under a separate NIJ research award.

In 2007, PSN again expanded its scope through BJA's Drug Market Intervention (DMI) program. The DMI was modeled on a very promising approach to eliminating open air drug markets developed in High Point, NC. For High Point officials, this represented an evolution from strategic problem solving focused on gun violence, later applied to gang violence, and now adapted to address drug markets. MSU is collaborating with BJA, AU, and John Jay College to provide training and TA to support the implementation of DMI in 18 jurisdictions across the U.S. MSU is also working with several sites to evaluate impact of DMI. CAGI and DMI cities are displayed in Table 7.

.

Table 7: CAGI and DMI cities

CAGI Super Six (2006)	DMI I (2007-2008)
Cleveland (OH-ND) Dallas/Fort Worth (TX-ND) Los Angeles (CA-CD) Milwaukee (WI-ED) Pennsylvania Corridor (PA-ED) Tampa (FLMD)	Baltimore, MD Chicago, IL Cook County, IL Dallas, TX Durham, NC Fort Meyers/Ocala, FL[19] Indianapolis, IN Milwaukee, WI New Haven, CT
CAGI Four (2007)	**DMI II (2009)**
Indianapolis (IN-SD) Oklahoma City (OK-ED) Rochester (NY-WD) Raleigh/Durham (NC-ED and NC-MD)	Atlanta, GA Fitchburg, MA Memphis, TN Mesa, AZ Middletown, OH Peoria, IL Providence, RI Ocala, FL Seattle, WA
CAGI-Two (2008)	
Chicago (IL-ND) Detroit (MI-ED)	

The extension of the PSN model from gun violence to gangs and drugs suggests the powerful role that the U.S. Attorneys' Offices can play in convening multi-agency law enforcement and community groups to address serious crime problems.

Data Sources and Methods

The research-based training and technical assistance activities described throughout this chapter, coupled with a variety of PSN research activities, provided the data used throughout the remainder of this report. Details on specific data sources and related methodological issues are described in other sections of the report as the specific analyses and findings are presented. Additional information is available in published

reports that are cited throughout the report. The key data sources included information on PSN implementation as well as city-level crime data used to assess impact on violent crime.

A key source of implementation data was the semi-annual reports submitted by the PSN task force (formally submitted by the USAO) to the Department of Justice. These reports reflected self-reported information on the task force goals, structure, strategies, accomplishments and challenges. The specific items and format changed over time. Two reports were used in analyses reported herein. Specifically, the reports from July 2004 and July 2005 were utilized. The July 2004 report was used because it served as one of the sources of information for an assessment of implementation that was conducted two years into the implementation of PSN (reported in Chapters Four and Five). The July 2005 report was used because it was the most proximate in time to a survey of PSN research partners. Both reports had high levels of participation from the PSN task forces (90 of 93 task forces and 84 of 93 task forces responded in 2004 and 2005, respectively). The research partner survey was conducted in late summer and early fall 2005 with a response rate of 85 percent (79 completed surveys out of 93 research partners). Data on the level of federal prosecution for gun offenses in each federal judicial district were collected for the fiscal years 2000-2007. This included cases filed and the number of defendants. These data elements were complemented by qualitative data gathered through regular phone contacts with PSN coordinators and research partners, site visits conducted for strategic and site-specific case studies as well as site visits related to technical assistance.

The data gathered to assess impact of PSN on crime was compiled from a variety of sources. As noted above, DOJ requested each task force to submit data on outputs (e.g., arrests, prosecutions) and outcomes (e.g., homicides, assaults, robberies with a gun in target areas) but there was very uneven reporting across the 93 districts and over time. UCR data on violent crime from 2000-2006 was collected for every U.S. city over 100,000 population. This included PSN target or treatment cities as well as non-PSN target cities. A similar database was constructed using Supplemental Homicide Reports and will be used in future analyses. The crime data were supplemented with U.S. Census Bureau and Bureau of Labor Statistics for city level demographic, economic and population data that were used to construct measures of concentrated disadvantage and population density. Data from the FBI's UCR program on Police Employee Records were used to create measures of police density at the city level and Bureau of Justice Statistics data were used for measures of state level incarceration.

Chapter Four: Implementation of PSN Core Components

As mentioned earlier in Chapter Three, MSU made a concerted effort to stay in contact with the PSN Research Partners and Project Coordinators through regular phone and email contacts. There were also several other methods used by the research team to augment their understanding of current site activities and issues: a Research Partner survey, Semi-annual reports to the Attorney General, and Data Quality Reports.

These sources of information also provided a picture of PSN implementation across the districts. In this chapter, we present findings from these sources as a way of describing general patterns in implementation of the various components of PSN. In the last section of the chapter, we present data on the relationship between research integration and other aspects of PSN. This is followed in Chapter Five with a theory-based analysis of patterns of implementation across the PSN districts.

Research Partner Survey

The funding provided by the PSN program to allow PSN task forces to hire a local research partner (RP) was intended to fulfill several purposes. Building on the experience of the Boston Gun Project and DOJ's Strategic Approaches to Community Safety Initiative (SACSI), the PSN initiative was intended to support a strategic problem solving approach to addressing gun crime in the particular district or focus area. Thus, RPs were to work with the task force to analyze the nature of the local gun crime problem and to support the task force development of intervention strategies (enforcement, intervention, prevention). The RP would also be a resource to the task force in identifying research-based best or promising practices. Once programs were implemented, it was hoped that the RP would provide systematic feedback to the task

force on the nature and intensity of the interventions. Finally, it was hoped that RPs would conduct an evaluation of the impact of PSN in the particular district. This represented an ambitious agenda for a significant but relatively limited amount of funding ($150,000 over three years). Ultimately, PSN allowed the local task force to work out details of expectations and deliverables.

As noted previously, the MSU research team attempted to support the role of research through training workshops and technical assistance. In an effort to gather information about the experience of PSN research partners, the MSU team conducted a survey of all research partners during the late summer and early fall of 2005. This survey consisted mainly of closed-ended questions using either modified Likert scale items or yes/no response items. There were also open-ended/comments fields for elaboration by respondents. MSU first administered the survey via email to the identified research partner or, in the case of multiple research contacts for one district, the lead researcher for each district. Respondents could either return the survey via email or facsimile. The research team then followed-up with phone calls to those districts that did not respond to one of four email requests for survey participation. Of the 93 PSN district research partners, 79 responded to the survey (84.9%) (see Table 8).

The following is a summary of the results from the Research Partner Survey that pertain to core PSN themes.

- **Extent to which the strategic problem solving process has been integrated into the PSN task force**

The majority of respondents stated that the task force is interested in looking at data (79.5%). In particular, over 47 percent of respondents indicated that their PSN task force is specifically interested in looking at data to identify and solve problems.

However, just less than 21 percent of respondents stated that the PSN task force is not interested in using data and analysis to drive planning.

Almost three quarters of all respondents (70.5%) stated that the task force had used research and data for some purpose. Most respondents indicated they used this research and data to create programs or strategies (39.7%), while slightly less stated that they used research to expand existing programs or strategies (23.1%). Very few respondents indicated that they had used research and data for justifying or publicizing existing programs (7.7%). In contrast, about 30 percent said the task force had not connected research and data to programs or strategies for any purposes.

When asked how the district task force evaluates results, the majority of respondents stated that they were, at the very least, in discussions about evaluating results. Almost 32 percent of the research partners stated that although evaluations of PSN programs were underway they were not yet complete at the time of the survey, while almost one-third (29.1%) stated that the task force had already received an evaluation report(s) on PSN efforts. Nineteen percent of the respondents indicated that the task force had not requested or supported the development of evaluations for the PSN task force at the time of the survey.

Table 8: Research Partners' Reports of Role of Research in PSN

Data used to identify gun crime problems	Valid Percent
The task force is not interested in using data and analysis to drive planning	20.5
The task force is interested in data to confirm the value of current practices	10.3
The task force is interested in data and analyses for the areas they have identified as problems	21.8
The task force is interested in looking at data to identify problems and solve problems	47.4
Translating data into decisions	
The task force has not connected research and data to programs or strategies	29.5
The task force has used research and data to justify or publicize existing programs	7.7
The task force has used research and data to expand existing programs or strategies	23.1
The task force has used research and data to create programs or strategies	39.7
Evaluating results	
The task force has not requested or supported the development of evaluations	19.0
Evaluations of PSN programs have not gotten beyond the discussion phase	10.1
Evaluations of PSN programs are in the planning or ramp-up mode	10.1
Evaluations of PSN programs are underway but not yet complete	31.6
The task force has already received an evaluation report(s) on PSN efforts	29.1
To what extent are you integrated into the task force?	
Research is peripheral to the task force process	21.1
I/we function as a resource person, providing information routinely but not actively	28.9
I/we function as a member of the task force, participating openly and regularly	50.0
Analysis of Gun Crime Problem	
Yes	86.8
No	13.2
Did the task force use the findings to shape gun crime reduction strategies?	
Yes	64.4
No	35.6
In what areas has research provided a tangible result?	
Problem identification	77.2
Program development/expansion	48.1
Program evaluation	47.5
Program revision/modification	22.6
Resource allocations/shifts	25.8
Overall impact of PSN in terms of the use of problem-solving processes	
PSN has not changed the way in which decisions are made	25.3
PSN has increased the ability of task force members to collect data, but analysis and evaluation processes are not integrated into decision-making	11.4
PSN has increased the use of research to evaluate existing strategies, but not to drive all decisions	24.1
PSN has increased the use of research in decision-making	27.8
PSN has created an environment in which data analysis drives decision making	11.4

- **Extent to which the research partner and other research team members are integrated into the task force.**

One-half of the respondents (50.0%) indicated that they (as the research partner) function as a member of the task force, participating openly and regularly reflecting full integration in the task force with other members, while almost 29 percent (28.9%) consider themselves integrated but less so, by functioning as a resource providing information routinely but not actively. Just over 21 percent (21.1%) of respondents indicated that there is relatively no integration as research is peripheral to the task force process. This is consistent with previous responses about how research and data have been used by the task force.

- **Local analysis of the gun problem**

Roughly 87 percent (86.8%) of respondents stated that the research team was able to conduct analyses of the local crime problem. Of that 87 percent, over one-third (35.6%) stated that the task force did not use the findings to shape gun crime reduction strategies and about 65 percent (64.4%) of those respondents did use those findings to help them in their reduction strategies.

- **Research provided a tangible result and future use of research**

The respondents were asked to respond whether or not research provided them with tangible results as it related to five specific areas: problem identification, program development/expansion, program evaluation, program revision/modification, and resource allocation/shifts. Seventy-seven percent of respondents indicated that research provided them with results with problem identification. For the remaining four areas, the majority of respondents indicated that research did *not* provide any tangible results. About 48 percent indicated that research provided tangible results were obtained for both

program development/expansion as well as program evaluation (48.1% and 47.5%, respectively). Almost 27 percent (26.6%) percent and 30 percent (30.4%) percent of respondents indicated tangible results for program revision/modification and resource allocation/shift respectively. However, the majority of respondents (77.4%) indicated they believed that task force members would be more likely to use research and research partners after their PSN experience.

- **Overall impact of PSN as it relates to the use of problem-solving process**

Roughly equal numbers of respondents indicated that PSN has not changed the way in which decisions are made (25.3%), PSN has increased the use of research to evaluate existing strategies, but not to drive all decisions (24.1%), and that PSN has increased the use of research in decision-making (27.8%). Just over 11 percent (11.4%) indicated that PSN has increased their ability to collect data

- **Barriers to research-driven problem solving**

In this section, respondents were asked to rate twelve potential barriers to research driven problem solving as not a problem, some problem, or a major problem (Table 9). The most significant problems identified included information not being collected (33.3%) and administrative and organizational problems (30.3%). Combining "some" and "major" problems revealed that the following were barriers in the majority of districts: information not being collected (78.2%), administrative barriers (76%), administrative or organizational issues (68.5%), lack of action by members of task force (64.1%), lack of interest in research (60.2%), turf issues (57.7%), lack of technology or technical support (55.7%), lack of funds (54.5%), and lack of personnel (51.9%).

Table 9: Potential barriers to research driving problem solving

Response	Not a problem		Some problem		Major problem	
	#	%	#	%	#	%
Legal barriers	48	60.8	30	38.8	1	1.3
Administrative barriers	19	24.1	41	51.9	19	24.1
Perceived risk to agency	42	53.2	29	36.7	8	10.1
Turf issues	33	42.3	35	44.9	10	12.8
Information is not collected	17	21.8	35	44.9	26	33.3
Information in incompatible form	24	31.2	37	18.1	16	20.8
Lack of technology or technical support	35	44.3	30	38.0	14	17.7
Lack of interest in research	31	39.7	33	42.3	14	17.9
Lack of action by members	28	35.9	35	44.9	15	19.2
Lack of funds	36	45.6	36	45.6	7	8.9
Lack of personnel	38	48.1	31	39.2	10	12.7
Administrative or organizational issues	24	31.6	29	38.2	23	30.3

- **Additional funding for research partner beyond initial award**

At the time of the survey, none of the respondents indicated that they had been provided any additional funding beyond that of the initial BJA award. Over one-half (51.4%) of respondents said they did not know if they would receive continued funding. Subsequent contacts with RPs indicated that many had received additional funding to continue their work with the task force following the completion of the original grant award (56/84 as of September 2007). The subsequent funding to RPs was discretionary on part of the PSN task and thus seemed to indicate that the majority of PSN task forces perceived value in the RP.

- **Support and engagement from the United States Attorney's Office**

An overwhelming majority (88.3%) of respondents indicated that the United States Attorney's Office was either supportive or supportive and engaged (37.7% and 50.6% respectively) in PSN. Just less than 12 percent (11.7%) indicated that the USAO was neither supportive nor engaged in PSN.

- **Support from PSN project coordinator**

Similarly, over 92 percent of respondents indicated that their project coordinator was somewhat supportive or very supportive (33.8% and 58.8% respectively) or their research efforts. About eight percent indicated that their project coordinator was not supportive (7.5%) of their research efforts.

- **Experience of research partner**

Just over one-quarter of respondents indicated that their PSN experience had been somewhat negative or negative (17.5% and 10.0% respectively). The remaining 73 percent indicated that their experience had been somewhat positive (20.0%) or positive (52.5%).

Thus, as would be expected the experiences of RPs with the PSN task forces was uneven. The most positive responses related to the support, involvement and engagement with the U.S. Attorney's Office and the PSN task force. In a majority of districts it appeared that this support resulted in, at least, consideration of the role of research in strategic planning. In some districts, however, this did not necessarily translate into what the RP perceived as meaningful use of the research. In subsequent sections we consider the impact of the integration of research into the PSN task forces as well as some of the patterns of research integration that emerged across the PSN districts.

Semi-annual reports to the Attorney General

The Department of Justice required the U.S. Attorney, typically through the PSN coordinator, to complete a semi-annual report on the progress of PSN in the particular district. DOJ provided MSU with these reports in the hope that the MSU team could identify promising practices as well as identify districts that might be experiencing

challenges that could be addressed by technical assistance. These reports requested information on a wide variety of PSN related subjects. The report consisted of mainly close ended questions but always with an option to explain or expand on a certain response. Topics included Task Force constitution and meeting schedule, partners, data sources, prevention strategies, evaluation, strategic planning, mass media campaign, community outreach, training, and technical assistance needs, reception, and effectiveness.

DOJ provided both an electronic copy of each site's report as it was submitted as well as a single electronic file (Excel spreadsheet) that contained all sites' submitted data. MSU used the electronic copies of the reports to help provide background information before contacting a specific site. MSU also aggregated and analyzed the data using the single Excel file and provided a summary report to the Department of Justice. MSU then responded to requests for further inquiry based on the summary.

Over the years of PSN the format and the questions covered in the survey were continually modified. Although this made sense from a programmatic standpoint, from a research perspective it was less than desirable because it precluded analyses of trends. The following is a summary of some of the report questions as they correspond to the research partner survey conducted by MSU and related items on the various components of PSN. The data come from reports submitted to the Attorney General in July of 2005, covering the time period January 1 through June 30, 2005. During this period, Michigan State University received completed reports for 84 of the 93 PSN districts.

Partnerships

As can be seen from Table 10:, PSN Task Forces were comprised of a wide variety of agencies. As would be expected, the most common task force members include other criminal justice agencies. Nearly three-fourths listed "community leaders/organizations." Over one-third listed "other" that included a wide variety of partners (Table 10). Most Task Forces met either monthly (26.5%) or quarterly (21.7%), although 18 percent met weekly or bi-weekly (10.8% and 7.2%, respectively). The remaining Task Forces reported meeting less than once a month (4.8%) or on an as needed basis (28.9%) (

Table 11).

Table 10: Task Force Organizations

Response	Number	Percent	Valid Percent
Federal law enforcement	82	88.2	97.6
State law enforcement	72	77.4	85.7
Local law enforcement	80	86.0	95.2
State and local prosecutors	80	86.0	95.2
Probation and parole authorities	70	75.3	83.3
Federal governmental agencies	30	32.3	35.7
Community leaders/organizations	61	65.6	72.6
State or local governmental agencies	67	72.0	79.8
Other	29	31.2	34.5

Other responses: Hospitals, media company, DV prevention professionals, college/university partners, State district attorney association, State commission on crime and delinquency, City public schools, Local YMCA, media, Boys and Girls Clubs, Campfire USA, Re-entry program, Tribal Law Enforcement, former FFLs, firearms experts, National Rifle Association, community members, HIDTA, Weed and Seed, State Department of Correction, CrimeStoppers, former offenders, sports organizations.

Table 11: PSN Task Force/Steering Committee meeting frequency

Response	Number	Percent	Valid Percent
Weekly	9	9.7	10.8
Twice a month	6	6.5	7.2
Monthly	22	23.7	26.5
Less than once a month	4	4.3	4.8
Quarterly	18	19.4	21.7
Ad hoc	24	25.8	28.9
Total	***83***	***89.2***	***100.0***

Over 60 percent of project coordinators indicated that the task force research partner attended task force meetings most of the time or all of the time (20.7% and 42.7% respectively). Just 11 percent indicated that there research partner never attends task force meetings. The remaining quarter (25.6%) indicated that the research partner attends occasionally. Almost 88 percent (87.8%) of project coordinators indicated they were satisfied or very satisfied with their research partner (41.5% and 46.3% respectively). Fifty-one percent indicated that the task force "continued grant funding" for their research partner.

The PSN task forces also reported that other federal programs were active in their district. The most common were Organized Crime Drug Enforcement Task Forces (OCDETF) and Weed and Seed reported by 42 and 39 percent of the districts (see Table 12).

Table 12: Active federal programs in the district

Response	Number	Percent	Valid Percent
ATF Violent Crime Impact	14	15.1	16.7
FBI Safe Street Task Forces	1	20.4	22.6
OCDETF	35	37.6	41.7
Weed and Seed	33	35.5	39.3
DEA Mobile Enforcement Teams	15	16.1	17.9
Other	11	11.8	13.1

- **Involvement of Research Partner**

Strategic Planning

At the time of these reports to the Attorney General's Office, two-thirds of responding districts had identified a principal target area. Not surprisingly, almost 80 percent (79.7) of the target areas were considered urban. The remaining respondents classified their target areas as rural (9.4%), tribal (3.1%), and other (7.8%). Eight-one percent of target areas included public housing projects (80.6%). For the roughly 25 percent that had not identified a target area at the time of the report, almost one-half (48.4%) had chosen to focus on the entire district while another one-third (35.5%) indicated they had chosen to focus on multiple areas equally. Sixteen percent chose to focus on a specific type of problem (e.g. domestic violence).

As stated earlier, all but one responding district (98.8%) indicated that they had assessed the nature and scope of gun violence in the district or a particular area of the district. Over 90 percent of responding project coordinators (92.7) indicated that the task force's research partner conducted or participated in the assessment of gun violence. Table 13 indicates what types of data were used to conduct the assessment.

Table 13: Data sources used to conduct nature and scope of gun violence assessment

Response	Number	Percent	Valid Percent
UCR data	71	76.3	84.5
Other police data	79	84.9	94.0
Crime gun tracing	62	66.7	73.8
Crime mapping	67	72.0	79.8
Crime incident reviews	54	58.1	64.3
Court or probation data	52	55.9	61.9
Department of corrections data	42	45.2	50.0
Community-level data	33	35.5	39.3
General citizen surveys	20	21.5	23.8
Offender surveys, interviews or focus groups	24	25.8	28.6
Other	17	18.3	20.2

- **Strategic Interventions**

PSN Task Forces were encouraged to "unpack" their local gun crime problem and allocate resources as each saw fit. While the key elements to the local gun problem varied across districts there were some clear patterns. Table 14 displays the key elements of the local gun violence problem as indicated by project coordinators. Respondents could choose multiple elements for their response. If respondents indicated more than two key elements, and almost all did (82/84), they were then asked to choose what they considered the two most important elements of the gun violence problem. Overwhelmingly, the top four responses were drugs, felons in possession, chronic offenders, and gangs.

Table 14: Key elements of the gun violence problem in [your] district

Response	Number	Percent	Valid Percent
Gangs	60	64.5	71.4
Drugs	80	86.0	95.2
Chronic Offenders	71	76.3	84.5
Domestic Violence	41	44.1	48.8
Felons in Possession	80	86.5	95.2
Juvenile Offenders	36	68.7	42.9
Corrupt FFL Dealers	17	18.3	20.2
Straw Purchasers	42	45.2	50.0
Brady False Statements	24	25.8	28.6
Gun Trafficking as a Source State	25	26.9	29.8
Gun Trafficking as a Market State	9	9.7	10.7
Other*	10	10.8	11.9

*Other responses: Willingness to use guns to resolve personal disputes, Armed Robbery/Hobbes Act, firearms possessed or used in drug trafficking crimes, bank robberies, violence offenders, aliens in possession, and gun carrying culture.

Project Coordinators also reported a wide variety of enforcement/deterrence focused strategies aimed at the local gun problem. Here again, respondents could select more than one response (Table 15). Not surprisingly given the background of PSN, increased federal prosecution of gun crime was nearly universally identified as a core

strategy (97.6%). A related very common strategic intervention was the development of some type of case screening procedure to identify gun crime cases and decide on the venue for prosecution. When asked specifically (i.e. a single item question, in addition to question for Table 15), all but one responding district (98.8%) indicated that they had established a prosecution screening mechanism for all cases, or a subset of cases, in which a gun was used or recovered as well as assessed the nature and scope of gun violence in the district or a particular area of the district. In addition, just over one-half (55.4%) of project coordinators indicated that state or local prosecutors had been cross-designated to assist them in prosecuting gun cases.

Table 15: Enforcement/deterrence focused strategies

Response	Number	Percent	Valid Percent
Joint federal-local prosecution screening of firearms	77	82.8	91.7
Increased federal prosecution of firearms related cases	82	88.2	97.6
Increased state or local prosecution of firearms-related cases	47	50.5	56.0
Deployment of street-level firearms enforcement unit	37	39.8	44.0
Offender notification meetings	38	40.9	45.5
Probation/parole law enforcement home visits	36	38.7	42.9
Directed police patrol in high crime areas	48	51.6	57.7
Chronic violent offender list	46	49.5	54.8
Inmate reentry programs	39	41.9	46.4
Supply-side interventions	39	41.9	46.4
Warrant service	28	30.1	33.3
Nuisance abatement civil action against problem properties	15	16.1	17.9
Investigation of criminal org/gang violence	58	62.4	69.0
Other*	22	23.7	26.2

*Other responses: Media campaign, Not With My Gun program, Gang injunctions, firearms purchaser letters, extensive law enforcement training, public housing evictions, neighborhood prosecution teams, school prevention, Project Super Achilles, batterers' intervention programs, Drug Education for Youth program, community partnerships and responsible advertising, school based violence prevention, Hobbs Act robbery task force, Inmate/Parole video, neighborhood programs, notification programs.

The other most common strategies included investigation of gang violence, increased directed police patrol, increased state and local prosecution, and chronic violent offender lists. Over 40 percent of PSN task forces reported inmate re-entry programs, supply side enforcement, offender notification meetings, street level enforcement units, and probation/parole home visits. All suggest the concept of deterrence-based, focused interventions.

Often, enforcement/deterrence strategies were coupled with prevention strategies. The most common prevention strategy was neighborhood development such as Weed and Seed. The other most common were education and school based programs (Table 16).

Table 16: Prevention Strategies

Response	Number	Percent	Valid Percent
Clergy outreach to offenders	32	34.4	38.1
Employment programs	23	24.7	27.4
Substance abuse programs	19	20.4	22.6
Education programs	61	65.6	72.6
Vocational training programs	22	23.7	26.2
Neighborhood development (e.g. Weed and Seed)	62	66.7	73.8
Youth street worker outreach	24	25.8	28.6
School-based prevention	60	64.5	71.4
Hospital trauma center outreach	8	8.6	9.5
Other	19	20.4	22.6

Training, Outreach, and Accountability

The AG surveys asked project coordinators about their technical assistance needs and requests. During the six month reporting period (i.e. the January 1 to June 30, 2005 time period), almost 55 percent of project coordinators indicated they had requested technical assistance. The most common requests for technical assistance was directed to ATF (35.7%) and the DOJ Firearms Enforcement Assistance Team (FEAT) Point of Contact (23.8%). Almost one quarter (22.6%) had requested technical assistance

specifically from MSU during the reporting period. As a follow up question, eighty-nine percent of respondents indicated that they had received the necessary technical assistance and 93 percent indicated that it was effective.

PSN task forces also saw themselves as resources for law enforcement, prosecutors, and community members in their district. Over eighty percent (81.9%) of project coordinators indicated that they had organized training for their district. The majority of training was targeted at law enforcement (57.1%) although over one-third (34.5%) indicated they had trained prosecutors and the community as well.

Three-fourths (77.1%) of project coordinators indicated that their Task Force had funded a media partner and over 09 percent (90.2%) indicated they had a local mass media campaign in place. Almost all responding districts indicated they were involved in community outreach (96.4%).When asked if their task force had evaluated the effectiveness of any of their PSN strategies, just over 83 percent (83.1%) of project coordinators indicated that they had. Fifty-four of 72 (75.0%) districts indicated that their research partner conducted this evaluation.

Data Quality Report

As one of the grant expectations, PSN Research Partners were asked by DOJ to submit various data for their PSN sites to Michigan State University. The Semi-Annual Researcher Reporting Form requested monthly data and was divided into four sections: (1) Crime Measures, (2) Outputs- Arrests and Seizures, (3) Outputs- Prosecution, and (4) Additional Measures. The Crime Measures section consisted of three UCR violent crime indexes, homicide, aggravated assault, and armed robbery. Respondents were asked to separate out each crime measure with a firearm if possible (i.e. submit all homicides and

then homicides with a firearm). The Outputs- Arrests and Seizures requested arrest data for the three UCR measures as well as arrests for illegal weapons offenses (both adults and juveniles) and numbers of seized firearms. The Outputs- Prosecution requested filings and guilty plea/verdicts for the three UCR measures and illegal weapons possession as well as Federal prosecution defendant filings for firearms related cases (sections 922 and 924). The Additional Measures sections requested Shots Fired Calls for Service data and Trauma Center firearm injuries data and allowed for the research partner to submit any other data he or she was able to collect not previously requested. The data were requested in monthly format, where possible, in the hope of supporting systematic evaluation of impact.

As research partners submitted those data to MSU, they were cataloged, transferred into a database if possible, and rated on their quality and completeness. The categories are as follows:

Figure 2: Data rating description

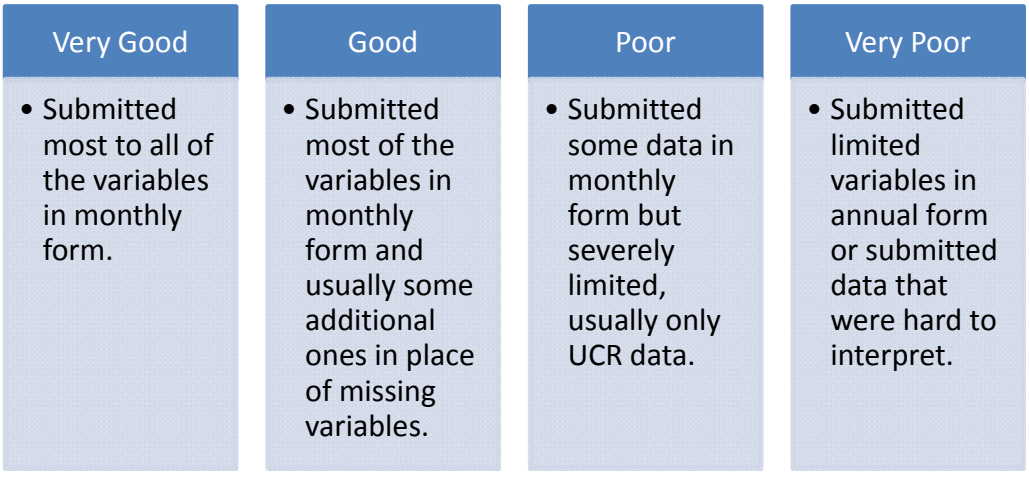


Table 17 and Table 18 display the profile of data submission. The years represent the time frame of the data submitted, not when the research partner submitted the data. The data for 2000 and 2001 were requested in the hope that they would provide baseline data from which to assess trends in PSN outputs as well as outcome measures.

Table 17: Data submission profile

	No data Submitted		Very Good		Good		Poor		Very Poor	
	#	%	#	%	#	%	#	%	#	%
2000	43	46.2	9	9.7	15	16.1	12	12.9	14	15.1
2001	34	36.6	10	10.8	20	21.5	12	12.9	17	18.3
2002	36	38.7	9	9.7	20	21.5	16	17.2	12	12.9
2003	56	60.2	6	6.5	16	17.2	10	10.8	5	5.4
2004	61	65.6	4	4.3	15	16.1	9	9.7	4	4.3
2005	84	90.3	3	3.2	4	4.3	1	1.1	1	1.1

N=93 (Guam and Mariana Islands were considered one PSN District)
Row totals may not equal 100% due to rounding.

Table 18: Data submission profile- categories collapsed

	No data Submitted		Very Good or Good		Poor or Very Poor	
	#	%	#	%	#	%
2000	43	46.2	24	25.8	26	28.0
2001	34	36.6	30	32.3	29	31.2
2002	36	38.7	29	31.2	28	30.1
2003	56	60.2	22	23.7	15	16.1
2004	61	65.6	19	20.4	13	14.0
2005	84	90.3	7	7.5	2	21.2

N=93 (Guam and Mariana Islands were considered one PSN District)
Row totals may not equal 100% due to rounding.

As can be seen from the previous two tables, for most years it was difficult for at least one-third of the PSN sites to submit any data at all to MSU. And, if data were submitted, the quality leaned towards poor or very poor, making it difficult for MSU to perform any sort of meaningful analysis with the submitted data. Indeed, the uneven data reporting and the uneven quality of the data precluded comparisons across districts. Some districts, with strong research partners and availability of crime information systems were able to submit time series of data that could be used for analysis within the district. The tables also indicate declines in data reporting over time that reflect in many

cases the end of the original grant to the RP and the loss of research capacity to gather and report data.

The problems with data availability and quality create significant problems for evaluating a national program such as PSN. This was exacerbated by the nature of the national UCR crime statistics that do not include measures of gun crime (other than for jurisdictions with incident based reporting), cannot be analyzed at a level below the entire city or county (as opposed to a specific target area), and that are only available with a considerable time lag. The hope was that the involvement of RPs working with local police departments could provide localized crime data but this proved very challenging, particularly with respect to providing data that could be compared across jurisdictions.

The data reporting assessment was used as one indicator in a composite measure of the integration of research in PSN task forces. This is described in the next chapter.

Changes in Federal Prosecution of Gun Cases

Another indicator of PSN implementation was the level of federal prosecution of gun crimes. As noted, one of the goals of PSN was to increase the level of federal prosecution for illegal use of a firearm and possession by a prohibited person. Nationally, the level of federal prosecution increased significantly. In fiscal year (FY) 2000 there were 8,054 federal firearms charge filings against defendants.[20] By FY 2002 this had increased to over 10,000. During the FY 2003-2005 period filings were right around 13,000 annually. Defendant filings declined somewhat in 2006 and 2007 but were still over 12,000 each year. Using FY 2004 as the point of peak filings, federal prosecution had increased 61 percent from FY 2000 before the implementation of PSN (see Table 19).

The national data, however, mask very significant variation across the federal judicial districts. Ten districts experienced an increase of 200 percent or more. Fifty of the districts observed increases of 60 percent or more. In sharp contrast, the bottom ten districts ranged from no change to a 38 percent decline in firearms charge filings.

Table 19: Federal Firearms Cases (U.S. Code 922, 924), Defendant Filings, Ranked by Percent Change 2000-2004

District ID	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005***	FY 2006	FY 2007	Pct Chg 2000-2004
1	12	14	35	97	87	72	47	50	625
2	8	13	73	42	42	30	34	52	425
3	27	45	65	96	138	108	113	71	411
4	68	113	212	263	322	213	229	258	374
5	41	63	111	191	168	196	167	157	310
6	21	30	40	103	86	119	100	89	310
7	12	26	60	65	48	62	34	55	300
8	15	12	13	30	48	37	48	54	220
9	99	202	250	376	304	232	192	186	207
10	28	24	58	78	84	74	99	87	200
11	13	18	26	29	38	32	44	34	192
12	44	58	66	43	119	105	121	114	170
13	30	38	61	72	81	131	138	131	170
14	53	57	56	76	141	90	88	88	166
15	83	82	178	218	219	143	116	50	164
16	27	34	58	65	68	67	65	38	152
17	88	103	195	229	215	215	160	133	144
18	22	47	38	37	52	39	40	39	136
19	141	129	191	334	314	287	268	242	123
20	65	63	149	137	144	164	131	92	122
21	30	42	49	35	66	33	46	55	120
22	27	28	26	51	59	32	16	21	119
23	140	191	345	346	302	379	382	447	116
24	54	93	95	111	114	129	158	136	111
25	128	127	170	283	269	265	257	270	110
26	11	18	14	20	23	36	25	25	109
27	67	66	83	110	139	183	176	148	107
28	34	25	50	75	68	107	110	88	100
29	36	96	53	81	70	103	99	73	94
30	127	200	186	238	244	249	196	232	92
31	124	105	123	171	233	157	214	221	88
32	157	202	224	282	291	197	94	38	85
33	180	153	243	328	333	292	265	181	85
34	36	36	53	56	66	100	98	100	83

35	104	146	203	234	190	172	236	209	83
36	91	101	138	175	165	218	162	187	81
37	20	23	30	39	36	40	27	28	80
38	200	203	255	330	352	373	361	332	76
39	102	135	124	215	179	259	293	251	75
40	192	183	224	327	334	347	352	356	74
41	111	149	261	282	193	184	129	131	74
42	49	104	97	112	82	112	101	75	67
43	78	84	109	116	129	154	123	109	65
44	48	66	87	110	79	120	85	108	65
45	104	114	121	146	171	130	161	130	64
46	159	196	157	268	260	197	207	172	64
47	64	43	65	107	104	99	86	117	63
48	50	36	67	75	81	59	67	53	62
49	62	79	82	64	100	97	109	132	61
50	54	49	95	118	87	115	90	128	61
51	63	47	64	89	99	97	107	132	57
52	85	117	117	114	133	178	102	144	56
53	126	129	155	207	196	198	206	206	56
54	63	65	102	114	98	92	59	64	56
55	170	142	131	159	264	304	342	229	55
56	48	38	88	92	74	83	78	94	54
57	51	64	64	60	76	66	64	58	49
58	111	101	149	164	159	146	111	103	43
59	65	69	105	96	93	129	91	121	43
60	29	22	37	45	41	33	38	32	41
61	221	232	283	305	310	296	238	315	40
62	35	53	54	61	49	61	64	54	40
63	164	183	256	189	229	238	199	190	40
64	148	128	148	164	206	174	201	165	39
65	147	219	213	141	198	183	173	137	35
66	211	193	243	302	283	376	263	289	34
67	174	231	228	228	230	221	224	307	32
68	55	39	58	69	71	64	88	88	29
69	40	42	64	62	51	84	62	68	28
70	220	318	196	223	279	262	244	259	27
71	61	51	81	68	75	47	53	40	23
72	83	75	100	119	102	85	64	140	23
73	115	134	121	151	141	155	157	138	23
74	30	26	55	37	36	54	45	50	20
75	67	44	43	81	78	76	117	111	16
76	63	80	81	110	72	88	105	60	14
77	139	129	116	157	158	146	104	87	14
78	33	31	31	31	37	44	42	59	12
79	350	357	339	459	387	357	384	363	11
80	213	200	178	203	216	258	235	196	1
81	49	36	48	90	49	43	70	88	0
82	139	133	145	143	137	207	144	137	-1
83	93	74	79	112	85	71	112	62	-9
84	245	224	171	206	223	195	191	203	-9

85	82	96	63	112	74	85	120	102	-10
86	70	48	50	65	59	89	78	83	-16
87	118	66	88	99	91	111	144	148	-23
88	143	123	118	139	93	118	79	65	-35
89	74	46	58	106	48	71	61	50	-35
90	29	25	30	23	18	14	20	49	-38
U.S. Total	8,054	8,845	10,634	13,037	12,962	13,062	12,479	12,087	61

Another way to view federal prosecution is to consider the level of prosecution per the size of the population. Table 20 presents the federal filings against defendants for firearms charges based on population of the judicial district. Nationally, the rate of prosecutions increased from 2.8 per 100,000 population in FY 2000 to over 4.5 per 100,000 from FY2003-05. Again, there was significant variation across the districts. The highest rate in 2004 was 51 per 100,000 and the top twelve districts had a prosecution rate of 10 or more per 100,000 population. The bottom 13 districts had rates under 2.0 per 100,000 population. This was less than half the national average and five times lower than the top group of districts. Although, as reported in the previous section, nearly every PSN project coordinator (98%) reported that increased federal prosecution of gun crimes was a key PSN goal, the data clearly revealed that this was not achieved in all districts.

This significant variation across the U.S. Attorney's Offices in both the change in level of federal prosecution and the rate of prosecution given district population provided the opportunity to consider the level of prosecution as an indicator of PSN implementation. Additionally, the level of federal prosecution served as a variable to assess whether implementation of PSN had an impact on violent crime (discussed in Chapter Seven).

Table 20: Federal Firearms Cases (U.S. Code 922, 924), Defendant Filings, per 100,000 population, Ranked by Rate in 2004

District ID*	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
32	27.50	35.38	39.24	49.40	50.97	34.51	16.47	6.66
4	4.46	7.42	13.91	17.26	21.13	13.98	15.03	16.93
10	5.61	4.81	11.63	15.64	16.84	14.84	19.85	17.45
1	1.86	2.17	5.44	15.07	13.51	11.18	7.30	7.77
9	4.27	8.72	10.79	16.23	13.12	10.02	8.29	8.03
38	7.02	7.12	8.95	11.58	12.35	13.09	12.67	11.65
59	8.18	8.68	13.21	12.07	11.70	16.23	11.45	15.22
47	7.04	4.73	7.15	11.77	11.44	10.89	9.46	12.86
30	5.45	8.58	7.98	10.21	10.47	10.68	8.41	9.95
55	6.56	5.48	5.06	6.14	10.19	11.74	13.21	8.84
17	4.14	4.84	9.17	10.77	10.11	10.11	7.53	6.26
15	3.82	3.77	8.19	10.03	10.08	6.58	5.34	2.30
19	4.40	4.03	5.96	10.42	9.80	8.96	8.36	7.55
5	2.37	3.64	6.42	11.05	9.72	11.33	9.66	9.08
25	4.53	4.50	6.02	10.02	9.53	9.39	9.10	9.56
31	4.57	3.87	4.53	6.30	8.58	5.78	7.88	8.14
18	3.57	7.62	6.16	6.00	8.43	6.33	6.49	6.33
24	3.99	6.88	7.03	8.21	8.43	9.54	11.69	10.06
22	3.83	3.98	3.69	7.24	8.38	4.54	2.27	2.98
86	9.77	6.70	6.98	9.07	8.23	12.42	10.88	11.58
64	5.86	5.07	5.86	6.49	8.16	6.89	7.96	6.53
6	1.98	2.83	3.77	9.71	8.11	11.22	9.43	8.39
71	6.11	5.11	8.11	6.81	7.51	4.71	5.31	4.01
79	6.77	6.91	6.56	8.88	7.49	6.91	7.43	7.02
23	3.41	4.65	8.40	8.42	7.35	9.23	9.30	10.88
35	3.95	5.55	7.72	8.89	7.22	6.54	8.97	7.94
52	4.58	6.31	6.31	6.15	7.17	9.60	5.50	7.76
73	5.63	6.56	5.92	7.39	6.90	7.58	7.68	6.75
34	3.74	3.74	5.51	5.82	6.86	10.40	10.19	10.40
33	3.64	3.09	4.91	6.63	6.73	5.90	5.36	3.66
3	1.31	2.18	3.15	4.65	6.69	5.24	5.48	3.44
60	4.50	3.42	5.75	6.99	6.37	5.13	5.90	4.97
69	4.98	5.23	7.96	7.72	6.35	10.45	7.72	8.46
40	3.60	3.44	4.21	6.14	6.27	6.51	6.61	6.68
48	3.86	2.78	5.18	5.79	6.26	4.56	5.18	4.09
21	2.78	3.89	4.54	3.24	6.12	3.06	4.26	5.10
51	3.89	2.90	3.95	5.49	6.11	5.98	6.60	8.14
45	3.65	4.00	4.25	5.12	6.00	4.56	5.65	4.56
72	4.87	4.40	5.87	6.99	5.99	4.99	3.76	8.22
39	3.33	4.40	4.04	7.01	5.84	8.44	9.55	8.18
74	4.73	4.10	8.67	5.83	5.68	8.52	7.10	7.89
61	4.04	4.24	5.17	5.57	5.66	5.41	4.35	5.76
85	6.23	7.30	4.79	8.51	5.63	6.46	9.12	7.75

56	3.59	2.84	6.58	6.88	5.54	6.21	5.83	7.03
82	5.60	5.35	5.84	5.76	5.52	8.33	5.80	5.52
13	1.96	2.48	3.98	4.70	5.28	8.54	9.00	8.54
2	0.99	1.61	9.04	5.20	5.20	3.72	4.21	6.44
66	3.87	3.54	4.45	5.53	5.19	6.89	4.82	5.30
46	2.97	3.67	2.94	5.01	4.86	3.68	3.87	3.22
78	4.34	4.07	4.07	4.07	4.86	5.78	5.52	7.75
14	1.79	1.92	1.89	2.56	4.75	3.03	2.96	2.96
83	5.19	4.13	4.41	6.25	4.74	3.96	6.25	3.46
76	3.97	5.04	5.11	6.93	4.54	5.55	6.62	3.78
58	3.15	2.87	4.23	4.66	4.52	4.15	3.15	2.92
50	2.78	2.52	4.89	6.07	4.48	5.92	4.63	6.59
84	4.49	4.10	3.13	3.77	4.09	3.57	3.50	3.72
42	2.39	5.07	4.73	5.47	4.00	5.47	4.93	3.66
67	2.95	3.92	3.87	3.87	3.90	3.75	3.80	5.21
70	3.02	4.37	2.69	3.06	3.83	3.60	3.35	3.56
89	5.84	3.63	4.58	8.37	3.79	5.61	4.82	3.95
8	1.18	0.94	1.02	2.35	3.76	2.90	3.76	4.24
29	1.93	5.16	2.85	4.35	3.76	5.53	5.32	3.92
7	0.89	1.94	4.47	4.85	3.58	4.62	2.54	4.10
80	3.49	3.28	2.92	3.33	3.54	4.23	3.85	3.21
77	3.11	2.89	2.60	3.52	3.54	3.27	2.33	1.95
37	1.87	2.15	2.80	3.65	3.37	3.74	2.52	2.62
68	2.49	1.76	2.62	3.12	3.21	2.89	3.98	3.98
49	1.91	2.43	2.52	1.97	3.07	2.98	3.35	4.06
12	1.13	1.49	1.70	1.10	3.06	2.70	3.11	2.93
41	1.66	2.23	3.90	4.22	2.89	2.75	1.93	1.96
63	2.05	2.29	3.21	2.37	2.87	2.98	2.49	2.38
36	1.54	1.71	2.33	2.96	2.79	3.68	2.74	3.16
81	2.68	1.97	2.63	4.92	2.68	2.35	3.83	4.82
27	1.22	1.20	1.51	2.00	2.53	3.32	3.20	2.69
44	1.43	1.96	2.58	3.27	2.35	3.56	2.53	3.21
57	1.47	1.85	1.85	1.73	2.20	1.91	1.85	1.68
53	1.36	1.40	1.68	2.24	2.12	2.14	2.23	2.23
26	0.93	1.53	1.19	1.70	1.95	3.06	2.12	2.12
43	1.13	1.22	1.59	1.69	1.88	2.24	1.79	1.59
16	0.73	0.93	1.58	1.77	1.85	1.82	1.77	1.03
11	0.59	0.82	1.19	1.33	1.74	1.46	2.01	1.55
20	0.71	0.69	1.63	1.50	1.58	1.80	1.44	1.01
75	1.33	0.88	0.86	1.61	1.55	1.51	2.33	2.21
54	0.98	1.01	1.59	1.77	1.52	1.43	0.92	1.00
62	1.04	1.57	1.60	1.81	1.45	1.81	1.90	1.60
28	0.72	0.53	1.06	1.58	1.44	2.26	2.32	1.86
88	1.91	1.64	1.58	1.86	1.24	1.58	1.05	0.87
65	0.83	1.24	1.20	0.80	1.12	1.03	0.98	0.77
87	1.37	0.77	1.02	1.15	1.06	1.29	1.68	1.72
90	0.95	0.82	0.98	0.75	0.59	0.46	0.66	1.61
U.S. Total	2.80	3.07	3.70	4.53	4.50	4.54	4.34	4.20

∗ District ID reflects the ranking based on percent increase from 2000 to 2004 reported in Table 19

Integration of PSN Research: Indicators of Success and Struggles

As noted in Chapters One and Two, one of the unique components of PSN was the support provided for research partners. Although both the project coordinators and research partner reports indicated patterns of success in integrating RPs and research, they also revealed significant variation across the districts in the perceived value and success in research integration.

Research on collaborative task groups has found that effective decision-making depends on the development of partner competencies, or the ability to both target the mandated goal (vertical competency) and build information-sharing capacities among group members (horizontal competency) (Agranoff & McGuire, 1998; Bardach, 2001). To make truly strategic decision, these collaborative groups need to consider a wide range of alternatives. Both the ease and effectiveness of strategic decision-making in groups has been linked to the use of a person or process that is able to collect information from all members of the collaborative group and distribute it back to members in a form they can understand and utilize (Comfort, 2002, 2005; Csete & Doyle, 2004). This has been referred to as the "information-transformation hub."

The following brief analysis is offered to provide some indicators as to whether Project Safe Neighborhoods (PSN) research partners were able to serve as an information-transformation hub that allowed a task force to use data strategically. The responses, which were taken from the July 2004 report by the U.S. Attorneys (or Project Coordinators) to the Attorney General, provide some indicators of success, or potential problems, integrating research into strategic decision-making.[21] Responses were available from ninety districts.

How helpful is data analysis?

While task forces reported generally positive perceptions of their research efforts and their research partners, there was some variation in their perceptions of how helpful data analysis had been in focusing their task force on the gun violence issues. Illustrated in Table 21, over one-half of the responses indicated that data analysis was somewhat helpful, about one-third thought it was quite helpful, and twelve percent did not believe data analysis had been helpful. These patterns were quite similar to those observed in the data reported above from the 2005 Attorney General reports.

Table 21: Data helpfulness in focusing the task force on gun violence

Rating	# of districts	Percent
Not helpful	11	12.4
Somewhat helpful	48	53.9
Very much	30	33.7
Total	89	100.0

Ingredients of Research Integration and Research Environment

The integration of research would seem to be dependent on the qualities of the RP and the availability of crime information sources. These components would also be likely to be associated with the perceived value of research. These issues were addressed by asking the following questions.

1. Was the presence of the research partner associated with the perception that data analysis is helpful?
2. Does having more information sources increase the perception that data analysis is helpful?
3. Was the presence of the research partner associated with having more data sources to utilize?

- **Question 1:** Was the presence of the research partner associated with the perception that data analysis is helpful?

When asked about the attendance of the research partner at task force meetings, there was a relationship between research partner attendance and the perception that data were helpful in focusing the task force on issues of gun violence.[22] For example, in districts where it was reported that data were very helpful in focusing on issues of gun violence, nearly three-quarters of the RPs attended all task force meetings. In contrast, in districts where data were not considered helpful, only 30 percent of RPs attended all task force meetings (see Table 22). There is a "chicken and egg question" in terms of whether useful data led to RP attendance or attendance resulted in useful data, but the pattern is clear that attendance in meetings and perceived utility of data were related.

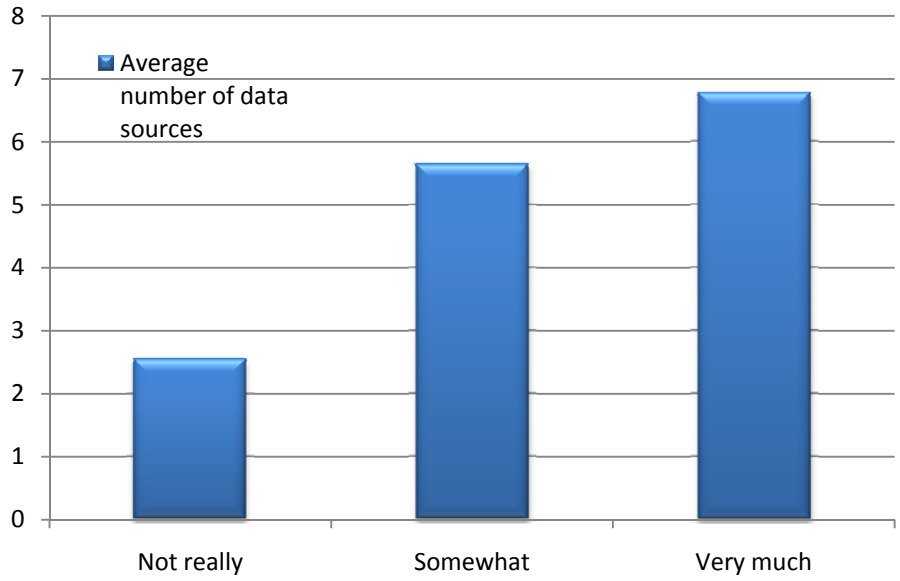
Table 22: Research partner attendance and data helpfulness perceptions

Rating	How often attend					
RP Helpful	**All**	**Most**	**Occasionally**	**Never**	**Missing**	**Total**
Not Really	3	2	4	1	1	11
Somewhat	20	13	14	2	0	49
Very Much	22	1	6	1	0	30

- **Question 2:** Does having more information sources increase the perception that data analysis is helpful?

As illustrated in Figure 3, at a statistically significant level[23], the districts that found data analysis most helpful were those that also had multiple data sources to utilize in planning efforts. The average number of data sources ranged from 2.55 in the task forces that did not find data helpful to 6.77 in the task forces that found data very helpful. This suggests that the information infrastructure, or the availability of information sources, was an important ingredient of research integration.

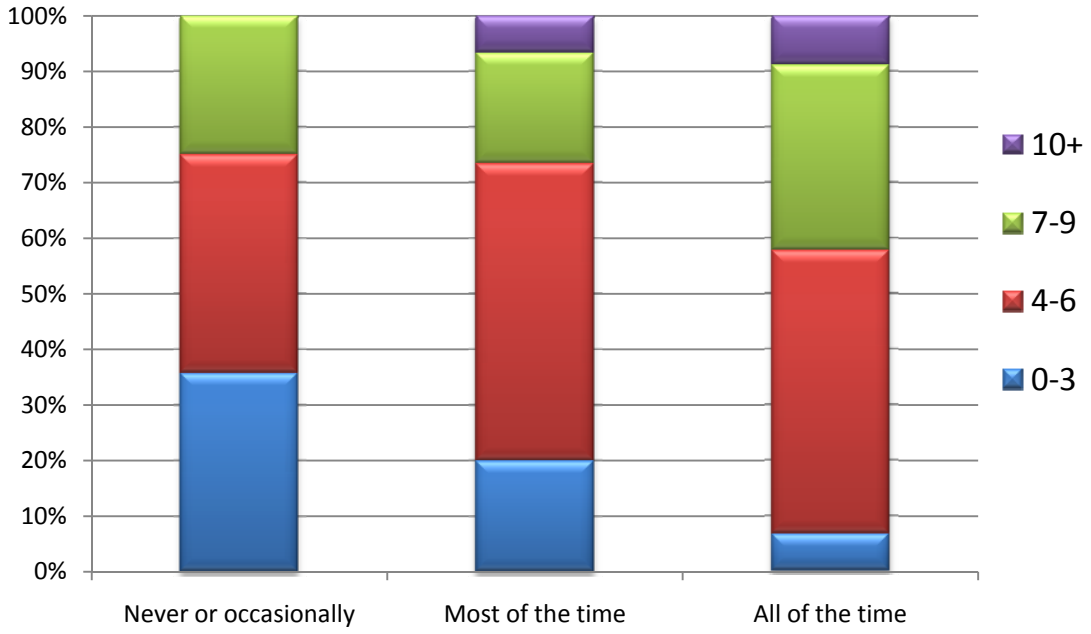
Figure 3: Data sources used and helpfulness of data analysis



- **Question 3:** Was the presence of the research partner associated with having more data sources to utilize?

Those surveyed were asked if they used each of eleven different data sources.[24] The mean number of data sources across the 90 districts was 5.66 (standard deviation = 2.509). The association between the number of data sources and the attendance of the research partner did not rise to statistical significance, as might be expected given the small numbers in some of the categories. However, Figure 4 illustrates that a relationship between number of information sources and attendance of RPs does appear to exist. Thus, in districts where three or fewer information sources were used, RPs were less likely to regularly attend task force meetings in comparison to districts with more information sources (Figure 4).

Figure 4: Percentage of data sources used and research partner attendance



Summary

These results supported the premise that available information systems and the inclusion of the research partner in task force meetings resulted in data that were seen as valuable to the task force. Again, these results cannot clarify whether it is a quality of the task force (support for research), the research partner (desire to be an active research collaborator), or availability of crime data that comes first and causes the other factors to align. The results suggested that all three conditions are likely required if data and analysis are to be effectively employed in task force planning and collaboration.

These patterns are explored in more depth in the following chapter as part of the patterns of overall implementation.

Chapter Five: Predictors of PSN Implementation

> The various crime reduction initiatives in the past decade have taught us that to have a truly significant impact, the federal government must do more than just increase its arrest and prosecution numbers. Our efforts must be comprehensive. We must build effective partnerships with our state and local counterparts. We must enhance our capacity to obtain and analyze crime and other data that should guide our strategies and afford us the opportunity to measure the impact of our efforts…And we must build a powerful and lasting coalition with our citizens – one that empowers them to be agents of change in their own communities. Project Safe Neighborhoods is that comprehensive approach.
>
> (DOJ, 2001, p. 2-6)

As mentioned earlier, the PSN initiative began in 2001. Funds were distributed to the federal judicial districts based on a modified per capita formula. United States Attorneys were tasked to convene a PSN planning team, to engage federal, state, and local officials, and were encouraged to develop partnerships with social service providers, community groups, community leaders, and community members. As noted previously, PSN task forces were asked to focus on five key elements to frame gun violence prevention efforts: 1) Partnerships, 2) Strategic Planning, 3) Accountability, 4) Training, and 5) Outreach (DOJ, 2001).

PSN thus represented a model of federally-incentivized policies crafted to allow local jurisdictions to build strategic and collaborative efforts to deal with complex problems within the context of that jurisdiction. As noted in Chapter One, PSN was developed with a recognition of the differences in implementation environments. Consequently, policies and programs generally needed to be tailored to the specific needs and resources of the particular jurisdiction. To this end, PSN stressed strategic planning processes that would build coalitions among and across levels of government, public

agencies, community leaders, and multiple stakeholder groups and use information to drive action. Although this model had the power to catalyze local efforts, it also complicated efforts to create measures of implementation and measures of success.

In order to maximize the return on investment of federally-incentivized policies such as PSN, it is critical to understand the extent to which jurisdictions were able to implement the policy, and what factors predict successful implementation, struggles, or implementation failure. This chapter presents measures constructed to determine which core principles were implemented, and reviews findings on factors that were associated with implementation success. The evaluation question addressed in this chapter is why were some districts able to more fully implement the PSN policy?

Evaluation Mission: Theory and Questions

A risk framework, integrating organizational performance models of competing factors proposed by Quinn (1991), group performance proposed by Comfort (2002, 2005), and cell survival proposed by Csete (2004), provided the theoretical basis for the hypothesis and evaluation questions (Zimmermann, 2006). The risk framework of policy implementation is based on the proposition that implementation is most likely when key decision-makers perceive the benefits of implementation to exceed the costs. Conversely, implementation is unlikely to occur when the risks of implementation are likely to exceed benefits. The calculation will be influenced by perceptions of both the likelihood of the costs as well as their magnitude, relative to benefits.

Quinn provided a framework upon which to build hypotheses. Comfort, building on Csete's models, proposed that success in group implementation of any policy or protocol depends on the ability of the collaborative group to both share information and

to use that information in service to a shared goal or objective. Comfort (2002; 2005) found that the greater the similarity between organizations in a collaborative effort, the less energy and resources it takes to share information. Comfort, translating Csete's (2004) research into a model of group behavior, predicted that if a framework is institutionalized that allows information to flow into the group and translate that information into forms that all members can use, then the costs, energy, and resources necessary to participate in and draw a net benefit from the collaboration are reduced and implementation is enhanced.

These models led to the general evaluation hypotheses that PSN implementation will be enhanced by:

1) the ability of group members to easily share ideas and information because of a past history of collaboration,
2) research resources which increase the usefulness of information to all participating members and groups,
3) a perception that PSN will produce a net positive for all participating groups when the need for the policy and the resources provided for the policy are weighed against the cost of participation.

This chapter, therefore, attempts to test the degree to which these factors enhanced PSN implementation.

Evaluation Limitations

Project Safe Neighborhoods was designed as a full coverage program, meaning that all federal judicial districts are engaged in the program. Full coverage programs, while providing a benefit for all, limit the potential to create a true experiment to determine factors that aid or inhibit implementation success. Rather than compare similar districts who did – and did not – receive resources under PSN, a full coverage evaluation relies on comparisons of the extent to which the policy was adopted.

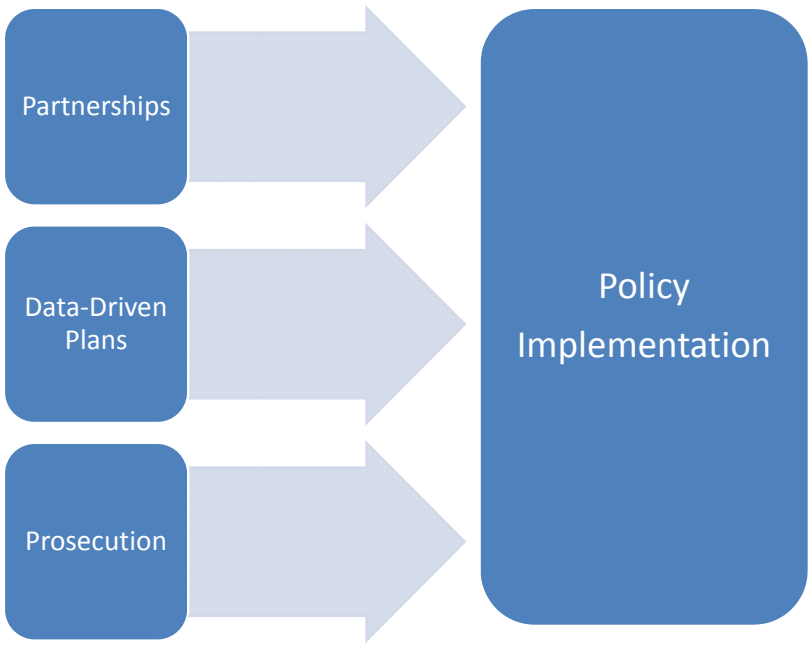
Borrowing from the medical field, criminologists and public policy researchers have begun to talk about the idea of interventions and dosages. If one jurisdiction implemented PSN fully and another only implemented a portion of the policy, one could think about this as the districts receiving all of the recommended interventions or limited interventions. One could thus think of jurisdictions as receiving a lower or higher dose of the intervention. Consequently in this analysis we assessed variation across districts and investigated factors that led to lower or higher levels of implementation.

Additional limitations, or evaluation challenges, are the broad nature of the initiative and the practical problems in gathering consistent and reliable information across time and across an entire country. Another threat to the internal validity of PSN implementation measures is the threat referred to as history – or conditions occurring in the policy environment that influence the outcome but that are not related to the program. An example would be a natural disaster – such as Hurricane Katrina. While difficult to quantify in an evaluation, a reasonable hypothesis would be that the disruptions in the Eastern District of Louisiana, related to the natural disaster, would influence implementation of PSN.

Defining PSN Implementation

For the purpose of this report, PSN implementation was defined by the level of adoption of each of the core elements as measured by an aggregate score of adoption of three core elements (Figure 5). Specifically, measures were constructed based on indicators of engaging partners, strategic planning, and enhanced federal prosecution.[25]

Figure 5: Policy Implementation Measures



Data Sources

For this evaluation, a variety of data sources were used. Those sources included information from the semi-annual reports submitted to DOJ by each district on PSN implementation progress, data reports on gun-related crime submitted to both the Department of Justice and the PSN Research Team at Michigan State University (MSU), official data from the United States Department of Justice and the United States Census Bureau, a survey of PSN Research Partners conducted by the PSN Research Team at MSU, and other publicly available information sources.[26] Most measures were available for ninety of the ninety-four federal judicial districts under study.[27] However, approximately twelve percent of the district research partners did not complete the research partner survey, so data for all measures were available for 79 districts.

Implementation Success: Constructing Measures

Partnerships

The semi-annual reports submitted by each United States Attorney's Office (USAO) indicated that all districts have conducted team meetings and have, to a greater or lesser extent, invited or actively engaged partners from across levels of government and across agencies. In order to construct an implementation success measure, responses in the report were used that indicated the types of programs that were implemented. Types of interventions were grouped by category. For example, to assess the degree to which law enforcement actively participated in PSN implementation, a law enforcement category was established. If the report from the USAO indicated that any law enforcement intervention had been implemented, such as directed patrol or street-level enforcement, the district would be given a score of 1 for that category. Seven possible areas of collaboration were identified and therefore scores could range from zero to seven. That process was used for all categories and the final partnership score was a sum of all categories score. The collaboration areas and questions from the USAO reports used to construct the categories are listed in Appendix A.

Data-Driven Planning

Three information sources were used to construct a measure of the degree to which data were used to drive planning processes. Information from the USAO semi-annual reports and information gathered from the research partner survey were used. Questions and ratings used can be found in Appendix B. The items from the research partner survey included those indicating the degree to which the researcher had been able to analyze gun crime in the district, the extent to which information was being used to

drive decisions, and whether ongoing evaluations were being completed. One question from the USAO semi-annual reports to the AG was used. That question asked about the helpfulness of data in planning. The third element was a rating of data quality. The quality of gun crime data reported was rated by the MSU PSN National Research Team. Ratings for four years of data reporting were aggregated and scored. Using all three data sources, a scale, with a maximum score of fourteen, was constructed for data-driven planning.

Enhanced Federal Prosecution

In order to reflect both the change in federal prosecutions for gun crimes and the order of magnitude in that change, given different environments, two prosecution measures were used to create an overall measure of enhanced federal prosecution. The numeric change in federal prosecutions for gun crime and the change in per capita federal prosecutions for gun crime indicating the difference for the year prior to PSN implementation (2000) compared to the next four years, were reduced to a factor score. This was done through a principle component analysis (oblique rotation). One factor was extracted, and that factor explained 82.9 percent of the variance.

Overall PSN Policy Implementation

To measure overall implementation, scores from the three implementation elements were converted to standardized form and summed. Implementation success was constructed in several ways in order to better understand the patterns of implementation success or failure. By constructing success by implementation element and in aggregate, it was possible to use a continuous measure that rated districts on overall success and success on each of the elements. This provided insights into implementation patterns.

For example, a district might have been very successful in increasing federal prosecution for gun crime, but had marginal success in using data-driven planning or building collaborative programs. Having the option to explore each element provided an ability to identify districts that experienced implementation success in a particular domain.[28]

In addition to creating these continuous scales, districts were also grouped into high, medium, and low implementation in each area and overall. This simplified scale permitted patterns of success to be analyzed by general group and enhanced the ability to create graphic images to illustrate patterns of implementation.

Patterns of Policy Implementation

Bivariate analysis of the policy elements of 1) engaging partners, 2) using data to drive decisions, and 3) enhanced federal prosecution indicated support for the evaluation hypothesis that a research focus enhances the ability of the collaborative group to implement other aspects of PSN. As illustrated in Table 23 and Figure 6, higher scores on the research element were significantly correlated with engaging a broader range of partners in an array of PSN programs. The significance level of this correlation was < .01.

Data-driven decision-making was also significantly associated with enhanced federal prosecution (Table 23 and Figure 6). Higher scores on using data to drive decisions were associated with increases in rates of federal prosecution for gun crime. However, there was no significant association between engaging a broader range of partners and increasing rates of federal prosecution for gun crime (Table 23 and Figure 6).

Table 23: Correlations among PSN Policy Elements

		Partners	Data-driven	Prosecution
Partners	Pearson Correlation	1.00		
	Sig. (2-tailed)			
	N			
Data-driven	Pearson Correlation	0.34	1.00	
	Sig. (2-tailed)	0.00**		
	N	79		
Prosecution	Pearson Correlation	0.04	0.25	1.00
	Sig. (2-tailed)	0.70	0.03*	
	N	90	79	

**correlation is significant at the .01 level (2-tailed).
*correlation is significant at the .05 level (2-tailed).

This finding indicated support for the proposal that using research strategies both aided groups in working together toward a common goal and provided critical information to help the group achieve its mission. Why, then was there no significant correlation between engaging in a broad range of efforts with a broad range of entities and enhanced federal prosecution?

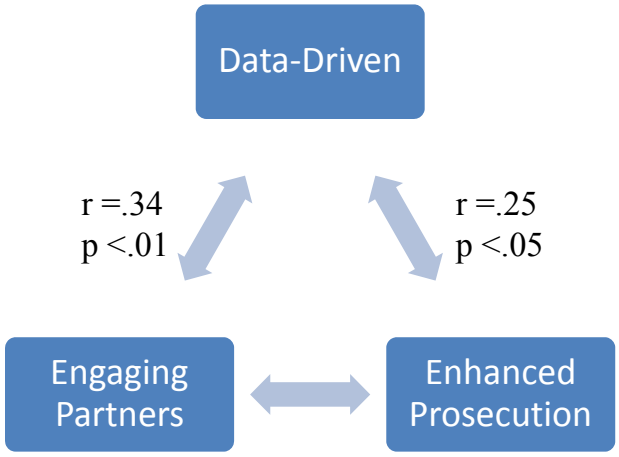
The Comfort and Csete models indicated that if groups do not have the human or technical ability to easily share information across multiple groups, that those groups will restrict communication and collaboration to groups with whom they have common definitions, work patterns, and goals. As an example consider a PSN task force including prosecutors and law enforcement officials with a long history of prosecutors working with law enforcement, but little history of collaboration with schools. The school officials have data systems that are not compatible with those of law enforcement and prosecution, and members have some fears about legal and administrative constraints on data sharing across these systems. School officials have some concerns about gun violence, but addressing gun violence may be much lower on their goal structure than it is for law enforcement officials or prosecutors. The Comfort and Csete models would

predict narrow implementation – or implementation that allowed group members to actively engage only with those members and on those projects for which information sharing and planning could be accomplished with some ease. For PSN, with the locus of funding and leadership lodged in federal prosecution, it was hypothesized that narrow implementation would involve a prosecution focus. An analysis of the patterns of implementation for districts scoring in the lowest third, in terms of data-driven decisions, indicated that one-half (14 of 28) of the districts that scored in the lowest third on data-driven processes, also scored in the lowest third in engaging partners (Table 24 and Figure 6). Only 14 percent were able to implement a high level of collaboration. In contrast, only 29 percent of districts in the lowest third of data-driven implementation scored in the lowest third for enhanced prosecution, and 28 percent of these districts scored in the highest third of enhanced prosecution.

Table 24: Cross tabulation of Implementation Elements

	Engaging Partners						**Enhanced Prosecution**					
	Low		***Medium***		***High***		***Low***		***Medium***		***High***	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Data-Driven												
Low	14	0.18	8	0.10	6	0.08	8	0.10	12	0.15	8	0.10
Medium	16	0.08	10	0.13	6	0.08	7	0.09	8	0.10	7	0.09
High	4	0.05	10	0.13	15	0.19	10	0.13	7	0.09	12	0.15

Figure 6: Correlation among Implementation Elements



The key point is that data-driven decision-making was related to both the development of collaborative partnerships and the level of federal prosecution. Beyond this threshold, it appeared that some districts were able to implement a more narrowly-focused PSN strategy based on increased federal prosecution even if there was little reliance on data-driven processes. However, it was rare to find healthy collaborations absent data-driven processes.

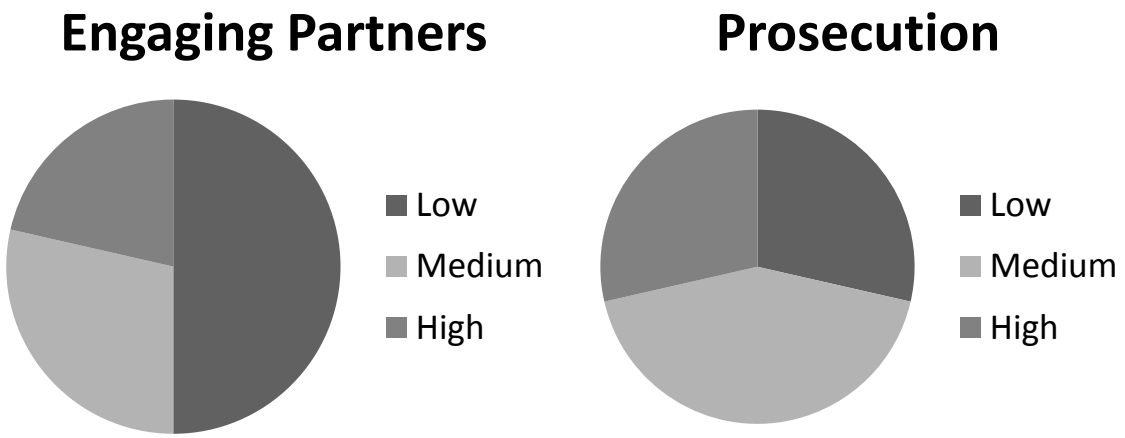
Factors in the External Environment

A risk model to predict policy implementation, based on the Quinn (1991) competing factors model could be framed to test the degree to which factors in the external policy environment can predict the degree to which districts were able to implement PSN (Zimmermann, 2006). Factors in the external environment were chosen for two reasons. First, the theories underlying the model predict that members of a collaborative group, such as the PSN team, would view policy implementation as lower

risk, and of more benefit, if the policy targets a compelling need and commonly-held goal, if the district has the human and technological capacity to work together to address the goal, if the public and key constituents will support the policy, and if resources are provided that promise a net positive benefit from implementation.

A second reason that external factors were chosen for this test, was that such factors are readily available to policy makers and researchers prior to policy implementation. A review of such factors could aid policy makers in deciding how to incentivize policies, such as PSN, and identify districts that might be positioned to best implement such a policy.

Figure 7: Comparison of Implementation Levels of Districts in the Lowest Third of Data-Driven Implementation on Engaging Partners and Enhanced Prosecution



A Risk Model of PSN Implementation

The Risk Model for PSN implementation focuses on four sectors: 1) needs and goals, 2) infrastructure, 3) human factors, and 4) resources. The construction of the model and each of these variables was explained in depth in an earlier version of this analysis (Zimmermann, 2006). A simplified model of and an overview of factors and results is presented here.

Needs and Goals - Gun Crime

Zimmermann (2006) investigated the level of need for PSN in two ways. The need for PSN was measured as the level of selected violent crimes per capita in the year prior to PSN implementation. The prediction was that PSN districts with higher levels of violent crime would perceive more benefits and lowered risks for implementing PSN. Since gun crime is not a specific reporting category in the Uniform Crime Report, the level of reported homicides, robberies, aggravated assaults, and rapes were constructed as a surrogate measure. The second variable was federal prosecutions for gun crime (per capita), also for the year prior to PSN implementation.

Infrastructure

Two infrastructure variables were constructed. The first infrastructure variable measured human capacity for collaboration. Districts were grouped into those that had had experience with a similar collaborative process and those without such a history. The second variable was a rating of the overall information systems capacity in the policy environment.[29] This scale was constructed by Barrett, Greene, and Mariani, rating the competency of the public sectors in information technologies and infrastructure (2001). The hypothesis was that in districts with experience in multi-agency collaboration and with an information infrastructure that can support data-driven decision making and information sharing, the benefits of implementing PSN would exceed the costs. In contrast, in contexts with little experience of collaboration and lacking an information infrastructure, the costs may exceed the benefits.

Human Factors – Public and Political Attitudes

Public and political attitudes toward offenders were constructed using a surrogate measure of the number of state prison inmates incarcerated on an average daily basis per capita. This measure was constructed using average daily population prison statistics and United States Census Bureau data (ACA, 2000; USCB, 2000).[30] The incarceration rate, having controlled for levels of violent crime, served as a proxy for public and political sentiments toward criminal sentencing policy. Presumably in a context where there is more support for harsh sentencing, the benefits of increasing use of federal prosecution for violent gun offenders would more likely to exceed the costs of policy implementation.

Resources

A resource variable was constructed using 2003 funding levels. As noted earlier in this chapter, funding was provided on a modified per capita formula. The modified formula provided a "floor" level for the lowest population districts and capped the highest population districts. Presumably, higher relative levels of resources should decrease the costs of implementation.

Data Analysis

Descriptives and Bivariate Analysis

Table 25 provides a description of the measures or central tendency (means) and variation of the variables used in this analysis. Of note is that, since PSN was a full coverage program, the implementation environment for PSN varies widely. An example is gun crime per capita, which – in the year 2000 – ranged from a low of roughly 44 serious, violent crimes per 100,000 to approximately 1,500 per 100,000. Bivariate

correlations indicated that the following variables were positively and significantly associated with higher levels of PSN implementation (see Table 26):

1) violent crime,
2) federal prosecutions of gun crime, prior to implementation,
3) higher levels of information technology, and
4) prior experience with similar collaborative decision-making processes.

Neither the level of funding nor the number of inmates per capita were correlated with the level of PSN implementation.

Table 25: Descriptive Statistics for Predictor Variables

	N	Mean	Min.	Max.	SD
Needs and Goals Sector					
Violent crime	89	490.63	53.58	1507.36	253.85
Federal prosecution – gun crime	90	2.88	0.5	23.82	7.5
Structure and Infrastructure					
Technology	89	7.08	2.00	11.00	1.90
Prior collaborative programs	87	0.77	1.00	2.00	0.42
Human Factors Sector					
Incarceration rate	89	405.99	114.61	775.09	151.01
Resources and Survival Sector					
PSN funding	90	584,841	285,000	1,300,000	345,347

Table 26: Bivariate Correlations: Implementation to Predictor Variable and Among Predictor Variables

		Implementation	Crime	Cases	Technology	Programs	Inmates	Funding
Implementation	Pearson Correlation	1.00						
	Sig. (2-tailed)							
	N	79						
Crime	Pearson Correlation	0.37	1.00					
	Sig. (2-tailed)	0.00**						
	N	78	89					
Cases	Pearson Correlation	0.28	0.33	1.00				
	Sig. (2-tailed)	0.01*	0.00**					
	N	79	89	90				
Technology	Pearson Correlation	0.35	0.00	0.05	1.00			
	Sig. (2-tailed)	0.00**	1.00	0.61				
	N	78	88	89	89			
Programs	Pearson Correlation	.046	0.27	-0.02	0.11	1.00		
	Sig. (2-tailed)	0.00**	0.01*	0.85	0.33			
	N	76	86	87	86	87		
Inmates	Pearson Correlation	0.00	0.33	0.07	-0.08	0.23	1.00	
	Sig. (2-tailed)	0.98	0.00	0.53	0.46	0.03*		
	N	78	88	89	89	86	89	
Funding	Pearson Correlation	0.12	0.28	-0.30	0.18	0.29	0.03	1.00
	Sig. (2-tailed)	0.28	0.01**	0.00**	0.09	0.01**	0.81	
	N	79	89	90	89	87	89	90

Analysis of the Risk Model

A least squares regression analysis was conducted (Table 27). The analysis indicated that the model predicted roughly 45 percent of the variation in implementation across the PSN districts. The human and technological competency factors in the infrastructure sector were the only factors that significantly influenced the model. This means that, once other factors in the model were controlled for statistically, variation in the other factors were not helpful in explaining or predicting the level of implementation districts were able to achieve.

Both the strength of the infrastructure sector and the theory underlying this analysis indicated the potential importance of districts' ability to collaborate and use

information. Given this, a subgroup analysis was conducted to explore the degree to which infrastructure may play a key role, and be an important factor for policy makers to understand as they craft federally-incentivized policies – such as PSN.

Table 27: Implementation Regressed on the Risk Model

	Coefficient	Std. Error	Beta	Sig.
Crime	0.00	0.00	0.18	0.08
Cases	-0.03	0.13	-0.03	0.79
Technology	0.34	0.10	0.33	0.00**
Programs	1.75	0.33	0.50	0.00**
Inmates	0.00	0.00	-0.09	0.32
Funding	0.00	0.00	-0.07	0.53

R^2= .45, N=73, intercept = -3.89
** p<.01

Analysis of High and Low Information Technology Groups

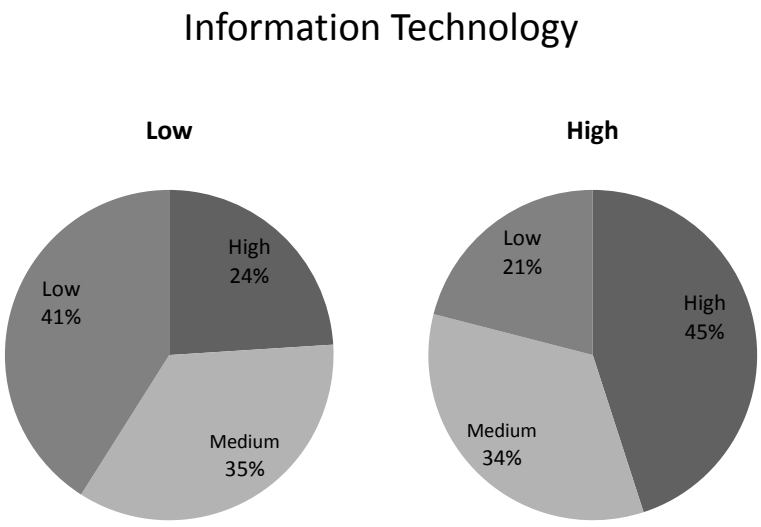
In order to test the potential that a jurisdiction that included a better management information infrastructure was critical to lowering the cost – or risk – of PSN implementation, a subgroup analysis was performed. To create the subgroups, districts were divided into two groups as designated as either high information technology or low information technology.[31]

Low technology districts had significantly less success in implementing PSN. For low technology districts, the level of gun crime had no significant impact on PSN implementation. However, one finding that reinforced the need for information sharing was that prior experience with similar strategic partnerships was significantly correlated with implementation success.

Overall Implementation for High and Low Technology Groups

A comparison of the mean level of implementation for all groups and for high and low technology subgroups indicated that those districts in the high technology group implemented PSN at a significantly higher level ($p<.01$) than those in the low technology group.[32] Figure 8 illustrates the differences between the two groups. All districts were divided into three groups, based on overall implementation scores: low, medium, and high implementation. As pictured in Figure 8, roughly 40 percent of low technology districts were classified as low implementers. In the high technology group, the percent was about half that of the low technology group. For the high technology group, almost half the group were high implementers – while about a quarter of the low technology group were in the highest third on implementation.

Figure 8: Comparison of Low and High Information Technology Districts on PSN Implementation Levels



Discussion

The results of the various analyses support a risk-based theory of PSN implementation. The comparison of the levels of adoption of the three elements of PSN implementation – data-driven decision making, collaborative program implementation, and enhanced prosecution – reinforces both the efficacy of the inclusion of a research component in the strategy and the strength of the risk model. As research capacity increased, so did both the ability to implement protocols across agencies and areas and the ability to increase gun prosecutions.

The results of the external factor models and subgroup analysis, similarly, reinforce the potential predictive power of the risk model. The model would predict that having the human and technological capacity to share data and use that information to solve problems decreases the costs of implementing a policy such as PSN. For districts

with a history of collaborative decision making and with the infrastructure in place to share information in service to that decision making, implementing PSN would require less investment. Since the human investment of coalition building and group dynamics is lessened, as is the fiscal and technological resources needed to set up an infrastructure to share information, the expected return on investment (ROI) for participation in PSN would be greater. Conversely, the results would support the theory that in districts in which humans would need to spend a good deal of time and energy setting up good group processes and building trust – and creating a management information system that could overcome interoperability issues – that the costs are so high that PSN is too costly, too much of a risk to undertake.

Of critical note is that these factors were predictive of level of implementation whereas the levels of violent crime in the district were not. This suggests that beyond the "push factor" of level of violent crime, these components of data-driven decision-making, dependent on prior collaboration, and information infrastructure, were more influential of the degree of PSN implementation.

Conclusion

The results of this research indicated that some districts were highly successful at implementing PSN, while others struggled. Given the findings, it can be argued that a key to success was a human and technological infrastructure that allowed districts to engage in the strategic, collaborative planning and implementation that was envisioned for the PSN policy.

Given that, there are implications for policy. For complex issues, such as strategically addressing gun violence at the district level, decision makers may wish to

consider the infrastructure of the local jurisdiction, prior to determining the type of resources to make available to that area. For areas with well developed human and technical competencies, funding and supporting a collaborative, strategic policy would be predicted to meet with success. However, incentivizing such a policy in a district without experience in collaborative and strategic planning among expected partners – or in a district with limited information systems infrastructures, the ROI would be expected to be low.

In a low infrastructure jurisdiction, policy makers might consider two options. One would be to assess the human and technological capacities necessary to implement such a policy, and first fund the necessary upgrades, training, and resources needed to build capacities. Only after this capacity-building phase, would incentives be offered to move the collaborative group toward implementation of the policy.

A second option for jurisdictions with low infrastructural capacity would be incentivized policies that did not require the breath of collaboration that is necessary in a policy, such as PSN. A policy that could be implemented by one agency, or a narrow group of similar agencies, does not hold the promise for truly strategic problem solving and community empowerment. However, it does lower the costs and risks for jurisdictions that do not have the infrastructure in place to successfully implement strategic and collaborative policies.

Finally, as noted in other sections of the report, the case studies conducted with high implementation PSN task forces revealed a consistent pattern of demonstrated leadership that was noted consistently in site visit interviews. Typically this involved some combination of leadership and vision from the U.S. Attorney, the PSN coordinator,

the Chief of Police, local prosecutor, and other officials. Our data cannot address the "chicken and egg" question of whether strong leadership produced a commitment to data-driven decision-making, prior development of partnerships, and an information infrastructure, or whether these capacities enabled strong leaders to implement the PSN model more effectively. Based on the PSN experience as well as decades of research on program implementation, it seems likely that both leadership and the infrastructure and human factors sectors are critical for effective implementation.

Solving complex problems, such as gun violence, requires complex and rich protocols, engaging multiple stakeholder groups. Project Safe Neighborhoods was a federal effort that recognized the need to knit strong webs of official and local resources, to strategically develop targeted problem solving interventions, with the goal of creating a unified safety net for communities. However, to be successful, jurisdictions will need to build the capacity to work together, using the best possible information, to create solutions that are truly strategic.

Chapter 6: Comprehensive Case Studies

An initial stage in the research on the implementation and impact of Project Safe Neighborhoods, consisted of a series of case studies of specific PSN district programs. These site-specific case studies were intended to provide information about how PSN was structured and implemented in different jurisdictions. PSN was developed as a national program tailored to address varying gun crime patterns in local jurisdictions. One of the key roles of the research partner was to analyze these patterns to help inform the local PSN task force. This local nature of PSN also made it important to examine implementation and impact at the local level. Consequently, the series of site-specific cases studies addressed these issues.

The local nature of the national PSN program also created challenging evaluation issues. Whereas some components of PSN (e.g., coordination through U.S. Attorney's Office; national media campaign; inclusion of research partners and community engagement partners) were common across the country, other components were locally driven (e.g., specific target areas, intervention strategies). Additionally, there was significant variation across the various PSN districts in terms of the timing of PSN implementation. As noted in the previous chapter, it appeared that in districts with existing federal-state-local programs focused on gun crime, the implementation of PSN often occurred at a quicker pace than was the case in districts where new relationships focused on gun crime had to be forged. Similarly, where research partners had established relationships with local criminal justice agencies the integration of research tended to occur more rapidly.

These characteristics raised a number of thorny evaluation issues. For example, the national dimensions of PSN made it difficult to identify comparison sites to assess the impact of PSN. Similarly, the multiple components of PSN made it difficult to generalize across all PSN districts in terms of the nature and intensity of PSN intervention strategies. For example, in some districts, PSN resulted in a significant increase in federal prosecution of gun crime case coupled with a communication strategy of a deterrence-based message. This reflected a Project Exile-type strategy. In other districts, research helped isolate particular target areas and dimensions of gun violence (e.g., gangs, drug market locations) and resulted in focused interventions targeted at these dimensions. This reflected a SACSI-type strategy referred to as "strategic problem solving/pulling levers."

Given this variation across districts, as a first step in the national research program, a series of site-specific case studies was conducted. Having decided on this approach, the first challenge was choosing districts for study. The main criterion for selection was a sense that key components of the PSN strategy had been implemented in a meaningful fashion and had been in operation for a sufficient period to potentially affect levels of gun crime. The MSU research team reviewed multiple indicators in an effort to identify districts meeting these criteria. These included district reports to the Department of Justice (DOJ), interviews with PSN project coordinators and PSN research partners, and review of data and project reports submitted to DOJ. From these sources, districts were nominated for a possible case study based on:

- Evidence of implementation of PSN strategies (e.g., increased federal prosecution, joint prosecution case review processes, incident reviews, offender notification meetings, chronic violent offender programs, targeted patrol, probation/parole strategies, gang strategies, prevention, supply-side strategies, etc.)

- Evidence of new and enhanced partnerships (local, state, federal; community, etc.)
- Integration of research partners and/or evidence of research-based strategies
- Meaningful implementation for a sufficient time period to allow assessment of impact
- Sufficient base-rate levels of gun crime to allow assessment of impact

In effect, these dimensions were employed to ask: Is gun crime being addressed differently in this district based on one or several of the PSN core components?

Once sites were identified, the MSU research team conducted site visits to learn more about PSN structure, implementation, and impact. Cooperative relationships between the local research partners and the MSU research team were established for the purpose of generating the case studies. This provided the benefit of the "deep knowledge" of the local research partners with the "independent eyes" of the national research team.

Given this strategy, in effect a purposive sampling approach, the case studies cannot be considered representative of PSN in all 94 judicial districts. Rather, these were studies of PSN within specific sites. These studies were intended to generate new knowledge about the adaptation of the national PSN program to local contexts as well as about the impact of PSN on levels of gun crime in specific jurisdictions. This chapter summarizes the results of the comprehensive case studies conducted by MSU.

Project Exile-Strategy Sites

The Middle and Southern Districts of Alabama

The State of Alabama is served by three federal judicial districts, with corresponding United States Attorneys' Offices (USAOs): the Northern, Middle, and Southern Districts. In terms of PSN, Alabama was unique because the three districts coordinated a common Project Safe Neighborhoods (PSN) theme, logo, and message. Specifically, Alabama ICE, standing for Isolate the Criminal Element, was the common

vehicle used across all three districts to communicate a consistent theme: *Gun Crime = Hard Time.* Two of the three federal districts were the focus of comprehensive case studies by the MSU research team: the Middle and Southern Districts.[33]

The comprehensive case studies revealed that the two sites largely implemented PSN in a Project Exile fashion. The increased federal prosecution component was coupled with a community-wide strategy of communicating the threat of sanctions. This was a core ingredient of the statewide ICE program and was modeled on Richmond's Project Exile. Simply put, the media campaign was intended to maximize the impact of federal sanctions by communicating the USAO's commitment to federal prosecution of illegal gun possession and use.

The Middle and Southern Districts of Alabama are two of the smaller federal districts in terms of population (ranked 75th and 82nd respectively). At the outset of PSN, both districts also suffered from high homicide rates, above the national average per 10,000 population, as evidenced by Uniform Crime Report data from 2001 (see Table 28). Officials in both districts believed that one of the key causes for the high rate of homicide was extreme prison overcrowding in Alabama that had resulted in illegal gun possession being handled as a minor offense with no risk of incarceration. Indeed, officials shared data demonstrating that a significant number of homicides and gun assaults were either receiving no or minimal prison time in state prisons. The threat of federal prosecution and imprisonment for illegal gun possession and use was considered a potentially powerful tool by these local, state, and federal officials.

Table 28: Aggravated Assault and Murder Rates, 2001

Site	Aggravated Assault Rate (Per 10,000)	Murder Rate (Per 10,000)
United State's Average*	30.65	0.65
Alabama Middle District	24.31	0.73
Alabama Southern District	24.68	0.85

* 90 federal judicial districts

Despite having limited resources, both the Middle and the Southern District of Alabama United States Attorneys' Offices made it their goal to prosecute as many firearms cases as possible. For both districts, this required excellent relationships with local law enforcement as they would be the ones bringing the cases for federal prosecution. Both districts relied heavily on their Law Enforcement Coordinators to foster new relationships as well as strengthen existing ones. However, each district took a slightly different approach to their task forces and how they would receive possible cases for federal prosecution from local law enforcement.

Task Force Structure and Gun Case Screening

In response to local law enforcement's concerns about "one more federal task force," the United States Attorney (USA) in the Middle District took a different approach to their Alabama ICE task force. Recognizing that law enforcement resources were sparse, the USA still asked agencies to assign an officer to the ICE task force but with the understanding that the officer would remain in his or her own agency and community rather than being assigned full-time to the task force. In many respects, the task force member would serve as the point-of-contact within the local agency. This structure was described by many officials as a key to the success of Alabama ICE in the Middle District.

The task force, known as the Prosecution and Investigative Review Team (PIRT), met weekly at the U.S. Attorney's office in Montgomery. Following the decentralized task force format, members were not required to come every week. However, if they had a case to present or sought updates on prior cases, the PIRT meeting provided a venue for local task force members to communicate directly with a team of AUSAs, local prosecutors, ATF agents, and other local law enforcement officials. Through these meetings, law enforcement officers received immediate feedback on the prospects for federal prosecution as well as continual feedback on existing cases. Interviews consistently revealed that this weekly meeting was a critical component of team building among the local, state, and federal officials involved in the Middle District's Alabama ICE.

In contrast to the Middle District, the Southern District had what they considered a "hybrid" task force model. That is, they decided a more common "round table" approach where every contributing agency had someone at the table would not work well for them. What made this task force different was that the core components were located within the Mobile Police Department (MPD), rather than the USAO. The reasoning behind this decision was that the Mobile Police Department is the largest police department in the Southern District and, therefore, had the highest rates of gun crime in the district and would generate the most federal gun cases. The MPD Chief demonstrated his commitment to PSN by dedicating one sergeant and one patrolman full-time to work on ICE cases. Additionally, ATF worked with the MPD to develop a case screening system. The screening system was designed to correspond to the elements of a gun crime needed to support federal prosecution. The sergeant became the department's Gun

Coordinator, under the Criminal Investigation Division, and would be augmented by an officer who was cross-deputized with ATF. This officer would work specifically with an agent dedicated to ICE cases and serve as the liaison between the Gun Coordinator at MPD and ATF.

Both the Middle and the Southern Districts believed that training was a key component to their Alabama ICE efforts. Both USAOs realized that local law enforcement officers would need to be educated about federal gun laws, how to investigate cases and write reports, the elements needed for federal prosecution, and case processing. Here, the Law Enforcement Coordinator played a pivotal role in bringing training to law enforcement agencies in the district.

Communication Strategy

In addition to increased federal gun case prosecution, both the Middle and Southern Districts of Alabama focused a considerable amount of their time and energy on their communication strategy. This was a core ingredient in the statewide Alabama ICE program and was modeled on Richmond's Project Exile. Simply put, the media campaign was intended to maximize the impact of federal sanctions by communicating the USAO's commitment to federal prosecution of illegal gun possession and use. According to one criminal justice official in the Southern District, "…it was never about locking everyone up but is about getting the message to the criminal population."

Interviews with officials in ATF and the USAO revealed that task force members noticed through the street officer's incident report narratives that the word was out on the street – "don't get caught with a gun." Officers quoted suspects as saying, "I can't get caught with a gun," and "I'm a felon, I can't get ICED." Officers also reported that

suspects increasingly (i.e. since ICE inception) admitted to drugs charges but denied gun possession suggesting they were aware of the possible federal consequences. Police and prosecution officials also reported seeing buzzwords in the police report narratives like "felon" and "ICE" communicated by offenders.

Evidence of Implementation—Outputs

The data clearly indicated that federal prosecution of gun crime offenses increased in the Middle District. Despite the relatively small number of AUSAs (nine in 2000), the number of indictments under U.S. Code Title 922 and 924 violations increased from 15 in fiscal year (FY) 2000 and 20 in FY 2001, to 92 in FY 2003, an increase of over 500 percent. Similarly, the number of defendants prosecuted in federal court increased from 21 in FY 2000 to 103 in FY 2003 and 86 in FY 2004. This increase in indictments and defendants placed the Middle District in the top seven percent of districts in terms of its percentage-point increase in federal prosecution. The numbers were even more telling when considered in light of the district's population. As one of the least populous U.S. districts (ranked 19th least populous out of 94), the Middle District's 2003 rate of defendants per 100,000 population was 9.7. This federal prosecution rate per 100,000 population was among the top 15 (i.e., 14th) of the 94 judicial districts. Thus, evidence suggested that the task force's goal of accepting all gun cases (absent evidentiary problems) was achieved.

Similarly, the Southern District, despite only having only 14 lawyers in the criminal division, witnessed the number of indictments under U.S. Code 922 and 924 increase from 46 in FY 2000 to 81 in FY 2002, an increase of just over 76 percentage points. Subsequently, indictments in the same category increased to 109 in FY 2005, a

139 percentage point increase from FY 2000. Likewise, the number of gun crime defendants prosecuted in federal court increased from 65 in FY 2000 to 129 in FY 2005, an increase of over 98 percentage points.

The numbers were even more telling when considered in light of the district's population. As one of the least populous federal judicial districts (ranked 8th least populous out of 90 federal districts[34]), the Southern District of Alabama consistently ranked in the top seven percent in regards to rate of defendants per 100,000 population. For 2005, the number of defendants prosecuted per 100,000 was just over 16. This rate ranked second among the 90 judicial districts for that year. Clearly, the goal of increased federal prosecution was realized in the Southern District of Alabama.

Evidence of Impact—Outcomes

Ultimately, the goal of PSN was to reduce gun crime. To assess whether the Middle and Southern District's PSN strategies had this impact, the outcome analyses focused on gun crime and homicide trends in the City of Montgomery and the City of Mobile respectively. As an initial step in the outcome analysis, annual trends in homicide, armed robbery, and assault with a firearm for each city were reviewed (refer to Table 29). In Montgomery, comparing 2002 and 2003 with the previous two years provided evidence of a decline in these crimes, particularly for aggravated assaults with a firearm. In Mobile, declines were seen in both aggravated assaults with a firearm and robbery with a firearm, though with an upturn in 2005. Homicide increased and decreased from year to year with little discernible pattern over the six-year period, although the base rates were quite small and thus difficult to interpret.

Table 29: Gun crime trend- Cities of Montgomery and Mobile

	2000		2001		2002		2003		2004		2005	
M=Middle S=Southern	**M**	**S**	**M**	**S**	**M**	**S**	**M**	**S**	**M**	**S**	**M**	**S**
Homicide (total)	30	14	27	39	30	34	18	18	25	22	-	32
Aggravated assault with a firearm	319	135	293	121	303	113	244	78	283	92	-	145
Robbery with a firearm	448	497	464	487	543	432	505	374	488	347	-	348

While trend lines were suggestive of a reduction in gun crime in both cities, to assess the significance of these trends time series analyses were conducted. Time series, considered one of the most powerful evaluation tools, account for crime trends prior to the intervention point and assess the significance of any change in crime levels following the intervention. Examining Montgomery (the Middle District) first, the time series analyses were based on monthly data from January 2000 through December 2004.[19] Assaults with a firearm had a statistically significant decline ($p < .05$) suggesting there was a maximum likelihood mean reduction of three assaults with firearms per month immediately after the intervention date of May 2002. This translated into a reduction from approximately 309 gun assaults per year to approximately 270. Homicide also declined, though its significance level was marginal (alpha .116). This translated to a reduction from 29.5 homicides per year to 22.8. The analyses did not indicate any effect on armed robbery.

A possible explanation for this decline in violent crimes could be that overall crime rates were declining at a simultaneous, or similar, rate. If this were the case, the above findings would simply be a result of a general decline in crime. In order to control for a possible global change in crime independent of firearm offenses, monthly time

series analyses of motor vehicle thefts and property offenses were examined. The logic was that if such a global crime decline occurred, the time series analysis on property crimes would have a similar reduction.

When examining the comparison offenses in Montgomery, there was actually a slight increase in the average number of motor vehicle thefts and overall property offenses, although this change was not statistically significant (see Table 30). Thus, property offenses remained consistent over the time series period. That is, the comparison variables that account for outside factors (global decline in overall crime) did not change during this same period. This suggests that the reduction in assaults with firearms may be attributable to the PSN intervention.

Table 30: Montgomery Time Series Analysis-- May 2002 Intervention Date

Crime	Pre-Intervention Mean	Post-Intervention Mean	Mean Difference (Post-Pre)	ARIMA Model p	d	q	Intervention Coefficient	p-value (s.e.)
Target Offenses								
Assaults with a firearm	25.78	22.50	-3.28	0	0	0	-3.29 (1.6)	.038
Armed Robbery (ln)	3.64	3.68	0.04	0	0	1	.049 (.10)	.616
Homicide	2.46	1.90	-.056	0	0	0	-.558 (.36)	.116
Comparison Offenses								
MV Theft (Ln)	4.67	4.86	0.19	0	1	0	-.017 (.05)	.747
Property (Ln)	7.09	7.15	0.16	1	1	0	-.019 (.021)	.787

The research partner working with the Southern District of Alabama took a similar but somewhat different approach to the time series analysis. Data for a large number of crimes committed with a gun were available for analysis. To address the threat that changes in gun crime reflected changes in overall crime trends, the trend in property crime was included as a control variable in the gun crime analyses. Table 31 summarizes the results of the ARIMA analysis of the eight models[35] for Mobile. With the

exception of sex crimes with a gun, all the coefficients were negative suggesting a decline in gun crime. That is, the PSN intervention, after controlling for property crime, had a significant effect in four crime categories (total gun crime, all violent crime with a gun, robberies with a gun and all assaults with a gun) and in gunshot trauma admissions. There was no reduction in sex crimes and the reduction in homicides and menacing was not statistically significant.

Total gun crime[36] in Mobile after the implementation of PSN, decreased on average by about 26 incidents per month, after controlling for property crime. Similarly, violent crime with a gun[37] decreased on average by about 16 incidents per month and robbery with a gun decreased on average by about 11 incidents per month after controlling for property crimes.

In addition to police data, gunshot trauma admissions, representing the number of patients admitted to the local trauma center (i.e., University of South Alabama Hospital), were available for analysis. Trauma center admission for gunshot wounds decreased on average by about 2 incidents per month after controlling for property crimes. Given the costs of gunshot wounds (Cook and Lugwig, 2000; Miller and Cohen, 1997), this suggests a significant cost saving following the intervention of PSN. Thus, both police and trauma center data suggest that the SDAL PSN intervention had an impact on the level of gun crime in Mobile and that this held when contrasted with the trend in property crime.

Table 31: Mobile Time Series Analysis—(through August 1, 2006)

Crime	Pre-Intervention Mean	Post-Intervention Mean	Mean Difference (Post-Pre)	ARIMA Model p	d	q	Intervention Coefficient	Property Crime	F	R-squared
Target Offenses										
Total gun crime	130.04	100.49	-29.55	0	1	1	**-.26** *	.05*		
Violent crime w/gun	52.02	39.94	-12.08	0	1	1	**-.16***	.04*		
Homicide w/gun	1.65	1.65	0	0	0	0	-0.27	.003*	1.96	.04
Sex crime w/gun	.65	.79	+.14	0	0	0	.139	0	.240	.005
Robbery w/gun	39.51	29.81	-9.7	0	1	1	**-.11***	.03*		
Assault w/gun	13.44	10.56	-2.88	1	0	0	**-2.57***	-.02		
Menacing w/gun	36.04	25.67	-10.37	0	1	1	-6	-.002		
Gunshot trauma admission	11.10	8.76	-2.34	0	0	0	-2	.003	3.76*	.09
Comparison Offenses										
Property crime	681.42	687.40	+5.98							

*p=<.05

Challenges Encountered by PSN Task Forces

As with most PSN task forces, ICE officials in both the Middle and Southern District of Alabama described a series of ongoing challenges. Foremost for the Middle District were the number of federal gun prosecutors and ATF agents. The USAO PSN team was concerned that their ability to effectively prosecute cases referred to the USAO, given the increased desire of local officials throughout the district to refer cases for federal prosecution, would be constrained by the small number of ATF agents and federal prosecutors.

Another challenge related to turnover in key personnel. The Montgomery Police Department witnessed the resignation of the chief of police, who had been one of the key proponents of ICE. Fortunately, the new chief was described as being similarly committed. Similarly, officers assigned to the PSN task force were often reassigned. The district addressed this issue through a commitment to training, and interviews suggested that some turnover was beneficial because the officers assigned to the task force would take their knowledge of ICE and federal gun crime prosecution to their new assignments.

In the Southern District, one of the major challenges for the research partner involved data collection. This was not an uncommon challenge across PSN sites. Despite the desire to collect and use data from across the district, the research partner was forced to concentrate on Mobile for evaluation purposes due to the nature of the data sources. Given the concentration of gun crime in Mobile, however, this was not a major obstacle for the inclusion of research in the PSN initiative.

Similar to the Middle District, the Southern District of Alabama experienced the loss of two major players within PSN. First, the United States Attorney and second the Chief of the Mobile Police Department. However, these changes did not appear to have negatively affected the day to day operations of PSN as the program was well-established and the new USAO and Chief of Police were supportive. Additionally, the former chief moved to the Sheriff's Department and thereby brought an additional collaborating law enforcement agency to the PSN task force.

Summary

Interviews with officials in both the Middle and Southern Districts of Alabama revealed a consistent emphasis on strong leadership as the key to the successful implementation of PSN. In the Middle District, this leadership came from the USAO and eventually resulted in a high level of participation from local police departments and ATF. In the Southern District, initial leadership stemmed from the Mobile Police Department, supported by the USAO. This leadership element created the environment for other key components like the PSN Task Force structure, partnerships and regular meetings. As the data reviewed above indicated, a plausible case can be made that this leadership resulted in changes in how gun crime was addressed within each of these districts and was associated with declines in gun crime in the key PSN target cities.

Strategic Problem Solving/Pulling Levers Case Study Sites

District of Nebraska, Middle District of North Carolina, Eastern District of Missouri, and District of Massachusetts

A series of case studies were also conducted in PSN task forces that followed the strategic problem solving model and that implemented multiple interventions in targeted

cities or geographic areas of cities. The included Omaha in the District of Nebraska, five cities in the Middle District of North Carolina, St. Louis in the Eastern District of Missouri, and Lowell in the District of Massachusetts. Full case study reports are available.[38] In the following section, the districts and cities are described, key elements of the PSN intervention are reviewed, and evidence regarding the impact of the intervention is presented.

Context

At the outset of PSN, the four sites had varying levels of homicide and aggravated assault rates. North Carolina, Nebraska, and Massachusetts tended to have modest levels of violent crime whereas the Eastern District of Missouri had much higher rates. Table 32 indicates these rates (per 10,000) for three of the four PSN sites. In comparison to other federal judicial districts, the District of Nebraska did not suffer from extremely high violent crime rates, ranked 71st overall among federal judicial districts (lowest quartile) in its murder rate and 57th (third quartile) in aggravated assault rate. However, Douglas County, which includes Omaha, had a much higher violent crime rate with a homicide rate and aggravated assault rate over twice that of the entire state (Omaha accounted for 80 percent of the district's gun crime) (Table 32).

The District of Massachusetts was also below the national average in terms of murder rate but above the national average in terms of aggravated assault rate. Virtually all of the state's gun crimes occurred in Boston and ten other smaller urban cities within the state (e.g. Brockton, Fall River, Lawrence, Lowell, Springfield, and Worcester). Lowell was one of the first smaller cities to implement a PSN task force and was selected for the case study based on the integration of its research partners and the comprehensive

problem analysis that was conducted. UCR data revealed that compared to all U.S. cities with populations greater than 75,000, Lowell placed above average in terms of violent crime and below average in terms of property crime (Table 32).

The Middle District of North Carolina suffered from more modest violent crime rates. Specifically, the district ranked 30th (third quartile) overall among federal judicial districts when analyzing murder rates, and 44th (third quartile) in aggravated assaults. Task force officials decided to focus on its five largest jurisdictions: Durham, Greensboro, High Point, Salisbury, and Winston-Salem (Table 32).

In contrast, the Eastern District of Missouri ranked higher than the U.S. average in terms of both its murder rate and aggravated assault rate. It also ranked higher when compared to U.S. judicial districts of comparable size. The primary focus area for PSN was the city of St. Louis. The city of St. Louis consistently ranked among the highest three to five cities in the nation in reference to homicide and aggravated assault (Table 32).

Table 32: Aggravated Assault and Murder Rates, 2001

Site	Aggravated Assault Rate (Per 10,000)	Murder Rate (Per 10,000)
United State's Average*	30.65	0.65
North Carolina Middle District	26.57	0.60
District of Nebraska	20.45	0.25
Douglas County	38.29	0.54
District of Massachusetts	36.84	0.24
Missouri Eastern District	35.52	0.73

* 90 federal judicial districts

Development and Implementation

As noted in Chapter Five, one of the characteristics of PSN task forces ranked as high in terms of implementation was prior experience with multiple agency crime

reduction collaborations. This was true for all of these jurisdictions as they all had a history of multi-agency violence reduction efforts as well as experience of working with a research partner. Specifically, Omaha, St. Louis, and Winston-Salem were all participants in the Strategic Approaches for Community Safety Initiative (SACSI).[39] Officials in Lowell, Massachusetts were familiar with the Boston Gun Project, and the police department collaborated with members of the Boston research team in a number of problem solving initiatives.

Task Force Structure

All of the sites built on this prior experience in developing a PSN task force structure. In Nebraska, two different but related working groups developed: one specific to Omaha and another in Lincoln. The case study focused on Omaha due to its much higher levels of gun crime. The PSN task force in Omaha was comprised of federal, state, and local law enforcement and prosecutors, the Department of Corrections, the state Crime Commission, Weed and Seed, the local school system, and research partners from the University of Nebraska at Omaha. The working group benefited from the active participation of the U.S. Attorney and the Omaha Chief of Police. Coordination was provided by a PSN Operations Director with support from the Law Enforcement Coordinator, both housed within the U.S. Attorney's Office. The working group utilized a strategic problem solving approach that involved regular incident reviews and analysis from the research partners. The working group also relied on routine meetings including gun crime case screening, incident reviews, and a gun, gangs, and drugs enforcement team.

In the District of North Carolina, the U.S. Attorney's Office coordinated the overall PSN initiative through a Middle District Advisory Team (MDAT) that oversaw task forces in five cities (Durham, Greensboro, High Point, Salisbury and Winston-Salem). With the announcement of PSN in early 2001, the USAO requested that each city send two representatives to be part of the MDAT and this informally formed the skeleton of their task force. As time passed, MDAT moved towards a more formal structure with a Chair and Co-Chair and each city appointed three representatives to MDAT, one of which had to be from law enforcement. Non-law enforcement task force members included representatives from social services and local religious groups in addition to others. Additionally, the PSN Project Coordinator served as a MDAT member. The North Carolina Governor's Crime Commission (the fiscal agent), the research partner, probation and parole, and the community engagement partner all attended every MDAT meeting.

Although adapted to the local context, the five task forces included strong partnerships with local and federal law enforcement, local prosecutors, probation and parole, as well as strong community collaboration with neighborhood groups, the faith community, social services, and the business sector. In addition, the task force worked very closely with a team of researchers from several universities and utilized PSN funds to support the role of service coordinator. Both the research partners and the service providers were integral members of the PSN task forces.

The PSN task force in Lowell built upon the city's experience with community- and problem-oriented policing. The Lowell police department was decentralized with officers assigned to one of three geographic districts. The community-policing model

emphasized partnerships with community groups and other law enforcement agencies. These partnerships facilitated the implementation of PSN. The PSN working group consisted of the PSN coordinator and federal prosecutors from the U.S. Attorneys Office, local law enforcement including LPD detectives, federal law enforcement including the FBI and BATF, county prosecutors, probation officers, and research partners from Harvard and Northeastern Universities.

Finally, in the Eastern District of Missouri, the PSN task force was also coordinated in the United States Attorney's Office and included representation from federal, state and local law enforcement, local and federal prosecutors, and probation and parole. It also included the juvenile court, level I trauma center, city neighborhood services, street outreach workers, a media relations partner, and the regional justice information system. The task force collaborated with a research team from the University of Missouri – St. Louis with years of experience working with the local criminal justice system. The overall PSN task force initially met monthly and later moved to a quarterly schedule. Several task force committees met more regularly. For example, the gun case prosecution team met bi-weekly and reviewed all cases involving a gun. There was also a weekly violence review held at the North Patrol station to review the activities of the Violent Crime Task Force. Additional task forces were convened at various times to address specific issues and problems.

Community Engagement and Media Campaign

Task forces in all the sites attempted to build community partnerships and to implement a communication strategy. As noted above, North Carolina used funds to support a community engagement partner and fund service coordinators. Several of the

sites collaborated with their Weed and Seed programs as well as with the schools. All included multiple local, state, and federal criminal justice partners. All included media campaigns involving public service announcements (PSAs) and billboards and several utilized strategies such as posters in the jail and on busses and bus benches. The Middle District of North Carolina, Lowell, and Omaha also implemented a series of offender notification meetings to deliver a deterrence and social support message to at-risk populations of probationers and parolees. This followed the "pulling levers" model that originated in Boston and continued through the SACSI program.

Nature of the Gun Crime Problem

The analysis of gun crime problems in Omaha, the Middle District of North Carolina cities, and Lowell indicated that all had significant connections to gangs. In Omaha, gun violence was concentrated in several geographic areas of Omaha (northeast and southeast) and a significant portion of the gun crime involved gangs and the nexus between gangs, guns, and drugs. Over 28 gangs and 2,600 gang members were identified.

Problem analyses in the five North Carolina sites also suggested that gangs contributed substantially to the gun crime problem. Homicide reviews in several sites confirmed the assumption that gun crime was related to gangs and drugs. Gun crime seemed to be largely driven by chronic offending offenders and victims, involved drug and gang activity, and included group associations of gangs, groups of chronic offenders, and inter-generational links. Offenders returning from prison were another source of gun crime.

Similarly, gun crime in Lowell involved young males, with prior criminal histories, and gang involvement. Analysis of department incident data revealed that young, minority males were disproportionately offenders and victims of serious gun violence. Gang members accounted for a substantial portion of the gun violence problem in Lowell. Based on information from the department's gang intelligence database and a focus group of detectives, 74 percent of gun homicide offenders (14 of 19) and 46 percent of aggravated gun assault offenders (10 of 22) were revealed to be active gang members.

As noted above, St. Louis had very high levels of gun crime and there was a strong spatial concentration of homicide, gun crime and violent crime. That is, a relatively small part of the city accounted for a large proportion of the violent crime. Indeed, the "top ten" most violent neighborhoods accounted for more than 40 percent of all murders. Gun crime typically involved high rate offenders at risk for both victimization and perpetration of violence. A substantial number of these offenders and homicide victims were under probation and parole supervision. The analysis did not suggest heavy gang involvement but the distinction between St. Louis and the other cities in terms of gang involvement may have been definitional. St. Louis reported loosely structured neighborhood groups and crews involved in gun crime. Similar groups may have been labeled gangs in the other jurisdictions.

Evidence of Implementation-Outputs

The prosecution data clearly reflected that the goal of increasing federal prosecution of gun crime offenses has occurred in the District of Nebraska. Since the announcement of PSN in 2001 and the full implementation of PSN in the District of Nebraska, the number of indictments under U.S. Code 922 and 924 increased

dramatically. For example, in Fiscal Year (FY) 2001 there were 54 indictments under US Code 922 and 924. This increased to 95 indictments in FY 2002, to 166 in FY 2003, and 171 in FY 2005, an increase of 200 percentage points since 2001. Similarly, the number of defendants prosecuted in federal court increased from 63 in FY 2001 to 111 in FY 2002 and 196 in FY 2005. This increase in indictments and defendants placed the District of Nebraska in the top nine percent in terms of its percentage point increase in federal prosecution. The numbers were even more telling when considered in light of the district's population. This federal prosecution rate of 11.0 per 100,000 population was ranked 8th among the 90 federal judicial districts in 2003.

Similarly, the Middle District of North Carolina also made a commitment to increase the threat of federal prosecution for gun crimes. The number of cases filed under U.S. Code 922 and 924 increased steadily since the inception of PSN. From FY2000 to FY2004, the number of cases increased from 104 to 187, an increase of almost 80 percentage points. Similarly, the number of defendants increased from 5.8 defendants per 100,000 population in FY2000 to 8.1 defendants per 100,000 population in FY2004. This placed the Middle District of North Carolina at the top of the second quartile when comparing defendants per 100,000 population for the 90 federal districts.

In the Eastern District of Missouri, a total of 1,381 individuals were indicted for gun crimes by the United States Attorney's Office or the St. Louis Circuit Attorney's Office between January 2002 and October 2005. The majority of indictments (82%) were reported by the U.S. Attorney's office. In total, the United States Attorney's Office averaged 17.4 indictments per quarter. The number of Federal indictments peaked in quarter two and three of 2003 and then again in the second quarter of 2004. Thus, similar

to Omaha and the Middle District of North Carolina, the results suggested that the United States Attorney's Office and the St. Louis Circuit Attorney's Office made a large number of indictments during the intervention period. In addition, the majority of individuals indicted were sentenced to a lengthy term of incarceration.

In Lowell, the use of federal prosecution was used more strategically and as a focused deterrence threat. Partly this reflected the belief, in contrast to many other jurisdictions, that Massachusetts state law provided substantial penalties for illegal gun possession and use. The threat of federal sanctions was used in a series of offender notification meetings with gang members who were warned that continued involvement in gun crime would result in federal prosecution. A particularly innovative strategy with several Asian gangs was to use a pulling levers strategy with adults in the community that urged them to exercise control over the youths who were believed to be involved in gang violence.

All of these jurisdictions coupled the increase in federal prosecution (or the threat thereof in Lowell) with a variety of other interventions and strategies. All included the integration of research partners. All of the sites with the exception of St. Louis conducted systematic incident reviews. St. Louis relied on homicide file reviews and other sources of crime information conducted by a team of researchers experienced with the St. Louis Police Department. All the sites except Lowell developed chronic violent offender programs and Lowell used detailed network analyses of gang structures. All but St. Louis utilized offender notification meetings that combined the deterrence message with social support. St. Louis utilized a complementary set of strategies, including stories in a local neighborhood-based newspaper highlighting homicide and gun crime

prosecutions as well as victimization. Additionally, all of the sites included law enforcement strategies such as directed police patrol in gun crime hotspots and police-probation-parole home visits. All developed mechanisms for federal and local prosecutors to screen gun crime cases. Finally, all included various prevention and intervention strategies in collaboration with schools, social service providers, and neighborhood leaders and organizations.

Evidence of Impact-Outcomes

Each case study included an assessment of the impact on gun crime. This was often conducted in collaboration with the local PSN research partner. Thus, the specific measures and target areas were driven by the local program. This makes comparability across sites problematic. Readers interested in the details of each evaluation are directed to the original case studies (Decker et al., 2007; McDevitt et al., 2007; Hipple et al., submitted to DOJ, A; Hipple et al, submitted to DOJ, B).

For Omaha, the research team initially reviewed the annual trends in three firearm related crimes: homicide, armed robbery, and aggravated assault. Given the relatively small number of homicides with a firearm (ranging from 24 in 2000 to 15 in 2004), the analysis focused on total violent gun crimes that was a composite of homicide with a firearm, aggravated assault with a firearm, and armed robbery with a firearm.

Following discussions with the local research team, February 2003 was designated as the intervention date. This was the point of PSN implementation when law enforcement training had occurred and there was a significant increase in federal prosecution for gun crimes. Overall, in Omaha the average number of firearm offenses per month reduced from 77.35 per month before intervention to 61.62 per month after

February 2003. These preliminary findings were suggestive of a reduction in gun crime. However, in order to assess the significance of these trends, the research team conducted a time series analysis.

The time series analyses were based on data in monthly format from January 2000 through June 2005. When the total number of firearm offenses was examined at the aggregate level, the ARIMA models showed a statistically significant reduction ($p < .01$) from pre-intervention to post-intervention. The analysis indicated there was a statistically significant reduction in the overall firearm offenses of 20 percent, per month, between pre- and post- PSN intervention.[40] Table 33 displays the statistically significant decline in overall firearm crimes from the raw number of offenses.

Table 33: Time Series Analysis – February 2003 Intervention Date

Crime	Pre-intervention Mean	Post-intervention Mean	Mean Difference (Post-Pre)	ARIMA Model P	d	q	Intervention Coefficient (s.e.)	p-value
Targeted Offenses								
Total firearm offenses (Ln)	4.32	4.08	-.24	0	0	2	-.23 (.08)	**.003**
Comparison Offenses								
MV Theft (Ln)	5.78	5.60	-.18	0	2	2	-.01 (.02)	.544
Burglaries	269.5	285.4	15.9	1	0	0	11.9 (15.9)	.453

The trend in gun crime was compared to property crime. There was no statistically significant change in property crime during this period. Thus, there was no evidence that the decline in gun crime was due to some factor influencing all crime in Omaha. That is, the comparison to property crime was consistent with an interpretation that PSN led to a reduction in gun crime in the District of Nebraska.

As noted, the Middle District of North Carolina focused resources on five cities in their efforts to reduce gun crime: Durham, Greensboro, High Point, Salisbury, and Winston-Salem. Given the small population of Salisbury, and corresponding low rates of gun crime, and the fact that High Point was subject to an independent NIJ evaluation, the focus was on the cities of Durham, Greensboro and Winston-Salem. Consultation with the local research partners suggested that the appropriate intervention date was May 2002.

Given the small to medium population base for these cities, the base rate of gun crime was relatively low. Consequently, consistent with Omaha, the focus was on total firearms offenses (a composite measure of homicides, assaults, and robberies committed with a firearm). Table 34 shows the average number of monthly firearm offenses for each site pre-intervention and post-intervention. As indicated, the total number of firearm offenses declined in all three of the sites between pre-PSN intervention and post-PSN intervention.

Table 34: Total monthly firearm offenses, pre-PSN and post-PSN intervention for three target cities

City	Pre-intervention Average	Post-Intervention Average
Durham	76.75	68.90
Greensboro	70.42	57.43*
Winston-Salem	50.46	41.23*

*Independent samples t-test $p<.001$

In the next step of the analysis, time series analyses were conducted for each of the three sites. The results suggested a statistically significant decline in firearm offenses in two of the three sites. Winston-Salem showed a statistically significant decline between pre- and post-PSN intervention with total firearm crimes declining by just over 9

per month. Greensboro had a statistically significant decline in total firearm offenses of approximately 13 per month, between pre and post-PSN intervention. Durham also experienced declines in total firearms though they did not attain statistical significance and thus could reflect chance variation.[41]

In Lowell, Massachusetts the gun violence intervention strategy was targeted towards Asian youth gangs who the analysis had shown were disproportionately involved in gun crime. The intervention began in October 2002. This date represented the start of police raids on gambling houses and as a result an increase in arrests for related crimes. The goal of the raids and arrests was to send a message to Asian youth gangs to stop all violence.

The specific focus of the PSN-Lowell intervention was on gun assaults involving gang-related youths. Aggravated assaults with a gun declined from 4.94 per a month in the pre intervention period to 3.56 for the post intervention period.[42] This represented a 28.02 percent decline in aggravated assaults with a gun – or one less gun assault per month. To test whether this result was the likely result of the PSN intervention, the change in prevalence of gun assaults within Lowell was compared to the change in prevalence of gun assaults in several Massachusetts cities: Brockton, Boston, Fall River, Lawrence, Springfield, and Worcester.

Table 35 shows the monthly average number of gun assaults before and after the introduction of the targeted deterrence intervention in Lowell compared to the difference and percent change across all cities. As the table shows, Lowell experienced the greatest decrease in aggravated gun assaults after the introduction of the intervention.[43] Overall the findings of this comparison analysis were consistent with the finding that PSN-Lowell

may have resulted in a reduction in aggravated assaults with a gun, consistent with the simple pre-post test analysis.

Table 35: Comparison of Pre- to Post-Intervention Change in Aggravated Assaults with a Firearm in Select Massachusetts Cities

	Aggravated Assaults with a Firearm			
City	Pre-Intervention Monthly Average	Post-Intervention Monthly Average	Difference	Percent Change
Lowell	4.94	3.56	-1.38	-28.02
Boston	37.61	36.50	-1.11	-2.94
Brockton	8.76	8.04	-0.72	-8.27
Fall River	2.52	4.75	2.23	88.86
Lawrence	1.62	3.18	1.56	96.52
Springfield	27.55	46.57	19.03	69.07
Worcester	7.48	6.59	-0.89	-11.92

Notes:
- Boston and Fall River data are missing the last three months of the series. Post-intervention monthly average computed by dividing total by 24 months.
- Springfield data are missing last six months from series. Post-intervention monthly average computed by dividing total by 21 months.
- Brockton and Lawrence data are missing first year 2000 from series. Pre-intervention monthly average computed by dividing total by 21 months.

In St. Louis, PSN was implemented in two target neighborhoods. The evaluation contrasted the trend in the two target or intervention neighborhoods with the trends in contiguous neighborhoods as well as control neighborhoods in other parts of the city that also had high levels of gun crime. The data were limited to broad analyses of aggravated assault involving a firearm, robbery, and homicide before and after the intervention in the first quarter of 2003. The following tables detail the magnitude of change before and after the intervention.

As displayed in Table 36 there were substantial declines in incident rates for aggravated assault involving a firearm over the analysis period and across neighborhood groups. The overall magnitude of change was greatest for the control group (39%

decline). In contrast, the intervention neighborhoods experienced a seven percent decline in aggravated assault offenses.

Table 36: Comparison of Pre- to Post-Intervention Change in Violent Crime Incidents

Neighborhood Group	Pre-Intervention Quarterly Average	Post-Intervention Quarterly Average	Difference	Percent Change
Aggravated Assaults with Firearm				
Intervention	14.65	13.72	-0.93	-6.57%
Contiguous	4.96	4.12	-0.85	-18.61%
Control	3.32	2.24	-1.08	-38.97%
Robbery with Firearm				
Intervention	9.30	7.93	-1.38	-15.96
Contiguous	4.89	4.30	-0.59	-12.80
Control	3.42	2.26	-1.16	-40.84
Homicides				
Intervention	1.24	1.00	-0.24	-21.28
Contiguous	.43	.25	-0.18	-51.81
Control	.23	.15	-0.08	-40.00
Weapons Offenses				
Intervention	4.92	3.48	-1.45	-34.44
Contiguous	1.72	1.12	-0.60	-42.01
Control	1.23	.87	-0.36	-34.54

The decline in armed robberies was also substantial, although again it was apparent across intervention, control, and contiguous neighborhoods. For the intervention group, the rate of robbery declined 16 percent between the pre and post intervention periods. The contiguous neighborhoods experienced a similar decline (13%) while robbery rates in the control neighborhoods declined 41 percent.

Similar to robbery and assault incidents, homicides declined in all of neighborhoods. Homicide rates declined 21 percent in the intervention neighborhood, 51 percent in the contiguous neighborhoods and 41 percent in the control neighborhoods.

The final comparison of incidents across the neighborhoods involved weapons offenses. Consistent declines above 34 percent were observed in the intervention, contiguous, and control neighborhoods following the PSN intervention.

From the standpoint of violent crime in St. Louis, the review of gun assaults, robberies involving a firearm, homicides, and weapons incidents revealed positive news. From an evaluation standpoint, however, the results raised questions about the cause of the decline. The fact that the decline was generally smaller in the intervention neighborhoods than was the case in the control and contiguous neighborhoods suggested that some factor other than the PSN intervention caused these declines. The most generous interpretation from a PSN standpoint is that PSN had a city-wide impact. However, a highly plausible rival hypothesis is that some factor other than PSN was producing the declines in gun crime across the city.

Thus, in looking at the impact analyses across these jurisdictions, promising results emerge. Every city included witnessed a decline in gun crime. Lowell, Omaha, Greensboro, and Winston-Salem experienced statistically significant declines and they appeared to be significant when contrasted with the comparison crime trend. St. Louis also witnessed a decline in its two treatment neighborhoods but this was true in contiguous and control neighborhoods as well. Durham witnessed a decline but it was not significant. These results will be considered in light of similar findings from several other jurisdictions as well as from the cross-city comparison that is presented in the next chapter.

Additional Findings from the Site Specific Case Studies

Information from all of the four sites addressed in these case studies, consistent with the studies in Middle and Southern Alabama, suggested that the key components of a successful PSN task force included leadership and partnerships.

Leadership

PSN leadership in all of the sites began with the U.S. Attorney. In the District of Nebraska strong leadership was demonstrated within the USAO by the PSN Operations Director as well as the Law Enforcement Coordinator and these players capitalized on existing relationships by coordinating with federal, state, and local agencies to create the momentum needed to implement a successful PSN program.

In the Middle District of North Carolina there was also consistent leadership provided by the U.S. Attorney and from the Assistant U.S. Attorney who served as PSN project coordinator. Officials from throughout the district repeatedly talked about the commitment of the USA, Project Coordinator and the entire U.S. Attorney Office. This was manifest in the participation of these key officials in the MDAT and task force meetings, despite the numerous demands on their time.

The Eastern District of Missouri experienced significant turnover since PSN began with a total of three U.S. Attorneys serving the district. Each, however, maintained the strong commitment to PSN during the period of the case study. In addition, the PSN Coordinator balanced one of the largest gun case prosecution caseloads with the coordination and day-to-day leadership of the initiative. St. Louis officials also consistently described exceptional leadership from the police department, notably the Major who ran the Violent Crime Task Force.

Finally, in Lowell, the USAO gave the PSN coordinator wide latitude to implement the district-wide task force and participate directly in the PSN-Lowell working group. The leadership from the PSN coordinator was described as a critical factor to building and maintaining partnerships. In follow-up interviews, participants in this process gave a great deal of credit to the coordinator for making the partnership work and making it worth their involvement. They reported that the PSN coordinator kept the group focused on the goal of prosecuting serious gun crimes and helped to avoid interagency competition that can arise in such partnerships.

Partnerships

The USAO in the District of Nebraska had a strong history of established partnerships across the state. ATF had been a strong partner as demonstrated by their dedication of two agents to PSN. Similarly, ICE was described as a powerful federal partner. Their ability to arrange enforcement operations, deport offenders with weapons violations, and share intelligence made them an asset not always utilized in PSN sites. Similarly, the United States Marshal Service Metro Area Fugitive Taskforce was the lead agency for warrant sweeps. Task force members also described the importance of the inclusion of regional law enforcement and school systems from surrounding communities that border Omaha that resulted in enhanced information sharing, improved the tracking of weapons, increased cases submitted for prosecution, and spread the PSN message.

Implementing PSN in five cities across the geographically large Middle Distirct of North Carolina could not have been possible without partnerships. One aspect of suporting the partnerships was that the Task Force officers took it upon themselves to provide feedback to local officers and their supervisors.

Similarly, the coordination among and within agencies produced by PSN in St. Louis was described as one of the most important effects produced by the task force. The regular face-to-face meetings and exchange of information within and between parts of the criminal justice system (local and federal law enforcement/local law enforcement and federal prosecution) had become routinized and reflected a new way of how criminal justice is "done" in St. Louis.

In Lowell, interagency partnerships were described as providing resources, information sharing and flexibility in choosing responses not available in classic law enforcement bureaucracies. Officials attributed PSN for leading to close working relationships between the LPD, federal enforcement agencies, and the U.S. Attorney's Office.

Challenges

The case studies also revealed challenges in the implementation of PSN. Members of several of the task forces noted resistance from some judges to the increasing number of gun cases. Both federal and local prosecutors stated, however, that they did not let it deter them from bringing cases to court. In jurisdictions utilizing regular incident reviews, some task force members questioned their benefit. While information sharing was occurring, local law enforcement occasionally felt that enforcement follow-up by was lacking. When this concern arose in Omaha, the task force implemented directed patrol operations, warrant sweeps, and Operation Nightlight initiatives as mechanisms to follow-up on violent crime patterns revealed in the incident reviews.

Personnel in all the sites described the challenge of taking on responsibilities for implementation of PSN on top of their traditional duties. In a district like the Middle

District of North Carolina, the challenge of finding the appropriate balance of extending finite, limited resources to a broad target area was an ongoing concern. Issues of where and how to focus (i.e., what projects and in which cities) were common concerns.

Several of the case study sites experienced obstacles when trying to get probation and parole involved. However, this was also an area where over time many districts described increasing involvement and participation in PSN by probation and parole. Many PSN officials also remarked on the important resources that probation and parole officers and agencies could contribute to gun crime reduction.

An additional challenge for most PSN sites was developing meaningful partnerships with various elements of the community. As described in an earlier chapter, this was a common finding. Partnerships were easier to build with other criminal justice agencies than with schools, social services, neighborhood leaders, the faith community, employers and other potential partners. Further, developing such relationships were often new duties for Assistant United States Attorneys, who often served as PSN coordinators. Success in building such relationships often came from distributed leadership, for example the reliance on the Law Enforcement Coordinator who had experience working with the community, as well as through building upon existing relationships that may have been established through weed and seed or a community policing initiative. A particular concern in many districts was establishing trusted relationships with the Hispanic community.

In the next chapter, results from a comparison of the trend in violent crime across a large number of cities are considered.

Chapter Seven: Impact Analysis

The case studies presented in the prior chapter suggest that the strategies implemented by PSN task forces in selected districts and target cities hold potential for reducing the level of violent crime. These included districts that followed a strategic problem solving process and a pulling levers approach involving multiple strategies, similar to that developed in the Boston Gun Project and replicated in the SACSI program, as well as districts placing an emphasis on increased federal prosecution and a communication strategy modeled on Richmond's Project Exile. When coupled with the studies of Boston, Indianapolis, and Richmond (Kennedy, 1997; Braga et al., 2001; McGarrell et al., 2006; Corsaro and McGarrell, 2009; Rosenfeld, Fornango, and Baumer, 2005), these can be characterized as "promising practices." However, the cities selected for these PSN case studies were chosen because of indications that they had implemented PSN in a meaningful fashion. They are not representative of PSN target cities or PSN task forces across the United States. In this chapter, the analysis of the impact of PSN is extended beyond this sample of case studies to all U.S. cities with a population over 100,000.

Analytic Framework

Given the well-known challenge of assessing a *single-site* crime intervention, the examination of a nationally implemented violent crime reduction initiative that covered 94 U.S. federal districts[44] and spanned over half a decade at a cost of over three billion U.S. dollars is certainly a daunting challenge for any research team. The primary issue is that aggregate-level studies of policy interventions suffer from a number of methodological flaws (Berk, 2005; Bushway and McDowall, 2006). Rosenfeld,

Fornango and Baumer (2005) attempted to examine the specific intervention effect of Boston's Operation Ceasefire (Braga et al., 2001; Kennedy et al., 2001; Piehl et al., 2003), New York's Compstat program (Kelling and Sousa, 2001; Fagan et al., 1998; Harcourt, 2001; Moore and Braga, 2003), and Richmond's Project Exile (Raphael and Ludwig, 2003) relative to the mean change in homicide rates in the largest 95 U.S. cities before, during, and in the case of Boston, after implementation. More specifically, Rosenfeld et al. (2005) proposed that a true intervention effect in these specific treatment cities should have been empirically distinguishable from the *average* change in homicide in the 95 largest U.S. cities before, during, and after implementation. The model used in the Rosenfeld et al. study was both a complex analysis and also a very conservative evaluation approach because they argued any intervention effect should be observed while controlling for other influences of homicide as evidenced in prior research (see Land et al., 1990; Levitt, 2002; Marvell and Moody, 1997; Spelman, 2000).

In a response to the Rosenfeld et al. approach, Berk (2005) commented that all types of analytic strategies that employ (often) less than reliable observational data should be viewed with a degree of caution. Berk more specifically argued that evaluation research within criminal justice should be more concerned with diligence in the collection of appropriate data and applying a rigorous analytic framework, such as utilizing experimental designs in order to ensure internal and external validity. Given that the purpose of this study is to evaluate the impact of PSN implementation *nationally*, we believe that the *aggregate level* approach used by Rosenfeld et al. is an appropriate analytic strategy for just such an initiative. While we certainly are aware of the numerous weaknesses with this type of approach, we attempt to minimize some of these limitations

by relying upon systematic measures of PSN implementation and PSN dosage both within and across large U.S. cities.

The strategy employed was designed to examine violent crime trends from 2000 to 2006 in all cities with a population of 100,000 or larger. A series of comparisons were then constructed to compare PSN "treatment" cities with "non-treatment" cities; cities compared by the level of PSN dosage; and cities compared by one specific component of PSN dosage – federal prosecution level trends for criminal cases where U.S.C. 922 or 924 were brought as charges against a defendant.[45] At the basic level, the logic behind this evaluation strategy was to examine the following hypothesis: if PSN had an impact on violent crime, greater declines should be apparent when comparing violent crime trends between treatment cities, higher dosage cities, and high federal prosecution cities with non-treatment, low dosage, and low prosecution cities.

Data

The data used in the subsequent analyses were culled from multiple sources. We relied on data from the Federal Bureau of Investigation (FBI) Uniform Crime Reports (UCR) that captured Type I offenses for the years 2000-2006 to create violent crime outcome measures for each city. Data from the 2000 U.S. Census and 2000 Bureau of Labor Statistics were used to create static structural indicators measuring the demographic and population profiles for each city. Data were obtained from FBI UCR Police Employee records for the period 2000-2006 to create an annual city-level police density measure.[46] Data were also collected from Bureau of Justice Statistics (BJS) to create a yearly measure of state incarceration rates. Finally in order to obtain measures of PSN implementation, including indicators of treatment and dosage, we used data

collected by the Michigan State University (MSU) School of Criminal Justice PSN Research Team. MSU researchers partnered with the Department of Justice and were responsible for bi-annual data collection detailing the process and outcome measures that were reported directly from the PSN project coordinators and research partners across the country, which was a stipulation of the PSN program. Taken collectively, these data sources were used to create the measures in the subsequent statistical models.

Dependent Variable

Given the PSN focus on gun crime, the ideal outcome measure would be based on the number of firearm-related crime offenses in the jurisdiction. Unfortunately, firearm offenses are not available as part of the Uniform Crime Reporting System, the only consistently available source of crime data covering cities across the entire United States.[47] Consequently, in order to assess the impact of the national PSN intervention, we used a composite violent crime count variable, which was an aggregate measure of murder, robbery, and aggravated assault between 2000 and 2006 for all U.S. cities that had a population of 100,000 or greater.[48] Within-city regressions were used to impute values for missing violent crime data prior to aggregation since the outcome measure is a composite variable.[49] However, where missing data existed for two or more within-city offenses, we simply left the data as missing since Hierarchal General Linear Modeling (HGLM) is flexible in handling missing data (Raudenbush and Bryk, 2002:199-200). Missing data were an issue in less than 1.6 percent of the homicide counts over the seven year period.[50] A similar strategy was employed with 1.9 percent of robbery counts and 1.8 percent of assault counts.[51] In all, this strategy yielded complete violent crime measures for 98.5 percent of the violent crime cases (1,739 of 1,764 cases) and complete

violent crime data for 95.6 percent of cities (241/252 cities), noting that seven cities accounted for most of the missing data (22/25 cases).[52]

Independent Variables

Several independent variables were utilized at multiple levels in the subsequent hierarchical regression models. We employed two structural measures at level 2 that were treated as static (i.e., time invariant) characteristics of each city, population density and concentrated disadvantage, which are established macro-level correlates of homicide specifically (Land et al., 1990; Messner and Rosenfeld, 1998; Rosenfeld et al., 2005) as well as violence and crime in general (Blau and Blau, 1982; Chamlin and Cochran, 1997; Kane, 2006; LaFree, 1999; Liska and Bellair, 1995; Miethe, Hughes, McDowall, 1991; Messner and Golden, 1992; Sampson and Raudenbush, 1999). Population density was operationalized as the number of people per square miles and was logged in order to reduce skewness. Concentrated disadvantage was a composite variable obtained from a principal components factor analysis that included the following highly inter-correlated measures: percent of families with children under 18 headed by a female, percent of persons below poverty, median family income, male unemployment rate (i.e. males 16 years old and above who are unemployed), and percent African American. The factor loadings for this measure (i.e. concentrated disadvantage) were all moderately strong (> .60) and 72.7 percent of the inter-correlation between these items was captured in this measure. Thus, the concentrated disadvantage measure used here is comparable to disadvantage measures that have been used in similar research (Krivo and Peterson, 1996; Land et al., 1990; Reisig and Parks, 2004; Rosenfeld et al., 2005; Sampson and Raudenbush, 1999).

In terms of dynamic or time variant independent variables, prior research indicates that trends in incarceration and police density are related to homicide (Marvell and Moody, 1997; Spelman, 2000) and violent crime (Kuziemko and Levitt, 2004). Thus, we incorporated into our analyses the annual state incarceration rate for each city included in our research methodology. Similarly, an indicator of police per 100,000 residents was used, which was measured as an annual city-level measure created from the UCR Police Employee data (i.e., the number of law enforcement officers in each city per year/population). We also include a series of annual dummy variables designed to control for random variability in violent crime trends in each year.

PSN Indicators: Treatment and Dosage

The most significant challenge for the evaluation of PSN stemmed from the fact that at one level it is a full coverage program. That is, PSN is a nationally implemented program covering the entire United States. The threat of federal prosecution for illegal gun possession and use was theoretically available in every community of the U.S. and the media component of PSN was a national campaign.[53] When the entire U.S. receives the treatment, unambiguous assessment of treatment impact is difficult to obtain. To overcome this challenge, two strategies were employed. First, PSN task forces identified target jurisdictions that were the focus of the task force's efforts. We expected that if PSN had an impact, it should be observed in target sites in comparison to non-target sites. Second, we constructed measures of dosage. As explained earlier, PSN was not implemented evenly across all 93 PSN task forces. We hypothesized that if PSN had an impact on gun crime, it should result in greater reductions in high dosage jurisdictions in comparison to low dosage jurisdictions. Additionally, one specific type of dosage was

the level of federal prosecution for illegal gun crime. This measure was based on a Project Exile model of increasing the incapacitation and deterrence effect on felons in possession or illegal use of a firearm. If there was such an Exile effect, it should be apparent in those jurisdictions experiencing the most significant increase in federal prosecution.

Perhaps most important to the current study, a measure of PSN treatment was incorporated into the statistical models as a level 2 static measure (0 = non-PSN treatment city, 1 = PSN treatment city) (Papachristos et al., 2007). The operationalization of the PSN treatment indicator used here is similar to 'level' of implementation (Berk, 2005: 452). In terms of delineating between PSN treatment cities and non-PSN treatment cities, we relied on a systematic approach drawing from district level data and district reports that the MSU PSN research team received from 2000-2006. In all, 68 U.S. federal districts had large cities (i.e., population over 100,000) that were the focus of a PSN intervention strategy. In addition, 20.5 percent of these districts had multiple large cities that were the focus of a PSN intervention, which led to an N of 82 treatment cities and 170 non-treatment cities to provide comparison estimates.[54] Only those cities that were specifically designated as a PSN treatment city, either by the district project coordinator, research partner, or both were considered treatment cities in this evaluation.

When an entire county was the specific focus of PSN implementation, any city with a population over 100,000 that was housed within the county was designated a PSN treatment city. This was an issue in four (5.8%) of the districts. When documentation indicated the entire federal district was the focus of the intervention, we contacted the site coordinator for clarification regarding specific target cities in the district.[55] Finally, given

the *district nature* of the intervention and the fact that all included cities were part of a federal district, we have confidence that non-treatment cities were indeed absent a focus of PSN strategies due to the fact that district coordinators and researchers were in a position to clarify this issue. We must note that it was impossible to rule out a 'trickle down' or adoption effect that may have occurred in non-treatment cities. In order to control for this issue, we also relied on a more precise measure of PSN 'dosage' (Berk, 2005: p. 452) that we included as a time-variant measure at level 1.

Dosage was a composite variable designed to capture the overall policy adoption of the outlined PSN strategy. More specifically, dosage was an aggregate measure of standardized z-scores of the three specific PSN policy elements framed by the Department of Justice: (1) collaborative implementation, (2) research integration into strategic planning, and (3) enhanced federal prosecution (for a more detailed review, see Zimmerman, 2006; see also Chapter Five, pp. 73-77).[56] Data were culled from the formal semi-annual reports from the United States Attorneys' Offices (USAO) between 2000 and 2005, as well as the MSU research partner survey and from data submitted to the MSU PSN national research team, discussed in detail in Chapter Four.

Collaborative implementation was designed to measure the extent to which the U.S. Attorney's Office worked with other law enforcement, criminal justice, and community groups and developed intervention strategies that crossed agencies. The measure focused on a reported emphasis of the task force on enhanced local and state prosecution, enhanced federal prosecution, law enforcement implementation including directed patrol (McGarrell et al., 2001) or street-level enforcement (Braga and Pierce, 2005), parole and probation integration through the notification meeting or offender

home visits (Braga et al., 2001; McGarrell et al., 2005), community programs (i.e., reported more than the modal value), supply-side intervention (Koper, 2005; Ludwig, 2005), and gang focus (Braga et al., 2006; 2008).

The second component of dosage was designed to measure variation in the level of integration of research in task force analysis and planning. Research integration measured whether PSN created an environment where data analysis drove decision making as well as the quality of the data submitted to the MSU PSN team (for details oif measures, see Chapter Five, pp. 75-76).

The third component was a measure of the level and trend in federal prosecution for gun crime charges. Specifically, a factor score measured changes in federal prosecution (Papachristos et al., 2007), which relied on both numeric changes as well as changes in the per capita prosecution rate. Thus, adding these standardized scores together created a dosage range from low (3) to high (9) for PSN treatment cities.

Although PSN officially was launched in 2001, interviews with PSN officials and review of various data indicated that PSN was not implemented at the local level until 2002. Thus, for purposes of the evaluation, 2002 was considered the treatment date.[57] In terms of operationalization, dosage was treated as a time-variant measure at level 1. Non-treatment cities received a zero for the dosage indicator between 2000 and 2006 since there was no indication of implementation of this three-stage approach in the control cities. Intervention sites also received a zero for dosage in years 2000 and 2001 because we chose 2002 as the beginning of PSN implementation. In 2002 through 2006 PSN target sites received a fixed score that reflected the amount of PSN dosage (ranging from 3 to 9) that was implemented in each unique target city.[58]

The examination of dosage based on collaborative implementation of multiple strategies, research integration, and prosecution, reflected a test of the strategic problem solving model of PSN implementation. These components of dosage reflected key ingredients of the type of model developed in Boston, applied in Indianpolis and SACSI cities, and reflected in the case studies of the Middle District of North Carolina, Lowell, Omaha, St. Louis, and in the studies of Chicago (Papachristos, 2007) and Stockton (Braga, 2008).

In addition to the overall dosage measure, a separate analysis focused on the level and trend of federal prosecution was conducted. This was intended to specifically focus on the effect of federal prosecution levels. It thus represented a test of the Project Exile model (Rosenfeld, Fornango and Baumer, 2005) as reflected in the case studies of Mobile and Montgomery.

The reality is that the federal prosecution emphasis overlaps the strategic problem solving and exile models. That is, the federal prosecution intervention can be considered a component of the focused deterrence framework that is part of both models. Thus, the analyses that follow do not reflect a strict test of two distinct strategies. Rather, examination of the models should shed light on whether implementation of either of these models related to changes in violent crime.

Analytic Strategy

To assess the relationship between PSN implementation and potential changes in violent crime, we applied growth curve models to violent crime trends using data from all U.S. cities that had a population greater than 100,000. In total, we examined changes in violent crime trends in 252 of the largest U.S. cities. We relied upon Hierarchical

Generalized Linear Models (HGLM) to assess within- and between- city changes in violent crime between 2000 and 2006, using a Poisson sampling model with a correction for over-dispersion, and the city population as the exposure variable. In this case, the annual violent crime counts were treated as repeated measures nested within cities at level 1. Incorporating the exposure variable allowed interpretation of the left-hand side of the level 1 equation as the log violent crime rate per 100,000 population (Browning et al., 2006; Raudenbush and Bryk, 2002). The inclusion of the population as the exposure variable was based on the notion that the expected violent crime count of a city (*i*) in a given year (*t*) is contingent upon both the criminal propensity of offenders in a given city as well as the number of people living in that city. More specifically, larger cities have a greater opportunity to house more offenders and subsequently will have more offenses. In this case lambda (λ) is interpreted as a violent crime rate outcome.

The data contain multiple observations for the same cities over time, meaning each of the observations are not statistically independent. Thus, we estimated random effects models to capture all the unobserved and stable city-specific characteristics that generate differences between cities in violent crime and also a random error term at different observation occasions (see Brame, Bushway, and Paternoster, 1999; Rosenfeld et al., 2005; Horney, Osgood, and Marshall, 1995; Xie and McDowall, 2008). In addition, all level 1 measures were group-centered in order to create a unique intercept and slope estimate for each city in the analysis, while each level 2 measure was grand mean centered in order to provide unique between city estimates. Group centering a time-varying covariate (X) at level 1 provides an unbiased estimate of the effect of change between the independent variable X and violent crime *within* a city as the

outcome, which is the focus of the current study. Our analyses relied on the use of HLM computer software (version 6.02a; Raudenbush et al., 2004) throughout.

Time-varying (i.e., dynamic) explanatory variables including changes in city level police density, the state prison population, and dosage effect of PSN were included in the unconditional level 1 HGLM model. In addition, a series of dummy variables were included at level 1 in order to control for the annual random within-city changes in violent crime, using the year 2000 as the reference category. We included two theoretically relevant and static social indicators at level 2: concentrated disadvantage and population density. We used a two-level model that predicts *within*-city trajectories in violent crime at level 1 and *between*-city violent crime variation at level 2 using the predicted level 1 intercepts and slopes as outcomes (Hox, 2002). Ultimately, we used this multi-level approach to assess whether there was an observed relationship between PSN implementation (i.e., both PSN dosage and PSN treatment in different models) and violent crime, controlling for theoretically relevant indicators within- and between cities. [59] The same approach was then used to assess the impact of trends in federal prosecution levels.

Results – Treatment and Multiple Component Dosage

Figure 9 displays the average violent crime trends for the 252 cities examined here, which are disaggregated into PSN treatment cities and non-PSN treatment cities. Treatment cities averaged roughly 1,083 violent crimes per 100,000 population prior to national PSN implementation (i.e., year 2000 and year 2001). Subsequently after national PSN implementation, the year 2002 and beyond, violent crime rates in treatment cities averaged 1,037 per 100,000 population. Overall, treatment cities experienced a 4.1

percent reduction in violent crime trends, which equated to roughly 45 fewer violent crimes per 100,000 residents between pre- and post- national PSN implementation. Comparatively, non-treatment cities averaged roughly 612 violent crimes per 100,000 population prior to national PSN implementation. Between 2002 and 2006, non-target cities averaged 607 violent crimes per 100,000 population. Thus, non-target cities experienced a 0.9 percent decline, which equated to roughly five fewer violent crimes per 100,000 population over this period. Thus, the data presented in Figure 9 provided sound preliminary support that target cities experienced a substantively greater decline in violent crime after national PSN implementation compared with non-target cities.

Figure 9: Violent Crime Trends in Large U.S. Cities between 2000 and 2006 (Violent Crime Rate per 100,000)

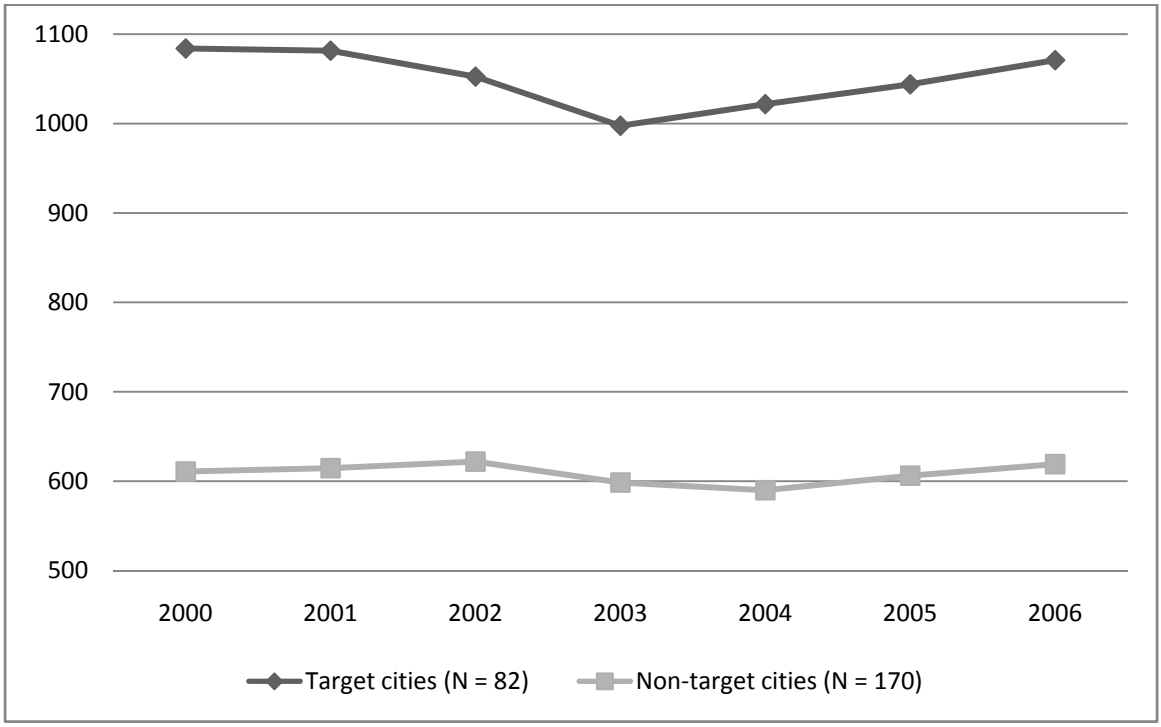
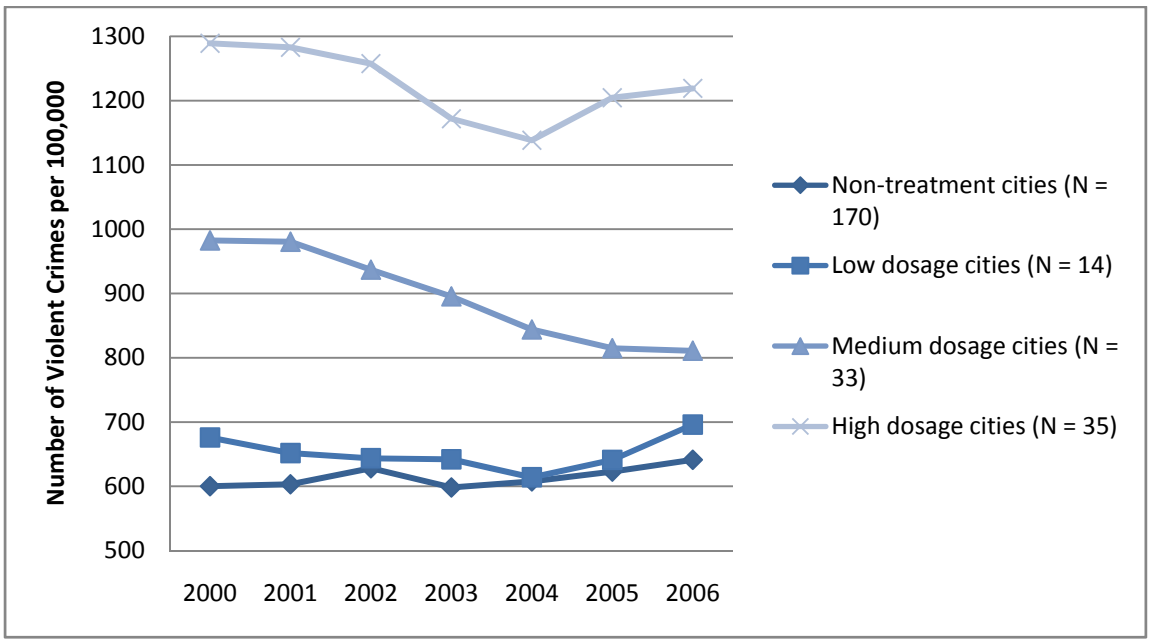


Figure 10 displays the average violent crime trends for both treatment and non-treatment cities by disaggregating treatment sites into three categories related to PSN

dosage: Low, Medium, and High. Low dosage cities (N = 14) were those treatment sites that were consistently low on measures related to research integration, collaborative implementation, and enhanced federal prosecution. Interestingly, low PSN dosage sites and non-treatment sites (N = 170) experienced very similar violent crime trends between 2000 and 2006. Medium dosage cities (N = 33) experienced a far more gradual and sustained decline in violent crime after 2001 than all other city distinctions, as evidenced in Figure 10. Medium dosage sites tended to be moderate to very strong in at least two of the three measures that comprise the PSN dosage measure. High dosage cities (N = 35) tended to score very high in all of the indicators related to PSN dosage, and they also tended to be cities that had a much higher base-line violent crime rate prior to PSN implementation. Also interestingly, high dosage sites had a more abrupt reduction between 2002 and 2003, but also experienced a marginal rebound in violent crime around 2005.

Figure 10: Violent Crime Trends in U.S. Cities by Dosage Designation



We next used HGLM growth curve models to assess whether there was a PSN intervention effect on violent crime trends, net of other theoretically relevant factors related to violent crime.

HGLM Growth Curve Models – Treatment and Multiple Component Dosage

Table 37 provides the descriptive statistics for the variables included in the conditional growth curve models that utilized all the independent variables available here. One note is that 11 of the 252 cities were excluded from analysis due to incomplete and inadequate data. None of these eleven cities were PSN-target cities.[60] In terms of the univariate distribution of the variables, the average violent crime count was 2,712 with a standard deviation of 6,098 violent crimes, which means the outcome measure was highly skewed (s^2 violent crime > $\bar{X}$ violent crime) requiring an additional model parameter to correct for over-dispersion (Raudenbush and Bryk, 2002: p. 334). In terms of theoretically important measures that were time-variant, the cities examined averaged roughly 273 officers per 100,000 population between 2000 and 2006. The average state prison incarceration rate was roughly 473 per 100,000 population over this period. In terms of static structural indicators, concentrated disadvantage ranged from low (-2.58) to high (2.74) and population density ranged from low [ln(2.18 ppsqmile)] to high [ln(4.42 ppsqmile)]. The low variability in the population density measure was expected given that the sample here only included large U.S. cities and the measure was logged (ln) to reduce skewness. Finally, roughly 34 percent of the cities in the final model were PSN treatment cities (82/241 cities).

Table 37: Descriptive Statistics

Variable	Mean	S.D.	Minimum	Maximum
Level 1 Measures (N = 1660)				
Violent Crime Count	2712.4	6098.1	72	74115
Dosage	1.5	2.75	0	9
Prison Rate	472.9	145.4	126	872
Police Density	273.5	111.8	108	927
Year 2000	.14	.35	0	1
Year 2001	.14	.35	0	1
Year 2002	.14	.35	0	1
Year 2003	.14	.35	0	1
Year 2004	.14	.35	0	1
Year 2005	.14	.35	0	1
Year 2006	.14	.35	0	1
Level 2 Measures (N = 241)				
Disadvantage[61]	.04	.99	-2.58	2.74
Population Density (ln)	3.52	.31	2.18	4.42
Treatment	.34	.47	0	1

The results of the HGLM growth curve estimates were used to determine whether PSN treatment cities experienced a change in violent crime rates, net of other relevant correlates related to violent crime. The unconditional random effects baseline model indicated significant variation and reduction in violent crime trends within cities in the current study ($\pi_{0i} = -5.17$, $p < .01$). In addition, the χ^2 statistic accompanying the estimated variance component in the unconditional model indicated significant variation in violent crime among cities (s^2 component = .432, df = 247, $\chi^2 = 46{,}715$, $p < .01$).

Table 38 summarizes the results of the conditional model that includes all level 1 and level 2 measures included in the current study.[62] Consistent with prior research, the strongest indicator of violent crime rates across cities was concentrated disadvantage. Cities with more concentrated disadvantage experienced significantly more violent crime. Every unit increase in the standardized measure of concentrated disadvantage was

accompanied by a 66 percent increase in violent crime across cities. Similarly, population density also had a significant relationship with violent crime across cities but in a negative direction. In terms of within city estimates, state prison incarceration rates had a marginally significant ($p < .10$) and positive relationship with a violent crime increase over time, meaning that cities that experienced a rise in violent crime were also very likely to have a rise in state prison incarceration rates.[63] Most important to the present examination, PSN dosage exerted a negative and statistically significant relationship ($p < .05$) with changing violent crime rates, net of dynamic and static indicators.

Consistent across analyses, cities that experienced an increase in PSN dosage were significantly more likely to experience a decline in violent crime rates over time. For every unit increase in the standardized PSN dosage measure, within-city violent crime rates declined by roughly -5.7 percent. Although included as statistical controls, the dummy variables designed to capture annual random variability in violent crime also revealed a pattern that was consistent with the line graphs seen in Figure 9. The 'peak' decline year for violent crime trends was 2004 both in terms of coefficient size and statistical significance, while in 2005 the coefficient became both empirically smaller and reduced from statistical significance ($p < .05$) to marginal significance ($p < .10$), while in 2006 became the indicator became statistically insignificant ($p = .338$). Thus, net of other factors, including PSN dosage, there appeared to be a 'rebound' effect in violent crime after 2004, net of the PSN dosage reduction. Implications of these findings are discussed in the next section.

In terms of model improvement from the unconditional model that did not include any covariates to the conditional model, there are no conventional model fit statistics, such as the deviance statistic, for Poisson count models in HGLM (Raudenbush et al., 2004: ch. 5.1). However, model improvement can be compared by examining the change in the residual variance component between the unconditional model and conditional model (Raudenbush and Bryk, 2002: p. 309; Rosenfeld et al., 2005: p. 447). In the unconditional model, the residual variance was .4320, while in the conditional model the residual variance was .2066. Thus, the percentage reduction in the error variance between the unconditional model and the conditional mixed-model was 52.1 percent,[64] suggesting a substantial improvement in model fit.

Table 38: Conditional Random-Effects Poisson Model of Violent Crime Rates in Large U.S. Cities between 2000 and 2006 (Examining PSN Dosage)

Fixed Effects	**Coefficient**	**Standard Error**	**Odds Ratio**
Level 1 (Within-City Effects)			
Intercept	-5.176	.0296	.006
PSN Dosage	-.0059*	.0030	.994
Incarceration Rate	.0005^{+}	.0003	1.001
Police Density	.0002	.0003	1.000
Year 2001	-.0180^{+}	.0094	.982
Year 2002	.0195	.0129	1.019
Year 2003	-.0225^{+}	.0132	.977
Year 2004	-.0449**	.0135	.956
Year 2005	-.0261^{+}	.0140	.978
Year 2006	-.0125	.0145	.987
Level 2 (Between-City Effects)			
Disadvantage	.5030**	.0316	1.65
(Ln) Population Density	-.2918**	.0999	.747
Random Effects	**Variance Component**	χ^2	***p* Value**
Intercept, r_{0i}	.2066	27078.1	< .01
Dosage, r_{1i}	.0002	173.1	< .01
Incarceration rates, r_{2i}	.0000	235.3	< .01
Police density, r_{3i}	.0000	196.8	< .01
Level 1 error, e_{ti}	22.95	-	-

**p < .01, *p < .05, $^{+}$ p < .10

Cross-level interaction effects (i.e., slopes as outcomes) capturing the relationship between disadvantage and PSN dosage (disadvantage*PSN dosage) and population density and PSN dosage (density*PSN dosage) both yielded statistically significant and negative interaction estimates, though in both models the *direct* effects of PSN dosage were no longer statistically significant.[65] There is little theoretical reason to believe PSN dosage was a product of, or in some way was influenced directly by, either of these city structural features. However, the cross-level interaction estimates were examined in order to be consistent with an empirical hierarchical model-building approach (Raudenbush and Bryk, 2002: chapter 2). Most importantly, the PSN dosage effect retained statistical significance in alternative cross-level interaction models indicating a robust relationship between dosage and violent crime reduction. We also substituted the dichotomous measure designating treatment cities from non-treatment cities (0 = non-PSN treatment city, 1 = PSN treatment city) in place of the PSN dosage measure at level 1 following the same pre/post intervention guidelines used in the dosage measure. The results were very consistent with those presented in Table 38 (see Appendix C, Table C-1).

One of the greatest threats to the validity of the above findings indicating a relationship between increased PSN dosage and a reduction in violent crime is the internal measurement validity of the PSN dosage measure used in the previous models. More specifically, in terms of the operationalization of the PSN dosage measure used at level 1, the analysis is based on the assumption that the three-phase component to PSN (i.e., collaborative implementation, research into strategic planning, and enhanced federal prosecution) started in 2002 and maintained its dosage intensity over time in all treatment

cities through 2006. In order to include treatment as a level 1 measure, the research team had to choose the best overall discrete time point to designate as the national PSN start date. While some districts were able to provide specific start and end dates for their specific PSN implementation that differed from the current time measure, we did not want to selectively choose to use such information until a more detailed analytic approach could be used for all districts.

Currently, there are no systematic measures available for a majority of PSN treatment cities concerning their *specific* start and end dates, and how dosage varied over the period examined here. We acknowledge this is a somewhat limited approach with a major and very challengeable assumption. In order to address this issue, an additional growth curve model is presented below that does not require a designated start and end date by treating PSN treatment as a static factor at level 2, though this approach is not without its own set of limitations in the current context. This analytic approach was adopted from a similar and very rigorous PSN research evaluation that also relied on growth curve models to assess the intervention effect in Chicago (Papachristos et al., 2007). Papachristos et al. treated PSN target neighborhoods as a static factor at level 2 and created a cross-level interaction term using time as a single level 1 covariate when analyzing neighborhood differences in crime trends within Chicago. Similar to their strategy, we substituted a single measure of time (0 – 7 for the number of years of data available here) in place of all annual dummy variables used in the prior mixed-model.

Table 39 displays the results of the growth curve model where PSN treatment (0 = non-PSN treatment city, 1 = PSN treatment city) was designated as a static measure at level 2.[66] The results were very similar to the prior model displayed above. Specifically

across cities, PSN treatment sites had significantly more violent crime (roughly 37 percent) than non-treatment sites. Similarly, there was significantly more violent crime in cities where disadvantage was higher and lower violent crime in cities that had higher population density. In terms of the cross-level interaction effect where the time slope was estimated as a function of PSN treatment, there was a significant decline in violent crime ($p < .01$) in PSN treatment cities over time compared to non-treatment cities, net of within- and between city correlates of violent crime. Thus, as time passed (i.e. increased), PSN treatment cities experienced a 2.4 percent reduction in violent crime compared to non-treatment cities.[67]

Table 39: Conditional Random-Effects Poisson Model of Violent Crime Rates in Large U.S. Cities between 2000 and 2006 (Examining PSN Treatment*Time)

Fixed Effects	**Coefficient**	**Standard Error**	**Odds Ratio**
Level 1 (Within-City Effects)			
Intercept	-5.17**	.0283	.0056
Incarceration Rate	.0008*	.0003	1.000
Police Density	.0002	.0003	1.000
Time	-.0045*	.0021	.9954
Level 2 (Between-City Effects)			
Disadvantage	.4538**	.0320	1.574
(Ln) Population Density	-.1959*	.0969	.8220
PSN Treatment City	.3133**	.0626	1.367
Cross-Level Interaction Effects			
PSN Treatment City*Time	-.0252**	.0038	.9731
Random Effects	**Variance Component**	χ^2	***p* Value**
Intercept, r_{0i}	.1878	31858.4	< .01
Incarceration rates, r_{1i}	.0000	633.9	< .01
Police density, r_{2i}	.0000	616.1	< .01
Level 1 error, e_{ti}	25.16	-	-

**p < .01, *p < .05, $^{+}$ p < .10

While the model presented in Table 39 did not require a designated start and end date, which was a requirement when including PSN dosage as a level 1 time variant

measure, it assumes PSN treatment was static between 2000 and 2006 in all treatment cities.[68] Finally, in order to examine the apparent quadratic function (i.e., the fall and rise) seen in violent crime rates in treatment cites, both time (t1) and time squared (t^2) variables were included in the above model, and both estimates were statistically significant ($p < .01$) and in opposite direction (negative and positive respectively). Thus, there was a quadratic change in violent crime rates over time within cities (See Appendix D, Table D-1). The cross-level interaction estimates between level 2 treatment with both time and time squared at level 1 yielded statistically significant results ($p < .05$), again in the opposite direction for each interaction effect. Importantly, the odds of the event rate for the decline (.949) were greater than the rebound (1.003) in violent crime which means that the 'fall' in violent crime was greater than the 'rise' and thus there was a greater reduction as time increased.

Results - Federal Prosecution Levels and Trends in Violent Crime

The prosecution measure used here is calculated as the annual number of defendants prosecuted in federal court for each year between 2000 and 2006. The prosecution data were measured at the federal judicial district level and represent the number of federal prosecutions for gun crimes in each U.S. district. Complete prosecution data, therefore, existed for all of the cities in this study because every city in the United States falls within a federal jurisdictional boundary. The data were provided by the Executive Office of United States Attorneys[69] and reflected prosecution under sections 922 and 924 of the United State Code, the main provisions covering federal firearms charges.[70]

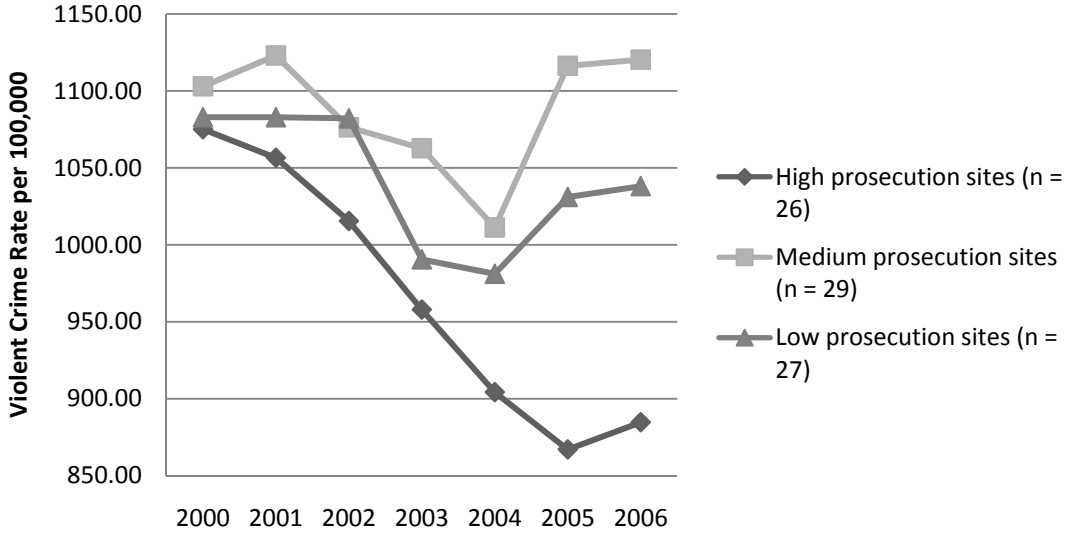
More specifically, the eighty-two PSN target cities were located in sixty-six federal districts meaning that roughly 80.5 percent of all PSN target cities were housed within their own unique federal jurisdiction. Importantly, none of the remaining PSN target sites (n = 16) had more than three PSN target cities that shared the same federal boundary. It was important to assess whether changes in federal prosecution between pre- and post-PSN intervention had a relationship with changes in violent crime rates across PSN target cities. The PSN strategy focused heavily on improved criminal justice cooperation with a significant emphasis on the increased use of federal prosecution in order to maximize penalties for gun, gang, and violent offenses. Thus, the question whether changes in prosecution changed violent crime in PSN target cities is certainly theoretically tenable and worth examining.

In order to visually display this relationship, we calculated the unique percentage increase for each federal district by comparing the average annual number of federal defendants between pre- and post-PSN with the designated start date of 2002 (i.e., the pre-intervention number of defendants per year for 2000 and 2001 and the post-intervention number of defendants per year for 2002 to 2006). We then grouped the PSN target cities that were located in districts in the top one-third (high prosecution, n = 26), middle one-third (medium prosecution, n = 29) and bottom one-third (low prosecution, n = 27) of all federal districts.

Federal jurisdictions classified as high prosecution sites experienced prosecution increases from 72 percent to over 400 percent, with a median increase of 111 percent increase in federal prosecutions between pre- and post-PSN. Jurisdictions grouped as medium prosecution sites experienced increases in federal prosecution ranging from 29

percent to roughly 70 percent, with a median increase of 53.6 percent. Districts classified as low prosecution sites experienced a rate of change that ranged between -35.8 percent (decrease in prosecution between pre- and post- PSN) to a 28.2 percent increase, with a median increase of 15.6 percent in federal prosecutions. In terms of a change in violent crime, Figure 11 clearly shows that target cities that were located in federal districts classified as high prosecution sites (i.e., districts that had the largest increase in federal prosecution between 2000 and 2006) experienced a rate of decline in violent crime that was much greater and more sustained than cities located in medium and low federal prosecution sites. More specifically, PSN target cities in high prosecution districts experienced an average decline in violent crime of -13.1 percent, while violent crime in target cities in medium and low prosecution districts changed by -3.1 percent and -5.3 percent respectively.[71]

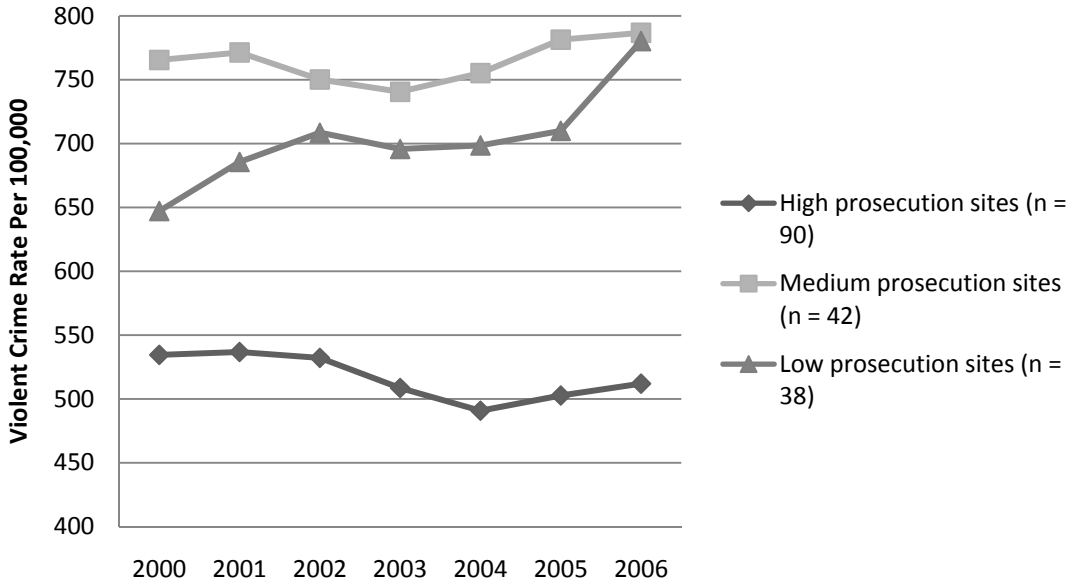
Figure 11: Violent Crime Changes in PSN Target Sites Grouped by Prosecution Ranking



The next step was to examine the relationship between high, medium, and low prosecution federal districts and violent crime changes in non-PSN target cities as well.

We graphed the change in violent crime in non-target cities (N=172) using the same criteria that was applied to the district-level classification used in the prior trend analyses for the PSN-target cities. Ninety of the non-target cities (52.9 percent) were classified within high-prosecution districts, forty-two cities (24.8 percent) were classified in medium prosecution districts, and thirty-eight cities (22.3 percent) were housed within low prosecution districts.[72] These results indicated that non-target cities housed in high prosecution districts were the only non-target cities to experience a sustained decline in violent crime between 2000 and 2006, though the difference over this period was obviously not as pronounced as was evident in PSN target cities. In addition, non-target cities in medium and low prosecution sites experienced little to no decline between 2000 and 2006 (see Figure 12). Specifically, non-target cities in high prosecution districts experienced a -4.9 percent reduction in violent crime between pre- and post PSN intervention, while non-target cities in medium prosecution districts experienced a decline of less than 1 percent and non-target cities in low prosecution districts actually experienced a 7.8 percent increase in violent crime.

Figure 12: Violent Crime Changes in Non-PSN Target Sites Grouped by Prosecution Ranking



HGLM Growth Curve Models – Federal Prosecution Trends

The trends reviewed in Figure 11 and Figure 12 suggested that cities in high prosecution federal districts experienced larger declines and less of a rebound in violent crime than cities in medium and low prosecution districts. These analyses, however, do not test for statistical significance nor do they control for other factors that may influence violent crime trends. In order to examine whether the annual changes in federal prosecution had a statistically significant relationship with the annual changes in violent crime across PSN target sites while also controlling for relevant structural factors that prior research has shown to influence changes in violent crime rates, we utilized a two-level HGLM analysis. These analyses were similar to those used in the prior models that

assessed the PSN treatment and PSN dosage impact in all large U.S. cities. Thus, we selected out the eighty-two PSN target cities for regression analysis.

While statistical independence (i.e., shared federal prosecution measures at level 1) is violated in roughly one-fifth of the target cities, it is of minimal concern in the PSN target city models because a maximum of three target cities existed in those federal districts that housed multiple target cities. Thus, roughly four-fifths of the entire target cities in the models had their own independent measure for prosecution that was extracted from the federal district level, while the remaining cities by and large shared these measures with only one additional target city. The prosecution measure is treated as a dynamic time-varying covariate and, along with all other independent variables at level 1, was group-centered to create a unique intercept and slope estimate for each city in the analysis.

Table 40 provides the descriptive statistics for the variables included in the conditional HGLM that utilized all independent variables in this target city analysis. Similar to the prior dosage and treatment analyses, the target city prosecution analysis drew from a Poisson distribution with a correction for over-dispersion since the violent crime measure was heavily skewed, and the city-population was used as the exposure variable in order to control for relative population differences. The level 2 variables included measures of concentrated disadvantage and population density (logged) for the eighty-two target cities, while the level 1 measures included seven years of state incarceration and police density data for each of the target cities, and a control measure categorized as a time variable to account for random variation in violent crime between 2000 and 2006. Most important for this examination, the prosecution variable was the

annual number of defendants prosecuted in federal court and was included as a time-varying covariate for each of the PSN target cities, which had a range from twelve defendants in a given district in a given year to four hundred fifty nine defendants.

Table 40: Descriptive Statistics for Target City Prosecution Analyses

Variable	Mean	S.D.	Minimum	Maximum
Level 1 Measures (N = 574)				
Violent Crime Count	5408.3	9735.7	73	74115
Prosecution	143.5	90.2	12	459
Prison Rate	452.2	144.1	158	872
Police Density	333.9	116.4	136	695
Time	3.0	2.0	0	6
Level 2 Measures (N = 82)				
Disadvantage	.45	.85	-2	2.74
Population Density (ln)	3.49	.34	2.18	4.42

The unconditional random effects baseline model indicated significant variation and a reduction in violent crime trends within PSN target cities ($\pi_{0i} = -4.77$, $p < .01$). The χ^2 statistic accompanying the estimated variance component in the unconditional model indicated significant variation in violent crime among target cities (s^2 component = .229, df = 81, $\chi^2 = 6{,}789$, $p < .01$). Thus, the next step was to assess whether annual changes in federal prosecution had a relationship with annual violent crime rates across PSN target cities, controlling for other important static and dynamic factors. Table 41 indicates that controlling for structural factors that have been established as correlates of changes in violent crime (e.g., disadvantage, population density, state incarceration rates, police density, and controlling random changes in crime over time), as federal prosecution increased in the jurisdictions where the PSN target cities were located, violent crime reduced at a statistically significant level ($p < .01$) by 3.2 percent between 2000 and 2006.[73]

Table 41: Conditional Random Effects Model Examining Changes in Federal Prosecution across PSN Target Cities

Fixed Effects	Coefficient	Standard Error	Odds Ratio
Level 1 (Within-City Effects)			
Intercept	-4.787	.0413	.0083
Prosecution	-.0032**	.0014	.9968
Incarceration Rate	.0014*	.0005	1.001
Police Density	-.0000	.0006	.9999
Time	-.0202**	.0032	.9792
Level 2 (Between-City Effects)			
Disadvantage	.3998**	.0533	1.491
(Ln) Population Density	-.1179	.1316	.8887
Random Effects	**Variance Component**	χ^2	***p* Value**
Intercept, r_{0i}	.1334	11077	< .01
Incarceration rates, r_{2i}	.0000	241.0	< .01
Police density, r_{3i}	.0000	214.0	< .01
Level 1 error, e_{ti}	38.01	-	-

**p < .01, *p < .05, $^{+}$ p < .10

The final step was to examine whether changes in federal prosecution affected PSN target cities different than non-PSN target cities across the entire sample of large U.S. cities. A two-level HGLM model of non-treatment cities would heavily violate the assumption of statistical independence because the remaining 171 non-target cities were housed again in seventy-seven total federal districts, and thus extreme repetition would occur. In order to address this issue, we estimated a 3-level HGLM model where within-city violent crime change over time was modeled at level 1 (N = 1,736), PSN target city designation was modeled at level 2 (N = 248), and federal prosecution designation (e.g., high/medium/low) was modeled at level 3 (N = 77).[74] We tested whether the federal designation (level 3) interacted with PSN target city classification (level 2) to impact changes in violent crime within cities (level 1). While an increase in prosecution designation did have a negative relationship with violent crime (i.e., higher prosecution meant lower violent crime over time), the estimate was statistically insignificant (p = .37)

both alone and controlling for all other relevant factors at level 1 and level 2 ($p = .84$) that were included in the prior HGLM analyses. Thus, the change in prosecution was not able to significantly delineate PSN target cities from non-target cities in the models here. However, given that a large number of target and non-target cities experienced a rebound in violent crime after 2005, this result was somewhat expected.

The results of the analyses here examining the relationship between changes in federal prosecution and changes in violent crime across PSN target sites indicated that there was a strong relationship between the increase in federal prosecution and the decrease in violent crime trends. This was not a surprising result given the prior PSN dosage analysis also indicated a relationship between increased PSN dosage and decreased violent crime across large U.S. cities between 2000 and 2006. One-third of the dosage measure was operationalized as increased federal prosecution. Most importantly, the prosecution results examined here provide support that a large driving force behind the dosage-violent crime relationship was the fact that increased federal prosecution was very much related and important to reduced violent crime.

Thus, there was very strong support that high PSN dosage sites altered the manner in which defendants were prosecuted and that the influx of federal defendants was very likely due to the increased focus on the use of federal sanctions in an effort to reduce youth, gang, and gun violence. High-prosecution districts experienced much greater declines in violence in target cities and also a decline in violence in non-target cities after the start of the PSN strategy. These results suggest the increased use of federal sanctions had a substantive and significant impact on the reduction in violent crime, which held net of other important factors that have been established as correlates of violent crime.

Diagnostic Tests

We performed a series of diagnostic tests examining the distributional properties of the residuals in the aforementioned models. HGLM analysis assumes a normal distribution of level 1 residuals and a violation of this assumption can lead to a bias in the standard errors of the fixed effects estimates and inferential statistics (Raudenbush et al., 2004: p. 38). We examined a series of Q-Q plots[75] of the observed values of the level 1 residuals for both the time variant PSN Dosage model presented in Table 38 as well the time-invariant PSN Treatment model seen in Table 39. In both instances the plots were approximately linear. This suggested that a departure from a normal distribution of residuals was of minimal concern (See Appendix C, Figure C-1 and Appendix D, Figure D-1 respectively). We were also very detailed when exploring diagnostic tests of the level 2 estimates, which required a series of examinations. We inspected plots comparing the Empirical Bayes (EB) with Ordinary Least Squares (OLS) residuals for each estimated indicator as well as the Mahalanobis distances for each of the level 2 estimates in both sets of models presented in the main findings section. All of these examinations indicated that the level 2 residuals also conformed to the normality distribution requirement (Raudenbush et al., 2004: p. 41). Finally, a zero-order correlation analysis of the level 2 measures indicated that no bivariate relationship at level 2 exceeded a correlation of .320, which is of minimal concern. Thus, the diagnostic tests indicated that none of the inferential statistics presented here were likely to be influenced by heavily biased standard errors.

Discussion

The graphs and models presented in the results section paint a very consistent picture: PSN intervention cites experienced a significantly greater decline in violent crime than non-PSN intervention cities. The decline, or negative growth, in violent crime in PSN cities was observed using a time-variant measure of PSN dosage at level 1 and a static measure of implementation, also referred to as a treatment indicator at level 2. A complementary analysis of the impact of the trend in federal prosecution levels on violent crime in PSN target cities produced very consistent findings. The significant PSN treatment relationship was found to be associated with the reduction in violent crime held net of both dynamic and static indicators including concentrated disadvantage, population density, changes in state incarceration rates, and changes in police density, which are all factors commonly associated with changes in violent crime. Thus, the analytic approach used here helps to control for some relevant 'alternative' explanations in terms of the observed violent crime reduction that was seen in PSN target cities, which lends more support to a PSN intervention effect.

One cautionary note was the rebound in violent crime that occurred during the period of 2004 to 2006. The increase was observed in almost sites (treatment, non-treatment; low, medium and high dosage) and was evident in the time estimates in both HGLM unconditional growth curve models presented here. The fact that the increase occurred in all categories of cities suggests factors beyond the PSN program. It does, however, beg the question, "what is a successful intervention?" Was the PSN impact a short-term effect? Did the intensity of PSN intervention fade over time? Or, would the uptick have been more significant absent PSN? This last interpretation is suggested in

the trends observed in Figure 11 that indicated that target cities in high federal prosecution districts were the outlier in terms of avoiding the increase in violent crime observed in most cities. Indeed, this group of cities witnessed a continued decline in violent crime in 2005 and the increase in violent crime in 2006 did not reach 2004 levels. This was in stark contrast to the other cities that experienced increases in 2005 and 2006. This issue will be discussed in the concluding chapter.

Evaluation strategies must systematically compare observed crime reductions with those that would have occurred without the intervention, which in turn requires comparisons with other places and controls for other influences based on nationally representative samples (Rosenfeld et al., 2005: 440). The use of UCR violent crime data to create a representative sample of treatment and non-treatment sites, the HGLM growth curve statistical methodology used to create estimates of within and between city changes in violent crime over time, and the use of static and dynamic independent variables related to violent crime while also including PSN treatment and PSN dosage at varying levels represents just such a rigorous research methodology. PSN represents a major nationally implemented program, and in many ways was an unprecedented strategic approach designed to reduce violent crime. Evaluating PSN from a national perspective is an equally daunting challenge for any research team. The analyses presented herein are certainly not without their limitations, which we describe in detail.

Limitations

There are a number of limitations to the analytic strategy employed here, which also will serve as a guide for future research attempting to examine the dynamic PSN-violent crime relationship. First, the limitation of an 'off/on' PSN dosage effect requiring

a designated beginning and end point has already been discussed. The fact that the PSN treatment estimates were robust lends support that the observed co-variation between treatment and violent crime reduction occurred at the aggregate level. A more detailed analytic approach should discern the unique start and end dates for each city in the analysis. Similarly more precise time variant dosage measures should be included in a 'within PSN target city' examination including factors such as changes in federal prosecution, the number of ATF gun seizures, and the duration of the research partner's involvement in directed decision making. Indeed, if PSN was the driving force behind the change in violent crime rates within target cities, there should be a relationship between high, medium, and low dosage and subsequent changes in violent crime across PSN treatment cities. Following the direction of Bushway and McDowall (2006), we propose the next step in conducting a more detailed PSN policy analysis will rely on the use of interrupted time series models to assess changes in violent crime *within* PSN target cities, particularly once unique onset and duration measures are captured.[76] Future research should strengthen our understanding of PSN implementation, the evolution of dosage, and sustainability.

Second, the methodology employed here also assumes equal treatment *within* PSN target cities. Many of the PSN task forces focused on intensive hot spot areas within cities, rather than a broad focus across entire cities. For example, Papachristos et al. (2007) compared PSN treatment neighborhoods against non-treatment areas within Chicago. This would suggest the Chicago-based intervention was not a city-wide approach but was more specific to discrete neighborhoods within the city. It is certainly reasonable to suspect that a number of PSN treatment cities used a similar approach,

which is not captured in the methodology here. More detailed methodology should attempt to discern overall target city approaches from a more discrete neighborhood focus.

Third, PSN was enacted in all federal districts, though only 68 U.S. districts had cities with a population over 100,000 that received PSN treatment. This equates to roughly 75 percent of all U.S. districts, which means roughly one quarter of all districts were excluded from the current analytic methodology. One of the issues in a large number of the remaining districts is that many of these sites relied on a more general and rural focus across a large range of locations rather than a specific city. For example, some rural sites focused on a state reduction in domestic violence. Given that these rural areas were likely to have a series of unique strategies over vast areas, a subsequent unique analytic approach is needed to perform a systematic evaluation of these sites. Having said this, the diffusion of the intervention across a federal judicial district and or state also raises issue of the dosage of the intervention and the statistical power to measure impact given the limitations of common and available crime measures across police jurisdictions. For example, the District of Maine included a strategic focus on domestic violence. However, the number of domestic homicides is relatively low and does not provide statistical power to measure impact along the lines employed herein. An intensive, local-level evaluation strategy would need to be employed to measure the impact of such a PSN strategy.

Fourth, PSN was an initiative designed to reduce violence, and in particular gun violence and gun related crime (Wellford et al., 2005). The outcome used in the analyses presented here relied upon UCR Type I violent crimes including robbery, aggravated

assault, and homicide and no subsequent measure exists in the UCR data that reports the presence of a firearm during the commission of these particular offenses. An alternative strategy that would have provided systematic firearm related violent crime data would have been to rely on the Supplementary Homicide Reports (SHR), which are lethal offense data that are also collected by the FBI.[77] While our understanding of *firearm related fatalities* would be improved using the SHR data, this approach also has serious limitations. First, preliminary PSN case study reports submitted to the Office of Justice Programs indicated that some districts experienced changes in firearm related aggravated assaults (McDevitt et al., 2007; McGarrell et al., 2007), firearm related robberies (Decker et al., 2007a), as well as firearm related homicides (Decker et al., 2007b) after PSN implementation. Simply relying on SHR data would limit the assessment of potential changes in non-lethal violent crime, regardless of whether a firearm was used. Second, an analysis of SHR data indicated that over half (N = 125) of all cities with a population of 100,000 or more averaged less than 1 homicide per month (.94) between 2000 and 2006,[78] thus restricting sample size. Unfortunately, there is no organized data collection system that has information on firearm-related violent crime beyond homicide.[79] A systematic firearm related analysis is vital to a more thorough understanding of the utility of PSN strategies. As noted in previous chapters, PSN task forces were asked by DOJ to submit gun crime data. Although the Michigan State University PSN research team had access violent firearm related offense data reported by many of the districts, there was serious under-reporting and a lack of comparability across districts. This creates a serious issue of a selection bias by only analyzing data from sites that actually submitted

firearm related offenses, and will subsequently exclude a comparison group of non-treatment sites.

A final threat to the finding that PSN appears to have resulted in declines in violent crime in high dosage treatment cities relates to selection effects and the possibility that the results may reflect a regression to the mean effect. That is, it is plausible that treatment cities were chosen as PSN target sites based on high levels of violent crime at the time PSN was being planned. If these high rates were based on unusual temporal factors, then the rate of violent crime may have fallen absent the PSN implementation. This is particularly likely when viewing the trend in violent crime among target and non-target cities. As displayed in Figure 9, target cities did have a considerably higher rate of violent crime in 2000 and 2001 compared to non-target cities. On the other hand, there is contrary evidence that suggests something beyond regression to the mean was occurring. Specifically, the second dosage measure, levels of federal prosecution, resulted in a comparison of cities that had very similar levels of violent crime in 2000-2001. Yet, as indicated in Figure 11 it was only in high federal prosecution districts that cities experienced a steep and sustained decline in violent crime. Further, as will be displayed in the next chapter, the pattern of declining rates of violent crime was persistent for dosage effects even within non-target cities (see Table 42). Specifically, non-target cities in high dosage districts experienced a 4.9 percent decline in violent crime whereas non-target cities in low dosage cities experienced a 7.8 percent increase in violent crime. Given that these cities were not selected based on levels of initial crime, it is unlikely that the decline in violent crime in high dosage districts was based on regression to the mean.[80]

In conclusion, the limitations outlined here also serve as the foundation for future research. However, it is equally important to note that future inquiry is warranted in large part because the analyses presented in this chapter were indeed suggestive of a PSN intervention effect. Specifically, PSN treatment sites, high dosage sites, and high prosecution sites experienced a significantly greater reduction in violent crime compared to non-treatment sites, lower dosage sites, and lower prosecution sites. These results were observed after controlling for other important factors related to changes in violent crime, and were subsequently seen during the period when PSN was implemented at a national-level. While the results presented in this chapter suffer from many of the limitations that have been discussed in prior criminal justice evaluations, we have controlled for a great many methodological issues by following the examples in prior successful and rigorous evaluation studies. Finally, we outline a number of potential future areas of inquiry to further strengthen and augment the methodology presented here.

Chapter Eight: Key Findings, Research and Policy Considerations

The final chapter includes discussion of key findings as well as considerations for future research and policy. The findings are organized by general observations on the components of successful implementation, the role of research and integration of research, and PSN strategy development. This is followed by a summary of the research findings on the impact of PSN on violent crime. Several theoretical and future research issues are considered and several policy implications are presented.

Importance of Leadership

Throughout this project the MSU research team had the opportunity to interact with officials in every PSN task force, to visit over 36 districts, and develop a series of strategic and site specific case studies that involved interviews with numerous PSN officials. A consistent finding was that in districts where PSN was being implemented in a serious and meaningful fashion, and where there was evidence that gun crime was being addressed in new ways following the implementation of PSN, that the leadership of the U.S. Attorney and the U.S. Attorney's Office was critical. Many described the "power" of the office to bring together other local, state, and federal law enforcement and criminal justice partners, as well as other elements of local government, social services, and neighborhood groups. Others described the importance of the U.S. Attorney making PSN a major priority of the office and the reduction in violent crime a key goal.

There was also evidence of variation across the U.S. Attorneys in terms of the extent to which they made, or were able to successfully articulate and make actionable, PSN a major priority. This was evident in the variation in the patterns of PSN implementation and particularly in the variation in federal prosecution levels for firearms

charges across the PSN districts. The finding that federal prosecution increased nationally by over 60 percent since the implementation of PSN suggested that the majority of U.S. Attorneys did make PSN and increased gun crime prosecution a priority. However, the national data minimize the wide variability across U.S. Attorney's Offices. As described in Chapter Four, the top Ten districts experienced an increase of 200 percent or more. Fifty of the districts observed increases of 60 percent or more. In sharp contrast, the bottom ten districts ranged from no change to a 38 percent decline in firearms charge filings. When viewed from the perspective of the level of federal prosecution of gun crime per capita, similar findings of wide variation emerged. The top twelve districts had a prosecution rate of 10 or more per 100,000 population. The bottom 13 districts had rates under 2.0 per 100,000 population. This was less than half the national average and five times lower than the top group of districts.

In districts with significant increases in federal prosecution the U.S. Attorney's Office typically took a number of steps. The first was to convey the priority within the office. Many established relationships with the local prosecutor and often used PSN funds to cross-designate local prosecutors as Special Assistant U.S. Attorneys who would prosecute gun cases in federal court. The development of joint case screening processes with the local prosecutor, local law enforcement and ATF was a similar step. Coordination with ATF on prioritization of gun cases for federal prosecution and communicating to local law enforcement the increased emphasis on federal prosecution of gun cases were also observed in districts where PSN was a clear priority.

Certainly there were justifiable reasons for having a lower level of federal prosecution than other districts. Lower levels of violent crime and differences in

penalties for gun crime under state law were two factors. Thus, for example, the district of Massachusetts had a lower per capita prosecution rate for gun crimes than the national average. One explanation was that the state of Massachusetts had comparatively strong penalties for gun crime. Further, the level of prosecution increased in the District of Massachusetts (+106%) above the national average, thus suggesting that PSN was a priority within the U.S. Attorney's Office. Absent compelling evidence to the contrary, however, it is difficult to believe that PSN was made a major priority in the 11 districts that had no increase or a decline in federal prosecution of gun cases.

In addition to the leadership of the U.S. Attorney, districts with a high level of PSN implementation often developed what appeared to be a "distributed leadership" model. Within the USAO this frequently meant reliance on a team that included the PSN coordinator (typically an Assistant U.S. Attorney) and the Law Enforcement Coordinator (LEC). In these districts, leadership was often found in the formal leaders of other partnering agencies including the local chief of police or sheriff, federal law enforcement,[81] probation and parole, the department of corrections, and local municipal or county government. In many task forces such leadership was provided by other partners including the schools, social services, weed and seed coalitions, neighborhood leaders, the faith community, and other community organizations. Additionally, effective task forces typically included leaders from throughout these organizations that represented the day-to-day line level officials who were critical to changing the way business was done with respect to gun crime. In a number of task forces, the research partner played an important leadership role.

Importance of Focused Interventions

One of the reasons for the inclusion of strategic planning and the integration of research in PSN was to support focused interventions. The promising programs upon which PSN was based all included a focused deterrence logic model whereby enforcement resources were aimed at the people, places and contexts believed to be producing high rates of gun crime and violence. This was reinforced by a National Academies of Science review of research evidence on the effectiveness of policing strategies in reducing crime that found that the more focused the intervention, the more impact on crime (National Research Council, 2005). The emphasis on focusing resources was included as a point of emphasis in the strategic problem solving training provided to all PSN districts.

The concept of focusing resources was a source of tension for many U.S. Attorneys. Specifically, many if not all USA's were understandably committed to serving their entire district. The emphasis on focusing on target cities or even target neighborhoods or police districts was often perceived as in conflict with the goal of serving the entire district. For some PSN task forces, this was seemingly irreconcilable and the entire district remained the formal target area. For other districts, distinctions were made between components of the PSN strategy that could be delivered district-wide (e.g., the media campaign; commitment to local law enforcement to review priority gun cases for federal prosecution) and those that could be delivered in a key target area (e.g., street-level gun enforcement teams; offender notification meetings; neighborhood re-development). The importance of developing a focus on key target areas was suggested

in the case studies as well as the cross-city analyses of the impact of PSN on violent crime.

The Role of Research and Research Integration

PSN also represented a federal commitment of resources to support law enforcement-researcher partnerships as an ingredient in the PSN task forces. This was an outgrowth of several factors. First, the inclusion of research partners was a key element of Boston Ceasefire (Gun Project) as well as the Strategic Approaches to Community Safety Initiative. Second, the research partners were considered instrumental in assisting the task forces in conducting problem analyses to develop the type of focused interventions described above. Third, PSN included an emphasis on accountability. It was hoped that the research partners would help gather performance measures and assess the impact of the local PSN program.

The evidence suggested that like other components of PSN, the inclusion of research partners produced mixed results across the 93 PSN task forces. Although difficult to measure systematically, it appeared that in about one-fifth of the districts there was very little evidence of the integration of research. In some cases this appeared to be the product of a lack of interest on the part of the U.S. Attorney or the PSN task force officials. Research partners were not included as members of the task force and minimal interaction occurred. In other instances this appeared to be based on the failure of the research partner to be part of the task force and/or to produce research findings considered relevant and of value to the task force. During the course of the PSN program the MSU research team received calls of frustration from U.S. Attorneys and PSN coordinators who complained that they were not getting anything of value from their

research partner. At the same time, calls from research partners were received expressing frustration at not being included in the task force and not having the opportunity to understand task force goals and priorities for research. In these districts with no or limited success in the integration of research, the problems seemed to stem from combinations of the following:

- Lack of interest in, or understanding of the value of, research on part of USA and/or PSN task force
- Lack of understanding or interest in the active research partner role on part of researcher (in contrast to a more detached research role)
- Data availability problems that made difficult delivery of timely and valuable analyses

On the other hand, there was evidence of research integration in the vast majority of PSN task forces. This was most apparent in the research partners providing data-driven analyses of the local gun crime problem. A compelling piece of evidence of the perceived value of research was the finding that over one-half of the PSN task forces provided discretionary funds to continue the work of their research partners after the initial grant award had expired. Another encouraging observation, from the perspective of police-research partnerships, was the emergence of long-term research partnerships that have seemingly emerged from PSN. Examples included the relationship in the Western District of Tennessee with the University of Memphis and the Northern District of Ohio with Kent State University, the District of Nebraska with the University of Nebraska at Omaha, and the Western District of New York with Rochester Institute of Technology. The Middle District of North Carolina established long-term relationships with teams of researchers at the University of North Carolina Greensboro and Winston-Salem State University, and the Eastern District of Wisconsin had similar relationships

with a network of researchers from a number of institutions. The state of Massachusetts adopted the research partner model as a core element of the Shannon Project, a gang violence reduction initiative (Massachusetts Executive Office of Public Safety and Security, 2008).

The importance of research integration was also suggested in the analyses of PSN implementation. Research involvement was positively related to two other key components of PSN: formal partnerships and level of federal prosecution. That is, PSN districts that reported higher levels of research integration (by both PSN coordinators and the research partner), also had a larger number of PSN partners and higher levels of prosecution. Two interpretations are plausible. The first is that the same districts that were most committed to PSN (thus having more partners and higher levels of prosecution), were also committed to integrating research. The second is that valuable research helped solidify partnerships and may have assisted focusing resources on the gun crime problem, thereby increasing levels of federal prosecution. The data do not allow us to disentangle causal order.

Similar findings emerged in terms of the role of information infrastructure and PSN implementation. An absence of information infrastructure was associated with lower levels of PSN implementation. This may indicate that when the information infrastructure could not support research integration, the other PSN components of partnerships and federal prosecution also tended to suffer.

The Emergence of Gun Crime Intervention Strategies

As noted in previous chapters a variety of strategies were employed by PSN task forces. The most common were increased federal prosecution; joint federal-local

prosecution case screening; directed police patrol; chronic violent offender programs; street level firearms enforcement teams; offender notification meetings; re-entry programs; and firearms supply side interventions. The most common prevention strategies included neighborhood development; education; and school-based prevention programs. It was impossible to distinguish the impact of specific strategies on trends in violent crime. The case studies suggested support for a Project Exile-style emphasis on increased federal prosecution of gun crime coupled with a communication strategy that sought to increase the perceived risk of prosecution of illegal gun possession and use. Additional case studies provided support for a strategic problem solving, pulling levers set of strategies that used research-based problem analysis to direct resources at the key contexts driving violence and then used the threat of federal prosecution, direct communication to groups of at-risk individuals (offender notification meetings), and additional levers (probation/parole supervision, warrant service, street level enforcement) to similarly increase the perceived risk of illegal gun possession and use. Although the research approach did not allow disentangling the components of these strategies, interviews and observations suggested that a number of PSN task forces were able to combine multiple components into an overall strategy emphasizing focused deterrence.

Integrating Strategies in Project Safe Neighborhoods

While one of the central principles of PSN is establishing an inclusive and coordinated approach to reducing gun violence, when these approaches become collaborative rather than simply coordinated they appeared more likely to be successful. For years, creating a task force had been a popular strategy in criminal justice to address crime problems. Such task forces typically involved sharing personnel and other

resources in a combined effort to address crime. The collaborative model, however, suggested that not only were resources shared, communications improved and operations coordinated, but that decision making was shared across traditional agency boundaries. Often when this level of integration was attained there were considerable benefits beyond simple cooperation.

Perhaps the best example of this occurred in the area of case review. Almost every PSN district had a formal process for determining the most appropriate prosecution venue for gun cases. In some situations, this was conducted through referrals on an individual case basis from local prosecutors while in other jurisdictions a formal meeting was held in which all gun cases were discussed. While there is certainly no single best way of conducting this process, in many districts the formal discussion of cases often led to an exchange of information and intelligence. Such information was useful in not only determining prosecution venue but this information was often considered very helpful in developing intelligence, generating informants, and identifying individuals who may be suitable for attention through a most violent offender initiative.

In addition, in many districts the case review discussion reflected a broad consideration of a variety of factors about the case and included viewpoints from not only federal prosecutors but also law enforcement as well as community prosecutors. With this range of input, decisions were often made reflecting the value of the case to the community and the role the defendant played in gun violence or gangs rather than a strict calculation of sentencing vulnerability. Such a collaborative process often included consideration of the value of the case to the community and additional information that could be obtained from the individual offender in the prosecution venue decision rather

than exclusively sentencing exposure. This collective and shared decision making process often led to a greater focus on the gang and gun violence problem beyond making individual case decisions.

Another commonly used component of many PSN initiatives was an incident review process. In these initiatives, information was reviewed from specific cases that were representative of gun violence incidents for the purpose of developing a more comprehensive picture of gang activity and gun violence in the jurisdiction and target areas. While one objective of this activity was to assemble what was known about specific incidents from a variety of law enforcement sources, this information was also quite valuable for other PSN project components. In particular, information that was obtained through this process could be directly used in formulating most violent offender programs as well as in developing information that could be used to structure offender notification meetings.

An additional intervention that developed during the PSN program was the Drug Market Initiative. In this strategy, communities worked with law enforcement agencies to stop drug distribution and other structured criminal activities in the neighborhood. This initiative was pioneered in the Middle District of North Carolina in High Point and has now spread to many other jurisdictions. In this approach, the criminal justice community developed a strong partnership with the neighborhood to stop drug distribution and the resulting violence in this area. This strategy also demonstrated the value of integrating various PSN components. While offender notification was central to this approach, successful implementation of this model often included incident reviews to obtain a larger picture of the drug market in the neighborhood and to identify the

hierarchy of individuals in groups and gangs involved in drug distribution. In addition, the case screening process helped distinguish drug offenders with chronic records and/or histories of violence who would be prosecuted and lower level dealers who would be included in an offender notification meeting and offered a second chance. The key point is that the integration of strategies appeared to both focus enforcement resources as well as to support the collaborative network involved in PSN through the sharing of information.

Moving Towards Evidence-Based Practice to Reduce Gun Crime

The findings from the series of site-specific PSN case studies, when combined with a complementary series of studies that began with the Boston Gun Project suggests that focused, deterrence-based interventions hold considerable promise for reducing levels of violent gun crime. These interventions can be summarized as falling in three categories: directed police patrol, Project Exile-style strategies, and strategic problem solving/pulling levers strategies.

Directed Police Patrol

Directed police patrol with a focus on gun crime and illegal gun possession was one of the more popular strategies reported by U.S. Attorneys and PSN coordinators in their reports to the Attorney General (58% reported utilizing in 2005). It does not appear that directed patrol, as a specific strategy in isolation from more general PSN strategies, was systematically evaluated in PSN. The support for directed patrol comes from a series of quasi-experiments conducted in Kansas City, Indianapolis, and Pittsburgh in the 1990s (Sherman and Rogan, 1995; McGarrell et al., 2001; Cohen and Ludwig, 2003). In all three studies, directed police patrol aimed at gun crime hot spots were associated with

significant declines in gun crime. Further, it appeared that with appropriate management and supervision, the intensive patrols were conducted in a way that did not generate police-citizen conflict, a concern associated with such focused enforcement.

Project Exile

Project Exile seeks to increase the threat of punishment for illegal possession and use of firearms as a way of discouraging gun possession and carrying among high risk individuals (prior felons, misdemeanants with domestic violence convictions, mentally ill, and youths). The strict provisions of federal law, including no right to bail, long sentences with minimal good-time, and incarceration in the federal prison system, are considered key elements of the deterrence message. This message is then communicated through a variety of media including billboards, posters in jails and lock-ups, radio and television public service announcements. The model was originally developed in Richmond, Virginia. Rosenfeld and colleagues (Rosenfeld, Fornango & Baumer, 2005) found that Exile was associated with a significant decline in homicide controlling for a number of other factors.

As described above, two PSN case studies evaluated the impact of Exile-style interventions. The first took place in Montgomery in the Middle District of Alabama (McGarrell et al. 2007). Time series analysis was used to examine the trend in assaults with a firearm, armed robbery with a firearm, and homicides. The key reduction was in assaults with a firearm. Homicides also declined, but the decline did not attain statistical significance. There was no change in armed robbery. In examining these trends it is important to note that gun assaults were by far the most common violent gun crime in Montgomery at about 25 per month. In contrast, armed robberies and homicides

occurred at the rate of approximately two to three per month. Thus, the strategy appeared to impact the most serious component of gun crime in Montgomery. Due to the absence of an appropriate control or comparison site, the trend in gun crime was compared to the trend in property crime, measured as motor vehicle thefts and overall property offenses. Neither changed during this time period, thus minimizing the likelihood that the decline in gun assaults was due to some other factor influencing crime in Montgomery.

The second evaluation of a PSN Exile strategy took place in Mobile in the Southern District of Alabama (Hipple et al., 2007). Time series analyses were also utilized. Once again a logical control or comparison site was not available. In this case, the trend in property crime was included in the time series models to control for the effect of unmeasured factors affecting all crime in Mobile. The results indicated that total gun crime declined by about 26 incidents per month. Violent crime with a gun declined by about 16 incidents per month and armed robberies by about 11 per month. Each decline was statistically significant. Further, gunshot wound admissions to the local trauma center declined at the same time that the police data indicated a reduction in gun crime, thus strengthening the conclusion that gun crime was reduced.

Strategic Problem Solving/Pulling Levers

The strategic problem solving/pulling levers strategy refers to a comprehensive intervention that traces to the Boston Gun Project. Detailed problem analysis, conducted in collaboration of a multi-agency law enforcement team and researchers, is used to pinpoint the people, groups, and contexts associated with gun crime. The analysis then informs a set of pulling levers interventions that seeks to convey a strong deterrence message to those most at risk for being involved in gun crime as offenders and victims.

This is considered most powerful when the deterrence message is communicated to groups of potential offenders in offender notification meetings. The goal is to use the social network to reinforce the deterrence message. The deterrence message is coupled with a message of social support, typically offered by social service providers and local residents.

At the time of the development of PSN, the evidence for the potential impact of this strategy was largely based on studies in Boston and Indianapolis. In Boston, the pulling levers intervention conducted in the mid-1990s was associated with more than a 60 percent decline in youth homicide (Kennedy, 1997; Braga et al., 2001; Piehl, 2003). Following a very similar approach, the pulling levers approach in Indianapolis was associated with a 34 percent reduction in homicide (McGarrell and Chermak, 2003; McGarrell et al., 2006; Corsaro and McGarrell, 2009). Since that time, a number of other studies have found evidence of an impact of the pulling levers strategy on homicide and gun crime. These include Tita and colleagues' quasi-experiment conducted in Los Angeles (Tita et al., 2003) as well as a series of PSN case studies.

Anthony Braga, one of the researchers involved in the Boston Gun Project, served as research partner in the Eastern District of California. Braga conducted a thorough problem analysis that informed a pulling levers intervention in Stockton. The evaluation indicated a significant decline in gun homicides in Stockton compared to other similar California cities (Braga, 2008).

PSN officials in Lowell, Massachusetts employed a pulling levers strategy to address youth gang gun violence. The pre- and post-analysis indicated a significant reduction in gun assaults when compared to trends in gun crime in other Massachusetts

cities (McDevitt et al., 2006; Braga et al., 2008). Similar results were observed in Omaha (District of Nebraska). Time series analyses revealed a 20 percent decline in total firearms offenses during a time that property crime was unchanged (Hipple et al., 2007).

The Middle District of North Carolina implemented the strategic problem solving/pulling levers model in five communities: Durham, Greensboro, High Point, Salisbury, and Winston-Salem. The PSN case study focused on Durham, Greensboro and Winston-Salem.[82] Time series analyses were conducted of the trend in total gun crimes (homicides with a firearm, robberies with a firearm, and aggravated assaults with a firearm). All three cities experienced declines with the reductions in Greensboro (13 fewer incidents per month) and Winston-Salem (9 fewer incidents per month) being statistically significant.

As described in Chapter 6, a case study was also conducted in St. Louis in the Eastern District of Missouri (Decker et al., 2007). The PSN intervention focused on several very high crime neighborhoods and compared the impact on gun crime to several comparison neighborhoods as well as the trend in gun crime for the city as a whole. Although there was a statistically significant decline in the PSN target areas, there were also declines in the comparison areas and the entire city. Thus, although it is possible that PSN had an impact across the city, it is impossible to attribute the decline to PSN.

An additional systematic evaluation was conducted by the PSN research partners in Chicago (Northern District of Illinois). Similar to St. Louis, the PSN program in Chicago focused on specific high violent crime neighborhoods in different parts of the city. The evaluation involved comparison of these PSN treatment neighborhoods to other similar neighborhoods. The results demonstrated that the PSN treatment neighborhoods

experienced a statistically significant decline in gun crime relative to comparison neighborhoods (Papachristos et al. 2007).

This series of studies results in eleven tests of the strategic problem solving/pulling levers approach to reducing gun crime. In nine of the eleven, a statistically significant decline in gun crime was associated with the implementation of the strategic problem solving intervention. The two exceptions were St. Louis and Durham.[83] Both experienced declines in gun crime. In the case of St. Louis, the decline also occurred in the comparison sites. In Durham, the decline was not statistically significant.

Summary

Since the findings from Boston and Kansas City in the mid-1990s (Kennedy, 1997; Sherman and Rogan, 1995), an accumulating body of evidence has emerged suggesting that focused deterrence interventions can have an impact on reducing gun crime at a local level. PSN built on this evidence and contributed to the research evidence. The series of studies are summarized in Figure 13.

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Figure 13: Studies Suggestive of Focused Deterrence Impact on Gun Crime*

*Full citations are provided in the Appendix.

Cross-City Comparison

The promising results described above from the case studies were reinforced in the analyses of trends in violent crime in all U.S. cities with populations over 100,000. As noted previously, evaluating PSN was challenging due to the national coverage of the program. Thus, the strategy was to compare cities that were PSN target sites with non-target sites and to compare cities based on the dosage level of PSN implementation. The logic behind the comparisons was that if PSN had its intended impact on violent crime it should be most apparent in PSN target cities and as the dosage level increased.

The findings consistently provided support for the idea that meaningful implementation of PSN led to reductions in violent crime. As the three component dosage measure (partnerships, research integration, federal prosecution of gun crime) increased, PSN target cities experienced lower levels of violent crime contrasting the 2000-2001 pre-PSN level of crime with the trend in 2002-2006. When the dosage measure was limited to the impact of increased federal prosecution, the findings again revealed that PSN target cities in high dosage federal districts had the greatest decline in crime. Additionally, these cities resisted the uptick in violent crime witnessed across the

country in 2005 and although there was an increase in 2006 it was much less pronounced than in other cities. These results were consistent controlling for other factors that have been shown to influence levels of violent crime (e.g., concentrated disadvantage, population density, levels of police staffing, incarceration trends).

The results of these analyses are presented in Table 42. PSN target cities experienced over an eight percent decline in violent crime whereas non-target cities experienced no change in violent crime (-0.25%). Non-target cities in high prosecution districts, and PSN target cities in low and medium prosecution districts were relatively similar with three to five percent declines. The most compelling evidence of a PSN effect is provided in the contrast between low dosage, non-PSN target cities with high dosage, PSN target cities. The low dosage non-target cities experienced a 7.8 percent **increase** in violent crime during this time period. A reasonable interpretation is that this is the anticipated changed in violent crime during the 2000-2006 period absent the PSN intervention. The high dosage, PSN treatment sites experienced a 13.1 percent **decline** in violent crime during the same period. This suggested that cities that were the subject of an intensive PSN intervention based on a focused deterrence model witnessed a significant decline in violent crime in contrast to what would have been expected with no PSN intervention.

Table 42: Summary of Changes in Violent Crime in Target and Non-Target Cities, by Level of Federal Prosecution

Level of Federal Prosecution	PSN Target Cities	Non-PSN Target Cities
Low	-5.3%	+7.8%
Medium	-3.1%	<-1.0%
High	-13.1%	-4.9%
Total*	**-8.89%**	**-0.25%**

*Total percentage change was calculated from the entire target/non-target city data

Research Implications

The key research finding was that the case studies and the cross-city analyses support the concept that focused deterrence strategies appear to have an impact on levels of violent crime. This point was reinforced when coupled with studies from the projects that served as foundation for PSN. Having said this, future research could extend this study and the associated body of research in a number of ways.

With the exception of the directed patrol studies reviewed herein, the Project Exile model and the strategic problem solving/pulling levers model share several components that were supported. Specifically, both included partnerships led by the U.S. Attorney's Office, both included an increase in federal prosecution for illegal gun use and possession, and both include strategies to communicate the deterrence threat to at-risk populations. The strategic problem solving/pulling levers model put additional emphasis on research integration, inclusion of multiple strategies, and offender notification meetings as a tool for communicating to groups of at-risk individuals. Both models appear very promising in reducing violent crime. Future research would benefit from careful research designs that would allow for more systematic comparisons of these overall strategies as well as specific components of the strategies.

Similarly, this body of research provides much stronger evidence of the impact at a community level than it does at the individual level[84]. Very little systematic research has been published on the impact of these types of strategies on individuals subject to the interventions. From a theoretical standpoint, current research does not clarify if the observed impact is due to incapacitation of chronic violent offenders, deterrence of illegal gun carrying and use, shifts in network norms and behavior among groups involved in gun crime, changes in the perceived legitimacy of the law, or some combination of these forces.

Additionally, research is needed to address the sustainability of these types of multi-agency interventions. Boston and Indianapolis, whose pulling levers interventions served as models for PSN, both suffered increased levels of homicide and violent crime during the decade that began in 2000. Several of the cities included in the case studies later experienced increases in homicide. The violent crime trends reviewed in Chapter Seven reflected an increase in violent crime after 2004. Several interpretations are plausible.

It could be that the impact of increased federal prosecution, the communication strategies, and the pulling lever interventions fade over time. That is, there is a short-term impact of these largely enforcement strategies but it is not sustained. This explanation is largely focused on the logic of the intervention model. Critics of the intervention would likely argue that it is insufficient absent longer-term strategies to invest in human capital and community economic and physical development. Some critics would go a step further and warn that the short-term enforcement may ultimately be self-defeating by working against human and social capital.

A second interpretation is that the theory behind the intervention is sound but that it is difficult to sustain these multiple agency coalitions and focused interventions over time. Decay can occur as personnel turnover results in losses of leadership, new task force members join but are unfamiliar with the logic model become involved, or enforcement activities become routinized rather than strategically focused on the people, networks, places, and contexts currently driving violence. Follow-up study of PSN task forces that have remained active and focused over a long period of time would be very helpful in understanding the sustainability of coalitions.

A third interpretation is that the rebound in violent crime experienced in many cities in 2005-2006 was caused by broader economic, social, and political factors (e.g., Police Executive Research Forum, 2006) and the increase in crime would have been worse absent PSN. Support for this argument would point to the delay in the rebound and the much more modest increase in violent crime when comparing PSN target cities in high prosecution districts with other cities, particularly non-target cities in low prosecution districts.

At this point available research does not provide an answer to these three interpretations. More research is needed to advance understanding of the long-term impact of these types of interventions and about the sustainability of research-driven, multiple agency coalitions.

Policy Considerations

The valuable experience of being involved in the national PSN initiative resulted in several policy considerations. First, the call for more research should not be taken as reason to delay action. The human toll of violent gun crime and the deleterious impact of

gun violence on families and communities demands action. The body of evidence that has emerged since the mid-1990s on focused deterrence strategies suggests that multiple agency coalitions, working with community partners, can have a significant impact on violent crime at the local level. The current PSN research suggests that the leadership of the U.S. Attorney's Office and the use or threat of federal prosecution are important tools for the focused deterrence approach.

Second, the limitations of existing crime information systems became apparent in PSN. To the credit of the Department of Justice, PSN included an emphasis on accountability through performance measures and outcome measures, and it included funding for research partners to assist in gathering performance measures and assessing outcomes. Unfortunately, the limits of existing crime information systems precluded effective implementation of these goals. The national crime reporting system, the UCR, does not include measures of gun crime. Incident based reporting systems can generate measures of gun crime but are not available in many jurisdictions and thus of limited value for cross-city comparisons and national estimates of gun crime. The National Crime Victimization Survey provides national estimates of violent crime but not at the local level. Given the advances in information technology, development of an improved national reporting system, at least for the nation's largest cities that generate a disproportionate amount of violent gun crime would be a significant advance and critical for supporting future assessment of the impact of federal violence reduction interventions.

The goal of seeking to reduce gun crime nationally is certainly laudable. Given the wide variation in the community level risk of gun crime victimization, resource

constraints, and the evidence-based practice of highly focused interventions, a tiered approach to national violence reduction programs may be advisable. Needs assessment of the capacity to implement multiple agency focused interventions could be coupled with risk assessment to prioritize funding for program intervention. This approach could improve future evaluation of impact as well as increase capacity for implementation.

From a research and evaluation standpoint, if resources to support high dosage interventions are limited, then a larger pool of sites could be identified for potential implementation. Random allocation or other systematic approaches (e.g., matching by propensity) could be used to select treatment and comparison sites, thus greatly strengthening the ability to assess impact.

Additionally, for sites considered low on information infrastructure and with little experience with multi-agency collaboration, the results of this study suggest that efforts to build capacity on these dimensions could help support future implementation effectiveness.

Ultimately PSN has advanced knowledge and provided support for practice in several key ways. First, it built upon and extends evidence-based practice that emerged in the mid-1990s. There are highly promising interventions that appear to offer officials sound strategies to reduce gun crime at the local level. Although there is still much to be learned about successful interventions, lack of knowledge should no longer serve as an excuse for inaction in addressing gun crime. Second, it lent support to the power of the office of the U.S. Attorney to lead local, state, and federal coalitions in addressing crime control and prevention priorities. Third, it fostered law enforcement – researcher

partnerships that, while not always successful, were associated with more successful implementation of program goals.

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Appendix A

Project Safe Neighborhoods
Survey for the Research Partner

Thank you for taking the time to fill out this survey.
This document is a form that allows you to respond by clicking on the boxes or typing in responses. Please enter the requested information in the form given but feel free to add comments to help clarify your responses.

Research Partner Information

Name: Date Survey Completed: /2005
Phone

District Name:

Research Partner Survey

1. **To what extent has the strategic problem solving process been integrated into the PSN task force?** For each section, please indicate **one** statement that is closest to your perception of the manner in which the PSN task force is using information to drive decisions. **Please add comments to better explain your answers.**

Part A. Using data to identify problems
□ The task force is interested in looking at data to identify problems and solve problems.
□ The task force is interested in data and analysis for areas they have already identified as problems.
□ The task force is interested in data to confirm the value of current practices.
□ The task force is not interested in using data and analysis to drive planning
Part B. Translating data into decisions
□ The task force has used research and data to create programs or strategies.
□ The task force has used research and data to expand existing programs or strategies.
□ The task force has used research and data to justify or publicize existing programs.
□ The task force has not connected research and data to pogroms or strategies.
Part C. Evaluating results
□ The task force has already received an evaluation report(s) on PSN efforts
□ Evaluations of PSN programs are underway but not yet complete.
□ Evaluations of PSN programs are in the planning or ramp-up mode.
□ Evaluations of PSN programs have not gotten beyond the discussion phase.
□ The task force has not requested or supported the development of evaluations.

Comments:

2. **To what extent are you (and other research team members) integrated into the task force?**
   Please indicate the statement the best describes your perception of your relationship with the task force and then provide any comments that will help explain your answer **(choose one).**
   □ I/we function as a resource person, providing information routinely but not actively participating in all phases
   of discussion and planning
   □ I/we function as a member of the task force, participating openly and regularly with task force members.
   □ Research is peripheral to the task force process.

   Comments:

3. **Was the research team able to conduct analyses of the local gun crime problem?**
   □ yes
   □ no
   □ don't know
      a. If yes, did the task force use the findings to shape gun crime reduction strategies?
         □ yes
         □ no
         □ don't know

   Comments:

4. **In what areas has research provided a tangible result?**
   Check **all** that apply and **give an example** for those areas with tangible results.

Check all that apply	**Give an example**
□ Problem identification	
□Program development/expansion	
□ Program evaluation	
□ Program revision/modification	
□ Resource allocations/shifts	

5. **Do you think that task force members will be more likely to use research and research patners after their PSN experience?**
   □ yes
   □ no
   □ don't know

   Comments:

6. **In your view, the overall impact of PSN in terms of the use of problem-solving processes is best describes by which of the following statements (choose one).** Please comment to clarify your opinion.
   - □PSN has created an environment in which data analysis drives decision making.
   - □ PSN has increased the use of research in decision-making.
   - □ PSN has increased the use of research to evaluate existing strategies, but not to drive all decisions.
   - □ PSN has increased the ability of task force members to collect data, but analysis and evaluation processes are not integrated into decision-making
   - □ PSN has not changed the way in which decisions are made.

   Comments:

7. **Please rate <u>each</u> of these areas to the extent they created barriers to research-driven problem solving. Please select one of the three responses. Feel free to add comments.**

a. Legal barriers	□ No problem	□ Some problem	□ Major problem
b. Administrative barriers	□ No problem	□ Some problem	□ Major problem
c. Perceived risk to agency	□ No problem	□ Some problem	□ Major problem
d. Turf issues	□ No problem	□ Some problem	□ Major problem
e. Information not collected	□ No problem	□ Some problem	□ Major problem
f. Information in incompatible form	□ No problem	□ Some problem	□ Major problem
g. Lack of technology/technical support	□ No problem	□ Some problem	□ Major problem
h. Lack of interest in research	□ No problem	□ Some problem	□ Major problem
i. Lack of action by members*	□ No problem	□ Some problem	□ Major problem
j. Lack of funds	□ No problem	□ Some problem	□ Major problem
k. Lack of personnel	□ No problem	□ Some problem	□ Major problem
l. Administrative/organization issues	□ No problem	□ Some problem	□ Major problem

**Members failing to follow through with data collection, working on data issues in their agency etc.*

Comments:

8. **Has the PSN task force provided any additional fduning for researcu beyond the initial BJA grant?**
   - □ yes
   - □ no
   - □ don't know

   Comments:

9. **From your perspective, how supportive and engaged has the U.S. Attorny been in PSN (choose one)?**
   - □ The U.S. Attorney has been both supportive and engaged in PSN.
   - □ The U.S. Attorney has been supportive of PSN.
   - □ The U.S. Attorney does not appear to be supportive or engaged in PSN.

   Comments:

10. How supportive has the PSN project coordinator been of your research efforts?

□ Very supportive □ somewhat supportive □ not supportive

Comments:

11. Overall, has the PSN research experience been positive or negative?

□ positive □ somewhat positive □ somewhat negative □ negative

Comments:

12. Please provide any additional comments about your experience in PSN that you would like to share.

Comments:

Appendix B

Project Safe Neighborhoods Semi-Annual Report to the Attorney General

The following questions were used in the construction of measures for this study.

15. Has data analysis helped the task force focus on gun violence?

- Very much
- Somewhat
- Not really

17. a1. Please identify enforcement/deterrence focused strategies your task force has implemented:

- Increased federal prosecution of firearms-related cases
- Increased state and local prosecution of firearms-related cases
- Deployment of street-level firearms enforcement unit
- Offender notification meetings
- Probation/parole enforcement home visits
- Directed police patrol I high crime area
- Supply-side interventions
- Investigations of criminal organizational/gang violence

17. a2. Please identify prevention focused strategies your task force has implemented:

- Clergy outreach to offenders
- Employment programs
- Substance abuse programs
- Education programs
- Vocational training programs
- Neighborhood development programs
- Youth street worker outreach
- School-based prevention
- Hospital trauma center outreach
- Other

Appendix C

The HGLM model presented in Table 2 can be written as follows:[85]

$$\eta_{ti} = \pi_{0i} + \pi_{1i}(\text{PSNDosage}) + \pi_{2i}(\text{PrisonRate}) + \pi_{3i}(\text{PoliceDensity}) + \pi_{4i}(2001)$$

$$+ \pi_{5i}(2002) + \pi_{6i}(2003) + \pi_{7i}(2004) + \pi_{8i}(2005) + \pi_{9i}(2006) + e_{ti}$$

where η_{ti} = the expected violent crime rate

where $\pi_{0i} = \beta_{00} + \beta_{01}(\text{Disadvantage}) + \beta_{02}(\text{PopDensity}) + r_{oi}$

where $\pi_{1i} = \beta_{10} + r_{1i}$

where $\pi_{2i} = \beta_{20} + r_{2i}$

where $\pi_{3i} = \beta_{30} + r_{3i}$

where $\pi_{4i} + \ldots + \pi_{9i} = \beta_{40} + \ldots + \beta_{90}$

Thus, the reduced two-level equation can be written as:

$$\eta_{ti} = [\pi_{0i} + \pi_{1i} + \pi_{2i} + \pi_{3i} + \pi_{4i} + \ldots + \pi_{9i}] + [r_{oi} + r_{1i} + r_{2i} + r_{3i} + e_{ti}]$$

The outcome in the HGLM is the count of violent crimes at level 1 and includes time-varying covariates within the cities (i.e., level 1 measures) and time invariant measures at level 2. As seen in the above equations, PSN dosage is included as a time-varying measure at level 1. Here, the HGLM model uses an overdispersed Poisson sampling model at level 1 and a log link function to equate the transformed count into a linear structural model. The log link function in the HGLM is used to equate the transformed count into a linear structural model, consistent with the regression-based analytic approach.

In the analysis, the HGLM Poisson model assumes an expected violent crime count

$$E(Y_{it} \mid \lambda) = m_{it}\lambda_{it},$$

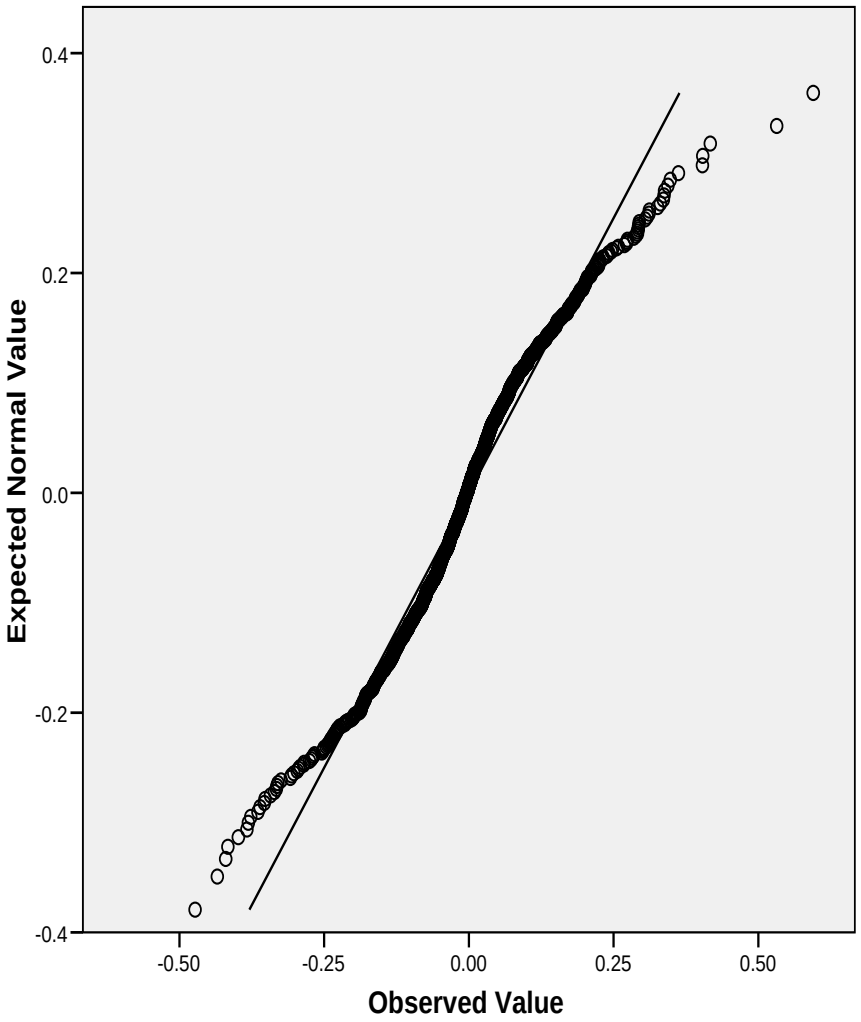
where λ_{it} is expressed as the violent crime rate of a city i at time t and m_{it} is the exposure measure, which is expressed as the city population in 100,000s. The expected violent crime rate for a city is transformed through a natural logarithmic function, where $\eta_{ti} = \ln(\lambda_{it})$. The logged event rate, η_{ti} , becomes the dependent variable in the level 1 model.

Table C-1: Conditional Random-Effects Poisson Model of Violent Crime Rates in Large U.S. Cities between 2000 and 2006 (Examining Treatment as a Level 1 Indicator)

Fixed Effects	Coefficient	Standard Error	Odds Ratio
Level 1 (Within-City Effects)			
Intercept	-4.144	.3523	.015
PSN Treatment City	-.0383*	.0195	.962
Incarceration Rate	.0005^{+}	.0003	1.001
Police Density	.0002	.0003	1.000
Year 2001	-.0184*	.0094	.981
Year 2002	.0196	.0130	1.019
Year 2003	-.0227^{+}	.0133	.977
Year 2004	-.0453**	.0137	.955
Year 2005	-.0220	.0141	.978
Year 2006	-.0125	.0146	.987
Level 2 (Between-City Effects)			
Disadvantage	.5030**	.0316	1.65
(Ln) Population Density	-.2918**	.0999	.747
Random Effects	**Variance Component**	χ^2	***p* Value**
Intercept, r_{0i}	.2066	27110.8	< .01
Treatment City, r_{1i}	.0097	178.4	< .01
Incarceration rates, r_{2i}	.0000	234.8	< .01
Police density, r_{3i}	.0000	197.1	< .01
Level 1 error, e_{ti}	22.97	-	-

**p < .01, *p < .05, $^{+}$ p < .10

Figure C-1: Q-Q Plot of Level 1 Residuals for PSN Dosage Model



Appendix D

The HGLM model presented in Table 39, which was the alternative growth curve model where the PSN treatment city designation is a static measure at level 2, is written as follows (Note: all level 1 measures were group-mean centered, and level 2 measures were grand mean centered):

$$\eta_{ti} = \pi_{0i} + \pi_{1i}(\text{PrisonRate}) + \pi_{2i}(\text{PoliceDensity}) + \pi_{3i}(\text{Time}) + e_{ti}$$

where $\pi_{0i} = \beta_{00} + \beta_{01}(\text{PSN Treatment City}) + \beta_{02}(\text{Disadvantage}) + \beta_{03}(\text{PopDensity}) + r_{oi}$

where $\pi_{1i} = \beta_{10} + r_{1i}$

where $\pi_{2i} = \beta_{20} + r_{2i}$

where $\pi_{3i} = \beta_{30} + \beta_{31}(\text{PSN Treatment City})$

Thus, the reduced two-level equation can be written as:

$$\eta_{ti} = [\pi_{0i} + \pi_{1i} + \pi_{2i} + \pi_{3i}] + [r_{oi} + r_{1i} + r_{2i} + e_{ti}]$$

The outcome in the HGLM is the count of violent crimes at level 1 and includes time-varying covariates within the cities (i.e., level 1 measures) and time invariant measures at level 2. As seen in the above equations, PSN treatment is a level 2 static measure. Here, the HGLM model uses an overdispersed Poisson sampling model at level 1 and a log link function to equate the transformed count into a linear structural model. The log link function in the HGLM is used to equate the transformed count into a linear structural model, consistent with the regression-based analytic approach.

In the analysis, the HGLM Poisson model assumes an expected violent crime count

$$E(Y_{it} \mid \lambda) = m_{it}\lambda_{it},$$

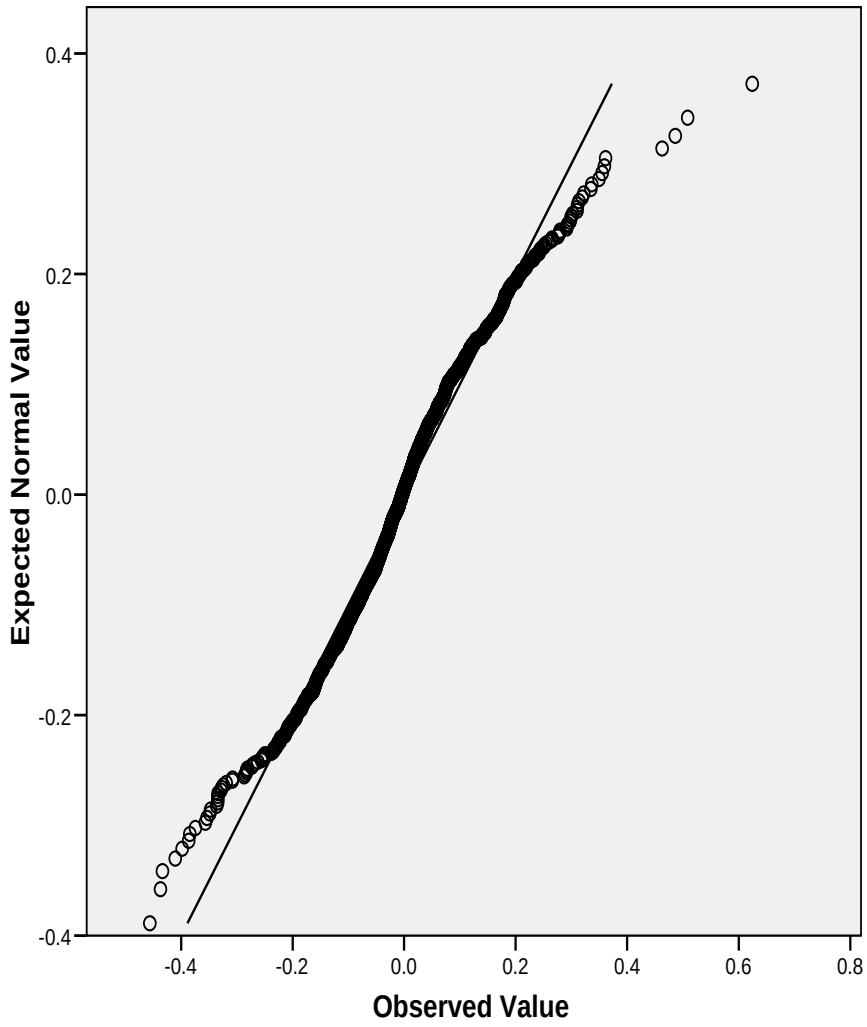
where λ_{it} is expressed as the violent crime rate of a city i at time t and m_{it} is the exposure measure, which is expressed as the city population in 100,000s. The expected violent crime rate for a city is transformed through a natural logarithmic function, where $\eta_{ti} = \ln(\lambda_{it})$. The logged event rate, η_{ti} , becomes the dependent variable in the level 1 model.

Table D-1: Conditional Random-Effects Poisson Model of Violent Crime Rates in Large U.S. Cities between 2000 and 2006 (Cross-Level Interaction Effects including Quadratic Function of Time)

Fixed Effects	Coefficient	Standard Error	Odds Ratio
Level 1 (Within-City Effects)			
Intercept	-5.17**	.0283	.0056
Incarceration Rate	.0006^{+}	.0003	1.000
Police Density	.0002	.0003	1.000
Time	-.0024**	.0061	.9756
Time^2	.0032	.0009	1.003
Level 2 (Between-City Effects)			
Disadvantage	.4543**	.0320	1.574
(Ln) Population Density	-.2026*	.0969	.8220
PSN Treatment City	.3117**	.0627	1.367
Cross-Level Interaction Effects			
PSN Treatment*Time	-.0513**	.0109	.9499
PSN Treatment*Time^2	.0037*	.0016	1.003
Random Effects	**Variance Component**	χ^2	***p* Value**
Intercept, r_{0i}	.1880	32785.3	< .01
Incarceration rates, r_{1i}	.0000	680.2	< .01
Police density, r_{2i}	.0000	608.8	< .01
Level 1 error, e_{ti}	24.44	-	-

**p < .01, *p < .05, $^{+}$ p < .10

Figure D-1: Q-Q Plot of Level 1 Residuals for PSN Treatment Model



Appendix E

Table E-1: Studies Suggestive of Focused Deterrence Impact on Gun Crime

Directed Police Patrol	Project Exile	Strategic Problem Solving/Pulling Levers	Equivocal Evidence
Kansas City (Sherman and Rogan, 1995)	Richmond (Rosenfeld, Fornango, and Baumer, 2005)	Boston (Kennedy, 1997; Braga, Kennedy, Waring and Piehl, 2001; Piehl, Cooper, Braga, and Kennedy, 2003)	St. Louis (Decker, Huebner, Watkins, Green, Bynum, and McGarrell, 2007)
Indianapolis (McGarrell, Chermak, Weiss and Wilson, 2001; McGarrell, Chermak, and Weiss, 2002)	Montgomery (McGarrell, Hipple, Corsaro, Pappanastos, and Stevens, 2007)	Indianapolis (McGarrell and Chermak, 2003; McGarrell, Chermak, Wilson, and Corsaro, 2006; Corsaro and McGarrell, 2009)	Durham (Hipple, Frabutt, Corsaro, McGarrell, and Gathings, 2007)
Pittsburgh (Cohen and Ludwig, 2003)	Mobile (Hipple, O'Shea and McGarrell, 2007)	Los Angeles (Tita, Riley, Ridgeway, Grammich, Abrahamse, and Greenwood, 2003) Stockton (Braga, 2008) Lowell (McDevitt, Braga, Cronin, McGarrell, and Bynum, 2007) Omaha (Hipple, Perez, McGarrell, Corsaro, Robinson, and Culver, 2007) Greensboro (Hipple, Frabutt, Corsaro, McGarrell, and Gathings, 2007) Winston-Salem (Hipple, Frabutt, Corsaro, McGarrell, and Gathings, 2007) Chicago (Papachristos, Meares, and Fagan, 2007)	

Endnotes

[1] Bureau of Justice Statistics: www.ojp.usdoj.gov/bjs/ijs.htm.
[2] Levels of property crime and violent crime not involving a gun are lower in the U.S. than many other western democracies but gun crime remains exceptionally high in the U.S. See Zimring and Hawkins, 1999; Bureau of Justice Statistics: www.ojp.usdoj.gov/bjs/ijs.htm.
[3] Rosenfeld, Fornango, and Baumer, 2005. The National District Attorneys Association (2001) initially reported that Project Exile was associated with a decline in homicide. Raphael and Ludwig (2003) analyzed the Richmond homicide data and found that the decline in homicide was consistent with national declines in homicide and could not be clearly attributed to the impact of Project Exile. Rosenfeld et al. then evaluated Exile utilizing a longer post-intervention time period and found that Project Exile had an impact on the homicide rate. The authors argued that the evidence for impact of Project Exile was stronger than the case for the impact of COMPSTAT or Boston's Ceasefire.
[4] Silverman, E. 1999.
[5] Braga, Kennedy, Waring, and Piehl, 2001; Braga, Kennedy, Piehl and Waring, 2001; Kennedy, Braga, and Piehl. 2001.
[6] Kennedy, Piehl, and Braga, 1996; Braga, Cook, Kennedy, and Moore, 2002.
[7] Coleman et al., 1999. See also, Roehl et al. 2004; Dalton, 2003.
[8] McGarrell and Chermak, 2003a,b. Subsequently, the initial findings were supported in more systematic analyses. See McGarrell, Chermak, Wilson, and Corsaro, 2006; Corsaro and McGarrell, forthcoming.
[9] Kapsch and Lyman, 2002. Easterling et al., 2002.
[10] Betts et al., 2003.
[11] Roehl et al. 2008.
[12] Data compiled by Professor Joe Trotter and colleagues as part of American University's PSN Technical Assistance Program.
[13] U.S. Department of Justice, Bureau of Justice Assistance, 2004. See also, www.psn.gov.
[14] There are 94 U.S. Attorneys Offices but Guam and the Marianas Islands have been treated as a single PSN task force thus resulting in 93 PSN task forces. For an excellent discussion of researcher-practitioner collaboration, see Lane, Turner, and Flores, 2004.
[15] For example, PSN officials in many jurisdictions report that for years illegal possession of a firearm by a felon or concealed carrying offenses, and even crimes committed with a firearm present but no shooting, were routinely treated as non-violent offenses with high rates of dropped charges, dismissed cases, and suspended sentences.
[16] Sherman and Rogan, 1995; McGarrell, Chermak, Weiss, and Wilson, 2001; Cohen and Ludwig, 2003.
[17] American University (AU), the Bureau of Alcohol, Tobacco & Firearms (ATF), Community Oriented Policing Services (COPS), the Community Policing Consortium, the International Association of Chiefs of Police (IACP), the National Crime Prevention Council (NCPC), the National District Attorneys Association & American Prosecutors Research Institute (NDAA & APRI), the United State Department of Justice (USDOJ), Bureau of Justice Assistance (BJA), and National Institute of Justice (NIJ).
[18] The districts serving Guam and the Marianas Islands were combined thus resulting in 93 PSN task forces across the 94 U.S. Attorney's Offices. One district chose not to have its task force participate in the training resulting in the 92 task forces that did attend the trainings.
[19] After DMI training #2, Fort Meyers decided not to implement the DMI. Ocala became an official site during the third DMI training.
[20] Cases filed are included in Table 19. The picture that emerges from cases is virtually identical to filings against defendants.
[21] The July 2004 report was used due to the availability of the indicators on research that were utilized in this report to the Attorney General.
[22] A Chi Square test shows the probability of this relationship between attendance and data analysis helpfulness occurring by chance was .068.
[23] A Chi Square test showed that the probability that this relationship occurred by chance is .000.
[24] Ten sources were specified and the eleventh category was "other."

[25] Reports from the districts indicate that all districts fulfilled the mandates to contract with a media/outreach partner and to provide training. Given the lack of variation in these elements, implementation success measures were created focusing on the elements noted.
[26] The information source used will be noted in the description of variable construction.
[27] The districts covering Guam, Marianas Islands, Puerto Rico, and the Virgin Islands were not included in the analysis due to data limitations.
[28] Scores were converted to Z scores.
[29] This is a state-level variable and rates the level of public information technology infrastructures.
[30] This is a state-level variable. Potential problems with variable testing are discussed in the Zimmermann (2006) study. Nesting was not found to be problematic.
[31] For a complete discussion of the construction of these groups, please see Zimmermann (2006). Given that the ranking of groups was on a discreet scale, the subgroups are not equal in number. Also, information technology was chosen over collaborative program history, as the subgroups were so unbalanced in number for the programs variable, the analysis would be exceedingly limited in statistical power.
[32] A Student t test, not assuming equal variances, indicates a difference between groups, significant at the .01 level.
[33] McGarrell et al., 2007; Hipple, O'Shea, and McGarrell, 2007.
[34] Comparable population data were unavailable for the federal districts of Puerto Rico, the Virgin Islands, Guam, and the Marinas Islands. All comparisons are based on the 90 remaining federal districts.
[35] Three of the eight models had ARIMA parameters of 0,0,0. The dependent variables, in these models, were not autocorrelated. The method of analysis in these models, thus, was OLS linear regression. In those models, the F statistic and R-square are reported.
[36] That is, all categories in the Mobile Police Department database in which a gun was used in commission of the offense and those instances when a gun was in possession of an offender.
[37] That is, homicide with a gun, rape with a gun, robbery with a gun, aggravated assault with a gun.
[38] Decker et al., 2007; McDevitt et al., 2007; Hipple et al., forthcoming a; Hipple et al, forthcoming b.
[39] A task force team coordinated by the U.S. Attorney's Office participated in SACSI as an "unfunded" site.
[40] Since the natural logarithm of offenses was used in the analysis, we report a factor reduction of -.23 between pre- and post-intervention. In order to convert from the log form to a percentage change in the actual number of offenses, we use the standard formula [exponential (beta coefficient) -1], or in this case [exponential (-.23) -1], which equals -.205. This equates to a 20 percent reduction in gun offenses.
[41] Salisbury was included in the original analysis. It experienced a decline but it did not attain statistical significance. The base rates were too low to allow for meaningful assessment.
[42] This difference in mean was significant using a two-tailed test ($p<.05$).
[43] Since the series reported here do not reflect identical time periods, we tested whether using only common periods across the sites changed the results. For example, we restricted the analysis to a comparison between the changes one year (12 months) pre-intervention to one year (12 months) post-intervention. In this analysis and others, Lowell still demonstrated the greatest decline in aggravated assaults with a gun.
[44] Although there were 94 U.S. federal districts that made-up the PSN focus, one PSN task force was combined (Guam and Marianas Islands) and three PSN sites (Guam/Marianas Islands, Puerto Rico, and Virgin Islands) were excluded from the present analysis and discussion due to missing data issues. Thus, the focus was on the 90 PSN task forces covering the 50 states and the District of Columbia.
[45] Includes any and all criminal cases where 18 U.S.C. 922 or 924 was brought as any charge against a defendant. However, both statutes were run together to eliminate any double counting of cases/defendants when more than one subsection of Section 922 or 924 was charged against the same defendant, or both Sections 922 and 924 were charged against the same defendant.
[46] Rosenfeld et al. (2005) relied on the Law Enforcement Management and Administration Statistics (LEMAS) surveys for their police density measure. However, their study had a significant lag between their period of interest and their analyses, and thus LEMAS data were available for the period of time they examined (i.e., the 1990's). Complete LEMAS data through 2006 were not available at the time of our study and we substituted with the use of UCR employee data.

[47] In future analyses we plan to use Supplemental Homicide Reports (SHR) to focus on gun homicides. The limitation of the SHR data is that many of the cities have small numbers of homicides and thus the population of cities becomes further restricted due to data power issues.
[48] The selection of cities with a population of 100,000 or greater was based on maximizing the sample size while also providing sufficient base rates of violent offenses to support the analyses.
[49] We were concerned with cases where at least one of the measures (homicide, robbery, or assault) had missing data, but the other offenses had complete data. If aggregation occurred under this circumstance there would be a bias in the measure. Thus, we imputed missing data values prior to aggregation.
[50] Missing homicide data were an issue in 29/1,764 cases, 1.6 percent. In 16 of these cases, we were able to supplement the missing annual homicide count with the Supplementary Homicides Reports (SHR) data, given that both data sources were initially housed by the FBI reporting system and are created from incident information. For 10 of the remaining 16 cases, we used within-city regressions to impute a missing value for missing homicide data. In the remaining 6 cases, we simply left the homicide count as missing due to the 'multiple-missing' data issue.
[51] Missing robbery data were an issue in 34/1,764 cases, or 1.9 percent of the cases. Missing assault data were an issue in 33/1,764 cases, or 1.8 percent.
[52] None of the 'chronic missing data' cities (Westminster, Co; Olathe, KS; Overland Park, KS; Warren, MI; Akron, Oh; Alexandria, VA; and Chesapeake, VA) were designated as PSN treatment sites.
[53] The coverage of the media campaign is impossible to measure in a fashion that would allow measurement of variation across jurisdictions. It included a national campaign that involved television and radio public service announcements (PSAs) and each district included its own campaign that also included PSAs as well as billboards, posters, and other creative mediums.
[54] Fourteen of 68 districts included in the analyses had multiple large cities that were the focus of PSN intervention.
[55] We contacted project coordinators or research partners in 26.4 percent (18/68) of the districts for target clarification.
[56] Zimmerman (2006) notes that additional elements framed by DOJ including media outreach strategies, formal training, and cross-agency collaboration exhibited extremely low variability across districts and were considered constants and were thus dropped in the aggregation of the overall policy adoption, or dosage variable.
[57] The reality is that for many districts, it was not until 2003 or later that the task force was truly operational and various enforcement, intervention, and prevention components actually implemented. Thus, the reliance of a common 2002 treatment date results in a conservative test of PSN's impact as it may discount impact observed in late adopter jurisdictions. The 2002 date is justifiable based on federal prosecution trends. This makes sense in that it is a strategy under the control of the U.S. Attorney's Office and thus was often the earliest indicator of PSN implementation.
[58] The limitation of this approach is discussed and addressed throughout the results and discussion sections.
[59] We did not include PSN treatment as a level 2 measure and PSN dosage as a level 1 measure within the *same* model due to the high inter-relationship between these two measures. Specifically, dosage only increased in PSN target cities. However, when examining a model that included both treatment and dosage at different levels, the results were virtually identical to those presented here-in (i.e., the dosage-violent crime relationship remained the same at level 1 with or without the treatment estimate at level 2).
[60] A series of Independent Samples T-Tests comparing measures from the eleven cities excluded from the mixed-regression models to non-treatment cities were performed. None of the tests were statistically significant ($p > .05$) where measures existed (including violent crime rates in a given year, level 1 covariates in a given year, and level 2 covariates that were treated as time-invariant), indicating that the non-treatment cities excluded from the analyses were not significantly different than non-treatment cities that were included in the regressions presented here-in.
[61] We re-estimated our models adding a constant (3.0) to the disadvantage measure to eliminate the negative values and the estimates did not change in any meaningful way. Thus, for simplicity we simply used the disadvantage measure as it was originally created from the principal components analysis.
[62] Refer to Appendix A for the equation for this model.
[63] We felt it necessary to address the concern that PSN implementation could have led to an increase in law enforcement agents at the city level and an increase in incarceration rates at the state level. In this case, increases in police density and incarceration could actually constitute an indirect reflection of PSN

implementation. To address this concern, we estimated a growth curve model where annual police density (the outcome at level 1) was a function of a city being designated a PSN site at level 2 (0 = non-treatment site, 1 = treatment site). The estimated effect was actually negative and statistically significant, indicating that PSN sites actually had a larger *decline* in police per 100,000 residents than did non-PSN sites. The same was true when state incarceration changes were modeled as the outcome variable at level 1. Thus, we find contradictory evidence to the concern that PSN sites actually led to a significant increase in state incarceration rates as well as increases in law enforcement density These relationships were actually negative.

[64] The reduction of 52.1 percent of the residual variance from the unconditional to the conditional model was computed as a percentage change: (.2066-.4320)/.4320 = .521 or 52.1 percent.

[65] Results available upon request.

[66] Refer to Appendix A for the equation for this model.

[67] [exp(-.0252)] = -.024 or -2.4 percent.

[68] This was a minimal concern in the research done in Chicago by Papachristos et al. (2007) because they included additional relevant time-variant measures such as prosecution changes and sentences associated with federal prosecution in their linear growth models. Thus, they included both static and dynamic PSN treatment measures in one overall model.

[69] Caseload data were extracted from the United States Attorneys' Case Management System. Thanks to Karen Shaller for her help with these data.

[70] The federal prosecution data are measured based on the federal fiscal year. For example, FY2000 encompasses the period 10/01/1999 to 9/30/2000. Therefore the crime data are lagged by three months with the prosecution data. The fiscal year data reflect a lagged effect on the calendar year crime data.

[71] The percentage changes in violent crime across high, medium, and low prosecution sites was calculated by comparing the average number of violent crimes during the pre-intervention period (years 2000 and 2001) with average number of violent crimes during the post-intervention period (years 2002 to 2006).

[72] It is important to note that the uneven distribution of target and non-target cities in the three classifications used for the prosecution categorization was because the upper, middle, and lower tier classification was based at the *district-level* and not the *city-level*. Thus, over half (52.9 %) of the non-target cities were classified as high prosecution sites because a majority of these cities shared jurisdictional boundaries in the high federal prosecution *districts*.

[73]Table 41 is a random-effects model but does not include random variance components for either the federal prosecution or the variable to control for random changes in violent crime over the period of time examined here. This was due to the fact that the HGLM model would not converge when adding random variance parameters for these measures in the complete model.

[74] Five cities were excluded due to missing data across the 3-level model.

[75] Q-Q plots graph the quintiles of the observed values of the residuals against the quintiles of a specified distribution. In this case, we specified a normal distribution, which was consistent with testing the assumption of HGLM modeling (Raudenbush and Bryk, 2002).

[76] The case studies reviewed in Chapter Six reflect this approach.

[77] As noted previously, analyses based on SHR reports are being conducted in subsequent stages.

[78] Twenty five percent of all U.S. cities with a population of 100,000 or more averaged 3.85 homicides per year, or .32 homicides per month. Fifty percent averaged 11.28 homicides per year, or .94 per month. Seventy five percent of all large U.S. cities averaged 30 homicides per year, or 2.5 homicides per month.

[79] For jurisdictions with an incident-based reporting system, further analyses of gun crime are possible.

[80] The planned time series analyses utilizing monthly SHR data will further address the threat of regression to the mean.

[81] Most commonly this was ATF but in a number of task forces DEA, FBI, the Marshals Service, and other federal agencies were important task force members.

[82] Salisbury was included in the analysis. However, its smaller population produces very low base rates of gun crime and low statistical power to assess impact. High Point was not included because it is currently part of a separate NIJ evaluation.

[83] St. Louis was also distinct from the other sites in the list of "strategic problem solving/pulling levers" sites in that the PSN task force did not utilize offender notification meetings as a tool for communicating the focused deterrence message to groups of high risk individuals. The task force did, however, rely on

other mechanisms to communicate the threat of federal prosecution and local officials reported that the word on the street was to avoid gun charges that would mean being "walked across the street" from local to federal court.

[84] Examples of studies finding non-significant impacts of offender notification meetings at the individual level include Chermak (2006) and McGarrell, Hipple, and Banks (2003). This is not to question the effectiveness of offender notification meetings but rather to note that their established impact is more evident at the neighborhood- than the individual-level.

[85] Note: All level 1 measures were group-centered, all level 2 measures were grand-mean centered, and no random variance components were estimated for the annual dummy variables because all cities had the same fixed value for this measure.