



National Institute of Justice

Research in Brief

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Issues and Findings

Discussed in this Brief: The national evaluation of the Youth Firearms Violence Initiative (YFVI), a program initiated by the Office of Community Oriented Policing Services (COPS) to combat the rise of juvenile firearms violence. COPS provided up to \$1 million to 10 participating cities to fund interventions that employed community policing approaches to decrease the number of violent firearms crimes committed by youths, including gang- and drug-related offenses.

Key issues: From 1985 to 1994, the rate of violent criminal acts committed by juveniles rose sharply at a time when violence committed by adults was declining. During that time period, while the adult homicide rate fell by 25 percent, the homicide rate for 18- to 24-year-olds doubled, and the rate for 15- to 17-year-olds more than tripled. More specifically, juvenile homicides committed with a handgun more than doubled, while juvenile homicides committed with other weapons remained essentially unchanged.

Key findings: Among the evaluation's findings were the following:

- A dedicated unit may exert a greater effect on gun-related crime than a unit that applies traditional tactics and uses patrol officers on a rotating basis.
- When employed as part of YFVI, traditional enforcement tactics did not produce significant changes in firearms violence levels.

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National Evaluation of the Youth Firearms Violence Initiative

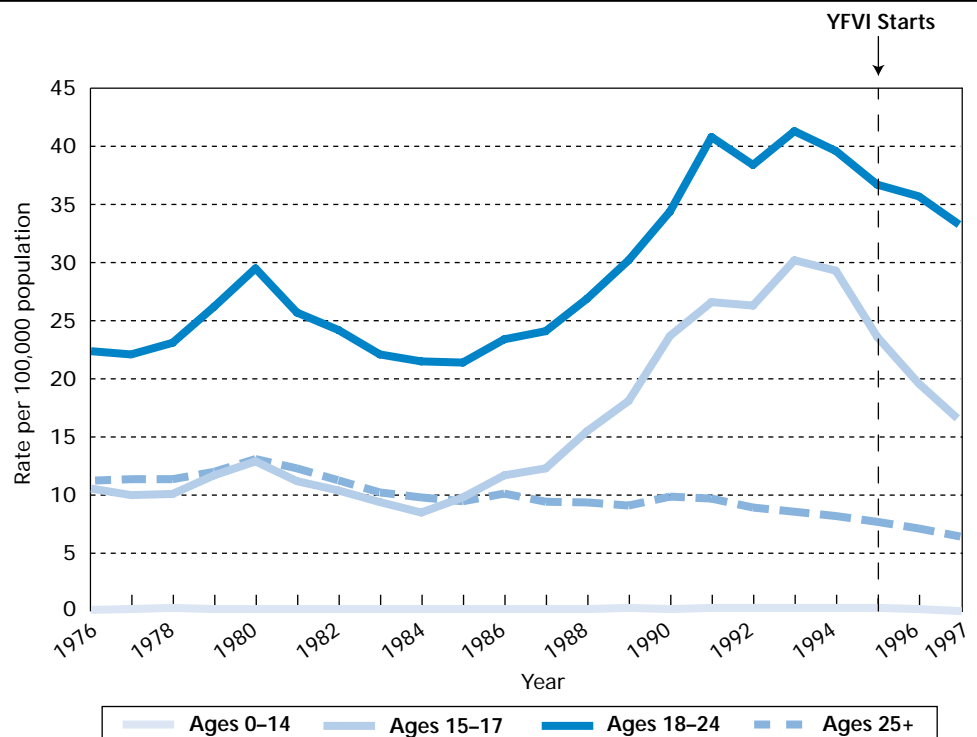
By Terence Dunworth

Between 1985 and 1994, violent criminal acts committed by juveniles grew at an alarming pace in the United States. This trend diverged significantly from adult patterns. From 1985 to 1994, for instance, the homicide rate for adults age 25 and older declined 25 percent. During the same period, the homicide rate for

18- to 24-year-olds doubled, and the rate of homicides committed by teenagers ages 15 to 17 tripled. (See exhibit 1.)

Handguns became the weapon of choice for juveniles. Exhibit 2 shows that during this time period, the number of homicides committed by juveniles with handguns

Exhibit 1. Comparison of juvenile and adult homicide rates, 1976–1997



Source: FBI Supplementary Homicide Reports

Support for this research was provided through a transfer of funds to NIJ from the Office of Community Oriented Policing Services.



Issues and Findings

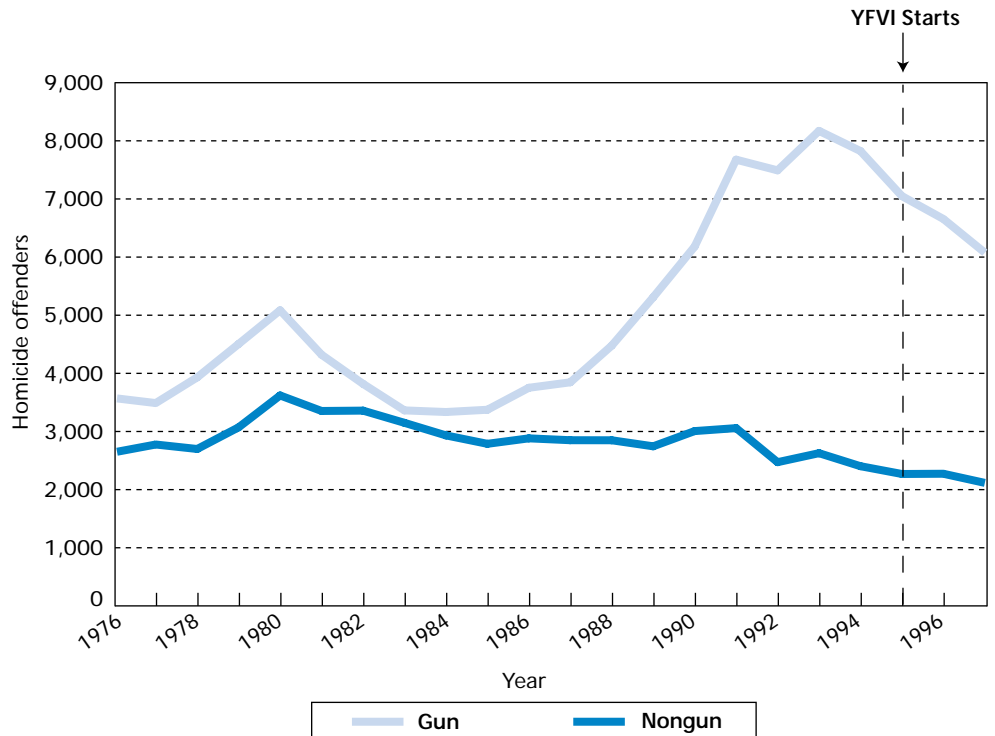
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- Cooperation with other law enforcement agencies and community organizations and representatives was a key factor in effective implementation of firearms violence control and prevention strategies.
- Proactive arrest policies, focused on gun-related offenses, were shown to have a consistent measurable association with subsequent gun-related crime.
- Most of the participating departments returned to traditional policing approaches when Federal funding ended. In this sense, YFVI did not change the way departments conducted their business, and YFVI strategies were not, in general, institutionalized.
- Most departments found it difficult to implement the geographic information systems called for by the initiative. However, all five intensive sites maintained computerized files on incidents (arrests and crimes), permitting geographic analysis after incident addresses were parsed.

- Not all departments implemented programs that focused on the objectives of the YFVI. This suggests that Federal agencies will sometimes need to play a strong role in ensuring that grantees address and meet the strategic intent of the initiatives they fund. The challenge is for the Federal agency to do this while simultaneously promoting local generation and definition of programmatic activities.

Target audience: State and local law enforcement, probation, and parole officials; policymakers and planning officials; court administrators; and researchers.

Exhibit 2. Nationwide weapon use by offenders ages 18–24, 1976–1997



Source: FBI Supplementary Homicide Reports

more than doubled, while the number of juvenile homicides involving other weapons remained essentially constant.

The Youth Firearms Violence Initiative (YFVI) was launched in 1995 by the U.S. Department of Justice’s Office of Community Oriented Policing Services (COPS). It provided up to \$1 million to the police departments of 10 participating cities (Baltimore, Maryland; Birmingham, Alabama; Bridgeport, Connecticut; Cleveland, Ohio; Inglewood, California; Milwaukee, Wisconsin; Richmond, Virginia; Salinas, California; San Antonio, Texas; and Seattle, Washington) to fund interventions directed at combating the rise of youth firearms violence. The initiative encouraged these jurisdictions to employ community policing approaches to develop or enhance youth-focused programs designed to decrease the number of violent firearms crimes, reduce

the number of firearms-related gang offenses, and reduce the number of firearms-related drug offenses.

YFVI was conceived at a time when juvenile violence was ascending and seemed little influenced by any previously attempted interventions. Although some strategies seemed promising (the Boston Gun Project¹ and the St. Louis “Knock and Talk” program,² for example), they were not in general use, and the criminal justice community expressed little confidence at that time that the solutions to the problem had been identified. YFVI was an attempt to rectify that deficiency.

COPS provided general programmatic guidelines to the 10 departments but requested action plans that reflected local needs. The cities proposed a mix of enforcement programs (both street level and

school based), prevention programs, and information systems enhancements. Exhibit 3 shows budget allocations by category for each site, as set forth in the final plans. Overall, about 60 percent of the grant was budgeted for law enforcement staff, and most of this was devoted to police personnel, through either overtime expenses or the creation of new positions. A little less than one-fourth of YFVI funds was budgeted for local evaluation, civilian consultants (e.g., for training), and community-based organizations and activities. Nearly 15 percent—more than \$1 million collectively—was budgeted to purchase computer hardware and software or to develop information systems.

The national evaluation

The National Institute of Justice (NIJ) sponsored the national evaluation of YFVI (from the fall of 1995 through the summer of 1998) to assess the impact of the sites’ strategies for addressing youth firearms violence, to

describe how the sites implemented these strategies, and to inform other jurisdictions about the successes and failures of these strategies. The evaluation solicitation specified that there should be five “intensive” and five “nonintensive” sites. In the intensive sites, impact and intensive process evaluations would be conducted; in the nonintensive sites, only summary process evaluations would be conducted.³ The impact evaluations would determine the impact of YFVI on levels of youth firearm violence, while the process evaluations would focus on program implementation and organization.

Specific issues that were investigated in the process evaluations at all 10 sites included:

- **Program development:** How and why the sites selected their strategies, their target selection process, implementation problems encountered during the intervention, and changes made to the program during the intervention.

- **Officer training:** The content and focus of YFVI-related training implemented at the sites.
- **Team selection:** The process for selecting supervisors and officers for YFVI interventions and any problems caused by the selection process.
- **Computer systems support:** The computer systems used to support YFVI operations and the overall utility of these systems for such an initiative.
- **Strategies and tactics:** The types of enforcement, community policing, prevention, and other activities undertaken with YFVI grant funds.
- **Program results:** What the YFVI-funded police officers and other program elements accomplished, such as the number of arrests made and the number of guns seized.
- **Local evaluation role:** The types of evaluation activities undertaken and an overall assessment of the appropriateness of the evaluation approaches.

Exhibit 3. Budget allocations for the 10 YFVI police departments, by category of expense

Site	Total YFVI Funding	Law Enforcement	Civilian Consultants and Local Evaluation	Equipment	Community Organizations and Activities	Miscellaneous Costs*
Baltimore	\$999,906	\$821,897	\$51,900	\$23,104	\$103,005	\$0
Birmingham	744,896	94,000	118,750	465,286	0	66,860
Bridgeport	916,748	496,170	320,120	74,258	25,000	1,200
Cleveland	685,342	562,692	100,000	12,650	4,500	5,500
Inglewood	787,201	532,536	56,575	81,000	90,000	27,090
Milwaukee	999,990	533,343	125,844	60,000	280,803	0
Richmond	457,119	277,931	152,936	10,100	0	16,152
Salinas	999,524	623,108	73,200	246,000	45,000	12,216
San Antonio	999,963	695,195	170,000	99,740	0	35,028
Seattle	999,990	416,400	205,500	214,980	0	163,110
Total	\$8,590,679	\$5,053,272	\$1,374,825	\$1,287,118	\$548,308	\$327,156

* Miscellaneous costs include supplies, training materials, travel, and conference attendance.

This information was obtained through a review of program materials (project-related documents, such as the site’s proposal to COPS, quarterly progress reports, interim and final reports, and other internal documents); periodic telephone and onsite interviews with police supervisors and officers participating in the YFVI initiative; ridealongs with YFVI officers; interviews with local evaluators; and an analysis of summary data provided by the police department (YFVI enforcement schedules and activity logs, for example).

COPS, NIJ, and Abt Associates Inc. determined which sites would be designated as intensive and nonintensive, based on the following criteria:

- **Evaluability**, or the likelihood a department’s strategies would have a measurable impact within the evaluation period: The evaluability potential was considered lower for departments that focused on prevention and education (because the window of observation was too short) or that had diffused or short-term target areas (too scattered an effect in the former, not enough time in the latter).
- **Information systems status**: Change in the level of gun-related crime was a critical component of the impact evaluation. Thus, complete computerized records spanning several years, with accurate ages of offenders and suspects and specific offense codes for firearms-related crimes, increased the likelihood of successful intensive evaluation.
- **YFVI implementation status**: It was clear that some sites might experience significant delays in starting their YFVI program. Given the short evaluation time period for

each site, it was critical that the five intensive sites have programs up and running as soon as possible.

- **Nature of intervention**: Some sites implemented primarily police-based enforcement strategies, while other sites emphasized prevention, community policing, and other intervention approaches. Since the evaluation was to focus on a broad range of strategies, the intensive sites should include both enforcement and prevention tactics, despite the greater difficulty of evaluating the latter.

Based on these criteria, Baltimore, Cleveland, Inglewood, Salinas, and San Antonio were selected as the intensive sites. Birmingham, Bridgeport, Milwaukee, Richmond, and Seattle became the nonintensive sites. This Research in Brief examines the experience of the intensive sites.⁴

Strategies and tactics

The strategies and tactics proposed by the YFVI departments focused on three areas: streets, schools, and communities. Each department employed geographic information systems and crime analysis to support all three areas. Exhibit 4 summarizes the main program elements set up by each of the five intensive sites.

COPS encouraged the police departments to:

- Work in conjunction with other city agencies to promote education, prevention, and intervention programs related to handguns and handgun safety.
- Develop community-based programs focused on youth handgun violence.

- Develop programs involving and assisting families in addressing youth handgun problems.

Furthermore, COPS encouraged jurisdictions to employ community policing strategies to:

- Implement programs specifically designed to decrease the number of violent firearms crimes committed by youths.
- Develop or enhance programs aimed at reducing firearms-related gang and drug offenses.
- Address the root causes of youth firearms violence in specific geographic areas.

Traditional enforcement operations. As noted earlier, most sites used street-based operations that featured traditional enforcement tactics that the departments perceived to be in compliance with the programmatic preferences that COPS had communicated at the outset of the initiative. Four of the five intensive evaluation sites—Baltimore, Inglewood, Salinas, and San Antonio—either set up new enforcement units or expanded existing teams. All used traditional surveillance and intelligence-gathering techniques to identify targets and to focus the teams’ efforts. Actual operations, for the most part, involved location-specific, street-level activities. With the exception of Salinas, which adopted a citywide approach, YFVI teams targeted specific neighborhoods within their cities. During the life of the initiative, the teams adjusted their targets based on their perceived effects on the problem or the likelihood that firearms would be present at a particular location at a particular point in time. To make such judgments, the teams used a combination of intelligence and analyses of their own past performance.

Exhibit 4. Police department strategies and tactics

Site	Total Budget and Configuration	Street-Based Activities	School-Based Activities	Community-Based Activities	GIS*/Crime Analysis
Baltimore	\$999,906 <ul style="list-style-type: none"> Cherry Hill: 9 officers Park Heights: 15 officers 	<ul style="list-style-type: none"> Juvenile Violent Crime Flex Team: surveillance, intelligence gathering, and targeted enforcement Curfew Enforcement Team: focused on chronically truant students 	<ul style="list-style-type: none"> In Park Heights, 2 city police officers worked with middle and high schools Supported the Magnet School for Law Enforcement, a criminal justice curriculum for high school students Three officers implemented the Straight Talk About Risk (STAR) Program 	<ul style="list-style-type: none"> Community resource centers (Kobans) in schools provided a police presence and liaison with community groups Curfew enforcement officers provided information, counseling, and housing to truant students and families 	<ul style="list-style-type: none"> Department had GIS capability prior to YFVI
Cleveland	\$685,342 <ul style="list-style-type: none"> ~27 officers, 2 sergeants 	<ul style="list-style-type: none"> Residential Area Policing Program (RAPP) Houses in neighborhoods with high violence, staffed around the clock for 90 days 	None	<ul style="list-style-type: none"> RAPP House officers coordinated cleanup and youth activities RAPP House used for neighborhood meetings 	<ul style="list-style-type: none"> Department had GIS capability prior to YFVI
Inglewood	\$787,201 <ul style="list-style-type: none"> Strategy Against Gang Environments (SAGE) Gang Enforcement Task Force: 1 sergeant, 6 officers Strengthened the Street Terrorist Enforcement and Prevention (STEP) Task Force: 6 officers, 1 probation officer, 1 district attorney 	<ul style="list-style-type: none"> SAGE program: civil remedies against gang members; task force focused on weapons violations STEP: act with criminal sanctions against street gangs and a task force that conducted street enforcement Probation officer targeted gang members on probation 	None	<ul style="list-style-type: none"> Rites-of-Passage Mentoring Program used police officers, firefighters, and community leaders to teach youths civic values, self-esteem, and conflict mediation Gun and Weapons Buy-Back Program KIDSAFE campaign taught parents about the dangers of handgun use and possession Media and poster campaign addressed youth firearm violence prevention 	<ul style="list-style-type: none"> Juvenile records computerized for YFVI Internally developed a GIS system (with minimal YFVI funding)
Salinas	\$999,524 <ul style="list-style-type: none"> Violence Suppression Unit (VSU): 1 lieutenant, 2 sergeants, 16 officers 	<ul style="list-style-type: none"> VSU: dedicated to work full time on suppressing youth handgun violence Crime tip hotline Intensified efforts to locate firearms and track down their origins 	None	None	<ul style="list-style-type: none"> An outside contractor implemented ArcView/ArcInfo system
San Antonio	\$999,963 <ul style="list-style-type: none"> Rotation: 9 officers deployed nightly 	<ul style="list-style-type: none"> Weapons Recovery and Tracking Team Street Crime Arrest Team 	None	None	<ul style="list-style-type: none"> Research into the youth firearm violence problem Computer linkup with trauma centers throughout the city

*Geographic information systems.

Perhaps the greatest variation among departments was in the way the special teams were organized and staffed. At one extreme was the fully dedicated unit where participating officers were relieved of all regular patrol duties except in emergencies (as in Salinas); the other was the rotating assignment of officers to the team on a temporary overtime basis (as in San Antonio).⁵

In Salinas, roughly 10 percent of the sworn complement of 160 officers was assigned to a Violence Suppression Unit (VSU). They were led by a lieutenant, and two sergeants each managed a team of eight officers. The two teams worked a 4-day week, with an overlap day used for intelligence sharing, cross-team debriefing, and planning. The VSU was housed in a location separate from (though close to) the main police station, and it operated independently. Team members were relieved of all normal patrol functions, including response to calls for service, and were given offsite training in other cities. Team leaders planned activities in conjunction with team members and developed relatively long-range plans to address the youth firearms problem. The team established, monitored, and maintained an intelligence system relating specifically to youths.

This approach led to a high level of acceptance by the team members and produced a highly focused effort. Members rotated out of the unit only for cause, became very knowledgeable about the problems they addressed, and came to know and be known by youths in the city. This created a degree of continuity that was highly valued by team members.

The dedicated approach establishes an elite unit within a department, risking

a negative reaction from nonmembers. This problem was greatly minimized in Salinas because regular patrol officers were offered overtime to back-fill the patrol functions team members no longer performed. Furthermore, VSU leadership took pains to keep the department informed about team activities, and cooperative activities involving the team and patrol units were promoted whenever possible.

The San Antonio Weapons Recovery and Tracking Team (WRAT) functioned at the opposite pole. Union rules mandated the equitable rotation of overtime across officers, producing a situation in which a different set of officers might work on WRAT from day to day. This model can be considered positive for officer equity and opportunity, but it limited the continuity of the team's activities. Five officers had limited and sporadic exposure to the initiative's undertakings, and planning and organization proceeded without much input from them. YFVI activities in San Antonio, therefore, tended to be more reactive than in Salinas. This made WRAT more like traditional enforcement and less like community- or problem-oriented policing.

Beyond traditional enforcement.

Some departments supplemented traditional enforcement approaches with other techniques, some of which were enforcement oriented but which differed from the street-level approach discussed above. Others were community or school based and embodied a more preventive strategy.

The Inglewood Police Department partnered with the probation department, which detailed a full-time officer to work from police offices to scrutinize gang members on probation. This partnership was extremely successful, and a

significant number of violations were detected. Inglewood also established the Strategy Against Gang Environments (SAGE) program, which filed contempt-of-court sanctions against gang members who violated civil injunctions against assembly with other gang members. This program involved close cooperation between the police department and the district attorney's office, with the latter drafting and obtaining the civil injunction from the courts. It was difficult and time consuming to set up, it garnered little community support, and the eventual effects were uncertain. Inglewood police officers also worked with community leaders to set up the Rites-of-Passage Mentoring Program to teach youths civic values, self-esteem, and conflict mediation.

In Cleveland, the initiative funded a Residential Area Policing Program (RAPP). In a small number of troubled, violent neighborhoods, residences once used as crack houses or for other illicit purposes were converted into police substations. Community residents met there to coordinate such activities as neighborhood cleanups and to communicate community problems to the police, and local youths would drop in to talk with officers. The houses were staffed around the clock by Cleveland officers for a period of 90 days. RAPP Houses supported by YFVI funds were set up consecutively in three different neighborhoods. Community residents responded favorably, and feedback was positive. When the police department proposed shutting down the RAPP Houses, communities pressed successfully for their continued operation.

Baltimore also initiated school-based activities, deploying a small number of officers in schools on a more or less dedicated basis. The officers emphasized educating students about risk,

supported a specific criminal justice curriculum, and served as counselors and advisers as needed. Baltimore extended these activities to the community by establishing community resource centers and providing information and support to students and families relating to curfew violations and truancy.

Outputs and impacts

The YFVI assessment had a number of dimensions, including examining the effectiveness of the organization and structure of the interventions—that is, a qualitative review of the processes and procedures that were employed. Other dimensions involved measuring results generated by the interventions and their impact on the problem of youth violence. To evaluate results, data on the number of arrests made and guns seized by YFVI teams were considered output measures. To evaluate the possible impact on the problem, crime trends were analyzed in the four intensive sites that emphasized enforcement interventions; in Salinas, a model of the relationship between arrest activity and subsequent gun crime levels was developed.

Output: Arrests made and guns seized. Exhibit 5 presents the reported number of arrests made and guns seized in four intensive sites. No numbers are reported for Cleveland because the RAPP Houses did not make arrests and seizures a goal, and the RAPP neighborhoods were too small to yield useful statistical information.

The numbers vary from site to site despite relatively similar levels of Federal funding. However, although such counts need to be reported, caution must be exercised before these output

Exhibit 5. Enforcement outputs: Arrests made and guns seized by YFVI units

City	Arrests ^a	Guns Seized
Baltimore	723	88
Cleveland ^b	N/A	N/A
Inglewood ^c	350	42
Salinas	713	180
San Antonio ^d	2,142	254

a. Includes all adult and juvenile arrests, not limited to gun-related arrests.

b. No data on enforcement outputs were provided because the focus of Cleveland’s YFVI effort was on stabilizing the RAPP House areas, rather than on seizing guns and making arrests.

c. Includes only arrests and seizures made within the primary YFVI target area (Darby-Dixon).

d. Data include arrests and gun seizures in 1996 by the entire San Antonio Gang Crime/Intelligence Unit, not just the eight YFVI-funded officers in that unit. Figures were taken from the local evaluation report.

measures are used to draw conclusions about program effectiveness in any of the sites. There are several reasons for such caution.

First, the correspondence of arrests and seizures to YFVI activities varies by site. Some sites implemented effective tracking systems to capture YFVI enforcement information, but others did not. Salinas data, for example, accurately represent the VSU activities because the counts were sufficiently detailed that individual officers’ activities could be identified from computerized department records. In other sites, however, the information presented in exhibit 5 was not so easy to interpret. The Inglewood numbers, for instance, are probably an undercount because they reflect activity only in the primary target area (Darby-Dixon) and do not capture YFVI team operations outside that area. San Antonio numbers were probably an overstatement because they reported arrests and seizures made by officers outside, as well as inside, the YFVI unit.

Second, the scope of the data available for review did not permit an assessment of the relative quality of the

arrests made. This information would be helpful. For example, an arrest of a youthful repeat felon may have a significantly greater effect on public safety than a first-time arrest of an adult offender for a minor infraction.

Third, large numbers of arrests and seizures cannot necessarily be considered a sign of success, and few arrests and seizures do not necessarily indicate failure. Geographically focused enforcement efforts viewed as successful typically start out with high arrest figures; then, the number of arrests decreases significantly. An intervention that emphasizes deterrence through frequent contact and involvement with potential youthful offenders may produce fewer arrests than a traditional enforcement approach. It might be characterized by a greater number of field interviews, for instance. Yet it might be more effective in suppressing violence than enforcement efforts that emphasized arrests and seizures.

Fourth, some sites, such as San Antonio, used tactics specifically designed and implemented to make arrests and seize guns, while other sites deliberately implemented tactics designed

for other purposes. In Cleveland, for example, the RAPP House officers focused on community interaction and stabilizing the neighborhood instead of on arrests and seizures.

Finally, a citywide enforcement strategy—such as the approach implemented in San Antonio—was more likely to yield larger numbers of arrests and seizures than a strategy that focused on a small geographic area, where the extended presence of YFVI officers would undoubtedly reduce the likelihood that persons would carry guns on their person. Whether YFVI officers responded to citizen calls for service or if they were freed from that responsibility and could focus exclusively on their proactive enforcement efforts was another related factor.

Two sites—Salinas and San Antonio—experimented with different tactics to determine which yielded the greatest numbers of arrests and seizures. San Antonio, for example, employed five major tactics: search warrants, saturation patrol, directed patrol, knock and talk, and bar checks. Salinas used eight major tactics: profile enforcement, suppression enforcement, probation searches, surveillance enforcement, search warrants, arrest warrants, informant development, and gang certification. A productivity measure for each tactic was produced based on the amount of time devoted to the tactics and the number of guns seized using each tactic. Executing search warrants was by far the most productive tactic in both sites. In Salinas, this tactic was 4.5 times more likely to result in a gun seizure than any other tactic. In San Antonio, the cost (in terms of officer hours) per firearm seized via search warrants was about 10 times less than the cost per seizure of any other tactic. Additional details on these figures are available in the Salinas and San

Antonio case studies (see “Supplementary YFVI Reports”).

Impact: Gun crime trends. To assess gun crime trends, incident-level police data were obtained from the five intensive sites from January 1993 until the middle of 1997. These data provided access to facts about crimes and arrests, including the time and place of occurrence, the crime associated with the incident, and the suspects (if any). This information made it possible to map the incidents (identifying which ones took place in target areas), to derive or estimate the age of the perpetrators (designating incidents involving juveniles), and to establish a baseline for at least 2 years prior to the commencement of YFVI (facilitating comparisons over time). Standardized procedures for classifying the data were developed and applied to all sites. (See “Crime Classification.”)

In each of the five cities, reported gun crimes declined after YFVI was imple-

mented. Reductions also took place in all but one of the target areas (see exhibit 6). Citywide decreases were greatest in San Antonio (41 percent), followed by Inglewood (23 percent), Cleveland (15 percent), Salinas (11 percent), and Baltimore (2 percent).

Target-area reductions were greatest in Darby-Dixon in Inglewood (49 percent), Cleveland RAPP House areas (38 percent), and San Antonio (37 percent). In Baltimore, the Cherry Hill target area experienced no change, while Park Heights declined by 8 percent. In Salinas, where the initiative was conducted citywide, the target-area concept is irrelevant.

When these broad comparisons are made, the target-area decreases in gun crime were considerably greater than citywide decreases in three of the target areas (Cleveland RAPP Houses, Darby-Dixon in Inglewood, and Park Heights in Baltimore). Though San Antonio’s target areas showed a significant

Exhibit 6. Gun-related offenses in five sites

	12-Month Period Before YFVI Began		12-Month Period After YFVI Began		Percent Change
	Number of Gun Crimes	Percent Involving Youths	Number of Gun Crimes	Percent Involving Youths	
Baltimore	8,764	59	8,581	57	-2
Cherry Hill	104	79	105	79	0
Park Heights	643	54	594	52	-8
Cleveland	3,149	66	2,672	47	-15
Three RAPP Houses	26	69	16	63	-38
Inglewood	945	40	730	43	-23
Darby-Dixon	43	70	22	64	-49
Salinas					
Citywide	552	78	490	79	-11
San Antonio	2,895	57	1,716	55	-41
Four target areas	523	66	328	52	-37

decline (37 percent), the amount was less than that which occurred in the city at large, and Cherry Hill in Baltimore showed no change at all.⁶

These comparisons are consistent with the view that the interventions had an effect in some of the sites, even though they do not demonstrate causality. Comparing the percentages of gun crimes involving youths before and after YFVI provides further reason to be cautious. Though encouraging declines in the percentage of youth involvement in violent acts occurred in three of the five locations—from 70 percent to 64 percent in Darby-Dixon in Inglewood, from 66 percent to 52 percent in the four San Antonio target areas, and from 69 percent to 63 percent around the Cleveland RAPP Houses—these reductions are statistically significant only in San Antonio (due to the small number of recorded offenses in the other locations). The reduction in Baltimore’s Park Heights section (from 54 percent to 52 percent) was significant, but small, and was no greater than the citywide reduction. And finally, both Cherry Hill (Baltimore) and Salinas experienced virtually no decline at all in this measure.

Charting the trends in general gun crime across the 5 years for which there are data conveys additional information. Exhibit 7 displays the trends for four of the sites.⁷

Prior to YFVI implementation, gun crime patterns in the target areas were similar to those in the surrounding city or county. Levels of gun crime rose in the city of Salinas and in Monterey County until late summer 1996, after which time they declined. Gun crime increased in San Antonio city and the target areas until the beginning of 1996 and then fell sharply. Gun crime in the other two sites gradually

Supplementary YFVI Reports

Bynum, Tim, Jennifer Frank, Athena Garrett, and Kristen Jacoby. 1998. *National Evaluation of the Youth Firearms Violence Initiative: Seattle Case Study* Final Report. Cambridge, Massachusetts: Abt Associates Inc.

Conly, Cathy, Jennifer Frank, Athena Garrett, and Kristen Jacoby. 1998. *National Evaluation of the Youth Firearms Violence Initiative: Richmond Case Study*. Final Report. Cambridge, Massachusetts: Abt Associates Inc.

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Cordner, Gary, Jennifer Frank, Athena Garrett, Kristen Jacoby, Ryan Kling, and Tom Rich. 1998. *National Evaluation of the Youth Firearms Violence Initiative: San Antonio Case Study*. Final Report. Cambridge, Massachusetts: Abt Associates Inc.

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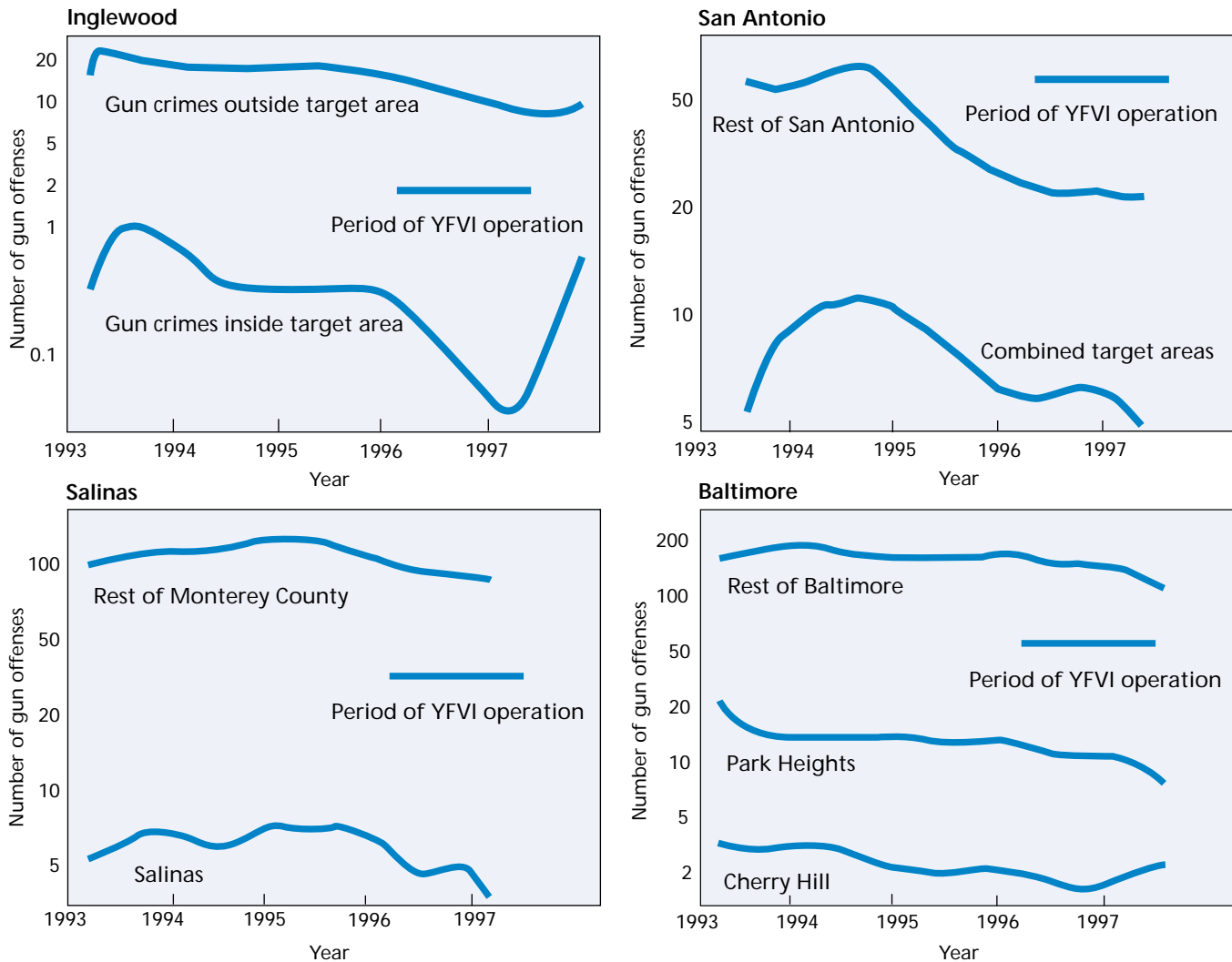
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Johnston, Patrick. 1998. "The Effects of Arrests on Gun-Related Crime in Salinas: A Statistical Report Based on a Geometric Lag Model." In *The National Evaluation of the Youth Firearms Violence Initiative*. Cambridge, Massachusetts: Abt Associates Inc.

Rich, Tom, Jennifer Frank, Athena Garrett, and Kristen Jacoby. 1998. *National Evaluation of the Youth Firearms Violence Initiative: Bridgeport Case Study*. Final Report. Cambridge, Massachusetts: Abt Associates Inc.

These supplementary reports will be available at the NIJ Web site (<http://www.ojp.usdoj.gov/nij>) and the Abt Associates Web site (<http://www.abtassoc.com>).

Exhibit 7. Gun offense trends in four cities, 1993–1997: Target areas compared with surrounding communities



Note: The y-axis represents the weekly number of gun offenses across the 5-year period. These data were plotted by week and then smoothed to obtain the trend lines in the displays. A logarithmic scale is used on the y-axis for display convenience. This permits the y-axis scale to be compressed so that target-area and surrounding area trends can be visually represented in the same chart. Doing this does not alter the shape of the trend lines. Data obtained on gun crimes in Baltimore do not include nonviolent gun offenses (e.g., carrying a concealed weapon).

decreased in both the target areas and the cities at large.

The similarity between the large area and small area patterns suggests that strong societal forces exerted a general influence on gun crime trends and that these worked similarly in most places. Such forces were difficult to identify conceptually, let alone measure and monitor definitively. Consequently, although it was easy to make this

imputation, it was much more difficult to document it.⁸

Though the observed trends do not demonstrate a causal connection between the initiative and the declines, they offer some supporting evidence for the notion that the initiative helped produce the desired effects. If, for instance, target areas showed no greater decline than surrounding areas or increased at a time when the general

environment declined, then this would constitute supporting evidence for the interpretation that the initiative had little or no effect. The most dramatic change occurred in Inglewood, where gun crimes in the Darby-Dixon target area dipped sharply during the YFVI period and then rebounded to 1994 levels after YFVI ended. Salinas also experienced a proportionally greater reduction than surrounding Monterey County; again, this took place during

the YFVI period. In both cities, this evidence supports the notion of a YFVI impact on gun crime.

In San Antonio and Baltimore, target-area changes were either reductions similar in scope to the city at large or increases at a time when the city was declining. In these two cities, the gun crime trends did not support the idea that YFVI had an effect on gun crime.

These interpretations rest on a number of assumptions about the YFVI intervention: (1) that the underlying target-area trends would have continued to be like the surrounding area trends during and after the YFVI timeframe; (2) that simple counts of gun crimes are a reasonable measure of the impact of interventions of this kind; and (3) that the primary effects of the intervention occurred during the measurement period, rather than later. It is easy to see how these assumptions might be invalid. For example, the trends almost certainly do not capture possible qualitative YFVI effects, such as a reduced potential for younger children to become involved in gun crimes after the evaluation period ended. Also, it is important to remember that the number of gun crimes committed per week in all of these cities was quite small; consequently, a small change from week to week produced a large effect on the chart.

Effects of arrests on gun crimes in Salinas. To explore the effect of gun-related arrests on the ensuing level of gun-related crimes, the research team analyzed 210 weeks of Salinas gun crimes and gun-related arrests. Using data from January 1993 through December 1996, researchers estimated the effect of intensified police activity directed toward gun-related crimes committed by youths. The number of

gun-related arrests (in part attributable to YFVI) was considered a surrogate for the level of police activity. The variables used were weekly counts of gun-related arrests and gun-related crimes, as well as a violent crime index for surrounding Monterey County, excluding Salinas (countywide gun crime data were unavailable, so violent crime was substituted).⁹

The results indicated that gun-related crimes in Salinas were positively related to Monterey County's crime index ($p = .028$) and negatively related to previous gun-related arrests in Salinas ($p = .051$). Specifically, a 10-percentage-point increase in Monterey County's crime index was associated with one additional gun crime in Salinas, and an increase of five arrests in Salinas was followed by one fewer gun crime in that town.

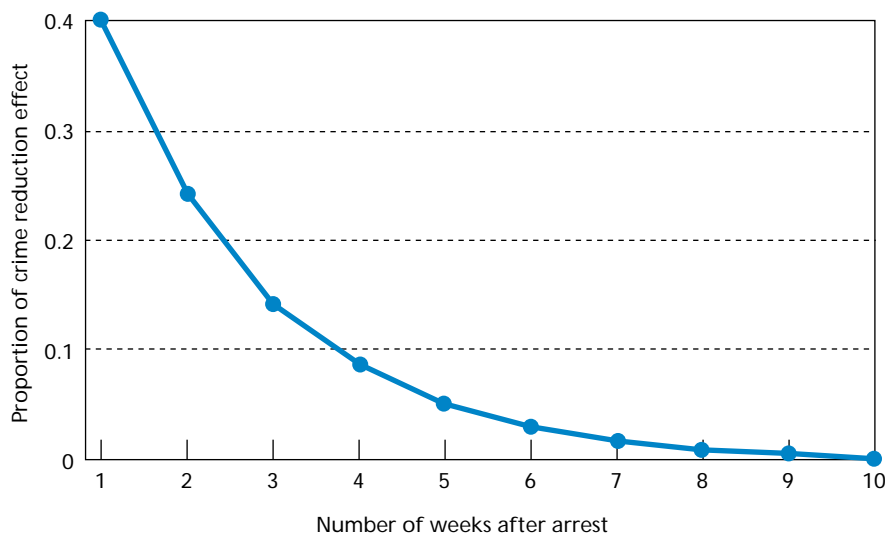
The pace at which the effect of past arrests unfolded is depicted in exhibit 8.

The graph indicates that 40 percent of the effects of increased arrest activity occurred within 1 week after an arrest,

64 percent (the sum of 40 percent and 24 percent) occurred within 2 weeks, and so on. Because more than 95 percent of the eventual effect occurred within 6 weeks, then, for practical purposes, this can be considered the time interval within which the eventual total effect of arrests on gun crime will be made.

This model suggests with a high degree of statistical confidence that, in Salinas at least, enforcement directed proactively at firearms possession and use has a measurable effect on subsequent firearms crime. This implies that such activities likely had a quick and salutary impact on crime. Furthermore, this relationship persisted over a fairly long period of time (4 years in this city). Nevertheless, the potential magnitude of the impact is obviously finite and is bound to diminish at some point. That is, the marginal impact of additional units of effort (say, one 8-hour shift for one officer) will decline as more shifts are added. In addition, other cities may not have the same experience as Salinas. In fact, during

Exhibit 8. Effects of gun-related arrests on gun-related crime in Salinas



Crime Classification

Procedures were developed to identify certain classes of crimes, such as youth gun crimes. This required precise definitions of a number of terms, as follows:

Violent crime. The standard FBI definition of violent crime—crimes involving homicide, rape, robbery, or aggravated assault—was used in the evaluation.

Gun crime. For this evaluation, a gun crime was defined as any crime in which at least one of the associated charges explicitly involved firearms. Charges that explicitly involved firearms typically fell into one of five categories: crimes against persons (a robbery or aggravated assault with a firearm, for example), discharging a firearm, exhibiting a firearm, possession of a firearm, and other firearm crimes (crimes involving illegal sale or alteration of a firearm, for example). Some gun crimes involved a single gun-related charge, while others involved multiple gun-related charges (robbery with a firearm and illegal possession of a firearm by a convicted felon, for example).

Gun arrest. As with the definition used for gun crimes, a gun arrest was defined as one in which one of the arrest charges explicitly involved firearms.

Youth gun crime. A youth gun crime was defined as any crime in which at

least one of the associated charges explicitly involved firearms and at least one person involved in the crime was a youth. Thus, the “age” classification of a particular crime was assumed to be the age of the youngest arrestee or suspect involved in the crime. In the earlier interim YFVI reports and in the case study reports for the intensive sites, analyses were presented that used different definitions of “youth,” including persons aged 14 years and under, 15 to 17 years, and 18 to 24 years. In this Research in Brief, “youths” are defined as persons 24 years and under, because this definition corresponds most closely to that used by the 10 police departments.

Youth gun arrest. Similarly, a youth gun arrest was any arrest in which at least one of the arrest charges explicitly involved firearms and the arrestee was a youth. Again, a variety of definitions of youth were used in earlier reports; in this Brief, a “youth” is defined as a person 24 years old and younger.

YFVI target area crimes and arrests. Mapping software, in conjunction with the street addresses contained in the crime and arrest files, was used to determine which crimes and arrests occurred in the YFVI target areas, as well as in areas immediately adjacent to the target areas.

the YFVI timeframe, most did not. This may be due to the somewhat unique nature of the Salinas situation—a relatively small, geographically distinct city surrounded by agricultural land, in which 10 percent of the police department’s entire sworn complement was dedicated to YFVI to the exclusion of all other policing responsibilities (except emergencies).

To match this, a city such as San Antonio, for example, would have needed to devote about 150 officers to YFVI on a full-time basis. Such a level of activity would have been impossible to support through YFVI because each city received roughly the same amount of Federal support, regardless of its size.

Despite these caveats, the Salinas experience provides strong empirical affirmation of what many chiefs and officers believe intuitively: A quick “knock down” effect can be achieved by intensified enforcement. The diminishing marginal utility of intensified enforcement should be investigated further. Given the inevitable constraints on police department revenues, it would be useful, for instance, to calculate the optimal periodicity and targeting of intensified enforcement—that is, where, when, and how often it should be undertaken. Also, it is worth investigating whether there is displacement to other geographic areas or a resurgence to earlier levels in the same area.

Residual effects of the initiative

Programs such as YFVI raise a critical question: What happens when the Federal funding ends? Of particular interest are the possible effects YFVI programs have on the police departments themselves. That is, what is the prognosis for the YFVI program to have a long-term institutional impact on the police hosting the intervention?

Modification in orientation. Police officers and supervisors in most YFVI sites commented on their department’s use of overtime to deal with crime more effectively. Relieving YFVI officers of normal calls-for-service response requirements—getting them “off the radio”—was an important objective in some cities. The general idea of many of these programs was to pay overtime to the YFVI officers (or the replacements who backfilled their positions) while they were in the YFVI program. The police agency benefited because it increased police presence in the targeted areas, and this presence was not created at the expense of 911 or other

call-taking systems. In this instance, overtime provided organizational flexibility, which was devoted to youth and firearms problems.

Many police officials said unions and other officers were much more accepting of the program when overtime money was made available to a wider number of police officers through the backfill process. To some extent, the potentially negative effects of the YFVI officers' "elite" status were overcome by paying other officers to work in the positions vacated by the YFVI team.

The logic offered here is straightforward: Federal funding can be a force multiplier. More officer hours can be spent on the street without increasing the number of officers in the department. However, there is an important complication. Implicitly, the Federal Government and the departments themselves say such efforts as YFVI would not be feasible—even if desirable and valuable—if additional resources were not provided through Federal support. Departmental capacity is locally perceived as fully engaged in the operations being conducted prior to the provision of Federal funds.

This presumption seems to inhibit the likelihood of program institutionalization and may undermine several problem-oriented and community-oriented policing premises. For example, such a presumption suggests that community policing and problem solving are luxuries, affordable only after the basic functions of policing are accomplished. This implies that a combination of budgetary constraints and political pressures to deal with calls for service impedes a department's ability to modify its major response systems. Rather, a department would continue using city budgets to finance regular

patrols and employ supplementary State and Federal dollars for special programs. Absent the latter, such initiatives as YFVI might, therefore, be impossible to launch. Such an interpretation seems to provide additional support, both normative and economic, for continuing traditional patrol responses.

This arrangement also implies that the cost of providing problem-solving services becomes roughly 1.5 times that normally incurred by the police (because the services are paid through overtime). In this sense, the cost of police services in a jurisdiction receiving Federal funding will go up, in both a relative and an absolute sense, even though the increases are "shared" by the Federal taxpayer. If the YFVI program is established to increase problem-solving applications by police departments, the model of creating overtime to do so may be counterproductive to the program's long-range goals.

Consequently, the effects of such programs as YFVI may be restricted to a short-term subsidy of traditional police patrol responses, unless a department either adjusts its strategic and tactical responses (learns from the initiative) or identifies other funding sources to fill the gap when Federal funding ends. This view has negative implications for continuing and institutionalizing a program—a goal of YFVI and of most Federal support programs (the Byrne Formula Grant Program and the Local Law Enforcement Block Grant Program, for example). Without sustained resources from a source outside the regular city budget, it seems unlikely that such institutionalization will occur in many places, at least not on the scale of the funded program.

Noteworthy approaches. For the most part, the police tactics employed in YFVI were largely adapted from the patrol model. These included heavily patrolling selected areas of the city, making traffic stops, and conducting field interrogations. In this sense, despite the reservations mentioned above, most sites implemented a significant enforcement effort aimed at youth firearms violence. In addition, at least three sites (Cleveland, Inglewood, and Salinas) undertook strategic innovation as a direct consequence of YFVI.

The Cleveland RAPP Houses created a new approach to dealing with distressed communities, an approach that involved more than just a neighborhood substation. The RAPP Houses differ from substations because a deliberate outreach effort was undertaken to draw area youths into direct contact with police officers in a relaxed setting. It is extremely difficult to evaluate the effect of this kind of program because the behavioral change it might induce is specific to individuals and long term. Followup with particular individuals might be necessary to assess how the RAPP House approach affected them. However, this was beyond the scope of the evaluation and the timeframe of the initiative. The researchers ascertained that community reaction was so positive that residents lobbied for continuing the first RAPP House when it was scheduled to close. In addition, participating officers were very supportive and uniformly appeared to favor the strategy. It was also possible to affirm that the program would continue at some level when the initiative ended, suggesting the approach had been institutionalized within the command structure of the police department and city government.

The Inglewood initiative was notable for its combination of enforcement, collaboration with other criminal justice agencies (probation and the district attorney), and creation of community programs (Rites-of-Passage). The police-probation collaboration was particularly effective. Police and probation officials alike credited the funding of a deputy probation officer and housing that officer in the police department as contributing significantly to YFVI's effectiveness. Whether this arrangement could be continued was not clear at the time the evaluation ended, but doing so would be highly productive.

The Salinas intervention was unique because it created a dedicated team of officers working full time on YFVI, with no responsibilities for normal patrol or routine call response. (Emergency responses were still undertaken.) It was also unique for the magnitude of the effort relative to the total size of the force. Salinas has roughly 160 sworn positions. The VSU had 1 lieutenant, 2 full-time sergeants, and 16 full-time officers—more than 10 percent of the department's entire force. Finally, its focus was strategically appropriate for a YFVI response: It targeted youths in a continuous and deliberate manner.

Summary

The evidence from Inglewood and Salinas supports the view that the YFVI intervention coincided with a significant drop in the level of gun crime in both places. In Inglewood, not only did gun crimes drop dramatically during the YFVI implementation period, but after the initiative concluded, gun crimes returned to their preinitiative levels. Reductions also took place in Salinas and continued through the end of the observa-

tion period. One difference between the two sites is that although Federal funding ended in Salinas at about the same time as in Inglewood, the Salinas Police Department continued the VSU program at essentially the same level. Inglewood, on the other hand, terminated its police-probation collaboration due to lack of funds. The implication is that intervention most likely reduced gun crime in both places. The comparison of target-area experience with citywide trends supports this interpretation.

In the other intensive sites, YFVI interventions did not appear to produce these results. The reasons for this finding are not completely clear, although the importance of Salinas' dedicated and focused Violence Suppression Unit and Inglewood's highly successful partnership between the police department and the probation office should not be underestimated.¹⁰

In conclusion, the results of the YFVI effort seemed to depend on how departments conceived the initiative and the consistency of their focus throughout its life. Given the problems experienced by some departments with conceptualization and implementation, variability in outcomes was to be expected. These observations suggest the Federal Government could play a stronger role in ensuring that participating departments adhere to the strategic goals and objectives in future initiatives of this kind. Also, funding agencies should adopt a timetable that more closely matches the exigencies of the world in which most departments operate. In particular, it is desirable for the Federal agency to ensure that local recipients do not view an initiative as simply a transfer of Federal funds to another level of government. Simultaneously, care must be taken

not to impose Federal solutions on local problems; that is, the strategies and tactics that are employed must be locally developed.

Notes

1. The Boston Gun Project was a problem-solving effort to reduce gang activity and interrupt the self-sustaining cycle of fear and weapons acquisition and use. The methods included (1) a use-reduction strategy that employed both traditional and new technological gun tracing to identify and interrupt gun flow to youths and (2) a deterrence strategy that communicated to youths the severe criminal consequences they would face if they were caught with firearms in their possession.
2. The St. Louis "Knock and Talk" program involved a collaboration between the police and community to target firearms possession by youths. Police and probation officers made informal visits to the homes of youths suspected of possessing guns. The problem was discussed with parents and may have included a request to permit a search for guns. Respondents were immunized from prosecution based on the information they gave, though not from prosecution based on uncovered evidence (if a gun used in a crime was found, for example).
3. The process evaluations are reported in detail in the 10 case studies and the cross-site report. See "Supplementary YFVI Reports."
4. The 10 sites were split into 2 equal groups for budgetary reasons. No comparative ranking of site interventions or results was implied by the actual selection. Case studies for all 10 sites were produced by the evaluation and can be located through the National Criminal Justice Research Service. See "Supplementary YFVI Reports."
5. Additional details on these figures are available in the Salinas and San Antonio case studies. See "Supplementary YFVI Reports."
6. The declines that occurred were all statistically significant beyond the .05 level with the exception of the Cleveland RAPP Houses, where the low number of gun crimes leads to a $p = .14$.
7. Cleveland is excluded because the level of gun crime in the RAPP House areas was too small for charts to be useful. In the other sites, target-area data are compared to citywide data, except in the case of Salinas, where the county was substituted because the intervention was citywide. Also, violent crime in general was

substituted for gun crime in Salinas because data on the latter were not available.

8. The trends documented in the charts are, in fact, similar to national trends. These show that significant expansions of gun crime occurred between the mid-1980s and the mid-1990s, with particularly heavy movement taking place among younger people. These trends appear to have topped out in the mid-1990s, and recent data revealed drops in the aggregate levels of gun crime in most cities. Although the researchers did not empirically investigate the period prior to 1993 in the YFVI cities, it is overwhelmingly likely that the cities experienced upward movement of gun crime levels comparable to that which occurred nationally. Anecdotally, this is what officers in the YFVI police departments communicated.

9. See Johnston, Patrick, "The Effects of Arrests on Gun-Related Crime in Salinas: A Statistical Report Based on a Geometric Lag Model," in *The National Evaluation of the Youth Firearms Violence Initiative*, Cambridge, MA: Abt Associates Inc., July 1998, for a full explanation of the geometric lag model used in the analysis.

10. It should be noted that some of the nonintensive sites, in particular Bridgeport and Milwaukee, might well have had comparable outcome results to those found in Inglewood and Salinas. These were not observable in the evaluation, however, because, by agreement with COPS and NIJ, the incident-specific data used in the intensive sites were not collected in the nonintensive sites.

Findings and conclusions of the research reported here are those of the author and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

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