U.S. Department of Justice
Office of Justice Programs
Community Capacity Development Office

Independent Evaluation of the National Weed and Seed Strategy

Final Report
September 2010

WEED & SEED
US DEPARTMENT OF JUSTICE
COMMUNITY CAPACITY DEVELOPMENT OFFICE

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Executive Summary

The Weed and Seed (W&S) strategy was launched more than 18 years ago by the U.S. Department of Justice (DOJ) as a community-based, comprehensive, multiagency approach to law enforcement, crime prevention, and community revitalization in high-crime neighborhoods. Since its start in three demonstration sites, W&S initiatives have been established in hundreds of neighborhoods nationwide. In early 2010, 256 sites were active in 46 states and 2 territories. Beginning around 2007, W&S funding has been limited to 5 years for a given site, with a maximum of $1 million over that time.

ES-1. CENTRAL FEATURES OF THE WEED AND SEED STRATEGY

The *W&S Program Guide and Application Kit* describes the W&S strategy as "a two-pronged approach: law enforcement agencies and prosecutors cooperate in 'weeding out' violent crime and drug abuse; and 'seeding' brings human services to the area, encompassing prevention/intervention/treatment and neighborhood revitalization. A community-oriented policing component bridges the weeding and seeding strategies."

Four key principles underlie the W&S strategy.

- *Collaboration,* including vertical partnerships (e.g., among law enforcement at the local, state, and federal levels) and horizontal partnerships (e.g., among local police, prosecution, and probation and parole agencies);

- *Coordination* among government agencies, community organizations, and individuals to reduce overlap and duplication of services, better match services to

community needs, and maximize benefits from existing services and programs;

- *Resident participation*, with the goal of engaging and empowering community residents to participate in the design and implementation of problem-solving efforts for their community;

- *Leveraging resources,* including other funding or in-kind resources at federal, state, and local levels to support law enforcement, crime prevention, and neighborhood revitalization strategies in the target area.

In addition, local W&S initiatives typically share the following features: management by a site coordinator; an operating structure including a large, representative steering committee and focused, working subcommittees; substantive involvement of the U.S. Attorney; active participation of neighborhood residents and organizations; and a central role of one or more Safe Havens (community recreation and resource centers).

ES-2. CROSS-SITE EVALUATION OF THE WEED AND SEED STRATEGY

In 2007, DOJ funded an independent evaluation, conducted by RTI International, to assess the impact of W&S on crime and other target problems (e.g., blight) and to study local W&S implementation, including participation and leadership by residents and other community sectors, partnership functioning, collaboration, and strategies and activities.

For all sites in the study (more than 200 sites for some study elements), the evaluation formulated a broad overview of W&S implementation and outcomes through analysis of data collected through a Web-based survey of W&S stakeholders such as agency representatives or involved residents (1,353 respondents in 166 sites) and crime data submitted by grantees (203 sites). In addition, in 13 randomly selected "sentinel sites," the evaluation developed a more in-depth understanding through analysis of additional information derived from a survey of target and comparison area community residents (a total of 2,205 residents); site visits including interviews with key stakeholders; and review of documents (e.g., grant applications, strategic plans, progress reports).

ES-3. EVALUATION FINDINGS

Results of the evaluation suggest that W&S grantees successfully implemented the strategy and achieved important objectives, including

- reductions in crime;
- progress addressing other target area problems; and
- successful implementation of key components and elements of the W&S strategy.

Length of W&S implementation was associated with improvement in resident perceptions of crime problems, suggesting that W&S contributed to the improvement. Improvements in some outcomes were also associated with certain aspects of local W&S implementation (e.g. intensive enforcement; effective collaboration) but associations were not consistent across outcomes or areas of implementation assessed.

Reductions in Crime

Figure ES-1 shows crime rates per 1,000 population for the following types of crimes known to law enforcement: robberies, aggravated assaults, burglaries, weapons offenses, homicides, and drug arrests. Annual rates are shown for W&S target areas and the remainder of the surrounding jurisdiction annually beginning 2 years before implementation (indicated as Year −2), through implementation year (indicated as Year 0), up to 4 years after the implementation year (indicated as Years 1, 2, 3, and 4, respectively).

Crime rates were higher in target areas than in surrounding jurisdictions, but this is not surprising because W&S grants are typically, and by design, located in areas with high crime. The crime data showed substantial decreases in robberies, burglaries, and aggravated assaults, with larger decreases in W&S target areas than in surrounding jurisdictions. Some crime rates decreased before W&S implementation, but after implementation these crime rates decreased more in target areas than in other parts of the jurisdictions.

Figure ES-1. Crime Rates in W&S Areas and Surrounding Jurisdictions by Year
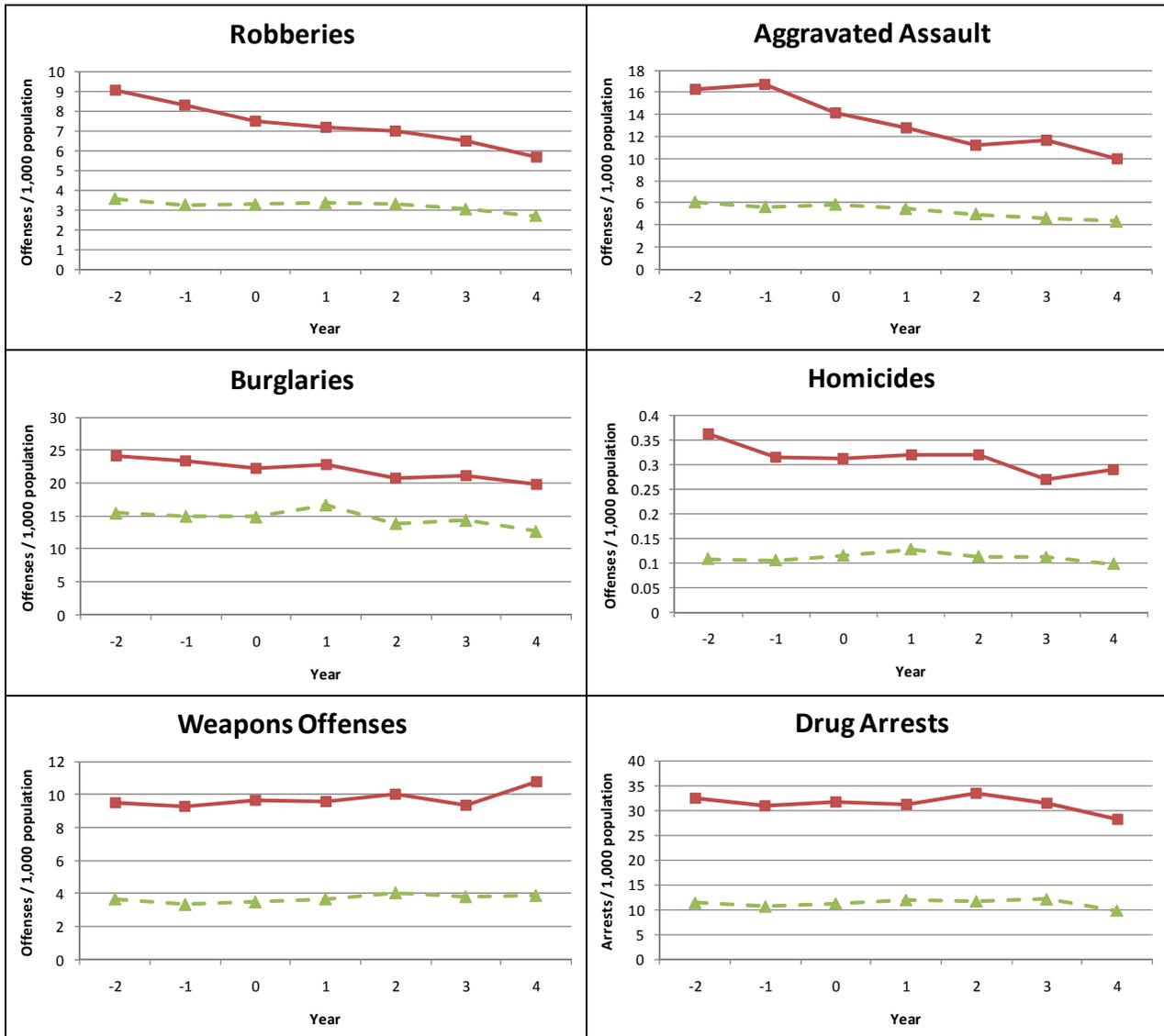
Legend: ▬■▬ Target ‑‑▲‑‑ Jurisdiction

The evaluation also measured stakeholder perceptions of 24 problems in the target areas. In a Web-based survey, stakeholders were first asked how much of a problem various topics were in the target area when W&S began there. Later in the survey, stakeholders were presented with the same topics and asked how much of a problem they were at the time of the survey.

Stakeholders reported substantial decreases in severity of problems, especially for problems directly related to crime. In

particular, average ratings for drug sales and fear of crime each improved from ratings that indicated a major problem to ratings that indicated a moderate problem. Ratings also improved, to varying degrees, for all other crime-related problems.

In the sentinel sites, crime problems were often rated worse by residents of the target area than by residents of the comparison areas. This finding is not surprising because W&S is, by design, located in high-crime neighborhoods. However, residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem than did residents in more recently implemented sites, suggesting that W&S contributed to improvements in resident perceptions of crime.

Similar analysis of crime data found that the association between length of W&S implementation and reductions in the rate of aggravated assault was very near to statistical significance. In this trend, the longer W&S had been implemented locally, the lower the rate of aggravated assault tended to be. (Associations of length of W&S implementation and differences between target area and jurisdiction robbery and burglary rates showed similar trends in the same direction but were not as close to statistically significant.) This trend, in combination with the better perceptions of crime in sentinel sites in which W&S had been implemented longer, suggests that W&S contributed to improving crime in some sites.

Progress Addressing Other Problems

Stakeholder perceptions of problems less directly related to crime, but still of interest to many W&S grantees—such as substance abuse, unemployment, and offender reentry—also improved. Improvements were particularly noteworthy in the areas of poor police-community relations, little resident participation in activities to improve the community, and lack of services for residents. Less improvement was reported on unemployment, poverty, lack of education, and lack of affordable housing, very large problems that W&S addresses but cannot be expected to resolve, given the resources available and the time frame covered by the evaluation.

Sentinel site residents were relatively favorable about the availability of activities and programs that W&S initiatives

typically support, including crime prevention programs or activities; programs to reduce drug use; sports, recreational, and other programs for youth; and neighborhood cleanup or improvement activities. Conversely, target area residents viewed some aspects of police performance less favorably than did comparison area residents. For example, in six sites, target area residents reported more of a problem than comparison area residents regarding "police stopping too many people on the streets without good reason." Despite these sentiments, target area residents were roughly as favorable as comparison area residents in reporting that the police were doing a good job keeping order and responding to community concerns.

Successful Implementation of the Weed and Seed Strategy

Evaluation results indicated successful local implementation of W&S along many dimensions.

Participation and leadership. Partnerships typically included representation from numerous sectors of the community. Police departments, residents, U.S. Attorneys' offices, and community organizations were involved in nearly all partnerships; the vast majority of partnerships included representatives from many other sectors, including faith-based groups, nonprofits and civic service agencies, schools, city or county agencies, and other federal law enforcement agencies.

Stakeholders gave very favorable ratings of the effectiveness of the partnership leadership (communicating the partnership vision, fostering respect, and resolving conflicts) and administration (coordinating communication, organizing activities, and ensuring that plans were completed). On each dimension, 79–90% of respondents gave a rating of good or excellent.

Collaboration. Because collaboration is a key principle of the W&S strategy, the evaluation assessed it and its effects in detail. Stakeholders were asked how frequently they collaborated with various W&S partners on activities in various domains. **Figure ES-2** presents the percentage of respondents reporting that they frequently (as opposed to occasionally or never/rarely) collaborated in each combination of partner and domain, before and after W&S implementation. The most striking result is the substantial increase in the percentage of respondents reporting frequent collaboration. For every

partner-domain combination, this percentage at least doubled and sometimes tripled. Although increases in frequent collaboration were seen for all partner-domain combinations, the five largest increases involved community policing, reinforcing its importance to the W&S strategy. Sizable increases were also reported with other law enforcement partners—including not only local, but also federal or state, law enforcement. Frequent collaboration with target area residents also increased dramatically, increasing by a factor of between 2.7 and 2.9 (i.e., almost tripling). These results strongly support increased collaboration among partners after local implementation of W&S, at least as reported by stakeholders.

Stakeholders were also asked how effective their collaborations with W&S partners were in helping the local initiative achieve the intended outcomes. Item responses were scored from 1 (*not effective*) to 3 (*very effective*). Responses were favorable, with average effectiveness scores ranging from 2.3 for economic, business, or employment development agencies to 2.8 for police officers dedicated to community policing. These results reflect the central role that community policing plays in implementing W&S and achieving intended outcomes.

W&S Strategies and Activities. Stakeholders reported that W&S partnerships used a broad array of strategies and activities. On average, respondents in each site reported the use of 10 law enforcement strategies, 15 community policing strategies, 20 prevention/intervention/treatment programs, and 9 neighborhood revitalization strategies. The most commonly reported strategies and activities in each of these components were as follows:

- Law enforcement: intensive enforcement for drug crimes, violent crimes, minor crimes, and juvenile crimes; strategies for reductions in firearms and gangs;

- Community policing: police participation in community meetings, police-community relationship building, problem solving, crime prevention education, youth activities, nuisance abatement or code enforcement, community policing officers dedicated to the target area, neighborhood cleanups, increased police responsiveness to calls, training in community policing for the community, and community involvement in policing priorities and tactics;

Figure ES-2. Respondent Collaboration with Partners, Before and After Weed and Seed Implementation

Respondents Collaborating "Frequently" with Partners, Before and After Weed & Seed
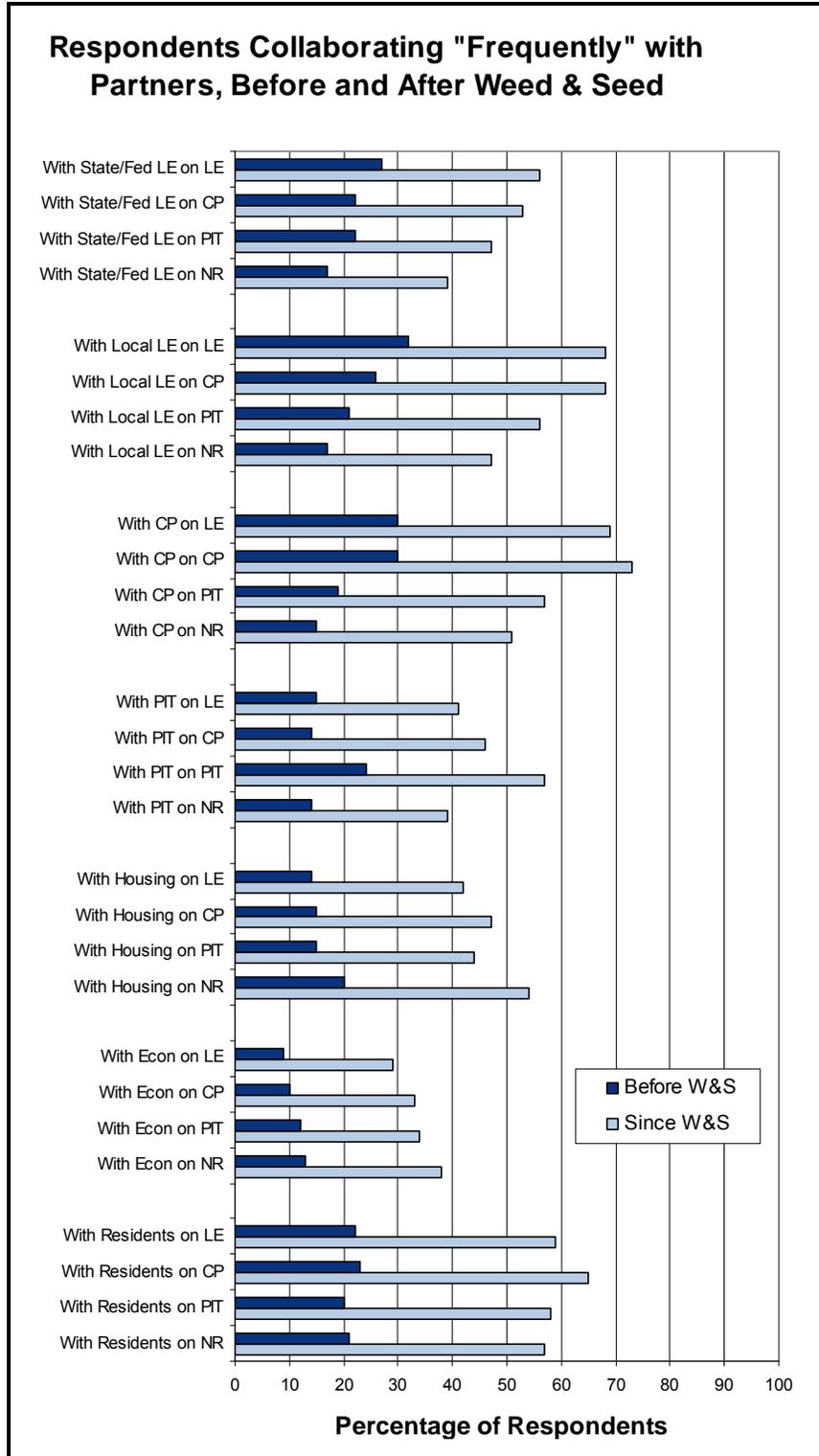
- Prevention/intervention/treatment: broad strategies to increase awareness of services, increase use of services, increase collaboration between law enforcement and providers, increase collaboration among providers, integrate enforcement and PIT for youth, and expand services; specific programs including the use of Safe Havens, other after-school programs, violence education and prevention programs, drug and alcohol education prevention programs for youth, and tutoring; and

- Neighborhood revitalization: strategies addressing the physical environment, including physical environment cleanup, community space beautification, code enforcement or nuisance abatement, community involvement in revitalization, and housing improvements.

Associations Between Weed and Seed Implementation and Outcomes

To better understand whether and how W&S may have contributed to improved outcomes, the evaluation measured the degree to which outcomes were associated with various aspects of W&S implementation (e.g. collaboration, resident involvement, activities).

Greater reductions in rates of robbery and burglary were found in sites where stakeholders felt that their collaborations with local law enforcement had been more effective than in sites where stakeholders rated these collaborations as less effective. These associations between crime reductions and perceived effectiveness of collaboration with law enforcement support the emphasis the W&S strategy places on collaboration.

Sentinel site residents reported lower levels of problems with a variety of crimes when those sites' stakeholders reported greater resident involvement in W&S. These associations support the emphasis that W&S places on involving target area residents meaningfully and substantively in planning and activities.

Similarly, sentinel site residents reported lower levels of problems with a variety of crimes in sites where stakeholders reported better W&S partnership functioning. These associations suggest the importance to local W&S initiatives of elements of well-functioning partnerships that have been identified in previous research, including sufficient involvement from agency leaders, avoiding domination by one sector (e.g.,

law enforcement), finding the right balance between top-down and bottom-up approaches, and—specific to W&S—finding the right mix of weeding and seeding.

Exploratory analyses of the extent to which stakeholder perceptions of improvements in crime problems were associated with aspects of local W&S implementation produced mixed results. Most of the associations that were identified involved either the use of various strategies and activities in the W&S components or the frequency of collaboration among partners. Even in these areas, though, associations were inconsistent. The strongest set of associations involving stakeholder perceptions of improvement in crime was with law enforcement strategies and activities, in particular intensive enforcement of public disorder crimes. Other law enforcement strategies frequently associated with improvement in crime problems were firearms reduction strategies, gang reduction strategies, and intensive enforcement of violent crimes.

Stakeholder perceptions of improvement in crime problems were also associated with frequency of collaboration with W&S partners. Improvements in problems of guns and weapons and of resident intimidation were commonly associated with frequency of collaboration, supporting the proposition that collaboration among W&S partners contributed to the improvement. The associations between stakeholder perceptions of improvement in crime problems and both law enforcement activities and collaboration frequency are complementary and support the importance of law enforcement to the W&S strategy.

Sentinel site residents reported greater satisfaction with crime prevention in their neighborhood in sites where stakeholders reported greater effectiveness of collaboration with local law enforcement and, in a separate finding, with community policing partners. Also, target area residents reported greater satisfaction with activities to improve their neighborhood in sites where stakeholders reported greater effectiveness of collaboration involving local law enforcement, community policing officers, and resident partners.

ES-4 CONCLUSIONS AND RECOMMENDATIONS

It is difficult, if not impossible, to establish *with certainty* that W&S caused the improvements in outcomes reported above.

These types of outcomes are influenced by a wide array of factors, making it a challenge to isolate the effects of any single intervention. This challenge is heightened when the intervention in question is not a well-defined and limited program but rather a comprehensive strategy that takes different shape in different locations, reflecting each community's priorities and resources.

Empirically establishing linkages between implementation and outcomes is often difficult, particularly in evaluations of complex, comprehensive, and multifaceted initiatives such as W&S. For example, the Federal Partnership Project reviewed national, multisite evaluations and concluded that findings on whether changes at the system level result in improved outcomes appear to be inconclusive. In comparison, the results of this evaluation provide some support for the proposition that W&S contributed to the outcomes reported above.

The fact that specific aspects of local W&S implementation were not consistently associated with better outcomes should not diminish the major accomplishments of W&S grantees that were identified:

- Successful local implementation of the W&S strategy by diverse grantees using varied approaches in diverse settings
- Improved outcomes in many sites, including reduced crime and improvement in other problems

The evaluation findings support the following recommendations regarding the W&S strategy.

The improvements in outcomes presented above suggest that funding for the W&S strategy should be maintained or even increased. However, if that is not possible given the federal budget environment, the Community Capacity Development Office must continue to seek optimum funding approaches. W&S funding that grantees receive per year is in danger of dropping to such low levels that key components—such as the site coordinators and overtime pay for enhanced law enforcement—are in danger. The number of years funded per grant should not be reduced because doing so would likely make it impossible for grantees to achieve the comprehensive and integrative approach that is a hallmark of W&S. If the total funding that CCDO has available for W&S remains at current

levels or declines further, one option for maintaining grantee funding at viable levels would be to reduce the number of new grantees funded. It would be better to fund fewer sites at viable levels rather than more sites at levels that make it difficult or impossible to truly implement the W&S strategy.

The W&S strategy to split funds equally between weeding and seeding seems effective and is well received in the community. It should be kept in place.

The evaluation found support for both the viability and effectiveness of the four central components of law enforcement, community policing, prevention/intervention/ treatment, and neighborhood revitalization. As the W&S strategy intends, these components provide a synergy, with benefits greater than the sum of the parts. Much of this success at blending weeding and seeding comes from the attention paid to community policing, which serves as the bridge as envisioned in the W&S strategy. Emphasis on the four central components should be kept, especially the focus on community policing.

The importance of core W&S principles was demonstrated in a number of ways. Collaboration and resident involvement are important, as demonstrated by their association with improved outcomes, and clearly should continue to be promoted. Local leveraging of funds for prevention/intervention/treatment and neighborhood revitalization activities is important for sustainability; non–W&S funding for law enforcement and community policing will remain available. CCDO should continue to encourage grantees to develop and implement sustainability plans early in the process, well before the end of their grants.

Steering committees should continue to be required to have broad representation and some minimum number or percentage of members representing target area residents. Representation across many community sectors, and the collaboration that it fosters, are integral to the W&S strategy and have had demonstrable benefits. Real participation by residents is equally important, both in terms of helping to ensure that selected priorities and approaches are well suited to the neighborhood and that they will be accepted by residents.

Finally, further evaluation of the W&S strategy would be beneficial, particularly (1) a second round of the resident

survey, which would allow for analysis of changes over time, and (2) cost-benefit or cost-effectiveness analysis, which would likely find that W&S is cost-effective and provides substantial return on investment, given the relatively low level of funding provided to each grantee and the improvements in outcomes reported above. Of course, prognostication is not a substitute for empirical evaluation; the only way to truly gain a better understanding of the costs, benefits, and cost-effectiveness of the W&S strategy is to conduct a rigorous cost study.

The main conclusion of the evaluation is that the W&S strategy has demonstrated sufficient positive benefits that it should be continued without major modifications. The above recommendations may help to enhance the strategy but should be viewed in the context of "if it ain't broke, don't fix it." On the basis of the findings of this evaluation, W&S does not need a lot of fixing.

1 Introduction

The Weed and Seed Strategy is a community-based, comprehensive, multiagency approach to law enforcement, crime prevention, and community revitalization in high-crime neighborhoods.

The Weed and Seed (W&S) Strategy was launched more than 18 years ago by the U.S. Department of Justice (DOJ) as a community-based, comprehensive, multi-agency approach to law enforcement, crime prevention, and community revitalization in target high-crime neighborhoods. The W&S strategy is based on the premise that a comprehensive, community-driven, place-based approach will bring about increased public safety and overall improvements in resident and related stakeholder well-being and quality of life, particularly when the approach is accelerated by multiyear federal support.

Since its start in three demonstration sites, W&S initiatives have been established in hundreds of neighborhoods nationwide. W&S's brand name has persevered over the years, as have its central goals, components, and principles. As discussed below, the strategy has undergone some fine tuning informed by two national evaluations, numerous local evaluations, and a rich exchange of ideas and practices over the years through DOJ's frequent training workshops and annual national conferences.

Currently, W&S is managed by the Community Capacity Development Office (CCDO) within DOJ. Historically, the Initiative was managed by the Executive Office for Weed and Seed (EOWS), with additional support from the Bureau of Justice Assistance and the U.S. Attorney's Office (USAO). In 2004, EOWS became CCDO to better reflect its broader focus on community-building partnerships, Native American issues, and reentry programs. CCDO has played a key role in developing and implementing place-based strategies that promote vibrant communities. CCDO takes a three-pronged

approach comprising direct grant assistance, training and technical assistance, and program development through promotion of partnerships and promising practices. The backbone of CCDO's approach is to build local capacity and promote community participation to reduce and prevent serious violent crime and restore neighborhoods.

This evaluation assessed the impact of W&S on crime and other target problems and studied local W&S implementation.

In 2007, CCDO, through the Justice Research and Statistics Association (JRSA)[1], funded an independent evaluation of the W&S strategy. This national evaluation, the subject of this report, was conducted by RTI International. The evaluation assessed the impact of W&S on crime and other target problems (e.g., blight) and also studied local W&S implementation, including participation and leadership by residents and other community sectors, partnership functioning, collaboration, and strategies and activities.

This Introduction provides an overview of the W&S strategy and its progression over the years, a brief summary of previous evaluations, and implications for a successful cross-site evaluation.

1.1 NATIONAL WEED AND SEED STRATEGY

W&S began in 1991, developed by DOJ under President George H.W. Bush's administration. Three demonstration projects were funded in Kansas City, Trenton, and Omaha, followed by the funding of 16 additional sites in 1992. Also in 1992, after the Rodney King riots, an unusually large grant to Los Angeles funded the 20th site.

In early 2010, 256 W&S sites were active in 46 states and 2 territories.

The number of funded W&S sites grew rapidly after that. In 2006 CCDO initiated the "Graduated Sites" status for neighborhoods that are no longer eligible to receive Weed and Seed funding but are still implementing an approved Weed and Seed strategy. In early 2010, 256 sites were active (funded or graduated) in 46 states and 2 territories. Information about individual sites is available at the W&S Data Center (http://www.weedandseed.info).

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[1] CCDO funds JRSA to support various aspects of W&S operations, including gathering information from grantees and making it available through the W&S Data Center Web site.

1.1.1   Weed and Seed's Defining Characteristics

From its start, W&S has been defined as a strategy, not a specific program, and its overarching goal has been to prevent and control violent crime, drug abuse, and gang activity in high-crime neighborhoods. The defining characteristics of the W&S Strategy are the following central components and key principles.

Law enforcement agencies and prosecutors cooperate in "weeding out" violent crime and drug abuse; "seeding" brings human services to the area, encompassing prevention, intervention, treatment, and neighborhood revitalization. Community-oriented policing bridges weeding and seeding.

Central Components

The original concept for W&S was that it would be a two-pronged strategy beginning with "weeding"—removing—violent criminals from target neighborhoods through police and prosecution enforcement tactics, followed by "seeding" the area with a broad array of human services and revitalization efforts. Community policing was seen as the bridge between weeding and seeding, although details on how community policing would serve this bridging role were not specified.

Since its inception, the W&S strategy and nomenclature have remained remarkably consistent. In the *FY2010 Weed and Seed Program Guide and Application Kit* (U.S. Department of Justice, 2009) for continuation sites, the W&S strategy is described as "a two-pronged approach: law enforcement agencies and prosecutors cooperate in 'weeding out' violent crime and drug abuse; and 'seeding' brings human services to the area, encompassing prevention, intervention, treatment, and neighborhood revitalization. A community-oriented policing component bridges the weeding and seeding strategies." As the W&S strategy has developed, community policing as a bridge has been better defined and seeding has been more formally delineated.

The central features of the W&S components are as follows:

- **Law enforcement**—enforcement tactics and activities implemented by police, probation/parole, and prosecution officials at local, state, and federal levels. Enforcement strategies are wide ranging and may include intensive drug investigations, directed patrol, probation sweeps, targeted prosecutions, gang injunctions, sweeps, and other enforcement tactics.

- **Community policing**—primarily defined by two components, community engagement and problem solving, and typically includes dedicated community

police officers assigned to the neighborhood, the formation of partnerships, and prevention programs.

▪ **Prevention, intervention, and treatment (PIT)**— services run the gamut from primary prevention services (e.g., pregnancy information programs for teens, HeadStart programs for preschoolers) to intervention programs (e.g., truancy and mentoring programs) to substance abuse treatment programs and other forms of treatment.

▪ **Neighborhood revitalization**—activities focus on community economic development, job training, employment opportunities, small business development, improved housing and transportation, resident engagement, leadership development strategies, and physical environmental clean-ups.

Key Principles

Four key principles underlie the W&S Strategy: collaboration, coordination and integration of the four components, resident participation, and leveraging resources.

Four key principles underlie the W&S Strategy and are thought to be essential for success.

▪ **Collaboration**. W&S requires communities to establish and maintain a collaborative process involving key stakeholders including government agencies at local, state, and federal levels; social service agencies; community organizations; the private sector; and residents. Successful collaboration leads to permanent communication channels, partnerships among organizations, strategic approaches to W&S, support for the W&S strategy, and additional resources focused on target problems. Collaboration includes vertical partnerships (e.g., among law enforcement at the local, state, and federal levels) and horizontal partnerships (e.g., among local police, prosecution, and probation and parole agencies).

▪ **Coordination and integration of the four components**. Local W&S initiatives involve a variety of activities led by a host of government agencies, community organizations, and individuals. W&S enables these representatives to come together to coordinate activities, reduce overlap and duplication of services, better match services to community needs, and maximize benefits from existing services and programs.

▪ **Resident participation**. W&S aims to engage and empower community residents to participate in the design and implementation of problem-solving efforts for their community. Residents are involved in the decision-making processes as integral members of steering and working committees (serving as steering committee co-

chairs in a number of sites) and are encouraged to become involved in all W&S components.

▪ **Leveraging resources**. Federal funding of W&S sites is extremely limited, particularly given the breadth and depth of the initiative's goals and strategies and the resources needed to revitalize neighborhoods experiencing high crime and social and economic decay. The W&S strategy encourages and provides support for communities to leverage available resources (e.g., other funding or in-kind resources at federal, state, and local levels) to support their law enforcement, crime prevention, and neighborhood revitalization strategies.

Local W&S initiatives typically share the following features: management by a site coordinator; an operating structure including a large, representative steering committee and focused, working subcommittees; substantive involvement of the U.S. Attorneys; active participation of neighborhood residents and organizations; and a central role of Safe Havens (described below).

1.1.2 Changes to the Weed and Seed Strategy

The biggest change in the W&S strategy over the years has been decreased funding, resulting in sites' being asked to do increasingly more with less.

The W&S strategy has retained its emphasis on these core components and key principles and has been characterized more by continuity than change. The biggest change over the years has been the decrease in annual funding, resulting in sites' being asked to do increasingly more with less. Minor changes have been made in requirements preceding W&S funding, funding priorities or emphases, and several other elements. Other elements of the strategy that were identified early on but not formalized—such as the central role of the U.S. Attorney, the need for full-time project coordination, and the inclusion of Safe Havens—have in fact proven their importance over time and have been institutionalized.

Funding Levels

The amount of direct funding to W&S sites has decreased substantially in recent years. The first 20 sites received approximately $1.1 million each for their first 18 months. The next round of sites received around $875,000 per year. In 1996, with 88 funded sites, the average annual amount received by each site was $426,000. By 1999, with 200 funded sites, the average annual amount was around $250,000; this was a typical beginning amount for new sites for some time.

Beginning around 2007, W&S funding was statutorily limited to 5 years for a given site, with a maximum of $1 million over that time. Previously, sites could and did apply for funds repeatedly; several target neighborhoods funded in 1992 received funding for 12–15 years. Funding over the 5-year program period was suggested as a bell curve: $175,000 for Year 1, $250,000 for Year 2, $275,000 for Year 3, $200,000 for Year 4, and $100,000 for Year 5. Because of funding constraints, however, the bell curve approach to program funding was abandoned in 2009; in fiscal year 2010 both continuing and new sites can receive a maximum of $150,000 per year and must provide a 25% nonfederal match.

Requirements Before Funding

Becoming a W&S site requires substantial advance planning, development, and commitment.

Becoming a W&S site requires substantial advance planning, development, and commitment. After the initial funding of 21 sites, an Official Recognition program was established whereby a city could apply for official status after developing the basic building blocks of a W&S program in a target neighborhood (developing a comprehensive plan, creating a steering committee, etc.). With Official Recognition came the use of the W&S name, eligibility to attend national training conferences, and a "leg up" in the next competitive funding round. Subsequently, official recognition became mandatory before a site could apply for funding.

In 2007, Official Recognition was replaced with the "Weed and Seed Communities" designation, which further increased the advance preparation and commitment required to become a W&S site. In addition to developing a 5-year strategic plan, potential sites have to demonstrate their ability to begin implementation and conduct an assessment of their early achievements during a pre-award development phase of the competitive process.

Funding Emphases

Sites are required to allocate at least 50% of their funds to weeding and at least 40% to seeding.

In the beginning of W&S, the bulk of the federal grants were devoted to weeding, both enforcement and community policing activities. Seeding received just 23% of the funds, on average, although considerable variation existed among sites. Today, sites are required to allocate at least 50% of their funds to weeding and at least 40% to seeding, leaving up to 10% for administrative costs.

From time to time, specific programs have been strongly promoted within W&S. In recent years, for example, sites have been required or encouraged to coordinate efforts with Project Safe Neighborhood, the USAO's antifirearms program. More recently, W&S sites have been directed to include reentry programs, to focus both weeding and seeding efforts on offenders returning to their communities after incarceration. As the W&S strategy has matured, the use of evidence-based programs has been encouraged. In addition, the emphasis on specifying and reporting performance measures has grown, and sites are required to conduct a local evaluation to measure strategy and program success.

As the W&S strategy has matured, the use of evidence-based programs has been encouraged.

The initiative has always emphasized that program activities should not depend on directed federal funding, but over time should be supported through the coordination and redirection of existing resources and leveraging of additional funds from other private and public sources. This message has been strengthened in recent years as direct federal dollars have decreased. W&S programs are now expected to leverage at least $875,000 in additional program support over their 5-year funding period.

W&S programs are now expected to leverage at least $875,000 in additional program support over their 5-year funding period.

Other Elements of the Strategy

Other elements of the W&S strategy have been fine-tuned over the years, as follows:

- *Weeding or seeding first?* When W&S was conceived, it was thought that weeding had to precede seeding and that PIT and neighborhood restoration activities could not be successfully implemented until the level of violent crime had been reduced. However, this initial conception was met with considerable community resistance in a number of sites, with residents feeling targeted by law enforcement and having no voice in the strategy. These concerns led to a shift, with seeding activities now preceding or concurrent with weeding activities.

- *Target area size and population.* The size of a W&S target neighborhood has been a matter of some debate, with some suggesting that the modest W&S resources will effect more change if focused in a small area, whereas others suggest that a larger area be targeted. Target areas are typically several square miles or less, although some have been as small as several blocks and others as large as several hundred square miles. Populations range from 717 to more than 50,000.

Today, no limit is placed on the size of target areas, and population guidelines are that the target population should be between 7,500 and 50,000.

- *Full-time project personnel*. Early evaluation results pointed to the need for a full-time site coordinator to manage the day-to-day activities of W&S. Since W&S's inception, a site coordinator has been required for funding. The full-time status of the position has been required in some years and strongly encouraged in others.

- *Central role of the U.S. Attorney.* The USAO has been in a key leadership role in W&S since the beginning, both nationally and locally. Each steering committee includes a representative from the USAO, typically the U.S. Attorney, an Assistant U.S. Attorney, or the USAO's law enforcement community coordinator. These individuals have been strong partners, providing leadership, management, and the perspective and powers of federal prosecution. In many sites, the USAO's role includes serving as the cochair of the Steering Committee and overseeing the law enforcement strategy.

- *Steering committee composition and leadership.* Steering committees have always been required to include local officials, community representatives, and weeding and seeding representatives. Over the years, suggested membership has been expanded and specific requirements have been added. Currently it is required that Steering Committee voting members include the U.S. Attorney or his or her designee, the local Drug Enforcement Administration Special-Agent-in-Charge, local law enforcement and city or county government representatives, and target area residents. One-fourth of the Steering Committee members must be target area residents who do not also serve in an official capacity (such as the executive director of a community-based organization).

- *Safe Havens.* Since the beginning of the W&S initiative, Safe Havens have been an integral part of W&S programs. Safe Havens have expanded substantially, from after-school programs that offered a safe place for homework, sports, recreation, and other activities to multipurpose service centers for youth and adults, located in highly visible, accessible facilities. They remain an essential component of W&S. In some years at least one Safe Haven has been a required element in the target neighborhood; in 2010, each site is strongly encouraged to have a least one Safe Haven.

In summary, the W&S strategy has been consistent in its core components and key principles while evolving with regard to levels of funding, funding emphases, requirements before funding, and other elements of the strategy.

1.2 EVALUATING THE NATIONAL WEED AND SEED STRATEGY

An evaluation of the W&S strategy must be undertaken with the recognition that W&S is based on the coordinated implementation of multifaceted, comprehensive, complementary activities. The scope of activities is very broad and could include both, for instance, federal prosecution of drug kingpins and educational and nutritional services for pregnant teenagers. This breadth of activities is seen within sites and even more so across sites, as each site selects approaches to meet its local needs and capabilities. The number and breadth of involved stakeholders is similarly expansive, including law enforcement at local, state, and federal levels; an array of service providers within government and private settings; and, importantly, residents and community-based organizations. The initiative encourages and accommodates diversity—sites may be urban or rural, in cities or counties, involve single or multiple neighborhoods, and have multiple targets. The sites vary substantially in size, ethnicity, crime severity, social problems, and capacity; problem-solving strategies are locally determined. In short, the W&S strategy exemplifies an approach often referred to as a Comprehensive Community Initiative or CCI (see, for example, the work of the Aspen Institute Roundtable on Community Change).

The W&S strategy exemplifies an approach often referred to as a Comprehensive Community Initiative.

1.2.1 Challenges of Evaluating Comprehensive Community Initiatives

The Request for Applications for an evaluation of W&S noted a number of issues related to evaluating CCIs such as W&S. It cited work by Kubisch, Weiss, Schorr, and Connell (1995) that identified characteristics of CCIs that make them challenging to evaluate, including

- horizontal complexity, from working across systems or sectors;

- vertical complexity, from attempting to change individuals, families, and communities that interact with one another;

- contextual issues, including sociodemographic and crime trends, economic changes, and policy changes;

- a flexible and evolving intervention, making the intervention difficult to track and assess;

- a broad range of outcomes, which can be difficult to operationalize and measure for evaluation; and

- absence of control or comparison communities, because randomly assigning neighborhoods to receive the intervention is generally not possible, and finding a similar community is a methodological and logistical challenge.

The challenges these characteristics pose for evaluations of CCIs apply to W&S and were taken into consideration in the present national evaluation.

1.2.2 Implications for National Evaluation

The aim of this national evaluation is to conduct a rigorous cross-site analysis that acknowledges and addresses site differences but focuses on assessing the effectiveness of the national W&S Initiative.

Characteristics of W&S have implications for—and pose challenges to—a national evaluation. The scope of the initiative precludes the study of all activities in every site; rather, the focus must be on topics of greatest interest and importance across the sites. This broad approach should be augmented by more detailed information on a sample of sites that represent the initiative's diversity. Evaluating *site-specific* target problems and strategies, although important, is the proper role of local evaluators. The aim of a *national* evaluation should be to conduct a rigorous cross-site analysis that acknowledges and addresses site differences but focuses on assessing the effectiveness of the national W&S Initiative. Moreover, an evaluation should not only focus on whether outcomes change, but also seek to explain which of the many facets were associated with the changes. Finally, given their central role in the strategy, an evaluation should include neighborhood residents.

1.2.3 Prior Evaluations

There have been two prior national evaluations of W&S. The first evaluation, completed in 1995, was a process study of the first 19 funded sites, designed to document program activities from planning to implementation (Roehl et al., 1996). The evaluation documented and analyzed key program features such as collaboration, coordination, the dual approach of weeding and seeding, the roles of U.S. Attorneys and local district attorneys, and the nature of community policing.

The second national evaluation was an impact evaluation, designed to measure outcomes related to crime and public safety and to identify factors that appear to promote successful implementation and the achievement of intended results (Dunworth, Mills, Cordner, & Greene, 1999). The evaluation did not draw an overall conclusion about the effectiveness of W&S, but reported that two of the eight sites studied showed "strong evidence" of success in reducing Part I crimes, two showed "substantial evidence," two showed "some evidence," and two showed "no evidence" of success.

In addition, JRSA has conducted research to improve knowledge of W&S and its effects. JRSA reviewed site strategy statements from 2000 to 2005 and identified 73 strategy types and 15 problem area categories (O'Connell, Perkins, & Zepp, 2006). These categories were used in designing data collection in the present evaluation. In an earlier analysis, JRSA analyzed trends in homicide data (supplemented with CCDO administrative data) for 220 sites in 174 jurisdictions as well as surrounding jurisdictions. More than half of the W&S sites in the 174 jurisdictions reported a decrease in homicides; 8% increased but at a lower rate than the rest of the jurisdiction (O'Connell, Perkins, & Zepp, 2003).

1.2.4 Present National Evaluation

This evaluation of W&S builds upon and extends previous evaluations.

This report provides findings and recommendations from a third national evaluation of W&S conducted by RTI International under a cooperative agreement with JRSA. CCDO funds JRSA to conduct many activities supporting W&S and chose to have JRSA oversee the evaluation to increase the independence of the evaluation. JRSA funded the evaluation with pass-through funds from CCDO. The evaluation was designed to answer the key evaluation questions presented in the Request for Applications:

- Have sites identified specific problems and implemented solutions designed to directly address those problems?

- How successful have sites been in mobilizing key community stakeholders to respond to crime and in coordinating existing community resources to focus on crime and neighborhood restoration in the target area?

- In sites that have successfully implemented strategies and catalyzed community responses, are there indications of resulting reductions in violent crime, drug

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abuse, gang activity, and individual- and community-level risk factors associated with these outcomes?

The W&S evaluation described in this report was designed to answer these questions by applying innovative and rigorous methodologies, to overcome the challenges described above to the extent possible, and to support conclusions about the W&S initiative at large.

Chapter 2 summarizes the methodology of the evaluation, which included process and outcome evaluation components in a two-tiered design that looked broadly across a large number sites, as well as more in-depth at a random sample of 13 sites. Data sources include grantee-reported crime data, Web-based surveys of stakeholders, and—in the sample of 13 sites—resident surveys and site visits.

Chapter 3 presents results in three broad areas: (1) outcomes, including reductions in crime and changes in stakeholder and resident perceptions of the target neighborhoods; (2) local implementation of the W&S strategy, including strategies used in law enforcement, community policing, PIT, and neighborhood revitalization; collaboration among partners; and involvement by residents; and (3) exploration of how implementation findings help to explain outcomes.

Chapter 4 offers interpretation of key findings, along with recommendations for applying the lessons learned from the evaluation to continued improvement of the W&S strategy.

2 Research Methodology

This chapter describes the research methods used including the evaluation framework, data sources, and data analysis.

2.1 EVALUATION FRAMEWORK

The national evaluation included both a process evaluation, to assess implementation of locally developed strategies, and an outcome evaluation, to assess W&S effects using rigorous statistical analyses. Process and outcome information was integrated to explore whether different aspects of local W&S initiatives led to more successful implementation, better outcomes, or both. The evaluation assessed the W&S central components (law enforcement, community policing, PIT, and neighborhood revitalization) and key principles (e.g., collaboration), as described in Chapter 1.

2.1.1 Evaluation Logic Model

The evaluation logic model is presented in **Figure 2-1**. This type of logic model is commonly used to inform program evaluations (e.g., Rossi, Freeman, & Lipsey, 1999). The logic model for this evaluation includes the following aspects:

- *Inputs* include the structural aspects of the local initiative (e.g., type of agency or organization administering the grant), groups providing leadership or influencing direction, and initial problems in the target area.

- *Throughputs* are mechanisms thought to connect inputs to subsequent outputs, such as effectiveness of leadership, partnership functioning, and the focus on particular problems.

Figure 2-1. Logic Model

INPUTS	THROUGHPUTS	OUTPUTS	PROXIMAL OUTCOMES	DISTAL OUTCOMES

Structure
- Grantee Agency
- Membership
- Steering Committee

Groups
- Providing Leadership
- Influencing Focus

Initial Problems
- Stakeholder Perceptions
- Pre-implementation GPRA Crime Data

Perceived Effectiveness
- Leadership
- Administration

Functioning
- Avoid Bad Approaches
- Resident Involvement
- Strategies & Resources

Initial Focus
- Stakeholder Reports

Collaboration
- Frequency

Reported Activities
- Law Enforcement
- Community Policing
- Prev./Interv./Tx
- Neighborhood Restoration

Collaboration
- Perceived Effectiveness

Perceived Effectiveness of Activities
- Law Enforcement
- Community Policing
- Prev./Interv./Tx
- Neighborhood Restoration

Changes in Stakeholder Perceived Problems

Changes in GPRA Crime Data

Resident Perceptions of Neighborhood
(Sentinel Sites Only)

- *Outputs* are activities intended to achieve specific objectives, including collaboration and activities in the central W&S components.

- *Proximal outcomes* are directly related to outputs and, in this evaluation, included perceptions of the effectiveness of collaboration in helping the partnership achieve its objectives and of activities in the core W&S domains.

- *Distal outcomes* are the outcomes of ultimate interest, such as decreased crime and improvements in other aspects of the target neighborhood.

The logic model identifies the key implementation and outcome elements addressed in the evaluation and portrays the basic associations that were explored between implementation and outcomes. Specific associations are discussed more fully in Chapter 3, Results.

2.1.2 Evaluation Design

The evaluation used a two-tiered design: A broad overview of more than 200 sites, and an in-depth study of 13 sentinel sites.

The evaluation used a two-tiered design:

(1) For all sites in the study (more than 200 sites), the evaluation formulated a broad overview of processes and outcomes through analysis of data collected through a Web-based survey of W&S stakeholders and crime data submitted by grantees.

(2) In addition, in 13 sentinel sites, the evaluation developed a more in-depth understanding of site processes and outcomes through analysis of additional information derived from a survey of target and comparison community residents, site visits including interviews with key stakeholders, and document review.

Data sources used in each tier for the process and outcome evaluation components are summarized in **Table 2-1** and described in detail below (after the discussion of procedures for selecting the sentinel sites).

Table 2-1. Data Sources

	Process Evaluation	Outcome Evaluation
All sites	- Web-based surveys of stakeholder perceptions of implementation - Site-reported GPRA data on activities & resources	- Web-based survey on stakeholder perceptions of changes in problems in target areas - GPRA crime data
Sentinel sites	- Site visits & interviews - Document review	Resident survey

Note: GPRA = Government Performance and Results Act.

2.1.3   Sentinel Site Selection

Sentinel sites were chosen to be representative of the entire pool of sites to the greatest extent possible.[2] The process included the following steps.

Step 1: Using 2005 Government Performance and Results Act (GPRA) data (the most recent data at that time), we included for consideration those sites that met all the following criteria: (1) had a site coordinator, (2) were actively running at least one weeding operation, and (3) were actively running at least one seeding operation. This analysis resulted in a sampling frame that included 258 sites (85% of the 303 sites active in 2005).

Sentinel sites were selected randomly within groups defined by population density and region of the United States

Step 2: Sites were placed into 12 groups defined by site population density (high or low) and U.S. region (northeast, mid-Atlantic, southeast, southwest, north-central, or northwest and mountains). Within each group, sites were randomly ordered, and the first site in each group was identified as the potential sentinel site. We added the 13th potential sentinel site from the northeast/high-density group because that group had the most sites.

Comparison neighborhoods for sentinel sites were identified using Census data and GIS mapping.

Step 3: The viability of the potential sentinel sites was assessed, and sites were replaced as necessary. One criterion was the viability of matched comparison areas. A comparison area was selected for each potential sentinel site through the following procedures. First, census data were used to identify all census tracts (or block groups, as needed) in the state that were within 20% of the target area tract on two key dimensions: percentage of families living in poverty and percentage white. Clusters of matching tracts were identified that, ideally, met the following criteria: each of the target area tracts had a matched comparison tract in close proximity to other comparison tracts; the cluster of matched tracts was a reasonable distance from the target area (e.g., within 50 miles); and the cluster was not too close to any W&S site, including the sentinel site target area.[3] For almost all potential sentinel sites assessed, this procedure found one or more

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[2]Thirteen sentinel sites were included because that number of sites was anticipated to provide adequate statistical power while remaining within the evaluation budget.

[3]We explored using crimes statistics in the matching process, but for the comparison areas the data were not available for the small geographic areas necessary.

clusters of comparison tracts that matched the target tracts. For one sentinel site in the southwest/low-density group, an appropriate comparison area could not be identified, and the next site in the randomized list for that group was selected for consideration.

A second criterion was the status and situation of the potential sentinel site. If the site coordinator provided compelling reasons that the site should not serve as a sentinel site, it was replaced. One provisionally selected sentinel site was replaced because it had recently completed its grant and would not be able to participate in some evaluation activities. Sentinel sites and their matched comparison areas are shown in **Table 2-2**.

Table 2-2. **Sentinel Sites and Comparison Areas by Region and Population Density**

Region	High Population Density		Low Population Density	
	Region	Comparison	Target	Comparison
North Central	Dayton, OH	Columbus, OH	St. Joseph, MO	Joplin, MO
Mid-Atlantic	Pittsburgh, PA	Pittsburgh, PA	Henderson, NC	Sanford, NC
Northeast	Holyoke, MA Yonkers, NY	Springfield, MA Bronx, NY	Willimantic, CT —	Middletown, CT —
Northwest/ mountains	Aurora, CO Seattle, WA	Denver, CO Seattle, WA	— —	— —
Southeast	N. Miami Beach, FL	N. Miami Beach, FL	Athens, GA	Columbus, GA
Southwest	Pomona, CA	East Baldwin, CA	Flagstaff, AZ	Phoenix, AZ

2.2 DATA SOURCES

The W&S evaluation used both extant (secondary) data and primary data collected for the evaluation.

The W&S evaluation used both extant (secondary) data and primary data collected for the evaluation. All primary data collection participants provided informed consent, following procedures approved by the RTI Institutional Review Board. Data sources are described first for all sites and then for sentinel sites.

2.2.1   All Sites Data Sources

The evaluation included 187 grantees with implementation dates of 2003 through 2006 (some had had previous grants) along with 87 graduated sites that were no longer receiving W&S funding but were still implementing a recognized Weed and Seed strategy.

The evaluation included 187 grantees implemented in 2003 through 2006 along with 87 graduated sites that were no longer receiving W&S funding but were still implementing a recognized Weed and Seed strategy.

Stakeholder Survey

Respondents for the Web-based stakeholder survey consisted of the W&S site coordinator for each site as well as key partners and stakeholders identified by the site coordinator. The CCDO Director's Office sent a letter to site coordinators reminding them of the study and emphasizing the importance of full participation. RTI contacted site coordinators to request names and contact information for stakeholders most involved in the initiative. RTI then sent stakeholders e-mail asking them to participate in the survey and providing a description of the study, a link to complete the survey, and contact information in case they had questions.

A total of 1,353 stakeholders—an average of 8 stakeholders from each participating site—completed a Web-based survey.

The stakeholder survey was fielded from November 2008 to September 2009, with 2,278 stakeholders across 169 sites. Evaluation staff performed extensive follow-up with site coordinators (to obtain stakeholder information) and stakeholders (to encourage participation in the survey). A total of 1,353 stakeholders completed the survey, 60.4% of those invited to participate. An average of 8 stakeholders participated from each site, with a range of 1 to 21 participants per site. About half the sites had 8 or more survey participants.

To ensure a comprehensive and relevant set of questions, the survey was designed based on material from the following sources:

(1) categories established in JRSA's 2006 evaluation report compiled from CCDO administrative records and JRSA GPRA data,

(2) past data collection interviews and findings from earlier W&S evaluations, and

(3) measures on partnerships used in previous cross-site site evaluations.

Draft survey instruments were reviewed by several stakeholders at a W&S national conference for grantees, and suggestions were incorporated into the final survey.

One challenge of the stakeholder survey was that it needed to collect a broad array of information about multiple topics from different types of partners, while not imposing an undue burden on respondents. The solution was a modular approach in which (1) stakeholders from each W&S component (e.g., law enforcement) received questions about strategies used in their component, and (2) stakeholders in general received questions on topics about which any stakeholder was expected to have a perspective (e.g., partnership functioning or collaboration). The modules in **Table 2-3** were administered in a Web-based survey format.

Table 2-3. Stakeholder Survey Modules and Key Topics

Module	Key Topics and Elements
Introduction	Component most involved with Agency type Position in agency
Site coordinator	Position and time in position Grantee agency type Steering committee representation Partnership activities Barriers to achieving goals
Law enforcement	Use of 15 law enforcement strategies Change in emphasis on each strategy Effectiveness of strategy Involvement of U.S. Attorney's Office Agencies or groups working together to plan or implement weeding activities
Community policing	Use of 21 community policing strategies Change in emphasis on each strategy Effectiveness of strategy Involvement of residents or neighborhood organizations
Prevention, intervention, and treatment (PIT)	Use of 32 PIT strategies Change in emphasis on each strategy Use of evidence-based practices Effectiveness of strategy Target community involvement in and satisfaction with PIT activities
Neighborhood revitalization	Use of 17 neighborhood revitalization strategies Change in emphasis on each strategy Effectiveness of strategy Target community involvement in and satisfaction with neighborhood revitalization activities

(continued)

Table 2-3. Stakeholder Survey Modules and Key Topics (continued)

Module	Key Topics and Elements
Target area problems	Severity of 24 problems at 2 points in time (both asked in the same survey administration): – when local W&S initiative began – at the time of the survey
Local initiative focus	For 24 problems in the module, how much of a focus each was at 2 points in time: – when local W&S initiative began – at the time of the survey Influence of various groups on focus Reasons for large increase or decrease in focus
Partnership functioning	Agencies or organizations that provided leadership Effectiveness of leadership and administration or management (based on Weiss, Anderson, and Lasker, 2002) Partnership functioning
Collaboration	Frequency of collaboration for 28 combinations of partner and domain: – in each of 4 core domains (law enforcement; community policing; PIT; neighborhood revitalization) – with 7 types of partners (state or federal law enforcement or prosecution; local law enforcement or prosecution; officers dedicated to community policing; PIT service providers; housing or neighborhood restoration groups; economic, business, or employment development agencies; or target area residents) Asked about 2 points in time – before W&S – since W&S

PIT = prevention, intervention, and treatment.

To limit burden, each respondent was asked to complete a subset of these modules. The site coordinator received the site coordinator, focus, and collaboration modules. Other stakeholders received one module based on the domain in which they were most active (law enforcement; community policing; PIT; or neighborhood revitalization) and two of the remaining four modules (problems, focus, functioning, and collaboration), determined by their roles in their agencies and how many similar stakeholders from their site had previously

participated.[4] The number of respondents per module is shown in **Table 2-4**.[5]

Table 2-4. Respondents per Stakeholder Survey Module

General Modules			Modules Specific to Respondent Role		
Module	**No. of Respondents**	**No. of Sites**	**Module**	**No. of Respondents**	**No. of Sites**
Introduction	1,223	166	Site coordinator	127	126
Target area problems	144	89	Law enforcement	229	118
Local initiative focus	889	162	Community policing	160	98
Partnership functioning	252	95	PIT	415	138
Collaboration	1,229	166	Neighborhood revitalization	322	124

Note: These are not nonduplicated individuals; each respondent completed up to 3 modules plus the Introduction (for stakeholders other than coordinators). A total of 1,353 unique, nonduplicated respondents completed one or more modules.

Crime Statistics

The evaluation used data submitted annually by grantees on six types of crimes committed in the W&S target area and the larger jurisdiction.

W&S grantees are required to submit annual GPRA reports that include law enforcement data on the number of homicides, robberies, aggravated assaults, burglaries, weapons offenses, and drug arrests.[6] These offenses are reported for the designated target area and its jurisdiction in calendar-year totals for every year beginning 2 years before site operation and continuing through the reporting year. For example, a site in its fourth year would report data for five years: each of two years before implementation and each of three completed calendar years since implementation began. JRSA provided RTI with available GPRA data for reporting years 2006 and 2007 and helped to resolve problems and inconsistencies. For each site, RTI subtracted the target area crime counts from the

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[4] The survey module allocation scheme was revised while the survey was ongoing to increase the number of respondents for some modules.

[5] The evaluation team is grateful for the participation of W&S stakeholders and for the support of site coordinators in identifying stakeholders and encouraging them to participate.

[6] The definitions of these crime types are those used in the FBI's Uniform Crime Report (UCR). For example, weapons offenses are defined as "the violation of laws or ordinances prohibiting the manufacture, sale, purchase, transportation, possession, concealment, or use of firearms, cutting instruments, explosives, incendiary devices, or other deadly weapons."

jurisdiction crime counts to obtain distinct, nonduplicative counts for the target area and the rest of the jurisdiction.

To compare GPRA data across the sites, we converted the grantee-reported *numbers* of crimes or drug arrests to *rates* per 1,000 residents. This conversion required population estimates for the target area and the rest of the jurisdiction. An RTI specialist in geographic information systems (GIS) created a file of site population and population density table using GIS site boundaries provided by JRSA in combination with census block group data (including approximately 9,860 block groups). Interpolation was used to estimate populations for the years between decennial census years. After GPRA data for the two reporting years were combined and merged with census data, data from 203 sites were available for analysis. Missing data reduced the number of sites included in some analyses.

2.2.2 Sentinel Sites Data Sources

The evaluation included more in-depth information on 13 sentinel sites gathered through a survey of residents and site visits.

In addition to the all-sites data, the evaluation included more in-depth data on 13 sentinel sites, as follows. (1) Resident survey: face-to-face interviews were conducted with at least 80 adult residents in each W&S sentinel site target area and matched comparison area. (2) Site visits: Senior evaluation project staff conducted sentinel site visits to interview key stakeholders, tour the target areas, and observe activities.[7]

Resident Survey

The resident survey was taken from the early evaluations of W&S (Roehl et al., 1996; Dunworth et al., 1999), with slight modifications. Residents were asked about the following topics pertinent to W&S:

- Perceptions of neighborhood: satisfaction, change
- Feeling safe
- Perceptions of crime-related problems
- Victimization (self or family)
- Perceptions of police and other government services
- Participation in activities to improve neighborhood
- Awareness and perceptions of W&S

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[7] The evaluation team is grateful for the participation of W&S stakeholders in the sentinel sites and of the residents in these W&S neighborhoods and the matched comparison neighborhoods.

The resident survey was administered by trained field interviewers (FIs) using handheld devices (iPAQs) to facilitate data gathering and enhance data security. A three-day training session was held with FIs and field supervisors. Additional training was held for the bilingual interviewers who would be interviewing in Spanish as well as English.

For the resident survey, a random sample of housing units was drawn within each target and comparison area using an innovative GIS-based process developed for this evaluation.

A random sample of housing units was drawn within each target and comparison area in an innovative process developed for this evaluation. The process had two steps: (1) A random sample of locations (dots) was selected using GIS longitude and latitude information, and (2) the housing unit associated with each dot was identified. The process for sampling "random dots" was the same for all target and comparison areas: an evaluation team GIS specialist generated 160 random dots within each area, with areas defined by GIS. The study design called for 80 completed interviews in each target or comparison area; 160 dots were generated to increase the pool of available housing units to increase FI efficiency by increasing the pool of potential respondents and thereby decrease cost. The second step, identifying housing units, took one of two forms. In 21 of 26 target or comparison areas, we were able to obtain from the local government residential tax parcel data, which are used to levy real estate taxes and that include the address. For these areas, GIS was used to identify the parcel in which each random dot was located, and the address was used to identify the sampled housing unit. For the 5 areas without tax parcel data, the GIS specialist layered the random dots over imagery of buildings, as necessary moving each random dot onto the nearest building. FIs were given hard copies of these image maps (along with standard street maps).

Within each sampled housing unit, FIs attempted to conduct an interview with one eligible respondent. To be eligible, a person had to meet the following criteria: (1) be at least 18 years old; (2) reside at the sampled housing unit; (3) have resided in the neighborhood 1 year or longer; and (4) be able to respond in either English or Spanish. These screener questions were asked if the resident agreed to answer questions to find out if they were eligible. If the resident was eligible, the FI completed the consent procedure. If the first individual was not eligible, the FI asked if there was another adult resident available to potentially screen for eligibility. Interviews took an average of

15 minutes to complete. Participants received a modest incentive of $10.

Data collection began in late October 2008 and concluded in January 2009. The resident survey surpassed the target number of 2,080 interviews by completing 2,205 resident surveys. The requisite number of 80 completed surveys in each target area and each comparison area (as planned for data analyses) was achieved for all sentinel sites (although one case subsequently had to be dropped because of data problems, leaving one area with 79 cases). On average, 84.4 interviews were completed in each target area and 85.2 interviews were completed in each comparison area.

In only 10% of eligible units were we unable to conduct an interview due to refusal to participate. This low refusal rate is especially commendable because our sampling approach did not include sending advance letters alerting residents that a FI would be visiting their home—these were "cold" calls—and also because the surveys were conducted in neighborhoods that are often challenging for field data collection.

Site Visits

The evaluation also included site visits to sentinel sites to provide an in-depth understanding of the sites and their context, approaches, and accomplishments.

The evaluation also included site visits to sentinel sites to provide an in-depth understanding of the sites and their context, approaches, and accomplishments. One site visit was conducted in each sentinel site. Visits were arranged and conducted by senior doctoral-level members of the evaluation team. Site visitors were trained about how to prepare for, schedule, and conduct site visits. They also reviewed the outline for the case study that was to be written after each site visit and used it to ensure that they obtained all necessary information about their sites.

Each site visit lasted approximately 3 days and included interviews with the site coordinators and 8–10 key stakeholders, attendance at a steering committee meeting, observation of other activities, and a tour of the target area. Site visitors worked with site coordinators to identify key stakeholders, schedule visits, and obtain materials to learn more about the site before the visit. Site visits were conducted between late February and early June 2009.

2.3 ANALYTIC APPROACH

Data from the sources described above were used to

- assess whether outcomes were better, or improved more, in target areas than in comparison areas (for crime data, the comparison area was the rest of the jurisdiction; for resident survey data, it was the matched comparison area);

- describe local implementation, including aspects of the grantee agency and partnership, activities in the core W&S domains, and collaboration among partners; and

- explore whether different aspects of local W&S initiatives led to more successful implementation and/or better outcomes.

Outcomes were based on crime data, resident perceptions and experiences, and stakeholder perceptions.

Procedures for assessing outcomes depended on the data available.

- For crime rates (from grantee GPRA reports), analyses compared changes in the target area with changes in the rest of the jurisdiction. Annual crime rates were analyzed for six types of crime, from 2 years before W&S implementation through 4 years after implementation. Multilevel regression analyses (crime rates nested within target area or jurisdiction) assessed change in crime rates in two ways: (1) longitudinal growth models of linear change from 2 years before W&S implementation to 4 years after; and (2) "pre/post" comparisons, which aggregated rates for years before implementation ("pre") and for years after implementation ("post"). These analyses were done using either crime rates for target areas and jurisdictions or the difference in crime rates (subtracting jurisdiction from target area) each year.

- For resident perceptions, analyses compared responses to resident surveys from each sentinel site target area to responses from its match comparison area. One approach included all sentinel sites in a multilevel analysis, with residents nested within site. In another approach, target and comparison area residents were compared on a site-by-site basis (i.e., in a set of 13 analyses).

- For stakeholder perceptions of the target area, analyses calculated differences between stakeholder perceptions when the local W&S initiative began (asked retrospectively) and perceptions at the time of the stakeholder survey (with both sets of perceptions measured during one survey).

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Local implementation was described through descriptive analyses such as average ratings across site coordinators or, for measures collected from multiple stakeholders per site, averages of stakeholders within each site and then the average of the sites' average ratings. Some descriptive analyses were based on the percentage of respondents providing a particular response.

Exploratory analyses of associations (e.g., between implementation and outcomes) were conducted by beginning with one of the analyses described above (with the outcome as a dependent variable) and then adding to it a measure of implementation as an independent (or predictor) variable. Some analyses included multiple independent variables.

Further information on specific analyses is provided in Chapter 3 in conjunction with discussion of results. (Technical aspects of analyses are presented in *Appendix A*, *Analysis*.)

3 Results

This chapter presents the results of the evaluation, organized around (1) outcomes, (2) local implementation of W&S, and (3) exploratory analyses of the extent to which changes in outcomes were associated with various aspects of implementation.

3.1 OUTCOMES

W&S target areas experienced some improvements or relative advantages over comparison areas in each of the three categories of outcomes: crime statistics, stakeholder perceptions, and resident perceptions.

W&S target areas experienced some improvements or relative advantages over comparison areas in each of the three categories of outcomes:

- According to crime statistics, rates for robbery, aggravated assault, and burglary improved in target areas more than in other parts of the jurisdictions.

- Stakeholders reported improvement in nearly all target area problems assessed.

- Resident perceptions of some characteristics of their neighborhoods were more favorable in target areas than in comparison areas.

Whereas stakeholder reports of improvements were widespread, crime rates improved for three of six types of crime analyzed, and resident perceptions favorable to W&S were limited to some outcomes and some sentinel sites.

3.1.1 Crime Statistics

Figure 3-1 shows crime rates per 1,000 population for the following types of crimes known to law enforcement: robberies, aggravated assaults, burglaries, weapons offenses, and homicides, as well as drug arrests. Rates are shown for W&S target areas and the other parts of the jurisdictions (henceforth referred to as the jurisdictions) annually beginning 2 years before implementation (indicated as Year −2), through implementation year (indicated as Year 0), up to 4 years after

the implementation year (indicated as Years 1, 2, 3, and 4, respectively). The number of grantees reporting crime statistics varies by crime type and year: for Year −2 through Year 3, various crimes were reported by between 116 and 191 grantees, whereas for Year 4 crimes were reported by between 82 and 93 grantees (because some grantees were not yet 4 years past implementation).

Figure 3-1. Crime Rates in W&S Areas and Surrounding Jurisdictions by Year
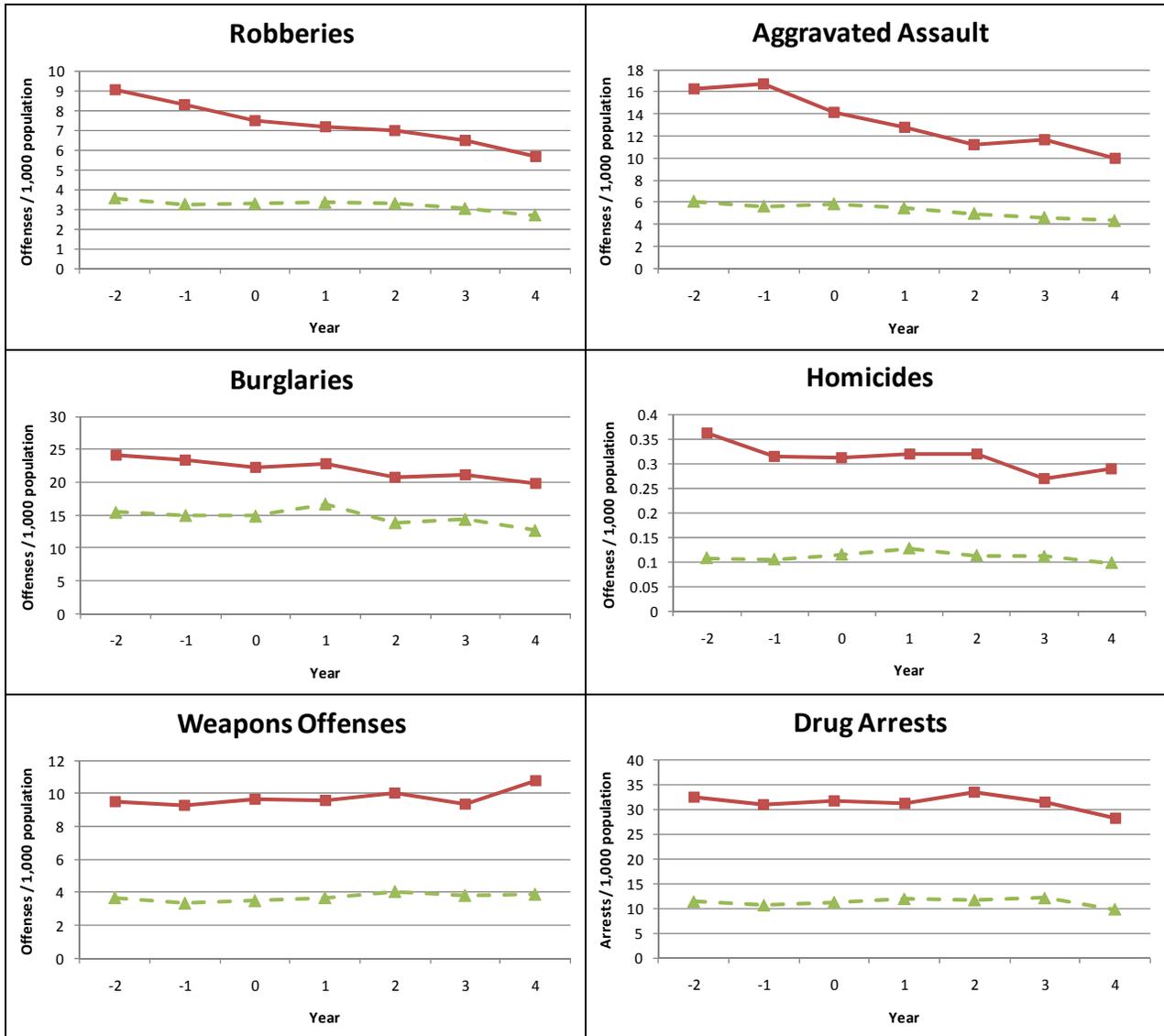
Legend: ■— Target   ▲-- Jurisdiction

Source: Grantee Government Performance and Results Act data.

For all crime types studied, crime rates were higher in W&S target areas than in the other parts of the jurisdictions. This pattern is not surprising, because W&S target areas are selected in part *because of* their higher crime rates. Indeed, this pattern suggests that the W&S programs were located in the appropriate areas.

Substantial decreases in rates of robbery, burglary, and aggravated assault were found, with larger decreases in W&S target areas than in the other parts of the jurisdictions.

We also computed a *difference score* for each crime, in each site, for each year (subtracting the jurisdiction crime rate from the target area crime rate). Difference scores were needed for later analyses exploring whether changes in crime rates were associated with aspects of W&S implementation. For the current discussion of changes in crime rates, analyzing difference scores produced another important finding: difference scores were significantly lower after W&S implementation than before implementation for burglary[8] in addition to robbery and aggravated assault. For all three of these crime types, the difference between target area and jurisdiction crime rates was smaller after W&S implementation than before W&S; that is, crime rates in target areas decreased relative to rates in jurisdictions.

Naturally, sites varied in how their crime rates changed. This type of variability is almost always found for any outcome in any evaluation. Of greatest interest is how an outcome changed *on average* for the intervention group (here, the target area) relative to the comparison group (here, the jurisdiction). However, variability among sites is also of interest, for two reasons. First, differential decreases in target areas compared with jurisdictions in robbery and aggravated assault rates were not found for all sites. Second, analyses exploring possible associations between outcomes and implementation require that both have some variability among sites. If all sites are identical or even very similar on either the outcome or the implementation measure, there can be no statistically significant association between implementation and outcome.

For this discussion of site variability in crime rates (and for use in subsequent analyses), it is useful to have a single metric that characterizes the differential improvement of a target area

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[8]In analyses discussed earlier, target areas and jurisdictions did not significantly differ in changes in burglary rates before and after W&S implementation, although there was a nonsignificant trend for rates to decrease more in target areas than in jurisdictions.

relative to its jurisdiction. Therefore, we estimated the line of best fit for the difference scores across the years with available data. The slope of this line of best fit for difference scores summarizes into a single number[9] a relatively large number of data points (14 data points, for example, if the site reported crime data for 7 years for the target areas and jurisdictions).

Figure 3-2 provides an example of one site's data points (the higher points for the target area, the lower points for the jurisdiction), difference scores (target rate minus jurisdiction rate, e.g., for the first year: 14.1 – 3.7 = 10.4), and a line of best fit for the difference scores (the red dashed line). The slope of this line (−0.34 in this example) summarizes the differential decrease in the target area versus the comparison area.

Figure 3-2. Example for One Site of Crime Rates in Target Area and Jurisdiction, Differences Between Those Rates, and Line of Best Fit for Those Differences

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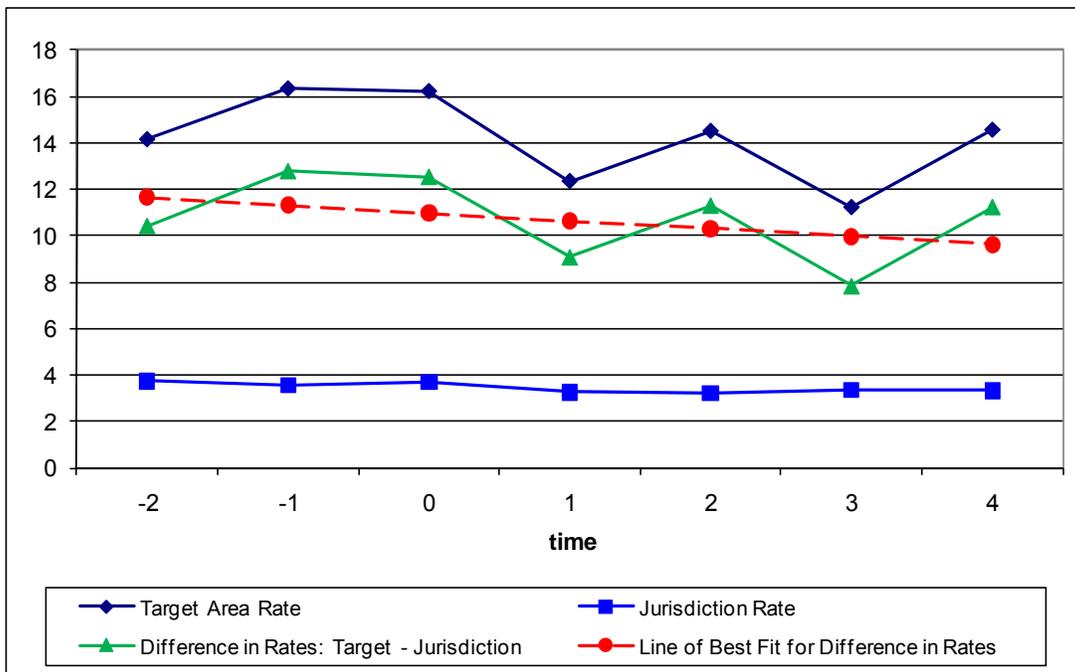
[9]The slope is less precise than the difference scores because the line of best fit does not fall exactly on the difference score points. This imprecision, which is reflected in analyses as error or noise, varies among sites depending on how close the points are to the line. Furthermore, difference scores do not reflect the underlying levels of the crime rates and therefore have less information than the original data on crime rates. Because we are most interested in how crime changed in target areas compared with their respective jurisdictions, the use of difference scores is appropriate and useful. (Note that our initial analyses of changes in crime rates used the original data, not difference scores, with similar results.)

Relative to this example site (which we chose because it is near the median for slopes for aggravated assault difference scores), sites in which the target area improved to a greater degree than the jurisdiction would have slopes with larger negative absolute values (e.g., −0.45). Sites in which the target area improved more than the jurisdiction but to a lesser degree than this example site would have slopes with smaller negative absolute values (e.g., −0.25). Sites in which the comparison area improved more than the target area would have a positive slope.

A similar graph could be created for each of the approximately 200 sites in these analyses, but for our purposes examination of the distribution of slopes will suffice. **Table 3-1** summarizes the distribution of the difference score slopes for robbery, aggravated assault, and burglary.[10]

Table 3-1. Distribution of Slopes for Lines of Best Fit for Difference Scores of Crime Rates

Percentile	Robbery	Aggravated Assault	Burglary
1st	−8.94	−20.62	−5.63
25th	−0.41	−0.91	−0.67
50th (median)	−0.06	−0.32	−0.49
75th	0.17	0.08	−0.27
99th	2.96	3.58	1.72

In more than half the sites, robbery and aggravated assault rates decreased more in the target area than in the jurisdiction. For burglary, the target area improved more than the jurisdiction in almost 90% of the sites.

These distributions of slopes convey several points. First, in more than half the sites, robbery and aggravated assault rates decreased more in the target area than in the jurisdiction, as shown by negative slopes at the median (which divides sites into two groups of equal sizes). For robberies, 60% of sites (121 sites) had negative slopes and 40% (81 sites) had positive slopes, although not all would be considered significantly different from zero (i.e., relatively flat slopes reflect no significant change). For aggravated assault, 72% of sites (147 sites) had negative slopes and 28% (55 sites) had positive slopes. For burglary, the target area improved more than the jurisdiction in almost 90% of the sites.

Second, there is variability among sites, with sites distributed across a range of slopes.

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[10]Extreme values beyond the 1st or 99th percentiles are not shown.

Third, most sites had slopes that were relatively modest: slopes were between −1 and 1 for 178 sites (88% of sites) for robbery and for 147 sites (72% of sites) for aggravated assaults. For both crime types, twice as many sites had relatively large negative slopes (−1 or less)—showing greater improvement in the target area than in the jurisdiction—as had large positive slopes (1 or greater): for robbery, 17 sites and 8 sites, respectively; for aggravated assault, 37 sites and 19 sites, respectively. For burglary, 21 sites (10%) had slopes steeper than −1, and only about 1% had large positive slopes.

In summary, two main points can be made regarding crime statistics in W&S sites.

- Robbery, aggravated assault, and burglary rates in target areas decreased relative to rates in jurisdictions.
- Sites varied in sizes of differential decreases (in target areas compared with jurisdictions) and crime types for which differential decreases were found.

Later in this chapter, we will explore the extent to which decreases in crime rates were associated with W&S implementation.

3.1.2 Stakeholder Perceptions

Because not all the aspects of neighborhoods that W&S is intended to improve are reflected in crime statistics, we asked stakeholders about their perceptions of 24 problems. In the Target Area Problems survey module, stakeholders were first asked how much of a problem various topics were in the target area when W&S began there. Later in the survey, respondents were presented the same topics and asked how much of a problem they were at the time of the survey. (The amount of time that had elapsed between these two points varied depending on how long the site had been in operation.) For each topic and time reference, responses from different stakeholders within each site were averaged.

Stakeholders reported substantial decreases in the severity of problems, especially for problems directly related to crime.

Stakeholders reported substantial decreases in the severity of problems,[11] especially for problems directly related to crime (**Figure 3-3**). In particular, before W&S the average ratings for drug sales and fear of crime were each closest to the response indicating a major problem (3.8 and 3.6, respectively); at the time of the survey the average ratings were closest to the response indicating a moderate problem (3.0 and 2.9, respectively). Ratings also improved for all other crime-related problems, to varying degrees.

Figure 3-3. Stakeholder Perceptions of Crime Problems
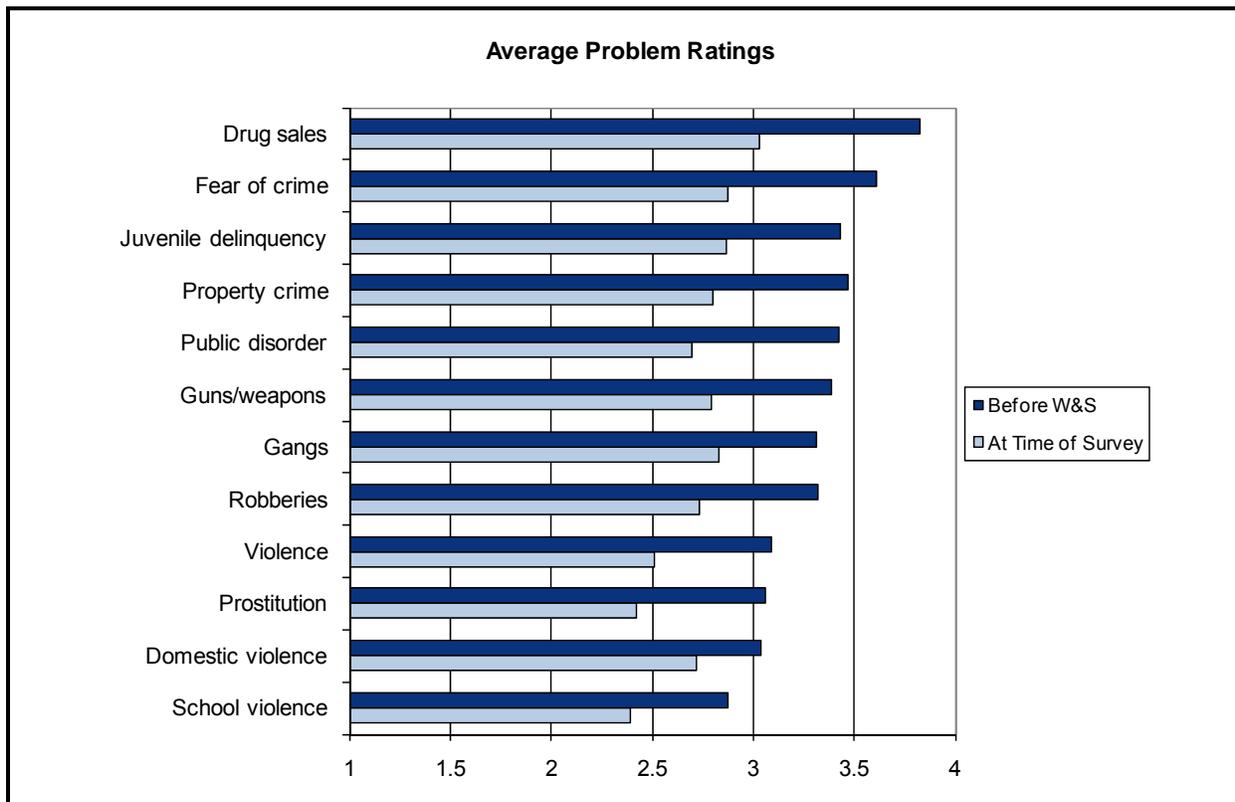
Source: Stakeholder Survey, Target Area Problems module.

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[11]Responses were coded such that higher scores reflect more of a problem: 1=not a problem, 2= minor problem, 3=moderate problem, 4=major problem.

Stakeholder perceptions of problems less directly related to crime, but still of interest to many W&S grantees—such as substance abuse, unemployment, and offender reentry—also improved.

Perceptions of problems less directly related to crime, but still of interest to many W&S grantees—such as substance abuse, unemployment, and offender reentry—also improved (**Figure 3-4**). Improvements were particularly noteworthy in the areas of poor police-community relations, little resident participation in activities to improve the community, and lack of services for residents. Less improvement was reported on unemployment, poverty, lack of education, and lack of affordable housing.

Perceptions of problems by stakeholders are not objective, externally validated, or necessarily unbiased accounts of the situation in target areas. However, they do provide an informed perspective that is a useful supplement to other data sources.

Figure 3-4. Stakeholder Perceptions of Other Problems
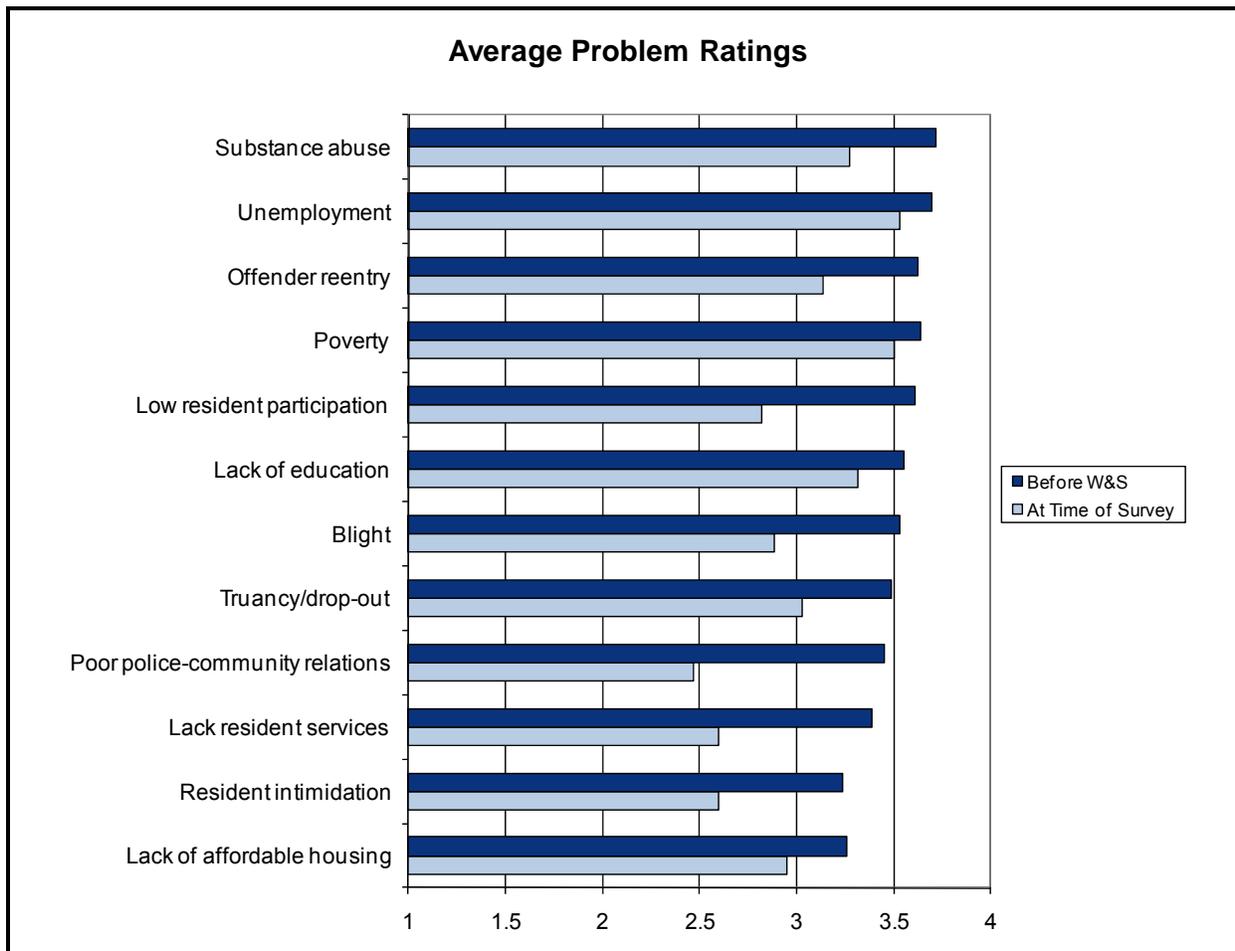
Source: Stakeholder Survey, Target Area Problems module.

3.1.3 Resident Perceptions

In the 13 sentinel sites in which resident surveys were conducted, analyses compared perceptions of residents in target areas with those of residents in comparison areas. Initial analyses included all 13 sentinel sites, with residents nested within site. These analyses did not reveal statistically significant differences between target areas and comparison areas. Sample results are summarized for resident ratings of the severity of various problems (**Figure 3-5)**, satisfaction with services in the neighborhood (**Figure 3-6**), and perceptions of how good a job the police are doing in the neighborhood (**Figure 3-7**).

Figure 3-5.   Ratings of Problem Severity
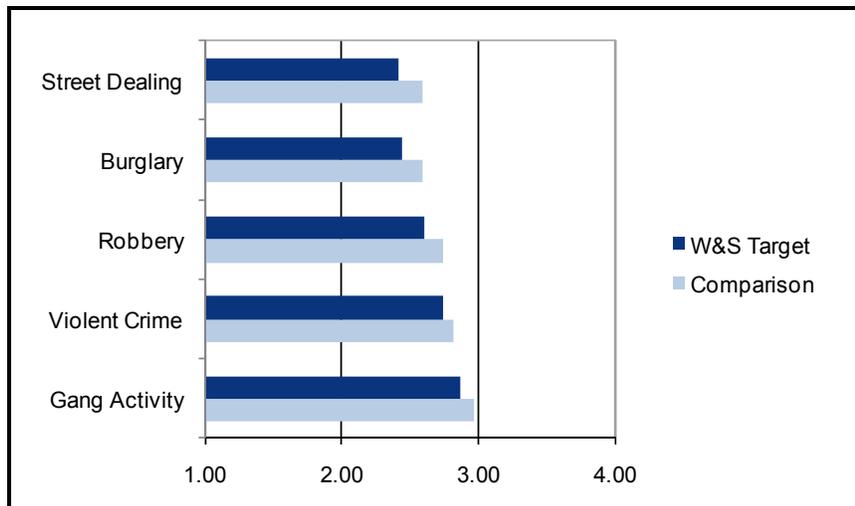
Note. Higher scores reflect less of a problem (1, major problem; 2, somewhat of a problem; 3, small problem; 4, not a problem). Source: Resident Survey.

Figure 3-6. Satisfaction with Neighborhood Sources
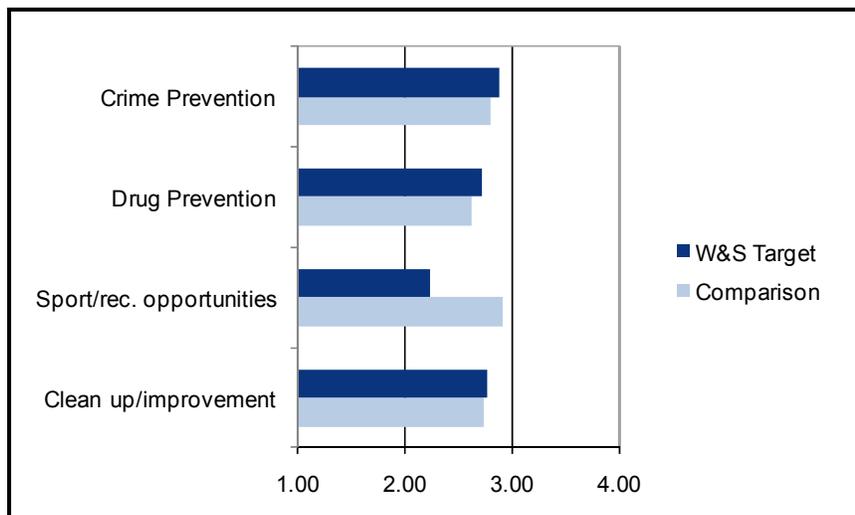
Note. Higher scores reflect greater satisfaction (1, very dissatisfied; 2, somewhat dissatisfied; 3, somewhat satisfied; 4, very satisfied). Source: Resident Survey.

3-9

Figure 3-7.   How Good a Job Police Are Doing
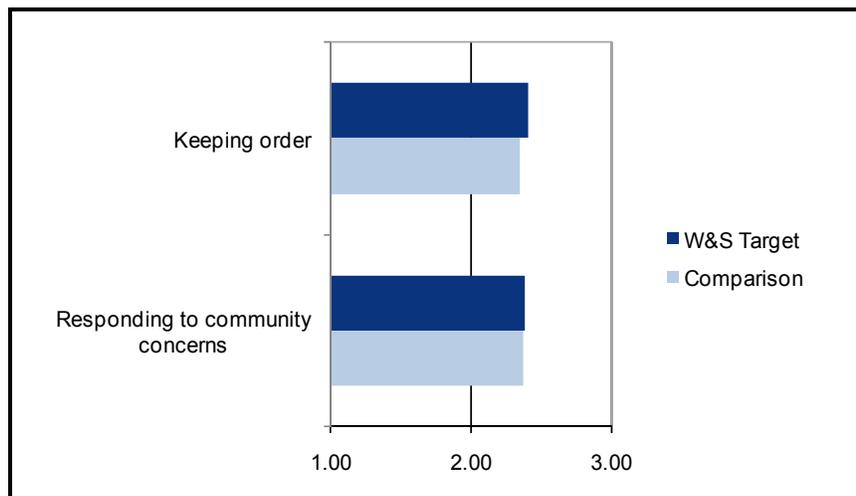
Note. Higher scores reflect more favorable perceptions (1, poor; 2, fair; 3, good). Source: Resident Survey.

A second set of analyses compared target area residents with comparison area residents for each site separately (i.e., on a site-by-site basis). These analyses did identify statistically significant differences, as summarized in the following exhibits.

For each outcome in each site, results are summarized as follows:

- A plus sign (+) indicates that the outcome was seen as better in the target area than in the comparison area.

- A minus sign (−) indicates that the outcome was seen as worse in the target area than in the comparison area.

- No sign (an empty cell) indicates that no significant difference was seen between the target area and comparison area.

Crime problems were more often rated worse in the target area than in the comparison areas. **Table 3-2** summarizes results for resident perceptions of the severity of crime problems, including drug dealers in public places, burglary and other property crime, robbery and other street crime, violent crime (such as shootings, muggings, or assaults), and gang activity. The fact that crime problems were rated worse in target areas is not surprising, for two reasons. First, W&S grants are often, by design, located in areas with high crime. [12] Second, we experienced challenges in identifying well-matched comparison areas, which we will discuss in Chapter 4.

Table 3-2. Favorability of Resident Perceptions of Crime Problems in W&S Areas and Comparison Areas

Site	How Much of a Problem Is					Favors W&S area	Favors comparison area
	Street dealing	Burglary	Robbery	Violent crime	Gang activity		
1			+			1	0
2	+			+		2	0
3	–	–	–	–	–	0	5
4			–	–		0	2
5	–	–		–		0	3
6		+	+	+		3	0
7	–	–	–	–	–	0	5
8	+			+	+	3	0
9				+		1	0
10	–	–	–	–	–	0	5
11	–	–	–	–	–	0	5
12		–	–			0	2
13						0	0
Favors W&S area	2	1	2	4	1	10	
Favors comparison area	5	6	6	6	4		27
No difference	6	6	5	3	8		

Source: Resident Survey.

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[12] As discussed above, crime rates were higher in W&S target areas than in the other parts of the jurisdictions. It should be noted, however, that the resident survey comparison areas are not equivalent to those jurisdictions.

Sentinel sites differed greatly in the extent to which crime was seen as worse in the target or comparison area.

It is important to note that sentinel sites differed greatly in the extent to which crime was seen as worse in the target or comparison area. In four sites, all of the crime problems shown in Table 3-2 were seen as worse in the target area than in the comparison area. In three other sites, several crime types were seen as worse in the comparison area than in the target area, with no crime types seen as worse in the target area. Later in this chapter, we explore whether sentinel site differences in implementation help to explain these differences in resident perceptions of problems.

Target area residents were slightly more positive in their perceptions of the neighborhood as a place where people help each other or seek needed services. They also were more likely to report that they or a family member were active in the community (**Table 3-3**). These types of efforts to improve the community are sometimes dampened in neighborhoods with high crime, so the findings that these efforts are more common in some target areas than in their comparison areas is a somewhat favorable result.

Table 3-3. Favorability of Resident Perceptions of Efforts to Improve the Neighborhood in W&S Areas and Comparison Areas

Site	Efforts to improve neighborhood			Favors W&S area	Favors comparison area
	People help each other	People seek needed services	Respondent or family active in community		
1		–		0	1
2			+	1	0
3		–		0	1
4	+	–		1	1
5		+		1	0
6	–			0	1
7				0	0
8				0	0
9				0	0
10		+		1	0
11				0	0
12			+	1	0
13		+		1	0
Favors W&S area	1	3	2	6	
Favors comparison area	1	3	0		4
No difference	11	7	11		

Source: Resident Survey.

Target area residents were more positive than comparison area residents about the kinds of activities and programs that W&S initiatives typically support.

Target area residents were more positive about the kinds of activities and programs that W&S initiatives typically support. **Table 3-4** summarizes results for resident satisfaction with services and activities in the neighborhood, including crime prevention programs or activities; programs to reduce drug use; sports, recreational, and other programs for youth; and neighborhood cleanup or improvement activities.

Table 3-4. Favorability of Resident Satisfaction with Neighborhood Activities in W&S Areas and Comparison Areas

Site	Satisfaction with….				Favors W&S area	Favors comparison area
	Crime prevention	Drug prevention	Sports/rec. opportunities	Clean-ups		
1	+			+	2	0
2	+	+	+	+	4	0
3	–	–	–	–	0	4
4	–				0	1
5					0	0
6					0	0
7			–	–	0	2
8		+			1	0
9		–			0	1
10	+	+	+	+	4	0
11					0	0
12					0	0
13	+	+			2	0
Favors W&S area	4	4	2	3	13	
Favors comparison area	2	2	2	2		8
No difference	7	7	9	8		

Source: Resident Survey.

Despite higher satisfaction with activities and programs, target area residents viewed some aspects of police performance less favorably than did comparison area residents (**Table 3-5**). In six sites, target area residents reported more of a problem than comparison area residents regarding "police stopping too many people on the streets without good reason." In three sites, target area residents reported more of a problem than comparison area residents regarding excessive use of force by police. In no sites did comparison area residents report more of a problem than target area residents in either regard. Target and comparison area residents were more balanced regarding how good a job police were doing regarding keeping order and responding to community concerns. In many sites, target and comparison area residents differed in reporting seeing police in the community: in five sites police were seen more often in the comparison area, whereas in four sites they were seen more often in the target area.

Table 3-5. Favorability of Resident Perceptions of Police in W&S Areas and Comparison Areas

Number	How much of a problem is...?		How good a job are police doing...?		In the past month, have you seen...?			
	Too many stops	Excessive force	Keeping order	Responding to community concerns	Police in community	Police chatting w/people	Favors W&S area	Favors comparison area
1	–				+		1	1
2			+	+	–	–	2	2
3	–		–	–	+		1	3
4		–					0	1
5							0	0
6						–	0	1
7	–		–	–	–		0	4
8	–		+	+		–	2	2
9					+		1	0
10	–	–			–	–	0	4
11	–	–			+	+	2	2
12					–	–	0	2
13						–	0	1
Favors W&S area	0	0	2	2	4	1	9	
Favors comparison area	6	3	2	2	5	5		23
No difference	7	10	9	9	4	7		

Source: Resident Survey.

Residents were also asked whether they felt that the neighborhood had become a better place to live, become a worse place to live, or stayed the same. In two sites, in which perceptions of *all* of the crime problems favored the comparison areas, the results favored the comparison area over the target area. Conversely, in three sites the results favored the target area over the comparison area. These sites were not the ones in which perceptions of crime favored the target areas; rather, two of the three sites were among the sites where satisfaction with services favored the target area.

This evaluation was designed to study the national W&S strategy across many sites, to be able to make conclusions and recommendations broadly. Therefore, this discussion of outcomes has focused mainly on averages across sites—though less so for the 13 sentinel sites for which site-by-site analyses are an appropriate and useful complement. This focus on averages obscures the fact that sites varied substantially on most of these outcomes. After we discuss local implementation of W&S (immediately following), we will present an example of site variability in the context of crime statistics. We will then present results of analyses that use this site variability in outcomes to explore what aspects of local initiatives were associated with better outcomes.

3.2 IMPLEMENTATION

This section describes local implementation of W&S, including

- partnership structure, leadership, and functioning;

- collaboration among partners and its effectiveness in helping to achieve objectives; and

- target area problems and partnership responses.

We also explore how certain aspects of implementation influence other aspects, for example, whether partnership structure or composition was associated with ratings of partnership functioning, and whether there was alignment between problems existing before W&S and how much the local initiative focused on them.

3.2.1 Partnership Structure, Leadership, and Functioning

To understand local implementation of W&S, it is important to know how—and how well—the grant is administered, the

sectors of the community that participate, and the groups that provide leadership and influence the focus of the local initiative.

Partnership Composition

W&S grantees were most commonly located in city or county agencies or nonprofit agencies.

W&S grantees were most commonly located in city or county agencies; nonprofit agencies were another common location (**Figure 3-8**). As noted in several places below, the type of agency overseeing the grant had little effect on various aspects of implementation.

Figure 3-8. Percentage of Grantees by Type of Agency
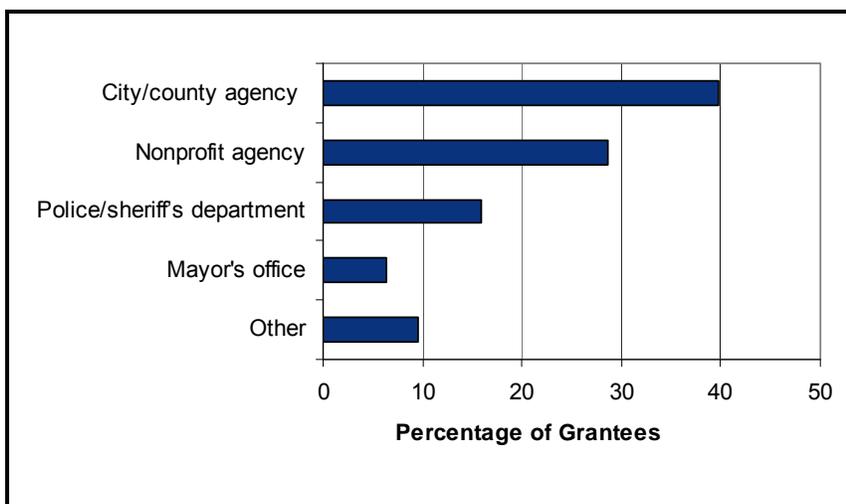
Source: Stakeholder Survey, Site Coordinator module.

Partnerships typically included representation from numerous sectors of the community: more than 60% of sites reported involvement by at least 18 of the 20 sectors queried.

Partnerships typically included representation from numerous sectors of the community: more than 60% of site coordinators reported involvement by at least 18 of the 20 sectors queried. Police departments, residents, U.S. Attorneys' offices (USAOs), and community organizations were involved in nearly all partnerships (**Figure 3-9**). The vast majority of partnerships included representatives from many other sectors, including faith-based groups, nonprofits or civic/service agencies, schools, city or county agencies, and other federal law enforcement agencies. In terms of W&S components, almost all site coordinators reported involvement by law enforcement (including community policing, which could not be differentiated in this question), neighborhood revitalization, and target area residents; more than 90% of site coordinators reported involvement by prevention, intervention, and treatment (PIT).

Figure 3-9. Percentage of Partnerships with Participating Community Sectors
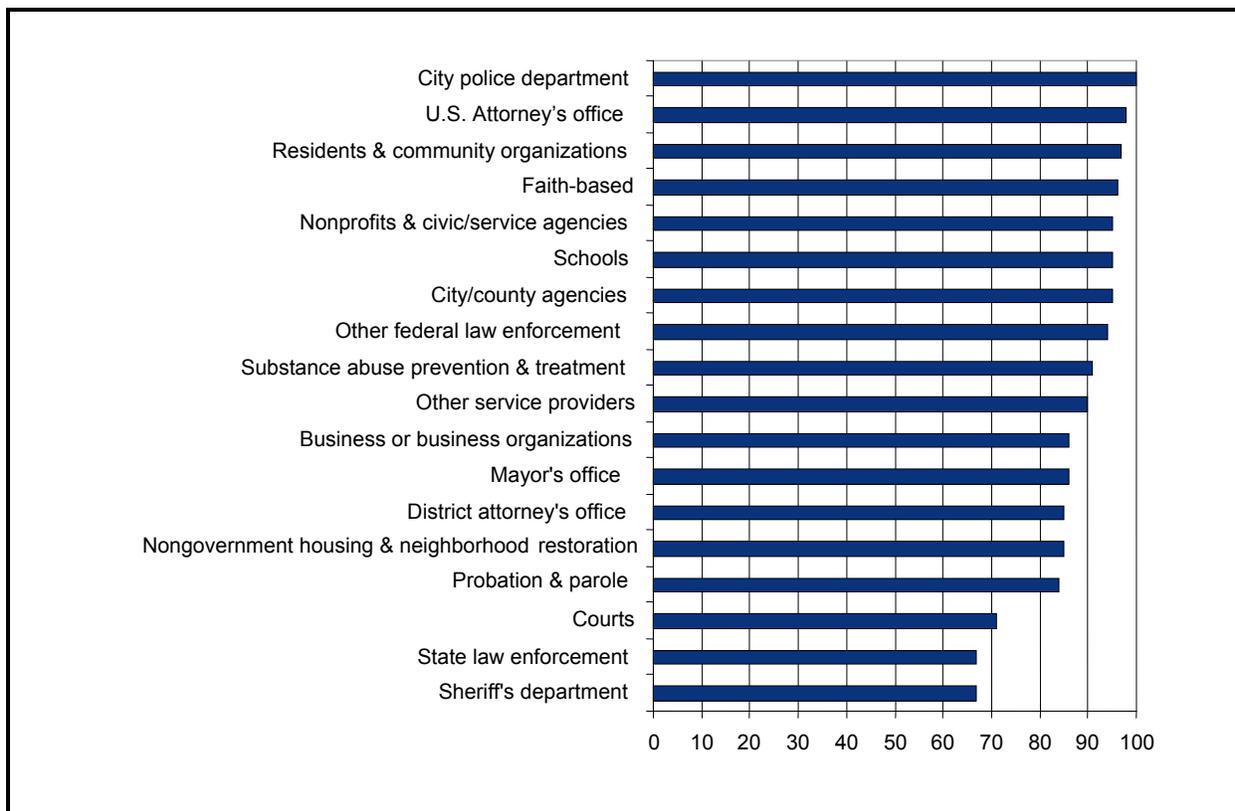
Source: Stakeholder Survey, Site Coordinator module.

Numerous sectors of the community were represented on W&S steering committees.

Numerous sectors of the community were represented on W&S steering committees: nearly half of site coordinators reported that at least 13 of the 20 sectors queried were represented on the steering committee. Residents, city police departments, and USAOs were represented on nearly all steering committees (**Figure 3-10**). Other sectors, such as community organizations, other federal law enforcement, and faith-based groups, were also well represented on the committees.

Figure 3-10. Percentage of Steering Committees with Specific Community Sectors Represented
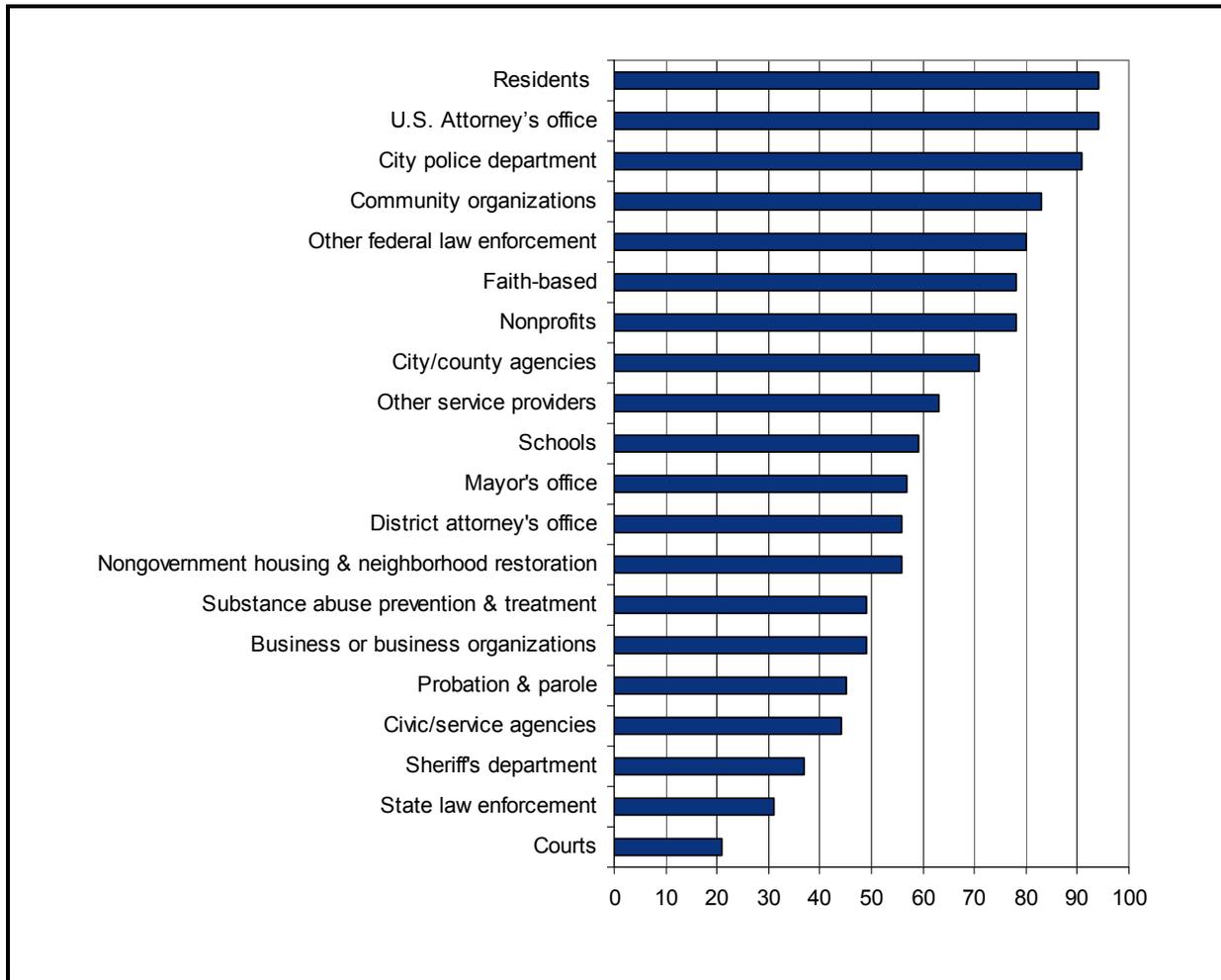
Source: Stakeholder Survey, Site Coordinator module.

The variety of backgrounds among W&S partners is reflected in the many types of agencies and organizations represented by respondents in the Web-based stakeholder survey (**Figure 3-11**). Among the 1,353 stakeholder survey respondents, each of the following groups was represented by more than 100 respondents: nonprofits, police departments, city or county agencies, and neighborhood or community organizations. In addition, survey respondents represented 17 other types of agencies or organizations.

Figure 3-11. Number of Stakeholder Survey Respondents from Each Type of Agency or Organization
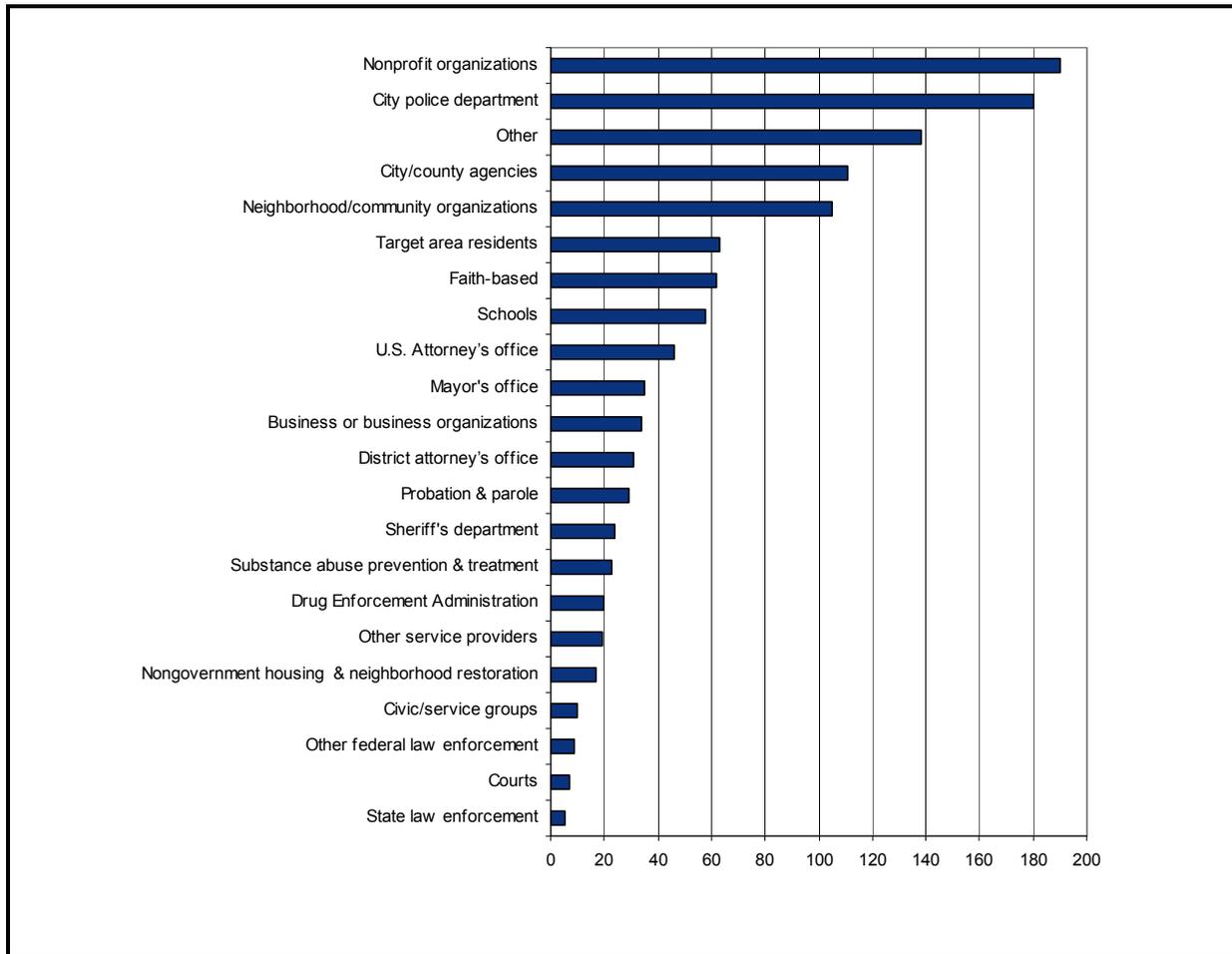
Source: Stakeholder Survey, Introduction module.

Sites reported that a variety of groups provided leadership, the most commonly named group being the police or sheriff's department.

Leadership

In the Local Initiative Focus survey module, stakeholders were asked which groups provided leadership and which influenced the partnership's focus. On occasion, stakeholders within a site disagreed as to whether a particular agency provided leadership. If at least half of the respondents within a site indicated that the agency provided leadership, then we considered that group to have provided leadership. Sites reported that a variety of groups provided leadership, the most commonly named group being the police or sheriff's department (in more than 90% of sites; **Figure 3-12**). Other groups commonly named as providing leadership were residents or community leaders, nonprofit organizations, the grantee organization, and the USAO.

Figure 3-12. Percentage of Sites with Leadership Provided by Groups and Agencies
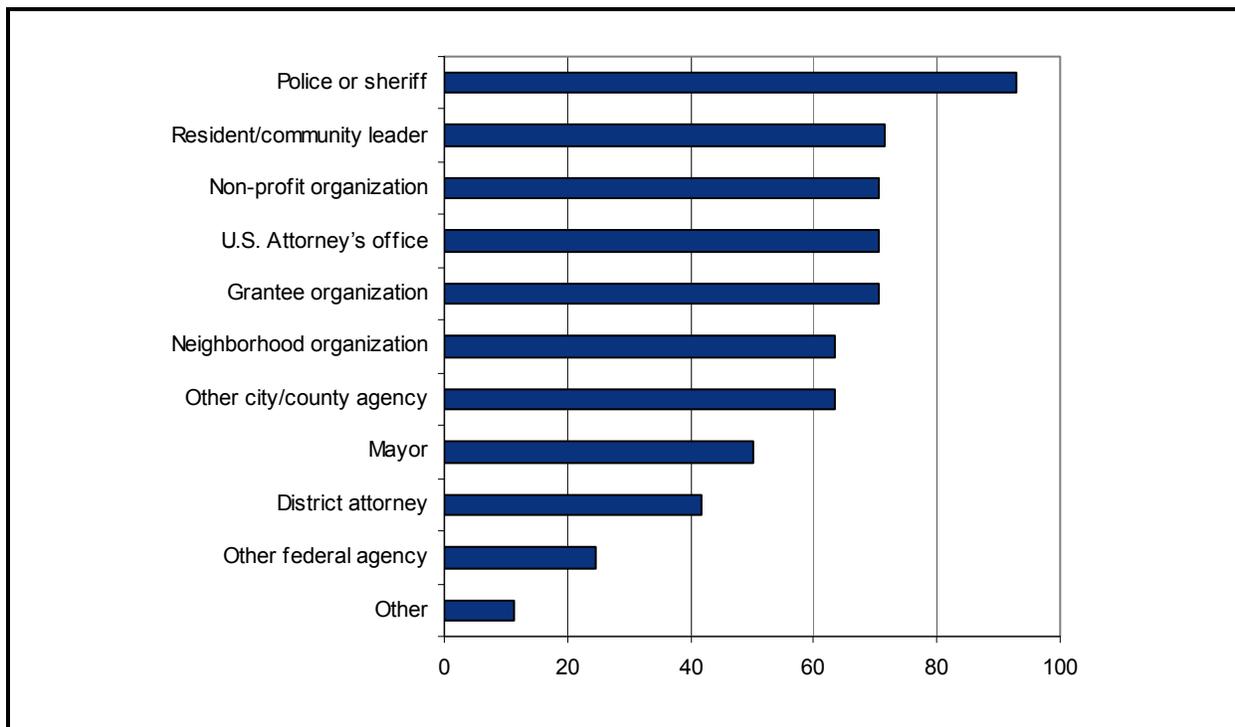
Source: Stakeholder Survey, Partnership Functioning module.

On average, sites reported that 6 agencies or organizations provided leadership, of 10 that were asked about.

Respondents reported that, on average, five groups were a major influence, reflecting the inclusivity and breadth of W&S partnerships.

Stakeholders were also asked how much each of 9 groups influenced the partnership's focus. **Figure 3-13** shows the percentage of respondents who said each group was a major influence in setting their partnership's focus. Local law enforcement and the steering committee were named as major influences by more than four-fifths of respondents, whereas three-fifths said community-based groups, site coordinators, and residents or grassroots groups were major influences. Respondents reported that, on average, five groups were a major influence, reflecting the inclusivity and breadth of the partnerships.

Figure 3-13. Percentage of Respondents Calling Groups a Major Influence on Focus

Groups Called "Major Influence" on Focus

Group	
Local law enforcement	
Steering committee	
Community-based groups	
Site coordinator	
Residents or grassroots groups	
Other local gov't officials	
U.S. Attorney's office	
Faith-based groups	
City, county, or state agencies	

Percentage of Respondents
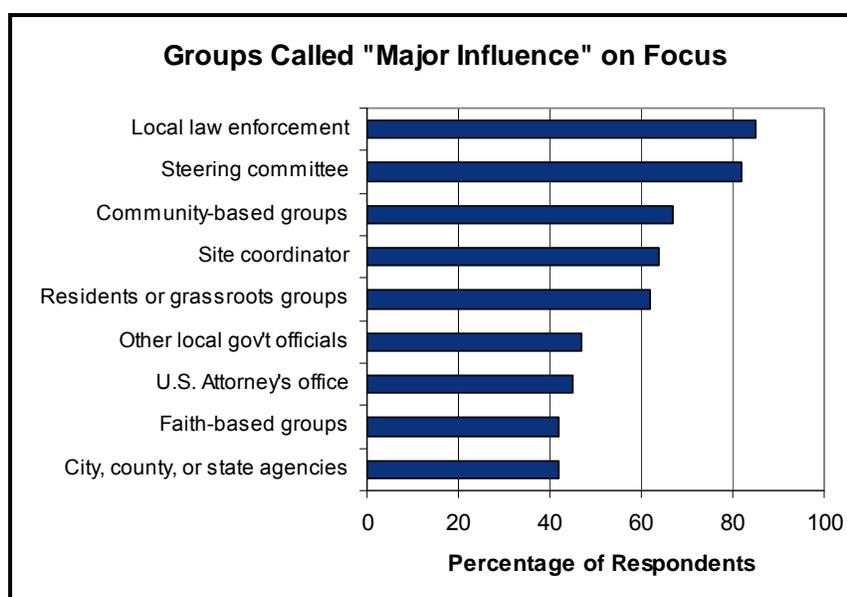
Source: Stakeholder Survey, Local Initiative Focus module.

The ratings of W&S leadership and administration were very favorable, with 79–90% of respondents giving a rating of Good or Excellent on each dimension.

In the Partnership Functioning survey module, stakeholders were asked to rate the effectiveness of the partnership leadership and administration on six dimensions each. Leadership effectiveness was rated on dimensions such as communicating the partnership vision, fostering respect, and resolving conflicts. Administration was rated on dimensions such as coordinating communication, organizing activities, and ensuring that plans were completed. The ratings were very favorable, with 79–90% of respondents giving a rating of good or excellent on each dimension.

3-21

Partnership Functioning

Stakeholders were also asked to rate partnership functioning on elements that previous research on W&S and similar initiatives suggested might impede or facilitate implementation. We used factor analysis to determine whether and how items were responded to in similar patterns, suggesting underlying factors. Results indicated that the 38 items fell into 3 factors, which we labeled (1) Resident Involvement, (2) Strategies and Resources, and (3) Avoiding Bad Approaches (**Figure 3-14**).[13]

Figure 3-14. Elements in 3 Factors of Partnership Functioning

Factor 1: Resident Involvement	Factor 2: Strategies and Resources	Factor 3: Avoiding Bad Approaches
■ Empowered community residents and groups to solve neighborhood problems ■ Mobilized community residents and groups to take action ■ Successfully gained the trust of residents ■ Helped create more trust between residents and law enforcement ■ Residents participated in community policing activities ■ Residents were supportive of weeding efforts ■ Residents were sufficiently involved in weeding activities ■ Residents were sufficiently involved in seeding activities	■ Improved match between services and community needs ■ Tapped into federal, state, or local government funding ■ Obtained foundation or corporate support ■ Used good mix of law enforcement; community policing; prevention, intervention, and treatment; and neighborhood restoration ■ Made good use of technical assistance and training provided by the Community Capacity Development Office ■ Implemented targeted approaches and strategies as planned ■ Effectively overcame obstacles or setbacks ■ Fostered coordination across sectors ■ Enabled key members such as police and probation to share information ■ Fostered coordination between different levels of government ■ Included members from all necessary or relevant agencies or sectors ■ Had clear criteria on how resources would be allocated ■ Initiative goals and strategies were well focused ■ Project coordinator had sufficient time to manage ■ Steering committee and subcommittee had a common vision ■ Initiative effectively used preexisting community capabilities and assets	■ Undercut by turf battles or infighting ■ Insufficient involvement from agency leaders ■ Used too much of a top down approach ■ Used too much of a bottom up approach ■ Placed too much emphasis on weeding activities and components ■ Placed too much emphasis on seeding activities ■ Tried to cover too large an area ■ Was overly dominated by criminal justice representatives ■ Steering committee and subcommittee were too dominated by agency officials ■ Steering committee and subcommittee lacked participation by officials ■ Staff turnover limited effectiveness of initiative activities

Source: Stakeholder Survey, Partnership Functioning module.

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[13]The Avoiding Bad Approaches factor was not caused by these items' having negative wording; we reversed scoring on all items that were worded negatively so that for all items higher scores were more favorable.

Item responses were scored from 1 (strongly disagree with positive statements) to 4 (strongly agree with positive statements). For each scale we calculated a site average scale by averaging across items for each respondent and then across respondents in the site. Responses were favorable, with average scores of 3.23 for the Resident Involvement factor, 3.32 for the Strategies and Resources factor, and 3.20 for the Avoiding Bad Approaches factor. We will refer to these scales in later discussions of factors affecting outcomes.

We assessed whether aspects of partnership structure or composition were associated with ratings of partnership functioning on each of these three factors. There were some associations between leadership and functioning. First, sites where neighborhood organizations provided leadership had higher ratings on the Residential Involvement factor and the Avoiding Bad Approaches factor. Second, sites with more groups providing leadership had higher (better) ratings on the Avoiding Bad Approaches factor.

Sites where neighborhood organizations provided leadership had higher ratings on the Residential Involvement factor and the Avoiding Bad Approaches factor.

In addition, characteristics of groups influencing the partnership's focus were widely associated with stakeholder perceptions of how well the partnership functioned. First, sites in which more groups had a major influence on focus had higher ratings on all three of the partnership functioning factors. Also, sites in which community-based organizations influenced the focus had higher ratings on each of the functioning factors. Furthermore, the influence on focus by a few other groups was associated with a single aspect of partnership functioning. For example, sites in which the USAO had more influence on focus had higher ratings on the Avoiding Bad Approaches factor but not on the Resident Involvement or the Strategies and Resources factors.

3.2.2 Collaboration

Because collaboration is a key principle of the W&S strategy, we assessed it and its effects in detail. We asked stakeholders how frequently they collaborated with various W&S partners and how effective the collaborations were in helping the partnership achieve its objectives.

Frequency of Collaboration

In the Collaboration survey module, stakeholders were asked how frequently they collaborated on activities in each of the four core domains with seven types of W&S partners: (1) state

or federal law enforcement or prosecution; (2) local law enforcement or prosecution; (3) officers dedicated to community policing; (4) prevention or treatment service providers; (5) housing or neighborhood revitalization groups; (6) economic, business, or employment development agencies; or (7) target area residents. The instructions specified that the questions were about their personal participation (not their organization more broadly) in collaborative activities, working together for a common purpose. They were first asked about collaboration *before* W&S, for all 28 combinations of partner and domain. Then they were asked about collaboration *since* W&S. **Figure 3-15** presents the percentage of respondents reporting that they frequently (as opposed to occasionally or never/rarely) collaborated in each combination of partner and domain, before and since W&S.

Figure 3-15. Percentage of Respondents Frequently Collaborating with Partners, Before and Since Weed and Seed

Respondents Collaborating "Frequently" with Partners, Before and After Weed & Seed
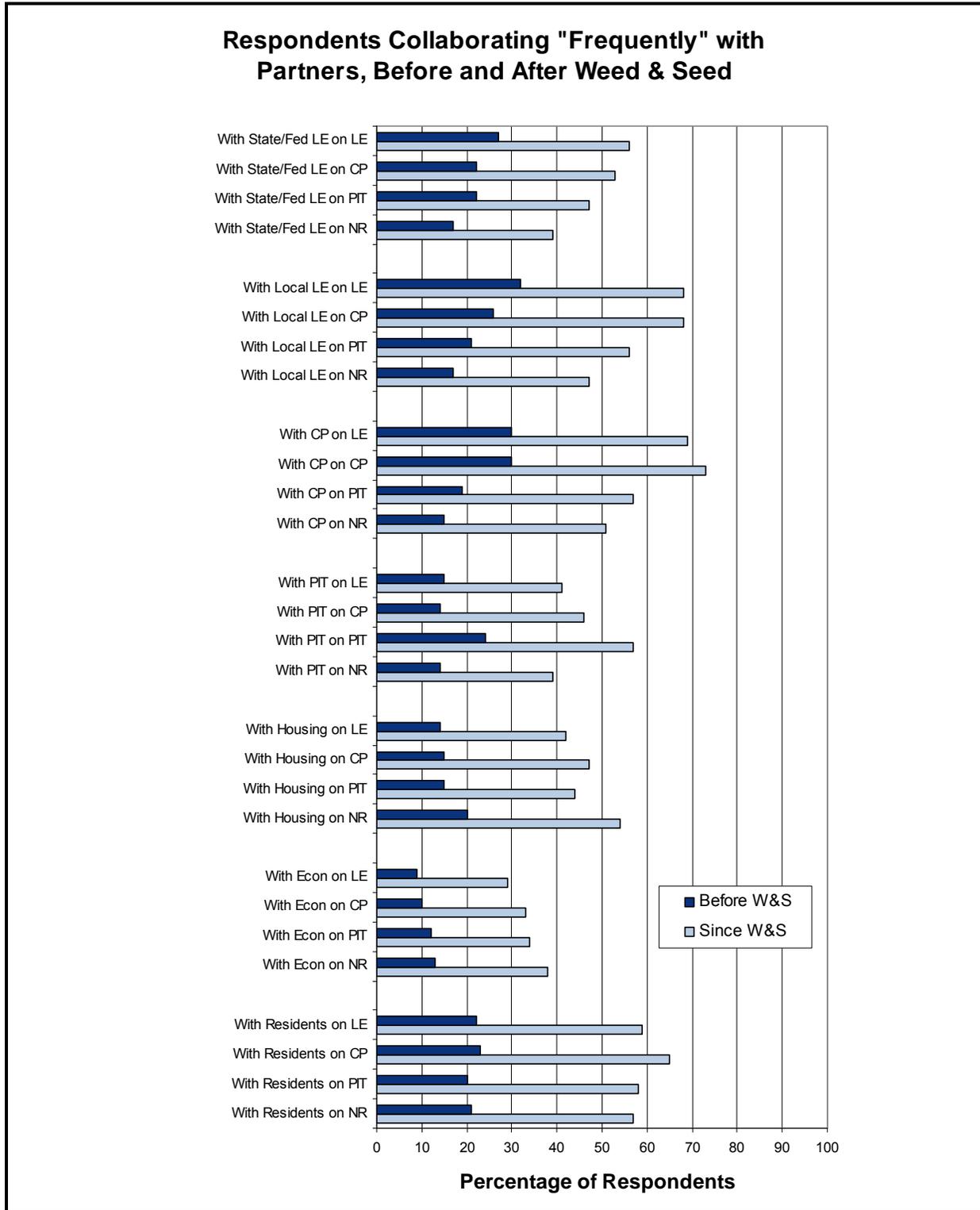
LE = law enforcement; CP = community policing; PIT = prevention, intervention, and treatment; and NR = neighborhood revitalization.

Source: Stakeholder Survey, Collaboration module.

3-25

Stakeholders reported substantial increases in collaboration; the five largest increases involved community policing, reinforcing its importance to the W&S strategy.

The most striking result is the substantial increase in the percentage of respondents reporting frequent collaboration. For every partner-domain combination, the percentage at least doubled and sometimes tripled. Although increases in frequent collaboration were seen for all partner-domain combinations, the five largest increases involved community policing, reinforcing its importance to the W&S strategy. Sizable increases were also reported with other law enforcement partners—including not only local law enforcement but also federal or state. Frequent collaboration with target area residents also increased dramatically, increasing by a factor of between 2.7 and 2.9 (i.e., almost tripling).

In short, these results strongly support increased collaboration among partners after local implementation of W&S, at least as reported by stakeholders.

Collaboration Effectiveness

Stakeholders were also asked how effective their collaborations with the seven types of W&S partners were in helping the local initiative achieve the intended outcomes. Item responses were scored from 1 (*not effective*) to 3 (*very effective*). Responses were favorable, with average effectiveness scores ranging from 2.3 for economic, business, or employment development agencies to 2.8 for police officers dedicated to community policing (**Figure 3-16**).

Figure 3-16. Stakeholder Ratings of Effectiveness of Collaboration with Partners in Weed and Seed Components
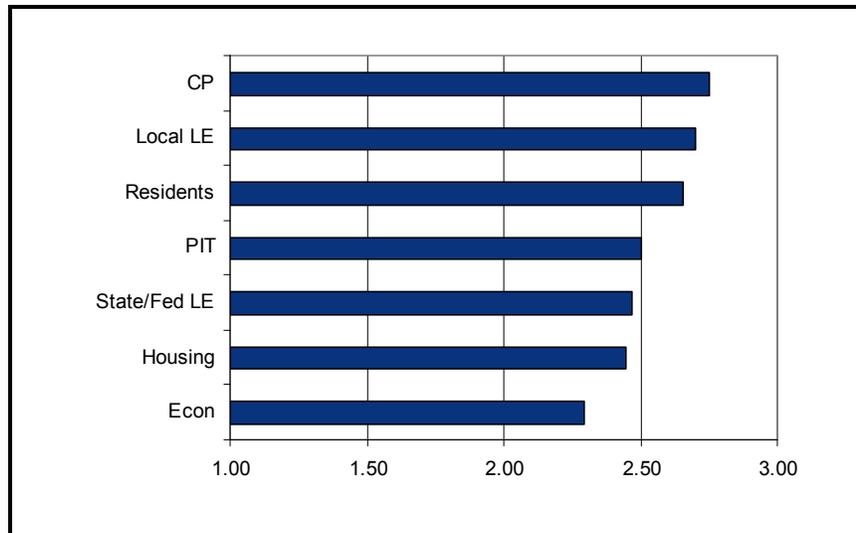
CP = community policing; LE = law enforcement; and PIT = prevention, intervention, and treatment.

Source: Stakeholder Survey, Collaboration module.

3.2.3 Identified Problems and Responses

We analyzed stakeholder reports of the type and extent of problems in the target area before the initiative began and the extent to which they were also a focus of the initiative when it began. We also analyzed strategies or activities used in each W&S component to address the problems.

Initial problems, focus, and alignment

Earlier, we presented stakeholder perceptions of the severity of problems in the target area, both before local W&S implementation and at the time of the survey. In the stakeholder survey Partnership Focus module, we asked to what extent these 24 problems were a focus of the initiative when it began. For each problem, we calculated a site average focus rating by averaging these items across respondents in the site. Item responses were scored from 1 (*not a focus*) to 4 (*major focus*). Some problems were seen, on average across sites, as more of a focus, with focus scores ranging from 2.6 for domestic violence or child abuse to 3.8 for drug sales. In addition, for any particular problem, sites varied in how much they focused on it.

We used this variability to assess alignment between (1) the seriousness of problems before W&S, and (2) how much the local initiative focused on each problem. Data on problems came from the Target Area Problems survey module, and data on focus came from the Local Initiative Focus module. Therefore, these analyses were conducted on data aggregated to sites, not on data from individual respondents, which provided a better test of alignment than if we had looked at the extent to which an individual respondent gave similar ratings of problems and focus.

For example, **Figure 3-17** shows the average level of focus on robbery as a problem for sites in 3 groups. Sites in which all respondents initially said robbery was a major problem reported a higher level of focus on robbery than sites in which some respondents said that; the latter sites reported a higher level of focus than sites in which no respondents said that robbery was a major problem.

Figure 3-17. Example of Alignment of Partnership Focus and Initial Problem
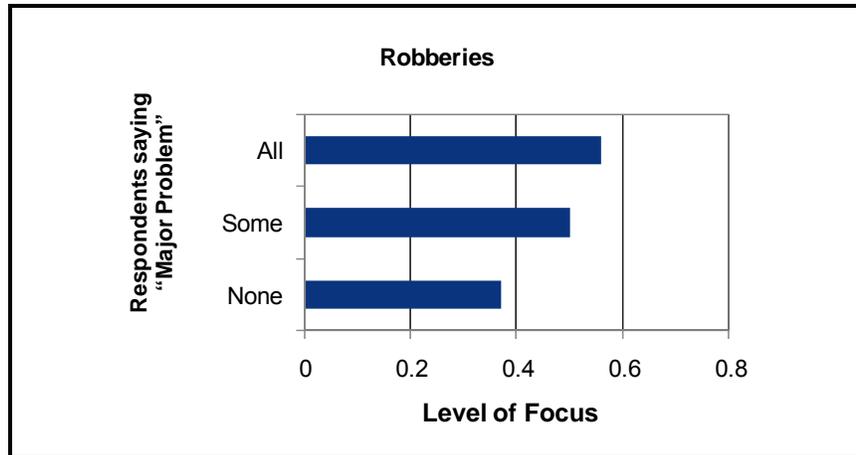
Source: Stakeholder Survey, Target Area Problems module and Local Initiative Focus module.

For problems more directly related to crime, the degree of focus was often aligned with the perceived severity of the problem.

These analyses offer some indication of how well local focus was aligned with perceived problems. For problems more directly related to crime, the degree of focus was often aligned with the perceived severity of the problem (**Table 3-6**).

Table 3-6. Alignment of Focus and Crime Problems

Focus Was Linked to Initial Problem	Focus Was *Not* Linked to Initial Problem
Robberies	Drug sales
Violence	Property crime
Gangs	Public disorder
Guns/weapons	School violence or disorder
Prostitution	Domestic violence or child abuse
Resident intimidation	Juvenile delinquency
Fear of crime	

Source: Stakeholder Survey, Target Area Problems module and Local Initiative Focus module.

For problems less directly related to crime, alignment between initial problems and focus was less common (**Table 3-7**).

For problems less directly related to crime, alignment between initial problems and focus was less common.

Low alignment between an initial problem and a partnership's focus on it does not imply that the site paid little or insufficient attention to the problem. If all or almost all sites are very similar on either aspect (e.g., if all sites have high focus on drug sales), variability is insufficient for analyses to detect alignment.

Table 3-7. Alignment of Focus and Other Problems

Focus Was Linked to Initial Problem	Focus Was *Not* Linked to Initial Problem
Unemployment or underemployment	Affordable housing
	Poverty
Blight	Lack of education or literacy
	Lack of services for residents
	Substance abuse
	Poor community/police relations
	Low resident participation
	Reentry challenges
	Truancy/dropout

Source: Stakeholder Survey, Target Area Problems module and Local Initiative Focus module.

Strategies and Activities

Stakeholders reported that W&S partnerships used a broad array of strategies and activities.

Stakeholders reported that W&S partnerships used a broad array of strategies and activities. For each respondent, item responses were scored 1 if an activity was reported to be part of the initiative and 0 if it was not. For each activity, we calculated the percentage of respondents within each site reporting that it was part of the initiative.

In the law enforcement domain, the most common strategies were intensive enforcement for drug crimes and violent crimes. On average, respondents in each site reported the use of 10 law enforcement strategies.

In the law enforcement domain, the most common strategies were intensive enforcement for drug crimes and violent crimes; each of these strategies was reported by more than 90% of the respondents within a site, averaging across sites (**Figure 3-18**). Also common were strategies for reductions in firearms and gangs, and intensive enforcement for minor crime and juvenile crimes, all reported by about 80% of the respondents within a site, on average. Other strategies reported by at least 60% of the respondents within a site were the use of technology and electronic surveillance, a focus on juvenile high-risk or repeat offenders, multijurisdictional task forces, coordinated prosecution and sentencing, a focus on adult repeat offenders, and strategies for probation and parole. On average, respondents in each site reported the use of 10 law enforcement strategies.

Figure 3-18. Percentage of Law Enforcement Stakeholders per Site Reporting Strategies and Activities
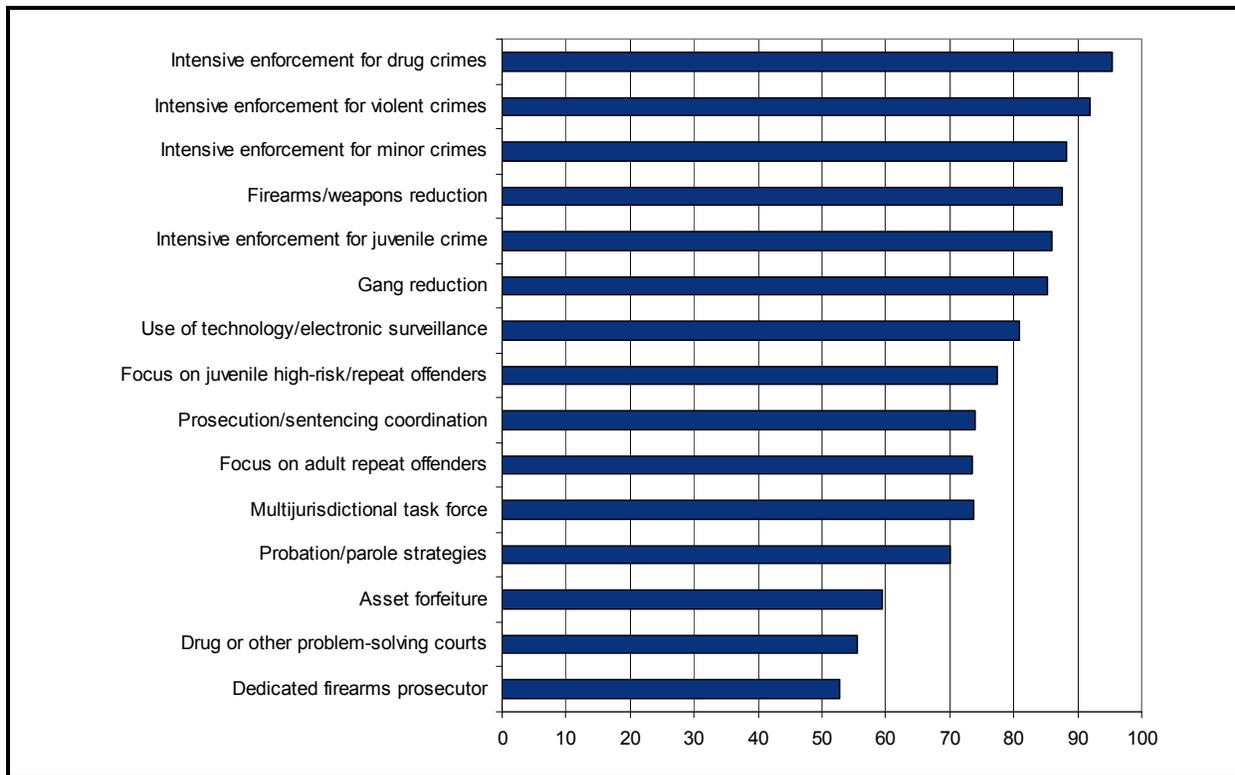
Source: Stakeholder Survey, Law Enforcement module.

Respondents reported the use of 15 community policing strategies on average. Many community policing strategies were reported to be in use by more than 90% of sites.

Stakeholders reported use of even more strategies in the community policing domain (**Figure 3-19**). Police participation in community meetings, police-community relationship building, problem solving, crime prevention education, youth activities, nuisance abatement or code enforcement, and community policing officers dedicated to the target area were reported by at least 90% of respondents within a site, averaging across sites. Also common were neighborhood cleanups, increased police responsiveness to calls, training in community policing for the community, and community involvement in policing priorities and tactics, each reported by at least 80% of respondents within a site. In addition, 9 other community policing strategies were reported by at least half the respondents within a site. On average, respondents in each site reported the use of 15 community policing strategies.

Figure 3-19. Percentage of Community Policing Stakeholders per Site Reporting Strategies and Activities
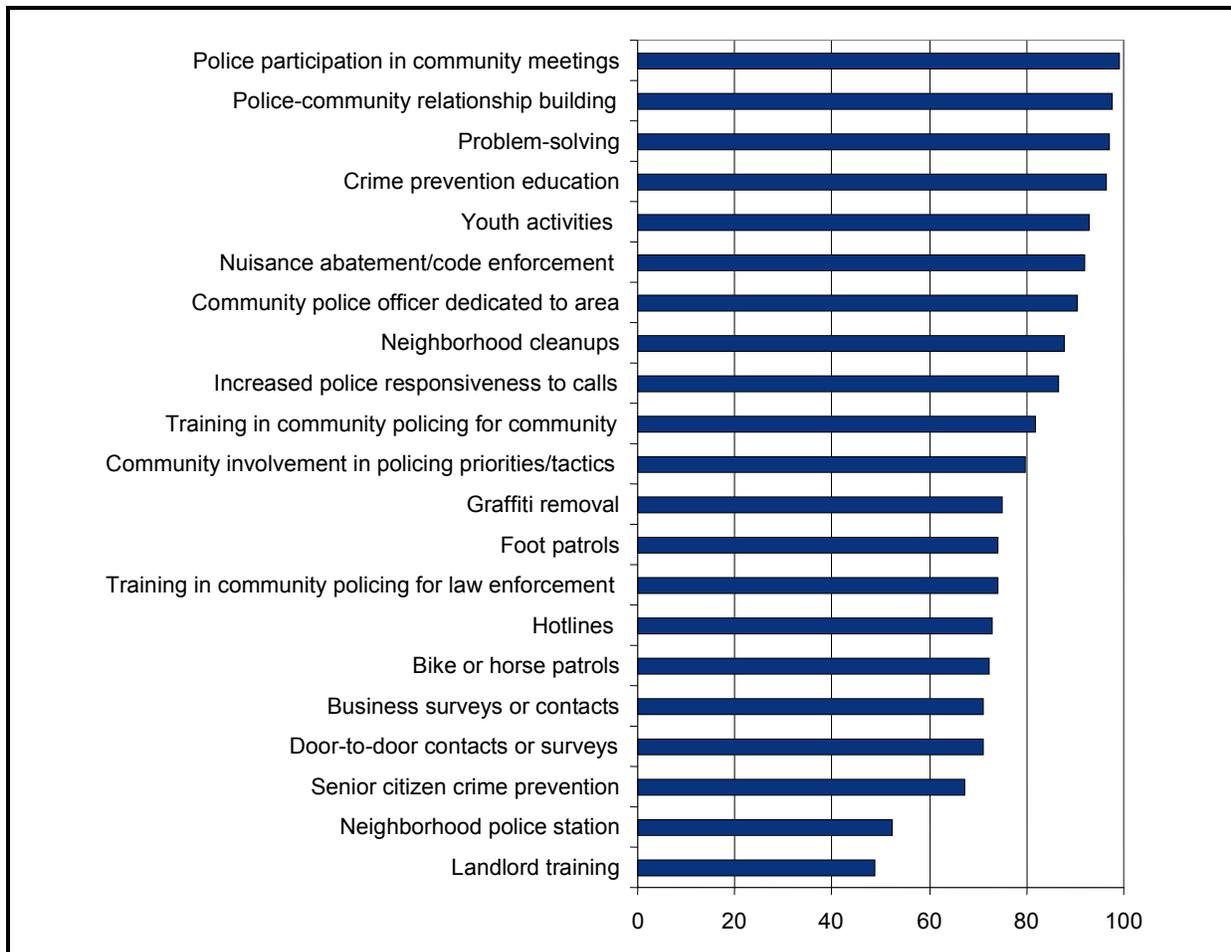
Source: Stakeholder Survey, Community Policing module.

Respondents reported the use of 20 PIT programs on average. The most commonly reported programs were the use of Safe Havens, other after-school programs, violence education and prevention programs, drug and alcohol education prevention programs for youth, and tutoring.

In the PIT domain, stakeholders were asked about the use of 8 broad strategies and 33 specific programs (**Figures 3-20** and **3-21**). Regarding broad strategies, on average at least 90% of respondents within a site reported the use of strategies to increase awareness of services, increase use of services, increase collaboration between law enforcement and providers, increase collaboration among providers, integrate enforcement and PIT for youth, and expand services. Regarding specific programs, on average at least 80% of respondents within a site reported the use of Safe Havens, other after-school programs, violence education and prevention programs, drug and alcohol education prevention programs for youth, and tutoring. On average, respondents in each site reported the use of 20 PIT programs.

Figure 3-20. Percentage of Prevention/Intervention/Treatment (PIT) Stakeholders per Site Reporting Broad Strategies
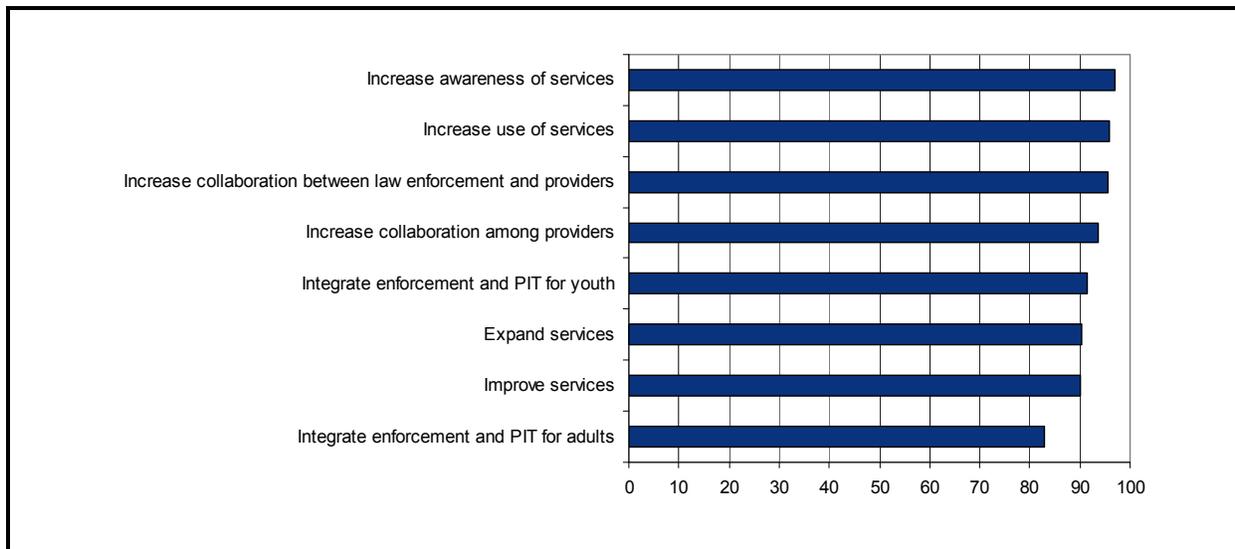
Source: Stakeholder Survey, PIT module.

**Figure 3-21.
Prevention/Intervention/
Treatment (PIT)
Stakeholders per Site
Reporting Specific
Programs and Activities**
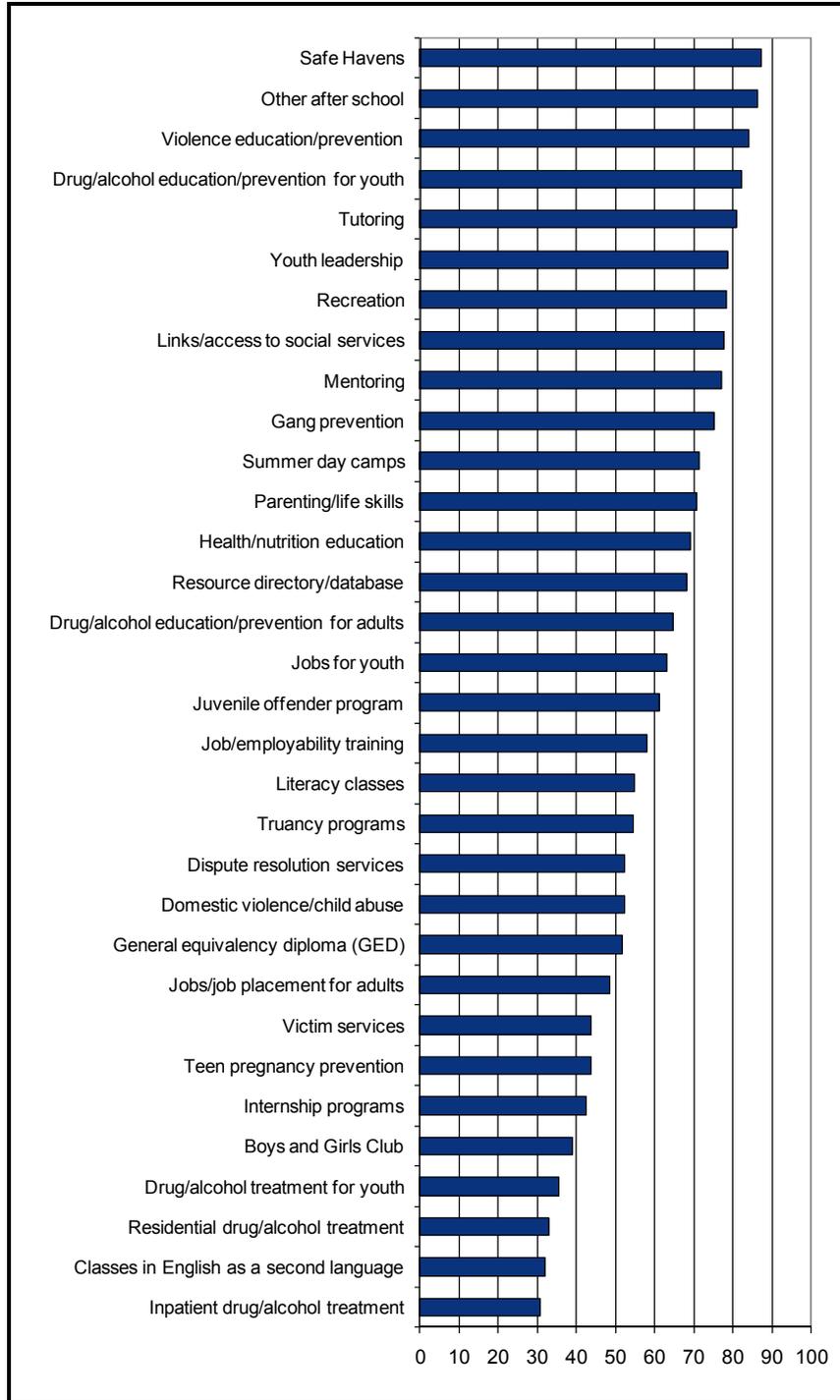
Source: Stakeholder Survey, PIT module.

Respondents reported the use of 9 neighborhood revitalization strategies on average. Common strategies included physical environment cleanup, community space beautification, code enforcement or nuisance abatement, community involvement in revitalization, and housing improvements.

In the neighborhood revitalization domain, the most common strategies addressed the physical environment (**Figure 3-22**). Common strategies included physical environment cleanup, community space beautification, code enforcement or nuisance abatement, community involvement in revitalization, and housing improvements, all reported by at least 75% of respondents within a site, on average. Common economic-focused strategies included community economic development, job training, and job development, all used by at least half the partnerships. On average, respondents in each site reported the use of nine neighborhood revitalization strategies.

Figure 3-22. Neighborhood Revitalization Stakeholders per Site Reporting Strategies and Activities
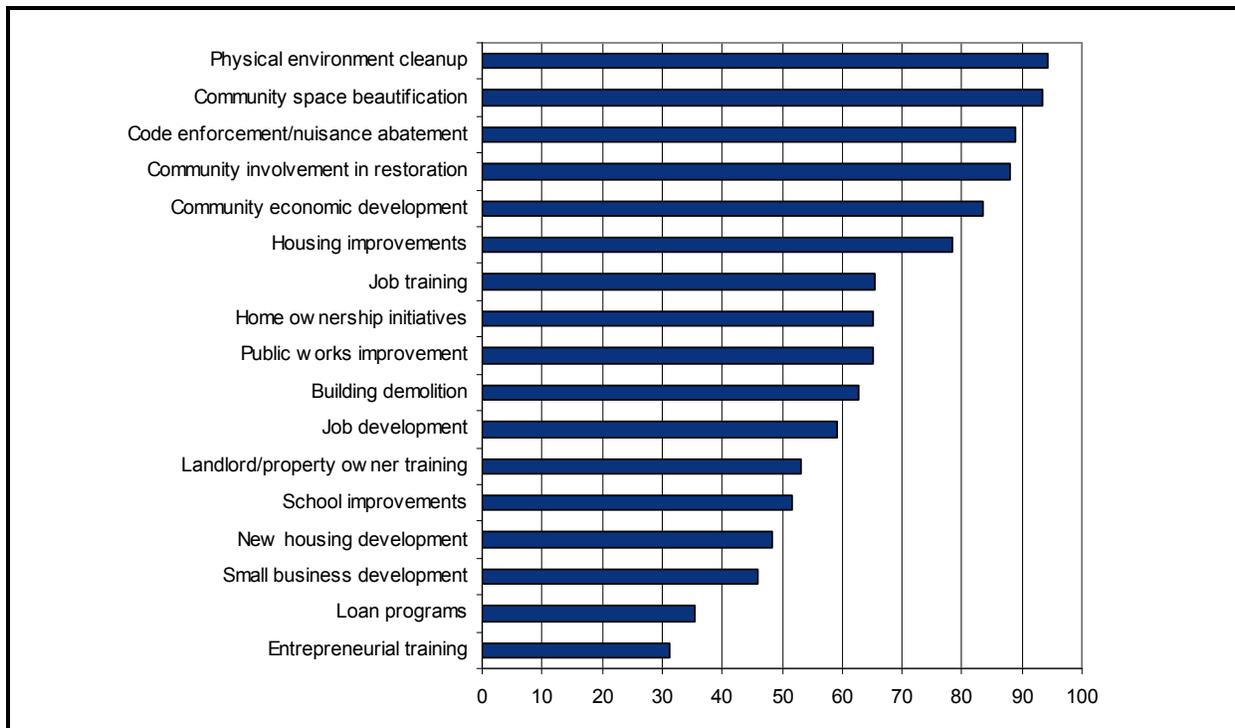
Source: Stakeholder Survey, Neighborhood Restoration module.

The findings about local implementation of W&S presented above are important for several reasons. First, they provide an overview of local implementation regarding structure, leadership, collaboration, and strategies. Second, the levels of collaboration and strategies suggest that grantees have

successfully implemented the W&S strategy (at least on the basis of stakeholder reports). Third, the findings reflect substantial variability among sites, which supports exploratory analyses to determine whether some approaches produce better outcomes. These associations are the focus of the following section.

3.3 Associations Between Outcomes and Implementation

To better understand whether and how W&S may have contributed to improved outcomes, we measured the degree to which outcomes were associated with various aspects of W&S implementation, including

- length of local implementation,
- partnership functioning,
- use of strategies in the four core components,
- frequency of collaborations with W&S partners, and
- effectiveness of collaborations in helping the partnership achieve its objectives.

We tested associations between these implementation measures and outcomes as reflected in crime statistics from GPRA reports, resident perceptions of their neighborhoods, and stakeholder perceptions of changes in target area problems.

3.3.1 Length of W&S Implementation

Length of local implementation of W&S (based on implementation year reported in Government Performance and Results Act [GPRA] reports[14]) was associated with improvements in important outcomes, suggesting that W&S helped to contribute to the improvement.

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[14] Length of implementation is based on grant years completed in fall/winter 2008. For example, sites that began the grant in 2003 are identified as having 5 years of implementation.

Association With Resident Perceptions

In the sentinel sites, analyses tested whether resident perceptions were more favorable in sites with longer W&S implementation.[15] Residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem than residents in more recently implemented sites. As shown in **Figure 3-23**, violence, for example, was reported to be "not a problem" by more residents in sites with 5 years of implementation than in sites with 3 or 4 years of implementation. Conversely, violence was reported to be "a major problem" by more residents in newer sites than in older sites. The same pattern was seen for robbery and drug dealing; it did not hold for the other two outcomes tested, burglary and gangs.

Association With Crime Rates

Earlier in this chapter we reported that rates of robberies and aggravated assaults were, on average, lower after W&S implementation than before it, with greater decreases in target areas than in the rest of the surrounding jurisdiction. Similarly, for burglary, the difference in rates between target areas and jurisdictions decreased after W&S implementation, reflecting greater improvement in target areas than in jurisdictions. With regard to testing associations with length of W&S implementation, we now note that, in addition to these pre/post differences, the association between length of implementation and aggravated assault was very near to statistical significance[16]: in this trend, the longer W&S had been implemented locally, the lower the rate of aggravated assault. Associations of length of W&S implementation and differences between target area and jurisdiction robbery and burglary rates showed a trend in the same direction but were not as close to statistically significant. Associations between length of W&S implementation and rates of homicide, drug arrests, or weapons offenses were not statistically significant.

Compared with residents in more recently implemented sites, residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem.

Rates of aggravated assault tended to improve more in sites with longer W&S implementation than in more recently implemented sites. This trend fell just short of statistical significance.

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[15] These analyses compared resident perceptions in the 13 W&S target areas and did not include the comparison areas.

[16] The probability of an association of this magnitude being due to chance was 0.058, very slightly exceeding the standard criterion of 0.05 or less.

Figure 3-23. Associations of Resident Perceptions of Crime Problems With Length of W&S Implementation
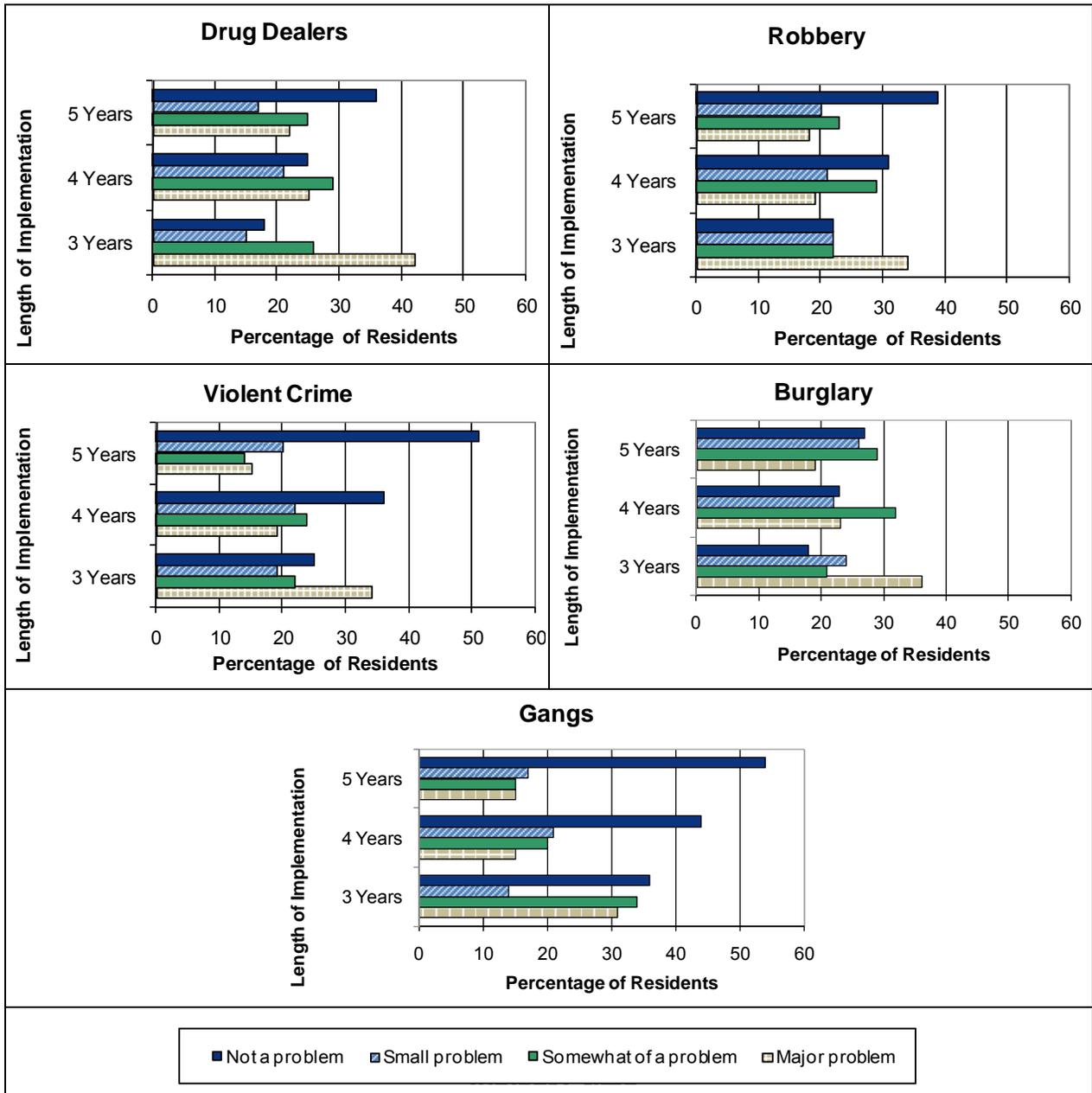
Source: Resident Survey.

Association With Stakeholder Perceptions

Analyses tested whether length of W&S implementation was associated with changes in stakeholder perceptions of target area problems. Change in perceptions of problems was measured, as described above, by the differences in perceptions of the area when W&S began (reported retrospectively) and at the time of the stakeholder survey. For each problem, ratings from stakeholders within each site were averaged to form an average site rating. Length of W&S implementation was not associated with changes in stakeholder perceptions of target area problems more frequently than would be expected by chance.

3.3.2 Partnership Functioning

To some extent, outcomes were better in sites in which stakeholders reported better partnership functioning, as reflected in the three factors described earlier: Resident Involvement, Strategies and Resources, and Avoiding Bad Approaches.

Resident perceptions of crime problems were generally more favorable in sentinel sites in which stakeholders reported better W&S partnership functioning.

Association with Resident Perceptions

Resident perceptions of crime problems were generally more favorable in sentinel sites in which stakeholders reported better partnership functioning with regard to Resident Involvement and Avoiding Bad Approaches. For example, **Figure 3-24** shows, for each sentinel site, the average score for resident perceptions of problems[17] as a function of the Resident Involvement factor.[18] The graphs include a line of best fit that helps to summarize the relationship. As scores on the Resident Involvement factor increase (i.e., more to the right of the graph), resident perception of robbery as a problem improves (higher scores reflect more favorable perceptions of crime problems).

Figure 3-24. Association of Resident Perceptions of Robbery with Resident Involvement Factor of Partnership Functioning
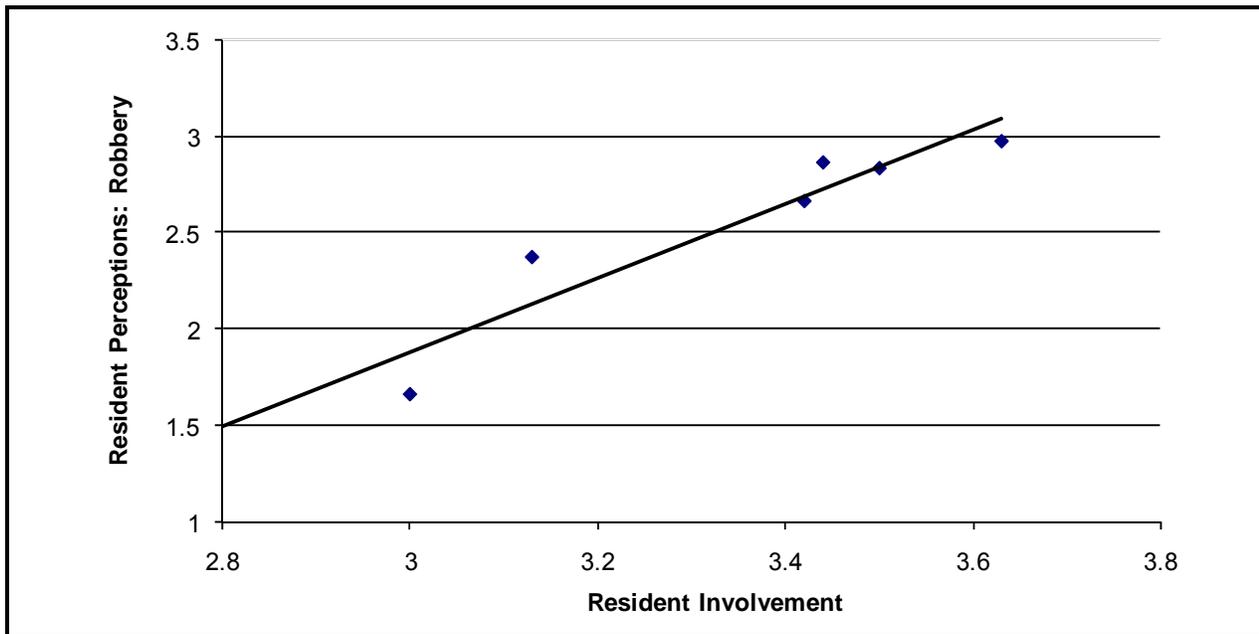
Note. Higher scores on resident perceptions reflect *more favorable* perceptions of crime problems. Sources: Resident Survey and Stakeholder Survey, Partnership Functioning module.

Similar relationships were found between the Resident Involvement factor and the problems of drug dealing, burglary, robbery, and violent crime and between the Avoiding Bad

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[17]Responses were coded such that higher scores reflect less of a problem: 1=major problem, 2= somewhat of a problem, 3=small problem, 4=not a problem.

[18]In these exploratory analyses we considered results statistically significant if there was less than a 10% chance that they occurred by chance ($p < .10$).

Approaches factor and resident perceptions of drug dealing, burglary, and robbery. These associations are summarized in **Table 3-8**. All of these associations were in the positive direction: higher partnership functioning scores were associated with better resident perceptions of crime problems. No significant associations were found involving the Strategies and Resources factor.

These analyses are based on only six sentinel sites in which one or more stakeholders completed the Partnership Functioning survey module. Nonetheless, the pattern of associations is quite consistent and is statistically significant, which is noteworthy with so few sites represented in the analyses.[19]

Table 3-8. Associations of Resident Perceptions of Crime Problems with Partnership Functioning Factors

	Drug Dealing in Public Places	Burglary and Other Property Crime	Robbery and Other Street Crime	Violent Crime	Gang Activity
Resident Involvement	+	+	+	+	
Strategies & Resources					
Avoiding Bad Approaches	+	+	+		

Sources: Resident Survey and Stakeholder Survey, Partnership Functioning module.

Association with Stakeholder Perceptions

Partnership functioning was not frequently associated with stakeholder perceptions of changes in problems in the target area. Moreover, we identified both positive and negative associations and there was no dominant pattern or clear interpretation.

Association with Crime Rates

Partnership functioning was not associated with crime rates more frequently than would be expected by chance.

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[19]We also examined whether these relationships were caused by one site with consistently low scores on the partnership functioning factors. We removed that site from analyses and still found most of the relationships.

3.3.3 Strategies and Activities in Core Components

We assessed whether improved outcomes were associated with the use of strategies and activities in the four core W&S components, as reported by stakeholders working in each component.[20] We first tested whether the overall *number* of strategies a site used in each component was important. For each component, the number of strategies was not associated with crime statistics, stakeholder perceptions, or resident perceptions.

We then looked more closely at the contributions of specific strategies by calculating the correlation between each strategy and each outcome of interest. This approach required numerous analyses within each component, and therefore we were interested less in any single correlation (which may have resulted by chance) and more in the proportion of correlations that were statistically significant. Where there were substantially more significant correlations than would be expected by chance, we looked more closely at the individual correlations to determine whether they appeared meaningful or occurred in interpretable patterns.

Association with Stakeholder Perceptions of Target Area Problems

Four law enforcement strategies were frequently correlated with improvements in problems: intensive enforcement of public disorder crimes, firearms reduction strategies, gang reduction strategies, and intensive enforcement of violent crimes.

Within the **law enforcement component**, four strategies were frequently correlated with improvements in problems. *Intensive enforcement of public disorder crimes* was correlated with reported improvement in 8 of 24 outcomes, more than 3 times as likely as chance. Favorable correlations were found for the problems of (1) murder, assault, and violent crime; (2) prostitution; (3) resident intimidation; (4) public disorder; (5) un- or underemployment; (6) blight, (7) lack of affordable housing; and (8) alcohol or drug abuse.

It is plausible that intensive enforcement of public disorder crimes influenced some of these outcomes fairly directly, whereas for other outcomes the connection seems tenuous at best. Nonetheless, the high proportion of perceived improved outcomes correlated with this strategy suggests that it did have some favorable effect. It is possible that these correlations

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[20]When more than one stakeholder provided responses about the use of strategies in a component, we averaged responses across stakeholders to calculate the percentage of respondents in each site who reported that a given strategy was used.

were due to chance—although, because of the frequency of significant correlations, we consider that less likely than the explanation that the intensive enforcement of public disorder crimes had a positive influence.

Three other law enforcement strategies were each correlated with improvements in five outcomes, more than twice the likelihood of chance. Use of *firearms reductions strategies* was positively correlated with reported improvements in (1) gangs, (2) resident intimidation, (3) juvenile delinquency, (4) public disorder, and (5) challenges for offenders reentering the community.

Use of *gang reduction strategies* was also correlated with reported improvements in five outcomes, some repeated from the preceding list: (1) gangs, (2) guns and weapons, (3) resident intimidation, (4) fear of crime, and (5) public disorder.

Intensive enforcement of violent crimes was also correlated with reported improvements in five outcomes: (1) fear of crime, (2) un- or underemployment, (3) blight, (4) lack of resident services, and (5) challenges for offenders reentering the community. For many of these outcomes, the connection to intensive enforcement of violent crimes is not apparent.

Within the **community policing component**, only one strategy was correlated with reported improvement in outcomes more frequently than would be expected by chance. *Community involvement in police tactics and priorities* was correlated with improvements in the following five outcomes: (1) robberies; (2) murder, assaults, and other violence; (3) prostitution; (4) fear of crime; and (5) truancy or dropout.

Community involvement in police tactics and priorities was correlated with improvements in five outcomes. Three other community policing strategies were correlated with worsening of outcomes.

Surprisingly, three community policing strategies were correlated with reported *worsening* of outcomes. *Foot patrols, having a station in the target area*, and *use of a hotline or other anonymous crime reporting* were each correlated with worsening in six outcomes.

Increased collaboration between law enforcement and PIT providers was correlated with reported improvement in eight outcomes, and the strategy to expand PIT services was correlated with reported improvement in six outcomes.

Within the **PIT component**, we assessed strategies at two levels: first, use of overarching PIT strategies (e.g., increase awareness of PIT services); second, use of specific approaches or activities (e.g., Safe Havens). Two overarching strategies were correlated with reported improvement in outcomes. *Increased collaboration between law enforcement and PIT providers* was correlated with reported improvement in eight outcomes: (1) murder, assault and other violence; (2) property crime; (3) juvenile delinquency; (4) school violence and disorder; (5) poverty; (6) lack of resident services; (7) low resident participation in activities to improve the neighborhood; and (8) lack of affordable housing. The strategy to *expand PIT services* was correlated with reported improvement in six outcomes, all but one represented on the previous list: (1) murder, assault, and other violence; (2) property crime; (3) school violence and disorder; (4) public disorder; (5) low resident participation in activities to improve the neighborhood; and (6) lack of affordable housing.

The use of specific approaches or strategies (e.g., Safe Havens) was not associated with reported improvement in outcomes more frequently than would be expected by chance.

Within the **neighborhood revitalization component**, no strategies were correlated with improved outcomes much more often than chance. To the contrary, three strategies were correlated with worsening outcomes: *entrepreneur training, job development*, and *small business development.*

Association with Crime Statistics or Resident Perceptions

Use of specific strategies or activities in each W&S component was not associated with crime rates or resident perceptions of their neighborhood more frequently than would be expected by chance.

3.3.4 Collaboration Frequency

Stakeholder reports of how frequently they collaborated with partners in each of the four central W&S components were correlated with stakeholder perceptions of target area problems but not with crime statistics or resident perceptions of their neighborhoods.

Association with Stakeholder Perceptions of Target Area Problems

Associations were common between (1) stakeholder reports of how frequently they collaborated with partners in each of the four central W&S components and (2) stakeholder perceptions of improvements in target area problems. Significant associations were found roughly twice as often as would be expected by chance. These analyses used data from two different stakeholder survey modules; associations are therefore between different respondents (averaged within each site), not within individual respondents. This supports the proposition that the associations are due to something at the site, rather than to individual stakeholders' reporting more collaboration and more improvement.

- In sites with more collaboration with *law enforcement partners*, stakeholders reported more improvement in target area problems of (1) guns and weapons, (2) resident intimidation, (3) poor police-community relations, (4) lack of services, and (5) poverty.

- In sites with more collaboration with *community policing partners*, stakeholders reported more improvement in target area problems of (1) guns and weapons, (2) resident intimidation, (3) gangs, and (4) lack of services.

- In sites with more collaboration with *neighborhood revitalization partners*, stakeholders reported more improvement in target area problems of (1) guns and weapons, (2) resident intimidation, (3) fear of crime, (4) prostitution, and (5) truancy and dropout.

Improvements in problems of guns and weapons and of resident intimidation were commonly associated with W&S collaboration, supporting the proposition that collaboration among W&S partners contributed to the improvement.

Improvements in problems of guns and weapons and of resident intimidation were commonly associated with collaboration, supporting the proposition that collaboration among W&S partners contributed to the improvement. Improvements in other problems (e.g., poor police-community relations) were less commonly associated with collaboration but can plausibly be seen as influenced by W&S partner collaboration. Other associations (e.g., between collaboration with law enforcement partners and improvement in poverty) are not so readily interpreted as being influenced by W&S.

Association with Crime Rates or Resident Perceptions

Neither crime rates nor resident perceptions were associated with collaboration more often than would be expected by chance.

3.3.5 Effectiveness of Collaborations in Helping Achieve Partnership Objectives

Effectiveness of collaboration with partners in some W&S components was associated with decreases in some crime rates and with greater resident satisfaction regarding some neighborhood services and programs.

Association with Crime Rates

Stakeholder perceptions of effectiveness of collaboration with local law enforcement were associated with improved crime rates for four of six crime types examined.

Stakeholder perceptions of effectiveness of collaboration with local law enforcement were associated with improved crime rates (before and after local W&S implementation) for four of six crime types examined: homicide, robberies, burglaries, and drug arrests (**Table 3-9**). Each of these crime types showed greater improvement in sites where stakeholders reported more effective collaboration with local law enforcement than in sites where stakeholders reported less effective collaboration.

Collaboration effectiveness with the other types of partners was not consistently associated with improved crime rates after local W&S implementation. More effective collaboration with business development partners, for example, was associated with worsening of burglary and weapons offenses, findings that are difficult to interpret.

Table 3-9. Associations of Improvement in Target Area Crime Rates With Stakeholder Perception of Collaboration Effectiveness

	Homicide	Robbery	Burglary	Aggravated Assault	Drug Arrests	Weapons Offenses
State & federal law enforcement						
Local law enforcement	+	+	+		+	
Community policing			+			
Prevention, intervention, & treatment						-
Housing or neighborhood revitalization						
Economic, business, or employment development			-			-
Target area residents					+	

Sources: Government Performance and Results Act (GPRA) crime statistics; Stakeholder Survey, Collaboration module.

Target area residents reported greater satisfaction with crime prevention in their neighborhood in sites where stakeholders reported greater effectiveness of collaboration with local law enforcement and with community policing partners.

Association with Resident Perceptions

In the sentinel sites, stakeholder perceptions of how effective their collaborations were in helping the partnership achieve its objective were somewhat associated with target area resident satisfaction regarding neighborhood activities and services. Overall, 8 of 42 analyses showed statistically significant associations, about twice as many as would be expected by chance (**Table 3-10**).

Of particular interest, target area residents reported greater satisfaction with crime prevention in their neighborhood in sites where stakeholders reported greater effectiveness of collaboration with local law enforcement and, in a separate finding, with community policing partners. As an example, the latter association is presented in **Figure 3-25**. Also, target area residents reported greater satisfaction with activities to improve their neighborhood in sites where stakeholders reported greater effectiveness of collaboration involving local law enforcement, community policing officers, and resident partners.

Table 3-10. Associations of Resident Satisfaction About Services With Stakeholder Perceptions of Collaboration Effectiveness

	Crime Prevention	Drug Use Prevention	Sports & Recreation	Activities to Improve Neighborhood	Employment & Job Training Opportunities	Decent & Affordable Housing
State & federal law enforcement						+
Local law enforcement	+	+		+		
Community policing	+			+		
Prevention, intervention, & treatment					+	
Housing or neighborhood revitalization						
Economic, business, or employment development						
Target area residents				+		

Sources: Resident Survey and Stakeholder Survey, Collaboration module.

Figure 3-25. Association of Resident Satisfaction About Services and Stakeholder Perceptions of Collaboration Effectiveness
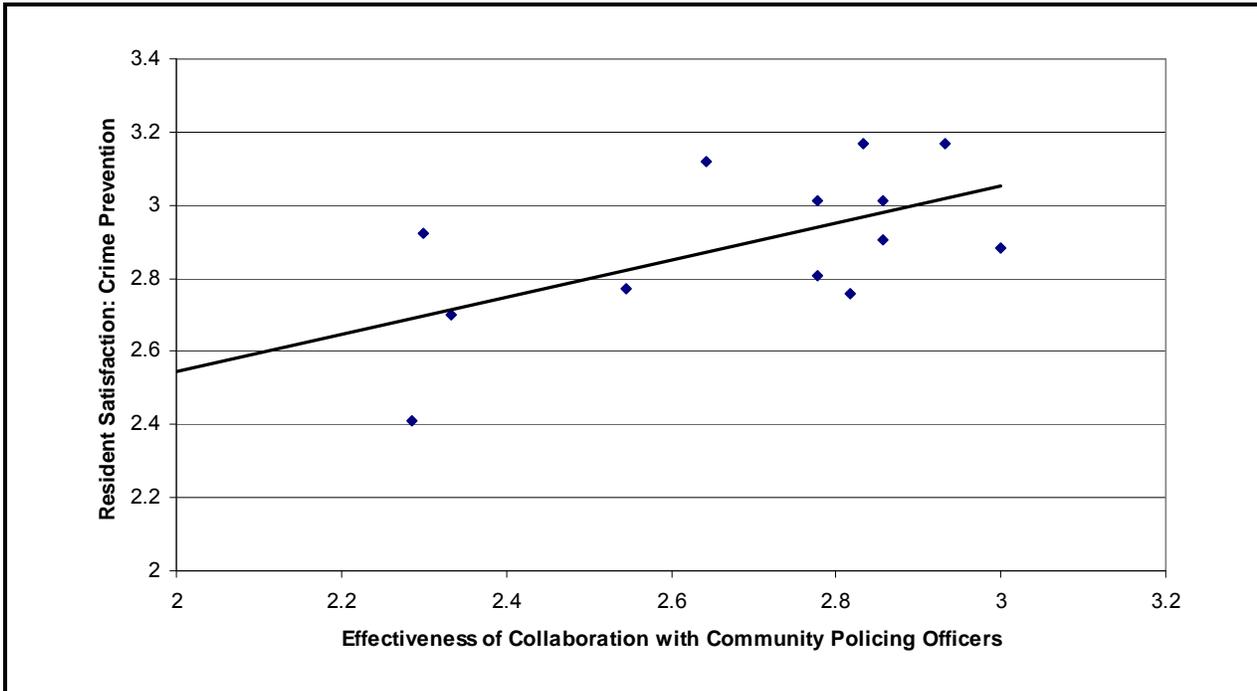
Association with Stakeholder Perceptions

Stakeholder perceptions of collaboration effectiveness were infrequently associated with other stakeholders' perceptions of target area problems.

Associations between outcomes and W&S implementation are summarized in **Table 3-11**. In **Chapter 4** we summarize findings and discuss their implications for understanding the W&S strategy and its effects.

Table 3-11. Summary of Associations of Outcomes with Key Implementation Measures

	Outcome Effects		
	Crime Statistics	Stakeholder Perceptions of Changes in Problems	Resident Perceptions of Neighborhood (Sentinel Sites only)
	Target areas decreased more than jurisdictions in aggravated assault, robbery, and burglary	Widespread improvement, especially for problems directly related to crime	Based on site-specific analysis, relative to comparison areas the target areas were • worse on most crime types, • more satisfied with services and activities, and • similar on most other outcomes.
Associations of Implementation and Outcomes			
	Crime Statistics	Stakeholder Perceptions of Changes in Problems	Resident Perceptions of Neighborhood (Sentinel Sites only)
Length of implementation	Decreased aggravated assault (trend; not statistically significant)	Not more frequent than chance	Lower perceived problems of robbery, violence, and drug dealing
Partnership Functioning			
Resident Involvement	Not more frequent than chance	Not more frequent than chance	Lower perceived problems of robbery, burglary, violence, and drug dealing
Avoiding Bad Approaches	Not more frequent than chance	Not more frequent than chance	Lower perceived problems of robbery, burglary, and drug dealing
Approaches & Resources	Not more frequent than chance	Not more frequent than chance	Not more frequent than chance
Strategies and Activities			
Law enforcement	Not more frequent than chance	• Intensive enforcement of public disorder: 8 favorable associations • Intensive enforcement of violent crimes: 5 favorable associations • Firearm reduction strategies: 5 favorable associations • Gang reduction strategies: 5 favorable associations	Not more frequent than chance
Community policing	Not more frequent than chance	• Community involvement with police: 5 favorable associations • Foot patrols: 6 unfavorable associations • Station in area: 6 unfavorable associations • Anonymous crime reporting: 6 unfavorable associations	Not more frequent than chance

(continued)

Table3-11. Summary of Associations of Outcomes with Key Implementation Measures (continued)

Associations of Implementation and Outcomes (continued)		
Crime Statistics	**Stakeholder Perceptions of Changes in Problems**	**Resident Perceptions of Neighborhood (Sentinel Sites only)**
Strategies and Activities (continued)		
PIT broad strategies Not more frequent than chance	• Increased collaboration with law enforcement: 8 favorable associations • Expansion of services: 6 favorable associations	Not more frequent than chance
PIT specific programs Not more frequent than chance	Not more frequent than chance	Not more frequent than chance
Neighborhood revitalization Not more frequent than chance	• Entrepreneur training: 6 unfavorable associations • Job development: 6 unfavorable associations • Small business development: 5 unfavorable associations	Not more frequent than chance
Collaboration		
Frequency Not more frequent than chance	• With LE: Fewer problems with weapons, resident intimidation, police-community relations, lack of service, and poverty • With CP: Fewer problems with weapons, resident intimidation, gangs, and lack of services • With NR: Fewer problems with weapons, resident intimidation, fear of crime, prostitution, and truancy and dropout	Not more frequent than chance
Effectiveness • With local LE: Decreased robberies, burglaries, drug arrests, and homicides • With CP: Decreased burglaries • With residents: Decreased drug arrests • With business development: Increased burglaries	Not more frequent than chance	• With local LE: Satisfaction with crime prevention and drug prevention, activities to improve neighborhood • With CP: Satisfaction with crime prevention and activities to improve neighborhood • With state/federal LE: Affordable housing • With PIT: Employment and job training • With residents: Activities to improve neighborhood

PIT = prevention, intervention, and treatment; LE = law enforcement; CP = community policing; NR =neighborhood revitalization.

4 Summary and Discussion

In its latest W&S Program Guide and Application Kit, CCDO describes the W&S strategy as follows:

> Operation Weed and Seed is foremost a strategy—rather than simply a grant program—that aims to prevent, control, and reduce violent crime, drug abuse, and gang activity in designated high-crime neighborhoods across the country. … The strategy involves a two-pronged approach: law enforcement agencies and prosecutors cooperate in "weeding out" violent crime and drug abuse; and "seeding" brings human services to the area, encompassing prevention, intervention, treatment, and neighborhood revitalization. A community-oriented policing component bridges the weeding and seeding strategies.

Results of this independent evaluation suggest that W&S grantees successfully implemented the strategy and achieved important objectives.

Results of this independent evaluation suggest that W&S grantees successfully implemented the strategy and achieved important objectives, including

- reductions in some types of crime;

- perceived progress addressing other target area problems; and

- reported successful implementation of key components and elements of the W&S strategy.

These major findings represent important achievements by W&S grantees. Length of W&S implementation was associated with improvement in resident perceptions of crime problems, suggesting that W&S contributed to the improvement. Improvements in some outcomes were also associated with certain aspects of local W&S implementation (e.g., intensive enforcement, effective collaboration), but associations were not

consistent across outcomes or areas of implementation assessed.

4.1 REDUCTIONS IN CRIME PROBLEMS

4.1.1 Crime Statistics

Rates of robbery, aggravated assault, and burglary each decreased more in W&S target areas than in surrounding jurisdictions, an important and noteworthy accomplishment of W&S grantees. These findings are based on comparisons of crime rates in W&S target areas with rates in the rest of each jurisdiction, which helps to avoid many potential problems of interpretation (e.g., changes in the local economy). These analyses used official crime statistics data reported by grantees in approximately 200 sites and therefore extend well beyond anecdotes or intentionally selected sites. Moreover, the findings are based on rigorous statistical analyses using the most appropriate techniques (e.g., longitudinal growth curves).

Rates of robbery, aggravated assault, and burglary each decreased more in W&S target areas than in surrounding jurisdictions, an important and noteworthy accomplishment of W&S grantees.

Analysis of the associations between length of W&S implementation and reductions in crime rates found that the association between length of implementation and aggravated assault was very near to statistical significance. In this trend, the longer W&S had been implemented locally, the lower the rate of aggravated assault tended to be. (Associations of length of W&S implementation and differences between target area and jurisdiction robbery and burglary rates showed similar trends in the same direction but were not as close to statistically significant.) Although these associations between length of W&S implementation and reductions in crime rates fell short of statistical significance, similar associations were found between length of implementation and resident perceptions of crime, discussed below. Collectively, these findings suggest some relationship between length of W&S implementation and improvement in crime in target neighborhoods. Moreover, reductions in crime rates were associated with stakeholder perceptions of the effectiveness of their collaboration with their W&S partners, a vital aspect of the W&S strategy. In any event, the fact that length of implementation was not more strongly and consistently associated with reductions in crime rates should not detract from the key findings discussed above: rates of robbery, aggravated assault, and burglary each decreased more in W&S target areas than in surrounding jurisdictions.

The emphasis W&S places on collaboration is borne out in findings of greater reductions in rates of robbery and burglary in sites where stakeholders felt that their collaborations with local law enforcement had been more effective than in sites where stakeholders rated collaboration as less effective.

We found greater reductions in rates of robbery and burglary in sites where stakeholders felt that their collaborations with local law enforcement had been more effective than we did in sites where stakeholders rated collaboration as less effective.[21] Anecdotally, stakeholders in many sentinel sites reported that they believed that effective collaborations with local law enforcement—collaborations that were supported by W&S— contributed to reductions in crime. The W&S model mandates federal involvement (in particular, U.S. Attorneys and DEA representatives) in local crime fighting. In sentinel sites, vertical partnerships among federal, state, and local law enforcement agencies were common and were often reported to be productive. Stakeholders in many sentinel sites also reported that horizontal partnerships were also established or strengthened by W&S, as local police, prosecution, and probation officials worked collaboratively on target area problems.

Robbery, aggravated assault (which includes shootings), and burglary are three of the more common and problematic types of crime. Reducing them contributes greatly to improving neighborhoods and residents' quality of life. Moreover, two of the other three crime types we assessed (homicide and drug arrests) also tended to improve more in target areas than in the rest of the jurisdictions, but the trends were not strong enough to be statistically significant; therefore, we concluded that the areas did not differ.

Homicide is typically not a sensitive indicator of violent crime more broadly for a couple of reasons. First, rates are very low and therefore quite variable over time. Second, homicide rates are influenced by a number of factors, including many that are difficult to control (e.g., crimes of passion) or are beyond crime control efforts (e.g., the quality of emergency medical care and capabilities of keeping shooting victims alive).

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[21]Perceived effectiveness of collaborations with local law enforcement was also associated with greater reductions in drug arrests and homicide. However, reductions in these two crime types were not significantly different in target areas and jurisdictions and there was no greater decrease in target areas to explain.

4-3

Reducing crime is a vitally important goal of the W&S strategy; the identified reductions in robbery, aggravated assault, and burglary are noteworthy achievements.

Drug arrest and weapons offense rates reflect both the level of these crimes in a community and the attention paid by law enforcement to those crimes and the community. In W&S target areas, one would expect drug arrest rates to increase in the initial years after program implementation, to the extent that police increased enforcement. If implementation is successful and drug offenses decrease, arrest rates should begin to decrease. In our analysis of W&S GPRA data, drug arrests show this pattern: increases in the first 2 years after implementation, followed by declines. The fact that weapons offenses have not decreased over time may be a sign of continued law enforcement attention on firearms (and the implementation of strategies such as Project Safe Neighborhoods and Ceasefire), not an increase in the use of firearms.

In any event, it was certainly *not* the case that homicide rates and drug arrests rates improved more in the other parts of the jurisdiction than in the target areas. Rather, for these crime types the target areas did not improve more than the jurisdiction, as they did for robbery, aggravated assault, and burglary. Reducing crime is a vitally important goal of the W&S strategy; the identified reductions in robbery, aggravated assault, and burglary are noteworthy achievements.[22]

4.1.2   Stakeholder Perceptions of Crime Problems

As a supplement to crime statistics, we assessed stakeholder perceptions of problems in the target area and how those problems may have changed. These perceptions may be seen by some as less rigorous or objective than crime statistics,[23] but we believe that they add value to the evaluation. First, our site visits suggested that stakeholders were typically quite knowledgeable about the target area, whether through direct "on-the-ground" experience or through empirical knowledge

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[22]CCDO and JRSA should be commended for requiring and supporting sites to report crime data in this useful format. Improvements can be made, such as JRSA's more completely resolving data problems (e.g., discrepancies between reporting years) or computing crime rates from the crime counts data that sites report. Such improvements would further strengthen a GPRA data system that is more useful than those of many federal programs.

[23]Crime statistics are not perfect or infallible representations of reality, either, as is often noted in criminology. See, for example, *Understanding crime statistics* (Lynch & Addington, 2007), which compares crime trends based on the Uniform Crime Reports with those from the National Crime Victimization Survey.

based on statistics from municipal agencies or surveys conducted locally. Second, in measuring stakeholder perceptions we sought to minimize the effects of stakeholders' perhaps being inclined to portray their local initiative in a favorable light. To this end, we did not directly ask stakeholders whether problems had improved, which we thought would elicit affirmative responses. Rather, we first asked the level of each of 24 problems before W&S began and then later we asked the level at the time of the survey. In the Web-based survey format, in answering the second set of questions respondents could not refer to their answers to the first set of questions. Based on these procedures and the pattern of results that emerged, we believe that these data on stakeholder perceptions provide a useful supplement to crime statistics.

Reported improvements in crime problems (other than weapons offenses) correspond to reductions in crime rates and improved resident perceptions of crime discussed earlier. Also, stakeholders reported *smaller improvements* in crime problems that are typically *not central to W&S efforts*, such as domestic violence and school violence, which offers some support for the accuracy of stakeholder responses. We interpret stakeholder reports of decreased crime problems in the target areas as one piece of evidence in a pattern of findings that suggests that W&S grantees successfully reduced some types of crime in some sites.

Exploratory analyses of the extent to which stakeholder perceptions of improvements in crime problems were associated with aspects of local W&S implementation produced mixed results. Most of the associations that we identified involved either the use of various strategies and activities in the W&S components or the frequency of collaboration among partners. Even in these areas, though, associations were inconsistent.

Stakeholder reports of decreased crime problems in the target areas are one piece of evidence in a pattern of findings that suggests that W&S grantees successfully reduced some types of crime in some sites.

The strongest set of associations involving stakeholder perceptions of improvement in crime was with law enforcement strategies and activities, in particular intensive enforcement of public disorder crimes.

The strongest set of associations involving stakeholder perceptions of improvement in crime was with law enforcement strategies and activities, in particular intensive enforcement of public disorder crimes. Other law enforcement strategies frequently associated with improvement in crime problems were firearms reduction strategies, gang reduction strategies, and intensive enforcement of violent crimes. For some of these associations, there was a readily apparent connection between the strategy and the outcome: for example, between intensive enforcement of public disorder crimes and improvement in public disorder, resident intimidation, and violence. For some associations the connections were less apparent: for example, between intensive enforcement of public disorder crimes and improvements in unemployment or affordable housing.

Stakeholder perceptions of improvement in crime problems were also associated with two broad strategies in the PIT component: increased collaboration between law enforcement and PIT providers, and expanded PIT services. Again, some connections were more apparent than others.

Improvements in problems of guns and weapons and of resident intimidation were commonly associated with frequency of collaboration, supporting the proposition that collaboration among W&S partners contributed to the improvement.

Stakeholder perceptions of improvement in crime problems were also associated with frequency of collaborations. Improvements in problems of guns and weapons and of resident intimidation were commonly associated with frequency of collaboration, supporting the proposition that collaboration among W&S partners contributed to the improvement. Improvements in other problems (e.g., poor police-community relations) were less commonly associated with collaboration but can plausibly be seen as having been influenced by W&S partner collaboration.

The associations between stakeholder perceptions of improvement in crime problems and both law enforcement activities and collaboration frequency are complementary and support the importance of law enforcement to the W&S strategy.

The associations between stakeholder perceptions of improvement in crime problems and both law enforcement activities and collaboration frequency are complementary and support the importance of law enforcement to the W&S strategy. Associations with community policing, PIT, and neighborhood revitalization were less consistent, making it difficult to draw firm and unambiguous conclusions about the implications for the W&S strategy.

4.1.3 Resident Perceptions of Crime Problems

The finding that residents in W&S target areas were more likely to view various crimes as a problem than were residents in the matched comparison areas is not surprising because W&S grants are, by design, located in areas with high crime. Our analyses of crime statistics indicated that crime rates were higher in target areas than in the rest of the jurisdictions, notwithstanding the greater *improvements* in crime rates in target areas discussed above.

Sentinel sites differed greatly in the extent to which crime was seen as worse by residents in the target or comparison area. The finding that residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem than did residents in more recently implemented sites suggests that W&S contributed to improvements in resident perceptions of crime.

Residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem than did residents in more recently implemented sites, which suggests that W&S contributed to improvements in resident perceptions of crime.

Residents reported lower levels of problems with drug dealing, burglary and property crime, robbery and other street crime, and violent crime in sentinel sites with higher stakeholder ratings on Resident Involvement. Although these analyses were based on only six sentinel sites in which stakeholders completed the Partnership Functioning survey module, the pattern of associations is quite consistent and is statistically significant, which is noteworthy with so few sites represented in the analyses. These associations support the emphasis that W&S places on involving target area residents meaningfully and substantively in planning and activities. It is significant that this central tenet of W&S—resident involvement—is associated with perceptions of lower levels of crime problems.[24]

Greater resident involvement— a central tenet of W&S—was associated with perceptions of lower levels of crime problems.

Similarly, residents reported lower levels of problems with drug dealing, burglary and property crime, and robbery and other street crime in sites with higher stakeholder ratings on the Avoiding Bad Approaches factor. These associations suggest the importance to local W&S initiatives of elements of well-functioning partnerships that have been identified in previous research, including sufficient involvement from agency leaders, avoiding domination by one sector (e.g., law enforcement),

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[24]Residents involved with W&S make up a very small percentage of neighborhood residents, so it is highly unlikely that their responses caused these findings of associations. Rather, residents in general perceived lower levels of crime problems in sites with greater resident involvement in W&S.

finding the right balance between top-down and bottom-up approaches, and—specific to W&S—finding the right mix of weeding and seeding.

Residents provide a unique and important perspective that is especially important in evaluating W&S (as opposed to some other type of program) because W&S is designed to not only reduce crime and other measurable problems but also to improve other, harder-to-measure outcomes such as fear of crime, resident empowerment, quality of life, and related outcomes. Though they do not perfectly reflect conditions in the neighborhoods, in-person, door-to-door resident interviews are arguably considered the gold standard for assessing the impact of complex anti-crime programs on neighborhoods. They are expensive to do correctly and thus are not always used in evaluations—or not used often enough, some would argue.

As with any survey, inaccuracies may have resulted from the survey data collection or sampling techniques, respondents' providing inaccurate responses, or other factors. We developed an innovative technique for sampling households which used GIS rather than the very expensive counting and listing procedure used to prepare for many surveys. This GIS technique was very cost-efficient, but we are not certain how accurately the sampled respondents—and therefore the responses given—represent the neighborhood, relative to other approaches. The GIS technique provided a sufficiently representative sample to support our analytic needs, which were not to calculate precise person-level prevalence estimates but rather to compare responses from residents in target areas with those in comparison areas.

We maximized the rigor of the resident survey by using procedures (and, in many cases, field staff) that RTI has used in numerous large surveys.[25] Accuracy was further enhanced by the fact that participants did not know that the interviews were part of an evaluation of W&S; target area residents had no more reason to paint their neighborhood in a favorable (or unfavorable) light than did comparison area residents.

Nonetheless, the resident survey had limitations that are important to understand and keep in mind when interpreting

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[25]For example, RTI conducts the National Survey on Drug Use and Health, which includes over 50,000 interviews annually.

findings. First, within the scope of the evaluation, we were able to conduct the survey in only 13 W&S target areas and 13 matched comparison areas. As we designed the evaluation, we estimated that this number of sites and respondents per site gave us the best balance between adequate statistical power and affordability. We believe that this was the best available design for the resident survey, but the evaluation would have been strengthened if we had been able to conduct the survey in more sites.

Second, although we sought to identify comparison areas that were as similar as possible to the target areas, we had mixed success in doing so: W&S target areas are typically different from other areas of their communities, and there are few other areas that can serve as good comparison areas. This limitation is exacerbated by the fact that W&S has been implemented in hundreds of communities, including some that may otherwise have provided good comparison areas. We would have been better able to overcome this limitation if we could have conducted the resident survey more than once, but that was not possible given budget and time constraints. With two (or more) rounds of resident surveys, it would be possible to assess change over time or statistically control for initial responses in analyses of later responses. Because we were not certain of the quality of the match provided by some comparison areas, in some analyses of resident survey data we focused on the W&S target areas and did not include the comparison areas.

4.2 PROGRESS ADDRESSING OTHER TARGET AREA PROBLEMS

In addition to weeding out crime, the W&S strategy includes seeding to improve conditions in target areas. Therefore the evaluation assessed grantee progress on problems other than crime, as reflected in stakeholder and resident perceptions of the target areas.

4.2.1 Stakeholder Perceptions of Changes in Other Neighborhood Problems

The largest improvements reported by stakeholders were related to problems of poor police-community relations, little resident participation in activities to improve the community, lack of services for residents, blight, and intimidation of residents by gangs or criminals. Addressing these problems is central to the W&S strategy.

Stakeholder perceptions of improvements in other target area problems largely aligned with the degree to which W&S grantees focused on them and had sufficient time and resources to affect them. Largest improvements were reported for the problems of poor police-community relations, little resident participation in activities to improve the community, lack of services for residents, blight, and intimidation of residents by gangs or criminals, all central to the W&S strategy.

Stakeholders reported very small improvements in unemployment, poverty, lack of education, and lack of affordable housing. These are very large problems that W&S addresses but cannot be expected to resolve, given the resources available and the time frame covered by the evaluation.

Stakeholders reported intermediate levels of improvements in student truancy or dropouts, challenges faced by offenders reentering the community, and alcohol and other substance abuse. Reducing substance abuse levels is a focus of the PIT component, but progress toward that objective requires substantial time and resources. Addressing student truancy and challenges around offender reentry are not primary objectives for most W&S grantees, and it is not surprising that stakeholders reported only limited improvements.

Stakeholders in sentinel sites often reported improvements in the look and cleanliness of the target area, which in turn increased positive uses of public spaces, reductions in fear of crime, increases in business activity, and other benefits (i.e., the "broken windows" theory of crime prevention). Stakeholders in many sentinel sites reported that small neighborhood improvements (e.g., alley cleanups, business façade improvements, graffiti removal, and better lighting) had changed the look of the target area and reduced public disorder, drug use, and problems with transients. Similarly, stakeholders in a number of sentinel sites reported that they had reclaimed city parks from open-air drug dealing. In several sites stakeholders reported that the neighborhoods had begun to be seen as "not unsafe." In some sites, stakeholders said that quality-of-life issues had become the main topics of neighborhood council meetings in W&S's later years, rather

The finding that the PIT strategy of increasing collaboration with law enforcement was associated with reductions in three crime types and improvements in five other types of problems supports the W&S tenet that law enforcement can affect not only crime but also other problems.

than the crime problems that dominated meetings in early years.

Stakeholder reports of improvements in target area problems were associated with two broad PIT strategies (increasing collaboration with law enforcement and expanding services) as well as with three law enforcement strategies (intensive enforcement of public disorder crimes, intensive enforcement of violent crimes, and firearms reduction). These findings align well with the W&S tenet that law enforcement can affect not only crime but also other problems. The finding that the broad *PIT strategy of increasing collaboration with law enforcement was associated with reductions* in three crime types and improvements in five other types of problems offers further support for this tenet.

4.2.2 Resident Perceptions of Other Neighborhood Problems

Some aspects of resident perceptions of their neighborhoods suggested that W&S contributed to improvements in neighborhood services, cohesion, and empowerment. Generally, target area residents were more satisfied with neighborhood crime and drug prevention than were comparison area residents. This satisfaction can be seen as a proximal or intermediate result of W&S, as partnerships often seek to increase resources and services in underserved areas. Resident satisfaction with services is not the ultimate goal but is an important first step.

There were few differences between target and comparison areas in resident perceptions that people in their neighborhoods helped each other or sought needed services and in two sites target area residents reported being more active in the community than did comparison area residents. Because these types of resident activities are often lower in neighborhoods with higher crime and fewer resources, these findings offer some—if limited—support for the idea that W&S initiatives in some sentinel sites were able to bolster resident engagement and empowerment.

Findings were less favorable regarding resident perceptions of the police. In particular, target area residents were more likely than comparison area residents to perceive larger problems with "police stopping too many people on the streets without good reason" and "excessive use of force by police." These

Local W&S initiatives have successfully engaged small groups of concerned residents and should continue their efforts to inform all target area residents of W&S objectives and activities and to enlist their participation and support.

negative perceptions of police likely result from increased police presence and enforcement associated with W&S activities. Nonetheless, the findings are disappointing, given the emphasis that W&S places on community policing and resident engagement. Local W&S initiatives have successfully engaged small groups of concerned residents but should continue their efforts to inform all target area residents of W&S objectives and activities and to enlist their participation and support.

Some additional, albeit small, support for the W&S strategy was found in resident responses to a question asking whether their neighborhood had become a better or worse place to live in the last two years. In three sentinel sites, target area residents reported more improvement than comparison area residents. These sites were not the ones in which perceptions of crime favored the target areas; rather, two of the three sites were among the sites where satisfaction with services favored the target area. Although the ultimate goal of reducing crime had not been fully achieved, in these three sites residents were more satisfied with services and felt the neighborhoods had become better places to live, supporting the W&S emphasis on providing these types of services: the value of seeding, not just weeding. In two sites, comparison area residents reported more improvement but also lower levels of problems on all five crime types we asked about. In these sites, it appears that resident perceptions of target area crime problems negatively influenced their appraisal of the neighborhood as a good place to live. This connection is not surprising, and even this negative finding supports the basic assumptions of the W&S strategy.

Two sets of findings about resident satisfaction support the value of the W&S approach. First, residents were more satisfied with activities to improve the neighborhood in sites where stakeholders reported more effective collaboration with law enforcement, community policing officers, and residents. Second, residents were more satisfied with crime prevention in sites where stakeholders reported more effective collaboration with law enforcement and community policing officers. Although based on only a handful of sites, these findings suggest that effective W&S collaborations can lead to residents feeling better about efforts to improve their neighborhoods—including crime prevention efforts. As with findings discussed earlier, these findings highlight the roles of both law enforcement (including community policing officers) and residents.

4.3 IMPLEMENTATION OF THE W&S STRATEGY

Survey responses from site coordinators and other stakeholders indicated that local implementation successfully reflected the W&S strategy in many ways, including the following:

- Many sectors of the community participated, provided leadership, and influenced the focus and direction of the partnership.

- Partnership leadership and administration were seen as effective.

- Collaboration among partners increased dramatically after W&S and was seen as effective in helping the partnership achieve its objectives.

- Partnerships implemented a number of strategies and activities in each of the four central W&S components.

4.3.1 Participation and Leadership

Broad involvement from diverse sectors of the community is a hallmark of the W&S strategy, and achievement at such a high level in so many sites is noteworthy.

W&S grantees achieved substantial success in bringing together numerous sectors of the community, an important step in implementing a comprehensive and multifaceted strategy such as W&S. Grantees also achieved active participation by target area residents, as shown in the finding that in about two-thirds of sites, stakeholders reported that leadership was provided by residents or community leaders. In sites we visited, residents typically filled leadership roles and helped to set direction and ensure that W&S approaches and activities were appropriate to the neighborhood. Residents often served as liaisons between the W&S initiative and the broader neighborhood. Broad involvement from diverse sectors is a hallmark of the W&S strategy, but achievement at such a high level in so many sites is noteworthy. Our study of sentinel sites strongly suggested that the partners beyond law enforcement are not mere window dressing—they are true, valued partners.

4.3.2 Partnership Functioning

In sites in which more groups were seen as major influences in selecting problems to focus on, stakeholder ratings were higher for all three factors of partnership functioning. Having more groups involved with setting the focus aligns nicely with fostering greater Resident Involvement. The findings regarding the other two partnership functioning factors are perhaps more surprising and informative about the viability of the W&S emphasis on inclusivity. Sites with more groups involved in

It is possible to include a number of groups in setting the initiative focus without becoming fractured or bogged down.

setting the focus also were reported by stakeholders to be more successful in Avoiding Bad Approaches and in selecting and implementing fruitful Strategies and Resources. These findings suggest that it is possible to include a number of groups in setting the initiative focus without becoming fractured or bogged down, which supports the W&S emphasis on inclusivity and breadth.

4.3.3 Collaboration

The largest increases in collaboration involved community policing, reinforcing its importance to the W&S strategy.

Stakeholders reported substantial increases in collaboration after W&S compared with before W&S, with the percentage of stakeholders that reported frequent collaboration doubling or tripling for every partner/domain combination that we asked about. Whereas increases in frequent collaboration were seen for all partner/domain combinations, the five largest increases involved community policing, reinforcing its importance to the W&S strategy. Sizable increases were also reported with other law enforcement partners—including not only local law enforcement but also federal or state law enforcement. These findings reflect two key aspects of W&S: the central role of law enforcement and the importance placed on collaboration.

Frequent collaboration with target area residents also increased dramatically, almost tripling. Increased collaboration with residents was reported by stakeholders working in each of the W&S components, further supporting the proposition that residents were involved broadly. Observations during site visits also supported this proposition, with residents involved in numerous activities and roles. Grantees are mandated to involve residents, but achieving and sustaining high levels of resident participation and collaboration is nonetheless a noteworthy accomplishment.

Increased collaboration with residents was reported by stakeholders working in each of the W&S components, supporting the proposition that residents were involved broadly.

We have discussed several ways in which collaboration frequency and effectiveness were associated with favorable outcomes including crime rates, stakeholder perceptions, and resident satisfaction. These associations do not prove that the improved outcomes were caused by the collaborations—or even the W&S initiative in general—but the findings suggest that the collaborations likely contributed. A possible alternative interpretation is that some other factor or factors influenced both the reported levels of collaboration effectiveness and the crime rates or resident satisfaction. Even here, though, the most plausible "other factor" is the W&S initiative or some

aspect of its implementation, such as fostering centralized planning or coordinated efforts.

4.3.4 Strategies and Activities

It was clearly important that the evaluation gather information about the many strategies and activities that grantees used to implement the W&S strategy. Gathering information at the right level of detail was challenging because we had to balance evaluating the broad, multifaceted W&S strategy with not overburdening stakeholders with our data collection efforts. Our approach was to (1) build from previous work by JRSA that identified strategies and activities that grantees proposed and (2) use the modular survey approach described in Chapter 2 to target questions about strategies and activities to stakeholders most knowledgeable about each W&S component. This approach generated a wealth of information that has proven useful in describing local W&S implementation and exploring whether use of specific strategies and activities was associated with better outcomes.[26]

In the law enforcement domain, respondents reported the use of 10 law enforcement strategies per site. The two most common were intensive enforcement for drug crimes and violent crimes, and strategies for reductions in firearms and gangs. Stakeholders reported use of even more strategies in the community policing domain, an average of 15 activities per site. Common activities included police-community relationship building, problem solving, and youth activities. In the PIT domain, stakeholders reported the use of broad strategies such as enhancing collaboration with law enforcement and expanding PIT services. Regarding specific PIT programs, respondents reported the use of 20 strategies per site, most commonly Safe Havens, other after-school programs, and violence education and prevention programs. In the neighborhood revitalization domain, respondents reported the use of nine neighborhood

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[26]We presented stakeholders with fairly long lists of strategies and asked them to indicate which their local initiative had used. If we had instead asked an open-ended question about what strategies they used in each component, the number of strategies provided would likely be much lower. However, in that approach, if a stakeholder did not mention a strategy we would not have known if the local initiative did not use it or the stakeholder failed, or chose not, to mention it. Either approach has limitations, but we believe that asking stakeholders to indicate whether or not they used each strategy was the best approach.

revitalization strategies per site, most commonly strategies to improve the physical environment.

The findings about the multifaceted local implementation of W&S presented above are important for several reasons. First, they provide an overview of local implementation regarding structure, leadership, collaboration, and strategies. Second, the levels of collaboration and strategies suggest that grantees have successfully implemented the W&S strategy (at least according to stakeholder reports). Third, the findings reflect substantial variability among sites, which supported the exploratory analyses through which we had some success identifying implementation approaches associated with better outcomes.

4.4 CONCLUSIONS AND RECOMMENDATIONS

In this section we briefly summarize key findings, make recommendations for improving the W&S strategy, and offer suggestions for future research to further enhance the strategy.

4.4.1 Summary of Key Findings

In summary, grantees successfully implemented the W&S strategy and improved various aspects of target areas in their communities.

Regarding local implementation of the W&S strategy:

- many sectors of the community participated, provided leadership, and influenced the focus and direction of the partnership;

- partnership leadership and administration were seen as effective;

- collaboration among partners increased dramatically after W&S and was seen as effective in helping the partnership achieve its objectives; and

- partnerships implemented a number of strategies and activities in each of the four central W&S components.

Regarding outcomes, there was some apparent benefit of W&S in each of the three categories of outcomes we assessed:

- In crime statistics, rates for burglary, robbery, and aggravated assault improved in target areas more than in other parts of the jurisdictions.

- Stakeholders reported improvement in nearly all target area problems assessed.

- Resident perceptions of some characteristics of their neighborhoods were more favorable in target areas than in comparison areas.

It is difficult, if not impossible, to establish *with certainty* that W&S caused the improvements in outcomes reported above. These types of outcomes are influenced by a wide array of factors, making it a challenge to isolate the effects of any single intervention. This challenge is heightened when the intervention in question is not a well-defined and limited program but rather a comprehensive strategy that takes different shape in different locations, reflecting each community's priorities and resources.

For many potential associations that we tested, the number of statistically significant associations that we found did not greatly exceed the number that we would have expected to find by chance. But for some outcomes and implementation measures, there were clusters of associations that substantially exceeded the number expected by chance. Key associations identified include the following:

- Residents in sentinel sites with longer W&S implementation reported that violence, robbery, and drug dealing were less of a problem than did residents in more recently implemented sites. .

- Residents reported lower levels of several types of crime in sites with better stakeholder ratings on two aspects of partnership functioning (Resident Involvement and Avoiding Bad Approaches).

- Stakeholders reported more improvement in a variety of target area problems in sites that implemented several law enforcement or community policing strategies— although other community policing and neighborhood revitalization strategies were associated with less improvement or worse outcomes.

- Stakeholders also reported more improvement in a variety of target area problems in sites in which stakeholders reported more frequent collaboration with W&S partners in law enforcement, community policing, and neighborhood revitalization.

- Residents were more satisfied with crime prevention and other activities to improve their neighborhood in sites in which stakeholders reported that their collaborations

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> were more effective in helping the local initiative achieve its objectives.

- Rates of several types of crime decreased more in sites in which stakeholders reported that their collaborations were more effective in helping the local initiative achieve its objectives.

Empirically establishing these types of linkages is often difficult, particularly in evaluations of complex, comprehensive, and multifaceted initiatives such as W&S. For example, the Federal Partnership Project reviewed national, multisite evaluations[27] and concluded that findings on whether changes at the system level result in improved outcomes for youth, families, and communities appear to be inconclusive. The report summarizes, "although they documented significant accomplishments, most evaluations did not establish a connection between system changes and client outcomes" (p. 18). In comparison, the results of this evaluation provide some support for the proposition that W&S contributed to the outcomes reported above.

In comparison to evaluations of other comprehensive community initiatives, the results of this evaluation provide some support for the proposition that W&S contributed to the outcomes reported above.

The fact that specific aspects of local W&S implementation were not consistently associated with better outcomes should not diminish the major accomplishments of W&S grantees that were identified:

- successful local implementation of the W&S strategy by diverse grantees

- improved outcomes in many sites, including reduced crime and improvement in other problems

Findings of this evaluation strongly suggest that W&S grantees successfully implemented the W&S strategy and improved the target areas in myriad ways.

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[27]Evaluations reviewed included those of the Safe Schools/Healthy Students Initiative, Safe Kids/Safe Streets Program, Strengthening and Rebuilding Tribal Justice Systems, Tribal Strategies Against Violence, Plain Talk: Addressing Adolescent Sexuality Through a Community Initiative, Drug-Free Communities Support Program National Evaluation, The Greenbook Demonstration Initiative Interim Evaluation Report, and others.

4.4.2   Recommendations

The main conclusion that we draw from these findings is that the W&S strategy has demonstrated sufficient positive benefits that it should be continued without major modifications. We offer the following recommendations that may help to enhance the strategy—but caution that "if it ain't broke, don't fix it." We believe that W&S does not need a lot of fixing.

The main conclusion that we draw from these findings is that the W&S strategy has demonstrated sufficient positive benefits that it should be continued without major modifications.

Funding

The W&S funding that grantees receive per year is in danger of dropping to such low levels that key components—such as the site coordinators and overtime pay for enhanced law enforcement—are in danger. To implement W&S successfully, grantee communities must leverage substantial resources other than W&S funding. Most appear successful in doing so, whether through obtaining other funding or in-kind contributions, which in many sites are sizable.

We have no doubt that CCDO is aware of this issue—site coordinators made it clear that they had shared their concerns—and we assume that CCDO is continuing to seek the optimum funding approaches, given the federal budget environment in which it is operating. We do not recommend reducing the number of years funded per grant, should that be under consideration. Even with 5-year grants, many stakeholders reported to us that they felt like they were "really just getting going" as the grant was ending. Shortening the grant period would likely make it impossible to achieve the comprehensive and integrative approach that is a hallmark of W&S.

We recommend that CCDO place a priority on keeping funding per grantee at least at current levels—and preferably restore funds, at least somewhat, to earlier levels. We recommend funding fewer sites at viable levels rather than more sites at levels that make it difficult or impossible to truly implement the W&S strategy.

If the total funding that CCDO has available for W&S remains at current levels or declines further, one option for maintaining grantee funding at viable levels would be to reduce the number of new grantees funded. If its budget allowed, we would prefer that CCDO maintain or even increase the number of grantees. However, since that is unlikely, we recommend that CCDO place a priority on keeping funding per grantee at least at current levels—and preferably restore them at least somewhat to earlier levels, as many coordinators reported that current levels have become insufficient. We recommend funding fewer sites at viable levels rather than more sites at levels that make it difficult or impossible to truly implement the W&S strategy.

CCDO may want to consider concentrating funds on cities that are experienced in W&S, to benefit from the long-term involvement of key players. In these communities the USAO, police, prosecutors, mayor's office, city agencies, schools, and others are already on board, which would provide many benefits to a new target area. One downside to this approach is that it would make it more difficult for new communities to join W&S, many of which would likely benefit from it.

Central W&S Components

The evaluation found support for both the viability and effectiveness of the four central components of law enforcement, community policing, PIT, and neighborhood revitalization. As the W&S strategy intends, these components provide a synergy—benefits greater than the sum of the parts. We recommend retaining this central—and vital—aspect of W&S.

The evaluation found support for both the viability and effectiveness of the four central components of law enforcement, community policing, PIT, and neighborhood revitalization.

Weeding activities are key to lowering crime rates, but if they are not approached with care and in conjunction with other components, residents may perceive them as too much of a "strong-arm" approach. For example, in some sentinel sites resident perceived problems with police stopping too many people for no apparent reason or using excessive force. However, we also observed in some sentinel sites that W&S has been able to increase law enforcement without the community feeling that it is "under siege." In these sites, residents generally feel that law enforcement is working with them and for them, not on them. This was the intent of blending weeding and seeding, and it appears to be successful in some but not all sites.

Much of this success at blending weeding and seeding comes from the attention paid to community policing, which serves as the bridge as envisioned in the W&S strategy.

Much of this success at blending weeding and seeding comes from the attention paid to community policing, which serves as the bridge as envisioned in the W&S strategy. In many sites community policing efforts had indeed brought residents and law enforcement together, which provided many benefits, including improving the environment for weeding. Community policing is vital to W&S, and at the same time the comprehensive nature of the strategy enhances community policing and its benefits. Many locales implement community policing without W&S, but with W&S communities have resources they can use to bring the necessary groups to the table and to support activities to engage residents and

strengthen services. We recommend retaining the focus on community policing.

Neighborhood revitalization seemed in many places to benefit greatly from effective community policing. In some sentinel sites, W&S fostered collaboration between law enforcement and government agencies responsible for enforcing code, removing abandoned cars and other junk, improving the infrastructure, or other methods of improving the physical environment—collaboration that was lacking before W&S. This collaboration often helped each side learn more about how the other operated and how they could work together to achieve their goals. For example, intensive neighborhood cleanups—one site described filling multiple Dumpsters over a weekend—were followed by more stringent enforcement of littering and dumping laws. One side got the area clean, the other kept it clean. Moreover, community policing officers often contributed to cleanup activities—typically volunteering their time—which helped to show the neighborhood their commitment and caring. Collaboration between law enforcement and groups dedicated to neighborhood revitalization has contributed greatly to W&S achievements. We recommend that CCDO continue to emphasize this approach and help all grantees adopt it, such as through developing "best practices" to be disseminated at the grantee conferences or through technical assistance.

Collaboration between law enforcement and groups dedicated to neighborhood revitalization has contributed greatly to W&S achievements. We recommend that CCDO continue to emphasize this approach and help all grantees adopt it.

In contrast to this focus on improving physical aspects of the target area, neighborhood revitalization activities involving economic development and improvements to housing stock were often not as fully realized. Stakeholders reported lower levels of collaboration with economic development partners than with any other groups, both before and after W&S—although they did report sizable increases in collaboration after W&S. Some sentinel sites did have a strong focus on economic development, such as by colocating an employment resource center (for help with resumes, job skills, job openings, etc.) in a community recreation center to increase visibility, accessibility, and traffic. With few W&S resources available for the most costly activities of developing jobs and affordable housing, support for these activities comes from leveraged funds or reallocations of current projects. Some sentinel sites' stakeholders expressed frustration at feeling they have program mandates they are unable to meet. CCDO may want to consider lessening the emphasis on *major* neighborhood

revitalization activities or providing additional federal support for these activities from HUD or Labor. Given the connection between unemployment and crime, we recommend at minimum that CCDO seek to identify and disseminate successful and affordable approaches to economic development in W&S sites.

We recommend that CCDO seek to identify and disseminate successful and affordable approaches to economic development in W&S sites.

The PIT component seems less than completely integrated in many sites. Levels of collaboration are not as high on PIT as on law enforcement or community policing, although they are higher than on neighborhood revitalization. PIT may be the component for which it is most important to fit priorities and approaches to community needs and resources. To the extent that such customization results in a large number of diverse strategies and activities, that is appropriate and probably beneficial for the communities. Evaluating those many strategies is a challenge, but the component should not be shaped to fit evaluation needs. In sentinel sites, PIT activities were largely concentrated on primary prevention and intervention for at-risk populations, with little focus or resources on treatment. That may be because treatment is often expensive and W&S grantees opted to use their resources elsewhere. PIT activities seem to build goodwill among residents, bring in neighborhood organizations, and increase youth involvement. We recommend that the component be retained in the strategy but that CCDO consider whether it wants to provide guidance (or restrictions) about what should be included in PIT.

W&S Principles

The importance of core W&S principles was demonstrated in a number of ways.

PIT activities seem to build goodwill among residents, bring in neighborhood organizations, and increase youth involvement. We recommend that the component be retained in the strategy.

Collaboration and resident involvement are important, as demonstrated by their association with improved outcomes. Clearly they should continue to be promoted. The separate emphasis on coordination seems redundant and not especially helpful. If CCDO perceives a distinction between collaboration and coordination and intends this distinction to provide important benefits, the distinction should be clarified and emphasized to grantees. From our perspective, this distinction does not add value beyond that provided by collaboration in a broader sense.

We recommend that CCDO encourage grantees to develop and implement sustainability plans early in the process, well before the end of their grants.

Local leveraging of funds for PIT and neighborhood revitalization activities is important, given the low funding otherwise available. This leveraging is likely important for sustainability of W&S because non-W&S funding for law enforcement and community policing will remain available. We did not directly study sustainability to a great extent, but many stakeholders in sentinel sites commented that they were not sure how some activities under PIT and neighborhood revitalization would be continued after W&S funding ended. Given the importance of these activities to W&S, we recommend that CCDO encourage grantees to develop and implement sustainability plans early in the process, well before the end of their grants.

The W&S strategy to split funds equally between weeding and seeding seems effective and is well received in the community. We recommend keeping it in place.

The W&S strategy to split funds equally between weeding and seeding seems effective and is well received in the community. We recommend keeping it in place.

The solid involvement of the USAO provides benefits such as raising the visibility of the initiative and helping to get other leaders to the table. Specific roles and responsibilities of the USAO seem less critical and are driven in part by geography. In some sites the target areas are relatively close to the USAO building, which facilitates more direct USAO involvement; other sites are many miles removed from the USAO building and may need to have different expectations or be creative in how to involve the USAO. Either situation can work if the chosen approach aligns well with the geographic situation. We recommend that CCDO explicitly acknowledge this reality, be flexible in its requirements, and encourage grantees to involve the USAO in ways that best fit their situations.

Our experience with sentinel sites shows that it is important for grantees to have a full-time or near-full-time site coordinator. Although the steering committee and other stakeholders play major roles, the full-time attention of the site coordinator is irreplaceable. Implementing W&S in all its complexity is not a part-time job. We recommend that CCDO continue to require full-time site coordinators and also offer funding at levels to make it possible to meet this requirement.

Steering committees should continue to be required to have broad representation and some minimum number or percentage of members representing target area residents. Representation across many community sectors, and the

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Real participation by residents is important, to help ensure that selected priorities and approaches are well suited to the neighborhood and that they will be accepted by residents.

collaboration that it fosters, are integral to the W&S strategy and have had demonstrable benefits. Real participation by residents is equally important, both in terms of helping to ensure that selected priorities and approaches are well suited to the neighborhood and that they will be accepted by residents.

DEA representation on the steering committee should be a local option, not a general requirement. Such representation does not seem to be needed in some sites and may seem perfunctory, to the detriment of committee functioning.

Safe Havens play a central role in some sites but are less important in others. We recommend that CCDO consider whether Safe Havens should continue to be required. If the requirement is continued, CCDO should provide some sites with guidance or assistance in maximizing the functionality and benefits of Safe Havens.

4.4.3   Future Evaluations

This evaluation has integrated a variety of information from multiple sources to provide an extensive yet rich description of W&S and its effects. At several points in this report, we described limitations of analyzing and interpreting only one round of resident survey data, particularly given the challenges of identifying well-matched comparison areas. Conducting another round of the resident survey would likely be of great value. Analysis of data from the second round could use data from the first round to help control for differences between target and comparison areas. The second round would also provide information on whether improved outcomes are sustained—although that becomes less likely as time passes and W&S implementation diminishes or ceases. Other aspects of the evaluation, such as analysis of crime statistics or conducting another round of the Web-based stakeholder survey, could be done at relatively low cost because much of the preparatory work has already been done.

In conducting this evaluation, we were unable to address all topics of interest and importance. Some leading candidates for additional study include the following.

CCDO provides substantial guidance and support to grantees through grantee meetings, technical assistance, and the W&S

Web site. It would be worthwhile to explicitly measure how much grantees use these resources and to what effect.[28]

Leveraging resources is important to the W&S strategy, and information about amounts accessed by grantees is available in the annual GPRA reports submitted by grantees. An evaluation could explore what these data suggest about grantee success in leveraging other resources and whether it enhanced outcomes.

Finally, the evaluation did not include a cost-benefit or cost-effectiveness component. Given the relatively limited empirical information available about W&S before this evaluation, we thought it more appropriate to focus the evaluation on implementation and outcomes. If the evaluation found that grantees successfully implemented the W&S strategy and achieved relevant outcomes, then a cost study would be in order if funding were available. We expect that if a cost study were conducted, it would likely find W&S to be cost-effective and to provide substantial return on investment. We base this prognostication on three factors:

- the relatively low levels of Federal funding that W&S grantees receive, with requirements to obtain other sources of funding or otherwise leverage local resources

- the improvements in an array of outcomes, including crime and other problems

- the costs that many of these problems pose to communities—and the cost savings that could be realized by reducing the problems

Of course, prognostication is not a substitute for empirical evaluation. The only way to truly gain a better understanding of the costs, benefits, and cost-effectiveness of the W&S strategy is to conduct a rigorous cost study.

Building upon the evaluation described in this report, future research should be able to provide additional information and insights into the aspects of W&S that contribute to its achievements and the aspects where efforts for improvement should be focused.

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[28]RTI is conducting an evaluation of the Grants to Benefit Homeless Individuals program for the Center for Substance Abuse Treatment. One topic is the use of technical assistance and its effect on outcomes. A similar approach could be applied to W&S.

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Appendix A: Analysis

This appendix describes the approaches and statistical models used to analyze three major data sources in this evaluation: a web-based survey of stakeholders, crime data reported by grantees under GPRA, and an in-person survey of residents in W&S neighborhoods and matched comparison neighborhoods.[29]

A.1 STAKEHOLDER SURVEY DATA

Analyses of stakeholder survey data conducted to describe stakeholder perceptions of local W&S implementation and severity of problems in target neighborhoods were summarized in the main body of text. This section of the technical appendix describes methods used to assess associations between variables within the stakeholder survey. We analyzed associations between W&S implementation and stakeholder perceptions of changes in neighborhood problems to identify aspects of implementation that were related to better outcomes.

While some of the descriptive information included in the text was reported at the respondent level, in the analyses of associations all variables were aggregated at the site level. This section provides an overview of the regression models used, describes how variables included in the analysis of associations were constructed, and discusses associations that were assessed.

A.1.1 Overview of Ordinary Least Squares and Logistic Regression Models

The two primary types of statistical analyses used to assess associations within the stakeholder survey were (1) ordinary least squares (OLS) regression for continuous outcomes; and (2) logistic regression for dichotomous outcomes.

The general OLS model for k predictors is expressed as:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon, \text{ where}$$

y = the value of the dependent variable,

β_0 = the intercept of the dependent variable,

β_n = the regression coefficients,

X_n = the value of the independent variables, and

ε_i = a residual value (error)

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[29] For additional information, please contact the lead author at trudeau@rti.org.

The general logistic regression model for k predictors is expressed as:

$$g = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon, \text{ where}$$

g = the log odds of the dependent variable,

β_0 = the intercept of the dependent variable,

β_n = the regression coefficients,

X_n = the value of the independent variables, and

ε_i = a residual value (error)

A.1.2 Associations Between Implementation Characteristics

Associations between partnership structure or composition and partnership functioning. The following variables were used to assess the relationship between partnership structure or composition and partnership functioning:

- *Functioning scales*: In the Partnership Functioning survey module, stakeholders were asked to indicate how much they agreed with 38 statements about partnership functioning that previous research on W&S and similar initiatives suggested might impede or facilitate implementation. The items were coded such that higher scores reflect more agreement: 1=strongly disagree, 2-somewhat disagree, 3=somewhat agree, 4=strongly agree. Items that were negatively worded were reversed scored so that for all items higher scores were more favorable. Factor analysis was used to determine whether and how items were responded to in similar patterns. A factor analysis model (based on a promax rotation exploratory factor analysis) was run in MPlus and yielded a 3 factor model; 4 of the 38 items did not load on any factor and were dropped from the model. Three site-level scales were then constructed using the items indicated by the factor analysis. Items in each factor were first averaged for each respondent and then across respondents within each site. Respondents who responded to less than half of the functioning items were dropped from the analysis.
- *Leadership*: In the Local Initiative Focus survey module, stakeholders were asked whether each of 10 groups provided leadership. On occasion, stakeholders within a site disagreed as to whether a particular group provided leadership. If at least half of the respondents within a site indicated that a group provided leadership, then we considered that group to have provided leadership.

- ***Groups influencing focus*:** In the Local Initiative Focus module, stakeholders were asked to indicate the level of influence (0=not an influence, 1=minor influence, 2=moderate influence, or 3=major influence) each group had in the selection of problems to focus on when the local initiative began. Two different types of measures of groups influencing problems to focus on were constructed. First, dummy variables indicating whether a respondent rated each group as a "major" influence were created. A site-level measure of the number of groups influencing focus was created by first summing the number of groups seen as a major influence for each respondent and then averaging these sums across respondent within each site. Second, the influence scores for each group were averaged across respondents within site, yielding an average site-level influence score for each group.

To assess the relationship between leadership and functioning, three OLS regression models were run; each of the factor analysis-based functioning scales was regressed on the 10 groups providing leadership.

To assess whether the groups that influenced which problems to focus on were associated with perceptions of how well the partnership functioned, six OLS regression models were run. First, each of functioning scales was regressed on the number of groups influencing focus. Next, each of the functioning scales was regressed on the average influence scores for each group.

Associations between problem severity and initiative responses. The following variables were used to assess the relationship between the seriousness of different types of problems at the beginning of the local initiative and whether the local initiative focused on these problems:

- ***Problem rating*:** In the Target Area Problems module, stakeholders were asked how much of a problem 24 issues were when the initiative began. Item responses were scored from 1 (not a problem) to 4 (major problem). For each problem, we calculated a site average problem rating by averaging these items across respondents within each site.
- ***Initial focus*:** In the Partnership Focus module, stakeholders were asked the extent to which the same 24 problems were a focus of the initiative when it began. Item responses were scored from 1 (not a focus) to 4 (major focus). For each

problem, we calculated a site average focus rating by averaging these items across respondents within each site.

To assess the alignment between the seriousness of problems before W&S and how much the local initiative focused on each problem, 24 bivariate OLS regression models were run; each of the site-level average focus scores were regressed on the corresponding site-level problem scores.

A.1.3   Associations Between Stakeholder Perceptions of Neighborhood Problems and W&S Implementation

For each of the associations described in the remainder of this section, the outcomes are 24 site-level problem improvement ratings indicating how much a problem improved or worsened between the beginning of the initiative (measured retrospectively) and the time of the survey:

- ***Problem improvement***: In the Target Area Problems survey module, stakeholders were first asked how much of a problem various topics were in the target area when the local initiative began there. Later in the survey, respondents were presented the same topics and asked how much of a problem they were at the time of the survey. Item responses were scored from 1 (not a problem) to 4 (major problem). First, for each respondent each problem rating at the time of the survey was subtracted from the corresponding problem rating before W&S began to construct 24 improvement scores. For each problem, we then calculated a site average improvement score by averaging these items across respondents within each site. These improvement scores indicate the number of categories a problem "moved" between the beginning of the initiative and the time of the survey. For example, an improvement score of 2 indicates an improvement of 2 categories—e.g. the problem was originally viewed as major (4) and is now viewed as minor (2). For some analyses, the site-level problem improvement scores were dichotomized so that 1=improved at least 1 category and 2=did not improve at least 1 category.

Associations between stakeholder perceptions of problems and length of implementation. The following variable was used to assess the relationship between problem improvement and length of W&S implementation:

- ***Implementation length***: Length of local implementation of W&S was based on the implementation year reported in Government Performance and Results Act (GPRA) reports

Each problem improvement score was regressed on implementation length in 24 bivariate OLS regression models.

Associations between stakeholder perceptions of problems and partnership functioning. The following variables were used to assess the relationship between problem improvement and partnership functioning:

- ***Functioning scales***: Described above

Each problem improvement score was regressed on the three factor-based functioning scales in 24 OLS regression models.

Associations between stakeholder perceptions of problems and strategies and activities. The following variable was used to assess the relationship between problem improvement and initiative strategies and activities in each of the four W&S domains (law enforcement, community policing, PIT, and neighborhood restoration):

- ***Strategies and activities***: In the domain-specific survey modules, stakeholders were asked whether each of a series of strategies or activities was part of the local W&S initiative. For each respondent, item responses were scored 1 if an activity was reported to be part of the initiative and 0 if it was not. For each activity, we calculated the percentage of respondents within each site reporting that it was part of the initiative.

We examined correlation matrices of the site-level measures of initiative strategies and activities with the 24 problem improvement variables.

Association between stakeholder perceptions of problems and collaboration. The following variables were used to assess the relationship between the problem improvement and collaboration:

- ***Collaboration frequency***: In the Collaboration survey module, stakeholders were first asked how frequently they collaborated on activities in each of the four core domains with seven types of W&S partners before W&S. They were later asked about collaboration since W&S began. Responses were coded such that higher scores reflect more collaboration: 1=never or rarely,

2=occasionally, 3=frequently. For each activity type, these responses were then averaged across all partner types for each respondent to create measures of the frequency of collaboration within domain (regardless of partner type). For each domain, we then averaged the collaboration frequency scores across respondents within each site.

- ***Collaboration effectiveness*:** Stakeholders were also asked how effective their collaborations with each of the seven types of W&S partners were in helping the local initiative achieve its intended outcomes. Responses were coded such that higher scores reflect more effective collaborations: 1=not effective, 2=somewhat effective, 3=very effective. For each partner type, we averaged the collaboration effectiveness scores across respondents within each site.

To assess the relationship between collaboration frequency and stakeholder perceptions, each of the dichotomous problem improvement scores was regressed on the 4 collaboration frequency measures in a series of 24 logistic regression models.

To assess the relationship between collaboration effectiveness and stakeholder perceptions, each of the dichotomous problem improvement scores was regressed on the 7 collaboration effectiveness measures in a series of 24 logistic regression models.

Many of the sets of analyses described above involved numerous individual analyses. As described in the text, rather than focus on the results of individual analyses, which may well have been due to chance, we focused on patterns of analyses. We reported patterns of associations that were statistically significant at least twice as frequently as would be expected by chance. We then studied the individual associations to determine whether they fell into meaningful patterns.

A.2   GPRA CRIME DATA

This section describes techniques used to analyze crime data submitted by W&S grantees in their annual GPRA reports. It provides an overview of the longitudinal growth models that were used, the analyses used to compare changes in crime rates in target areas and jurisdictions as well as differences in rates, and the main trajectory forms.

A.2.1 Overview of Longitudinal Growth Models

Longitudinal growth models (LGM) were used to analyze changes in GPRA crime rates over the course of the Weed and Seed initiative. LGM estimate trajectories across time points and yield an estimate of an intercept or initial status, as well as at least one slope that indicates the amount of change in the dependent variable trajectory for a set amount of change in the time scale. These models capture variability in intercepts and slopes of the individual units, as well as include the covariance between the two, reflecting the relationship of change over time to the initial level of an outcome.

Unconditional LGM serve as descriptive models of change and estimate the direction and magnitude of change over time, with higher order (e.g., quadratic) slope terms capturing nonlinear trajectories. Adding covariates or putative causal variables yields conditional growth models which are useful for hypothesis testing for a variety of evaluation questions. These models allow for investigating differences in baseline/initial levels of the outcome as a function of predictors, as well as investigating the impact of these variables on the rate of change in the outcome of interest; that is, some groups may increase or decrease at different rates, or some groups may change in an entirely different direction (e.g., some increase over time while others decrease).

Growth models are typically estimated with either structural equation modeling (SEM) or hierarchical linear modeling (HLM) techniques; both methods yield comparable estimates. Each of these techniques has advantages. The SEM approach permits more complicated models, including parallel process growth models, where change in both the independent variable and dependent variable is modeled. In contrast, HLM has the ability to handle varying times of measurement more easily. The HLM method, evaluated using SAS PROC MIXED, was used to analyze change in GPRA crime reports because it was sufficient for the models used and allowed greater integration with other procedures to examine plots and store data. The notation and formulae below are thus presented using the HLM or multilevel modeling framework for these models.

A benefit to using the LGM approach is that the impact of missing data is minimized because the growth model permits analysis of all available data. Complete data were not needed for each site/jurisdiction over all measurement occasions to be included appropriately in parameter estimation.

A.2.2 Model Structure and Equations

The general growth model models the change in a construct (e.g., rate of aggravated assaults in a Weed and Seed site or surrounding local jurisdiction), typically over three or more time points. The basic unconditional growth model without predictors is expressed as

$$y_{it} = \beta_{0i} + Time(\beta_{1i}) + \varepsilon_{it}$$, where

y_{it} = the value of the dependent variable at time t for case i,

β_{0i} = the intercept or initial status of the dependent variable for case i,

β_{1i} = the slope or rate of change per year in the dependent variable for case i,

$Time$ = the indicator of time of measurement (0,1,2 etc.), and

ε_{it} = a residual value, indicating the discrepancy between the observed score of case i at time t and the predicted value based on the linear growth trajectory fit by the model.

Both β_{0i} and β_{1i} vary by individual and may be expressed as

$$\beta_{0i} = \gamma_{00} + u_{0i}$$, and

$$\beta_{1i} = \gamma_{01} + u_{1i}$$, where

γ_{00} = the overall intercept or average of the dependent variable at the first time occasion across all cases,

γ_{01} = the average slope or change in the dependent variable across all cases,

u_{0i} = random variability in the intercept by case, and

u_{1i} = random variability in the slope by case.

Note that in the case of the GPRA data, each case is an entire site. Setting the initial time indicator (t) to zero permits the model to estimate the intercept as the initial status of the dependent variable at the first measurement occasion. For all Weed and Seed crime rate models, time was coded so that t=0 at the calendar year of implementation for each reporting site. Thus, if a site implemented in 2004, crime report data for that site and year was given a time value of 0, whereas a site that implemented in 2005 would have t=0 applied to its 2005 crime rate reports. Sites contributed up to seven data points for each model: two years prior to implementation, implementation year, and then four years post implementation. Some older sites had data five and six years post-implementation but these time points were too sparse to be used effectively and were not included in analyses reported.

Adding a group (e.g., W&S site vs. local jurisdiction) indicator to the model yields the following expanded equation for the random effect portion of the model:

$$\beta_{0i} = \gamma_{00} + \gamma_{10}X + u_{0i}, \text{ and}$$

$$\beta_{1i} = \gamma_{01} + \gamma_{11}X + u_{1i}, \text{ where}$$

X = the group dummy code,

γ_{10} = the coefficient relating the group effect on the initial level of the dependent variable, and

γ_{11} = the coefficient relating the impact of the independent variable on the rate of change (slope).

The combined equation for the full model is then

$$y_{it} = \gamma_{00} + \gamma_{10}X + u_{0i} + Time(\gamma_{01}) + Time(\gamma_{11}X) + Time(u_{1i}) + \varepsilon_{it}$$

The main effect of group represents the differences predicted by that variable at the intercept (implementation year) and is captured by the effect, $\gamma_{10}X$. The effect of time, or rate of change in the outcome, is represented by the slope component, γ_{01}. Time by independent variable interaction is expressed in the term $Time(\gamma_{11})X$ and represents differential slopes of the dependent variable according to group membership.

A.2.3 Target Area and Jurisdiction Crime Rates and Difference Scores

Two general categories of models were used to examine change over time in GPRA crime rates and differences between W&S sites and local jurisdictions. The first category used individual crime rates by year for sites and jurisdictions independently and examined differential change using a conditional LGM as outlined above. The second category used difference scores in rates computed for each site-jurisdiction pair at each year (i.e. site minus jurisdiction). Difference scores were analyzed with unconditional LGM since group differences were captured in the outcome variables entered into the models. Models yielded generally comparable results. The difference scores were preferred for investigating the impact of initiative-level factors such as communication and functioning for several reasons. First, encapsulating the group differences in a single item simplifies the models by eliminating one grouping factor. Second, and more importantly, models using the individual site/jurisdiction crime rates would not be able to effectively examine W&S site-level factors. Local jurisdictions lacked

comparable data and so would not be included in any model using these factors as predictors. In contrast, the difference score models created a single item reflecting site/jurisdictions differences and this could be paired with site-level data to examine the impact of site factors on the magnitude and direction of differences between Weed and Seed sites and their surrounding local jurisdictions.

A.2.4 Trajectory Forms

A variety of trajectory forms were assessed in examining change in crime rates over time because it was unclear what trajectory form (e.g., linear, curvilinear, piecewise or segmented) would be most appropriate for each crime rate outcome. Two models fit the data well and were parsimonious:

1. **Linear**: change in crime rates was estimated as a linear process from 2 years prior to implementation to up to 4 years post-implementation.

2. **Pre-implementation compared to Post-implementation**: an aggregate model that compared all pre-implementation rates to all post-implementation rates. Slope represents the overall change in rate pre- to post-implementation.

These models were the focus of analyses discussed in this report.

A.3 RESIDENT SURVEY DATA

A. 3.1 Overview

Multilevel regression models were used to analyze responses to the resident survey. These models estimated differences in resident perceptions as a function of various site-level predictors such as partnership functioning and collaboration amongst stakeholders. Models entered individual site predictors and controlled for respondent gender and year of Weed and Seed implementation.

Gender was entered as a level 1 (individual level) variable. Implementation year and other site-level predictor variable were entered as level 2 (site level) variables. Models were estimated using SAS PROC MIXED (for continuous dependent variables) and PROC GLIMMIX (for categorical dependent variables) using site as the unit of analysis. Random effects were included for model intercepts only.

A.3.2   Model Structure and Equations

The general multilevel model used to analyze resident survey responses can be expressed with the equations below.

$$y_{ij} = \beta_{0j} + \beta_1(Gender) + \varepsilon_{ij}, \text{ where}$$

y_{ij} = the value of the response for case *i* in site *j*,

β_{0j} = the intercept of the dependent variable for site *j*,

β_I = the individual level effect of gender,

Gender = a respondent gender indicator, and

ε_{ij} = a residual value, indicating the discrepancy between the observed score of case *i* in site *j* and the predicted value based on model parameters.

The intercept β_{0j} varies by site and is conditional on the site-level functioning items. It is expressed as

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(SiteIV) + \gamma_{02}(IY) + u_{0j}, \text{ where}$$

γ_{00} = the overall intercept of the dependent variable across all sentinel sites,

γ_{01} = the effect of the site-level predictor on the level of the outcome,

γ_{02} = the effect of implementation year,

SiteIV = the site level predictor,

IY = year of implementation, and

u_{0j} = random variability in the intercept by site.

The full expanded equation for resident survey responses may then be expressed as

$$y_{ij} = \gamma_{00} + \gamma_{01}(SiteIV) + \gamma_{02}(IY) + \beta_1(Gender) + u_{0j} + \varepsilon_{ij}$$