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National Evaluation of the COPS Program

Title I of the 1994 Crime Act

research report

National Evaluation of the COPS Program— Title I of the 1994 Crime Act

by

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Foreword

Title I of the 1994 Crime Act (Violent Crime Control and Law Enforcement Act) encouraged local and State law enforcement agencies to pursue two objectives simultaneously: increase the number of sworn officers on the street and adopt community policing. Signed into law on September 13, 1994, the legislation authorized nearly $9 billion over 6 years to achieve those objectives.

Soon after the signing of the Crime Act legislation, the U.S. Department of Justice (DOJ) created the Office of Community Oriented Policing Services (COPS) to administer the new grant program and fulfill the mandated objectives of Title I.

The Act also authorized funds for the Attorney General to initiate a national evaluation of what soon became known as the COPS program. The National Institute of Justice (NIJ)—the primary research and development arm of DOJ—issued a solicitation requesting proposals from organizations desiring to compete for the task.

On the basis of a competitive process, NIJ awarded the grant to the Urban Institute, which embarked on a series of national telephone surveys, site visits, case studies, and other data collection efforts focusing on the COPS program. The data and findings presented in this report represent the results of the independent evaluation conducted by the Urban Institute.

This Research Report presents evaluation findings based primarily on the first 4 years of the COPS program, but includes several projections up to 2003. Analyses of data collected in mid-2000 are under way and may result in refinements of some findings.

In addition to the national evaluation, NIJ has awarded several grants to researchers for jurisdiction-specific studies focusing on transitions to community policing and on other related issues.

Julie E. Samuels
Acting Director
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Acknowledgments

This evaluation combines the work of many people. In such a joint enterprise, fairly recognizing the credit and responsibility that each contributor is due is no easy task.

The list of coauthors on the title page is ordered to identify the two co-principal investigators, followed by alphabetical lists of: four lead authors of chapters; the leader and two members of an analysis team whose work permeates most of the report; three coauthors of at least one chapter; and six colleagues whose findings, insights, databases, or analyses helped make this volume what it is.

> Three coauthors—Buerger, Langston, and Roehl—led programmatic assessment teams that generated rich reports based on site visits to 30 COPS grantee agencies. Other leaders and members of site teams were Thomas Cowper, Mark Cunniff, Lawrence Fetters, Jack Greene, Blaine Liner, Ray Manus, Michael Maxfield, Edmund McGarrell, Alberto Melis, Kevin Reeves, William Rehm, Roger Rokicki, and Dennis Rosenbaum. We are grateful to all of them and to the chief executives and staff, too numerous to mention here, of the 30 agencies that hosted our teams, answered their questions, and reviewed their draft reports.

Three more coauthors—Coles, Sheinbaum, and Thacher—also served double duty, by writing case studies of organizational change in 10 COPS grantee agencies, under the direction of Mark Moore and Francis Hartmann. We are grateful to them and to the chiefs and staff of those 10 agencies.

We owe thanks to our colleagues at the National Opinion Research Center (NORC), who conducted three waves of national law enforcement agency surveys. Cathy Haggerty directed Wave 1; Alma Kuby and Laurie Imhof directed Waves 2 and 3; and Phil Panczuk did the complex programming needed for computer-assisted telephone interviewing at all three waves. We are grateful to the NORC interviewing teams for their persistence and accuracy, and to the 1,724 law enforcement chief executives and designees who answered their questions.

At the Urban Institute, John Roman and Mary Norris Spence capably managed several data collection operations. O. Jay Arwood produced the text, tables, and figures for three complete drafts of this report; he displayed creativity, accuracy, and grace under pressure well beyond the call of duty. He, Diana Dandridge, Joyce Sparrow, and Nicole Brewer provided the administrative support needed throughout this complex project.

The COPS Office supported us in every way that an evaluator has a right to expect: providing background information, answering our questions, providing manual and automated files, and constructively challenging our interim findings as needed. Directors Joseph Brann and Thomas Frazier created a cordial climate within which others—especially Pam Cammarata, Charlotte Grzebian, Dave Hayeslip, Gil Kerlikowske, Nina Pozgar, Ellen Scrivner, Benjamin Tucker, and Craig Uchida—arranged or provided whatever assistance we requested.

Joseph Koons extracted and explained the COPS Office grants management data that we needed to study grantees. Cynthia Schwimer

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1. Overview

Jeffrey A. Roth and Joseph F. Ryan

The Violent Crime Control and Law Enforcement Act (the Crime Act) was signed into law by President Clinton on September 13, 1994. Of the $30 billion in expenditures authorized by the Crime Act, nearly $9 billion was allocated for Title I, which is also known as the "Public Safety Partnership and Community Policing Act of 1994." Title I, the legislative basis for the Community Oriented Policing Services (COPS) program, listed four specific goals intended to change both the level and practice of policing in the United States:

1. To increase the number of officers deployed in American communities.

2. To foster problem solving and interaction with communities by police officers.

3. To encourage innovation in policing.

4. To develop new technologies for assisting officers in reducing crime and its consequences.

Title I authorized the expenditure of approximately $9 billion over 6 years for use in three primary approaches to achieving the goals. The first approach was to award 3-year grants to law enforcement agencies for hiring police officers to engage in community policing activities. The second was to award grants for acquiring technology, hiring civilians, and, initially, paying officer overtime—all with the intent of increasing existing officers' productivity and redeploying their freed-up time to community policing. The third was to award grants to agencies for innovative programs with special purposes, such as reducing youth gun violence and domestic violence.

The hiring grants were limited to 75 percent of each hired officer's salary and fringe benefits, normally up to a "3-year cap" of $75,000. The grants for other resources were not limited by the cap. Normally, grantees were required to match the awards with at least 25 percent of the program costs, to submit acceptable strategies for implementing community policing in their jurisdictions, and to retain the COPS-funded officer positions using local funds after the 3-year grants expired. Funds were authorized to reimburse up to $5,000 of training costs for former military personnel hired under the Act. Further, the Act required simplified application procedures for jurisdictions with populations of less than 50,000 and an equal distribution of funds between jurisdictions with populations of more than and less than 150,000. As with most Federal grant programs, COPS-funded resources were required to supplement local expenditures, not supplant or replace them.

To carry out this statutory mandate, eight initiatives, described more fully in chapter 2, were undertaken:

1. Within a month after the Crime Act was signed into law, COPS Phase I grants for hiring officers were awarded to agencies that had previously applied unsuccessfully for grants under the Police Hiring Supplement (PHS) program; together, COPS Phase I and PHS funded nearly 4,700 officers.

2. Also within that month, the U.S. Department of Justice (DOJ) created a new agency—the Office of Community Oriented Policing Services (the COPS Office)—to administer the new grant program.

3. In November, the COPS Office established two grant programs for hiring officers: Funding Accelerated for Small Towns (COPS FAST), with simplified application procedures for small agencies; and Accelerated Hiring, Education, And Deployment (COPS AHEAD), with

more stringent application procedures for large agencies. Later, these two programs were succeeded by the Universal Hiring Program (UHP) for all jurisdictions regardless of size.

4. Within a few months, the COPS Office created the Making Officer Redeployment Effective (COPS MORE) program to fund technology, civilians, and overtime (the overtime option was eliminated after fiscal 1995).

5. To process training grants for hired military personnel, the COPS Office established the Troops to COPS program.

6. To address local law enforcement needs other than new officers and other resources, the COPS Office received authorization to administer the existing Comprehensive Communities Program and created other grant programs to launch the Police Corps and help grantees address such specific problems as domestic violence, youth firearms violence, gangs, methamphetamines, and school crime.

7. To encourage and assist the policing field in its transition to community policing, the COPS Office funded four additional activities: the Community Policing Consortium to provide training and technical assistance in community policing; its own Program, Policy Support, and Evaluation Division to assess and evaluate community policing activities; part of the policing research program of the National Institute of Justice (NIJ); and a network of regional community policing institutes (RCPIs), in which educators, law enforcement agencies, and community organizations collaborated in community policing research, demonstration programs, training, and technical assistance.

8. To foster compliance with the programmatic requirement to implement community policing and with all administrative requirements, the COPS Office undertook an extensive program of information dissemination, training and technical assistance, telephone contact with grantees, legal reviews and opinion letters regarding grantees' plans, and onsite monitoring by the COPS Office, working in conjunction with the Office of the Comptroller.

The National Evaluation

Under its policing research program, NIJ was asked to administer an independent evaluation of the COPS program; NIJ selected the Urban Institute (UI) to conduct it. In addition, NIJ awarded grants to various organizations to evaluate several components of the COPS program other than the hiring and COPS MORE programs. With NIJ's concurrence, the UI team excluded the innovative programs from its scope to avoid duplicating other evaluators' efforts. The PHS and COPS Phase I grants were awarded before all the COPS Office grant-making innovations were adopted, and the award processes were fully completed before this evaluation began. Therefore, although UI counted those program resources in its analyses, it did not single out those programs for separate program evaluation purposes. Finally, because the RCPIs emerged well after the evaluation was under way and project resources were committed, our observations of their activities are limited to incidental findings on site rather than a systematic evaluation.

This report presents UI's national evaluation findings covering roughly the first 4 years of COPS, with primary focus on the COPS FAST, AHEAD, UHP, and MORE programs. Our work was guided by the logic model shown in figure 1–1, which describes the COPS program and its intended effects.

The model reflects the fact that COPS program outcomes depend on local decisions and actions to a greater degree than Federal block grant programs (in which formulas determine funding allocations) or discretionary programs (in which Federal officials select grantees based on detailed plans for using the funds). Starting from the upper left of figure 1–1, the distribution of COPS resources depended on eligible agencies' responses to a proposed exchange of Federal resources in return for local financial and programmatic commitments. Grantees were financially committed to share the costs of the resources during the life of the grant and to retain the COPS-funded officer positions thereaf-

Figure 1–1. Logic Model
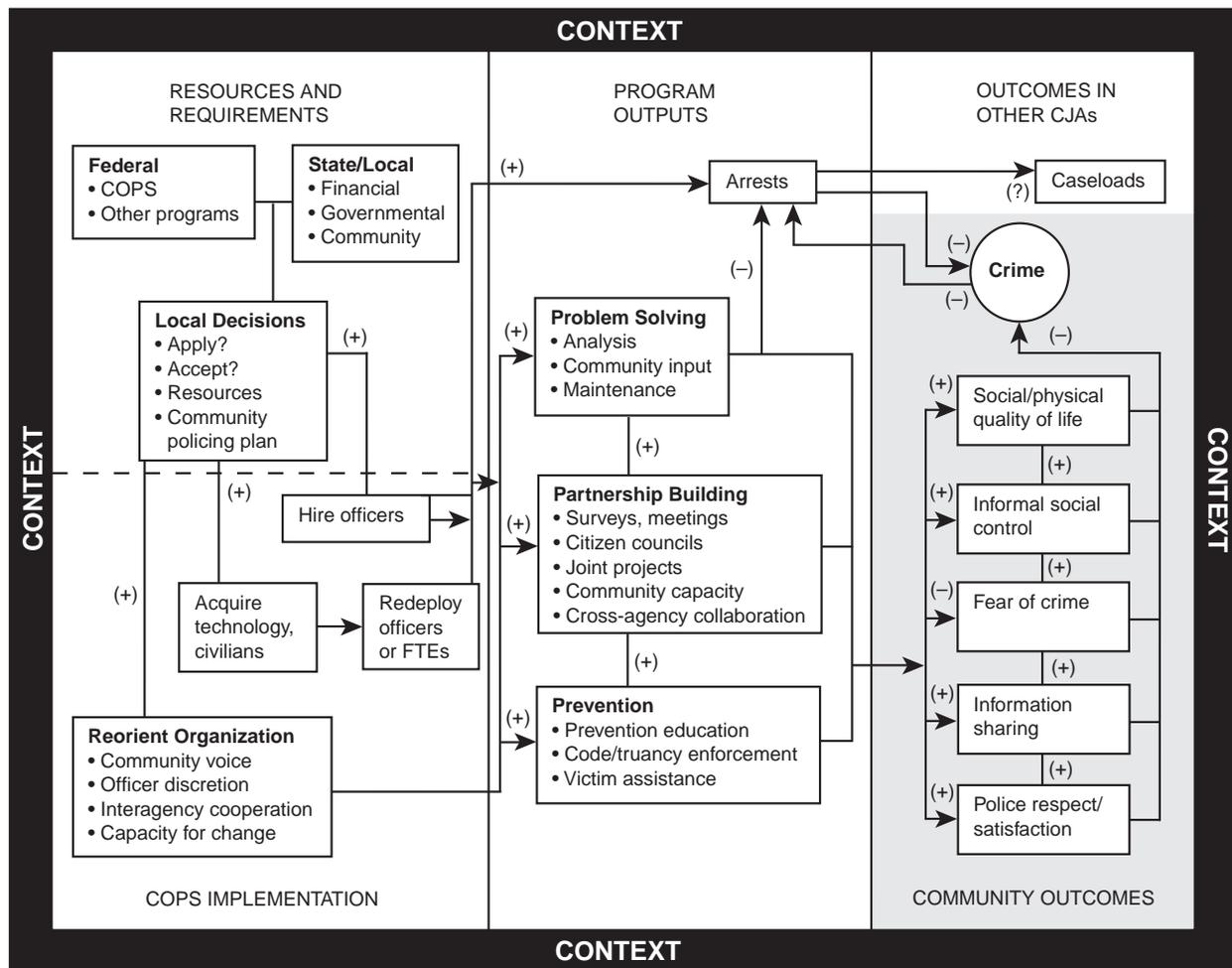
Abbreviations and Symbols:
FTEs: Full Time Equivalents
CJAs: Criminal Justice Agencies
(+): Items listed in preceding box result in positive impact on, or increase in, items listed in the following box.
(–): Items listed in preceding box result in negative impact on, or decrease in, items listed in the following box.

ter. Programmatically, grantees were committed to police their jurisdictions following principles of community policing.

As the COPS program was launched, neither the retention nor the community policing commitment was fully spelled out at the Federal level. The retention requirement was not precisely defined until 1998. Consistent with community policing principles, grant applicants were required to define the concept locally by submitting their own strategies specifying how they would meet four broad objectives—partnership building, problem solving, prevention, and organizational sup-

port of those objectives—using a plan tailored to local needs, resources, and context. Awards to applicants with inadequate community policing strategies were accompanied by a special condition requiring training and technical assistance by the Community Policing Consortium.

As shown in figure 1–1, successful applicants were to implement three kinds of organizational transitions. First, recipients of hiring grants had to recruit, hire, train, and deploy an influx of new police officers. Second, COPS MORE grantees were obligated to acquire and implement technology, hire civilians, or (under 1995

grants only) manage officers' overtime to enable redeployment of officers or full-time equivalents (FTEs) to community policing. Third, to accommodate the demands of community policing, most agencies needed to change their organizations in various ways—an explicit objective of the COPS program.

As shown in the center of figure 1–1, successful local implementation was to include advancement of three programmatic community policing objectives specified by the COPS Office: problem solving, building partnerships with the community, and participating in prevention programs. In turn, grantees' expanded pursuit of those objectives affect local criminal justice agencies and other units of local government.

The processes described above are the subject of this report. As a process evaluation, this study sets aside questions of community impact, represented in the shaded sector of figure 1–1: how police and community actions stimulated by the COPS program affected levels of community satisfaction with police, fear of crime, social and physical quality of life, and levels of serious crime, etc.

More specifically, this report addresses the following questions:

1. How did local agencies respond to the exchange offered by the COPS program? We addressed this question primarily through three waves of national telephone surveys. Wave 1 interviewed a representative sample of law enforcement agencies of all types and sizes, selected in May 1996 and stratified to overrepresent COPS hiring grantees, MORE grantees, and the nongrantees serving jurisdictions of more than 50,000. Wave 2 interviewed a new sample of agencies whose first COPS award was a 1996 UHP grant and reinterviewed members of the Wave 1 MORE subsample with grants for mobile computing technology. Wave 3 reinterviewed the municipal and county police agencies interviewed in Wave 1 and either: a) belonged to the Wave 1 nongrantee or hiring

grantee subsamples and served jurisdictions of more than 50,000; or b) belonged to the Wave 1 MORE subsample, regardless of jurisdiction size. Under subcontract, the National Opinion Research Corporation collected the Wave 1 data in October–November 1996, Wave 2 in September–October 1997, and Wave 3 in June–July 1998 (see methodological appendix for details of sample design). During June–July 2000, Wave 4 reinterviewed all agencies interviewed at Wave 1.

Additional information came to light during site visits to 30 grantee agencies, conducted between early 1996 and 1998 by teams of researchers and police practitioners.

2. What distribution of COPS funds resulted from localities' application decisions through the end of 1997? We addressed this question through analyses of COPS Office grant management databases, which were updated several times between February 1996 and March 1998.

3. How did COPS hiring grantees accomplish their hiring and deployment objectives through mid-1998, and how did they expect to retain the COPS-funded officers? We addressed the hiring question primarily through the Wave 1 survey, the retention question primarily in the Wave 3 surveys, and gathered supplemental information on both matters on site visits. The Wave 4 survey updated information on both issues.

4. How did COPS MORE grantees succeed in acquiring and implementing technology, hiring civilians, and achieving the projected redeployment targets through mid-1998? To ascertain what types of technology were awarded in the first year of the program, we analyzed a representative sample of 438 grant files for 1995 MORE awards. Implementation progress was the primary focus of the Wave 2 survey of all 183 1995 MORE grantees that received MORE-funded mobile computers, the most commonly awarded type of technology. For all types of technology, we updated this information in the Wave 3 survey by

asking all respondents about all their MORE grants, regardless of how the agency was selected at Wave 1 or when their MORE grants were awarded.

5. What increases in policing levels were projected and achieved by local agencies using COPS resources? To estimate increases through 1998 based on grants awarded through 1997, we applied survey-based estimates of hiring progress, technology implementation, and retention expectations to the projections in COPS Office data. As a benchmark, we performed time-series analyses of 1989–96 data on sworn force size reported in annual Uniform Crime Reports (UCR).

   For a preliminary estimate of long-term increases in policing levels due to COPS hiring and MORE programs, we applied factors estimated from the Wave 3 survey to COPS Office grant award counts as of May 12, 1999, when the White House announced achievement of the goal of funding 100,000 police officers. We plan to update this estimate based on the Wave 4 survey.

6. To what extent had the COPS program succeeded by mid-1998 in encouraging grantees to build partnerships with communities, adopt problem-solving strategies, and participate in prevention programs? To trace this evolution on a national basis, all three survey waves contained a checklist of tactics in support of these objectives. We compared grantee and nongrantee agencies' official statements on the extent to which these tactics were in place before 1995, were begun or expanded later, and were supported by COPS funds through mid-1998. Observing the "ground truth" behind the survey responses was a primary purpose of our programmatic site assessments in 30 grantee agencies.

7. To what extent did grantees' organizations change through 1998 to support and sustain community policing? We obtained national profiles of organizational change using the survey methodology we adopted for programmatic change, and we observed "ground truth"

during our site visits. In addition, the question was addressed through 10 case studies conducted under subcontract by the Program in Criminal Justice Policy and Management of the Kennedy School of Government.

The following sections summarize the findings of this research.

The COPS Program and Its Roots

The answers to the seven preceding questions were shaped by the history of the COPS program and its roots in presidential politics, academia, policing practice, and Federal assistance programs to local law enforcement and criminal justice agencies. Therefore, before addressing those evaluation questions, we will review salient aspects of that history.

The COPS program can be viewed as the confluence of two forces. First, the 1992 presidential campaign occurred at a time when public confidence in the ability of government to control crime was low, fear of crime was high, and resistance to Federal budget increases was even higher. In such a climate, a program to "put 100,000 officers on the street" made sense, especially if it could be done with a display of Federal efficiency at minimal cost.

Second, over the preceding two decades, some students and practitioners of policing had developed ideas that collectively became known as "community policing." The meaning of the term was fuzzy—as many believe it should be because its essence involves tailoring program specifics to local needs and resources. Nevertheless, a consensus emerged that community policing had five main ingredients: solving underlying problems that linked seemingly unrelated incidents of crime and disorder instead of responding to them one by one, deemphasizing routine patrol and rapid response as primary crimefighting tools, involving the communities being policed as partners in identifying problems and planning or even executing responses, preventing crime through strategies for socializing children and youths and making high-crime

places safer, and changing organizations to support the other goals.

From the standpoint of many police executives, a program that combined community policing with additional officers had both positive and negative aspects. Community policing encouraged police to share crime reduction responsibilities with other segments of their jurisdictions. Additional resources are generally seen as useful, but involving other partners in deciding how to use them can raise sensitive issues. Similarly, while at the time "more technology and more civilian employees" was hardly a politically viable Federal response to the Nation's fear and outrage over crime, several prominent police chiefs and mayors argued that those resources would be more useful than additional officers.

For several years, beginning in the Bush administration, DOJ and other Federal departments were rethinking the mechanisms for distributing Federal financial assistance. Grant programs inched toward bypassing States to deal directly with local governments, reducing administrative burdens, and lowering categorical boundaries on how funds could be used. The difficult question was how to support local priorities in less constraining ways without giving up all Federal leverage for shaping those priorities. Early programmatic steps in this direction included the Bush administration's Operation Weed and Seed and the Clinton administration's early Project PACT and Comprehensive Communities Program.

These factors challenged the COPS program with the extremely ambitious goal of encouraging law enforcement agencies across the Nation to hire 100,000 officers and adopt community policing as a guiding philosophy—without raising the Federal budget deficit. These objectives compete because burdensome measures taken to monitor compliance with the community policing requirement could diminish the attractiveness of the grants. Yet failure to monitor compliance raises the danger that a program intended to increase the number of agencies doing community policing may reduce the quality of the community policing they do.

At the urging of several influential police chiefs who placed higher priority on acquiring technology and hiring civilians than on hiring new officers, the COPS MORE program was created to support these alternative resources. However, the statute obligated the COPS Office to require applicants to demonstrate that the productivity gains associated with these resources would permit the redeployment of existing officers to the street at least as cost effectively as hiring grants. Other civilian or technology benefits were irrelevant under the statute. Lacking an experience base for estimating the productivity gains, most applicants succeeded in projecting that redeployment would occur cost effectively. However, achieving the projected redeployment became contingent on grantees' ability to implement technologies that were sometimes unfamiliar and, in the case of one key technology—wireless transmission of field reports—essentially unavailable at the start of the COPS program.

Senior DOJ officials concluded that demonstrating effectiveness of the Federal government in this complex mission required a new organization doing business in new ways. Therefore, a new Office of Community Oriented Policing Services was created within weeks after passage of the Crime Act and quickly became known as the COPS Office. The new agency undertook the heroic task of staffing up, announcing the COPS program to all eligible grantee agencies, assuring that applications complied with programmatic requirements, and making award decisions, all within a few months.

The COPS Office successfully processed more than 10,000 grant awards in its first 4 months. While the early rounds of that work were completed before our study began, we relied heavily on COPS Office manual and automated records to design and carry out our own study. During that work, we found that grant files typically showed evidence of fairly thorough eligibility and programmatic review. The high

accuracy levels of COPS Office records greatly facilitated our work.

COPS grants were not exempt from standard DOJ budget review and administrative requirements, which are administered by the Office of the Comptroller (OC). For the relatively simple hiring grants, the combined COPS Office/OC process required about 7 months on average from application submission to signed acceptance of those awards. During startup the COPS Office attempted to reduce this delay with an "accelerated" procedure that permitted agencies to hire officers after receiving an announcement letter but before formal obligation of grant awards; 50 percent of AHEAD grantees and 35 percent of FAST grantees reported using this procedure. In some jurisdictions, local rules prevented agencies from hiring new officers before the official award.

Formal review and approval of the more complex COPS MORE grants required an average of 11 months, even under normal circumstances. For many grantees, this delay was prolonged between October 1995 and April 1996, while a Federal budget dispute shut down OC grant reviews and left the COPS budget in doubt. Consequently, an average of 16 months elapsed for 1995 MORE applicants between application submission and signed acceptance of the awards.

During debates over the 1994 Crime Act, a Local Law Enforcement Block Grant (LLEBG) program was proposed unsuccessfully by Republicans as an alternative to the COPS program. After the 1994 elections, the LLEBG initiative resurfaced and COPS program authorizations were reduced by about $500 million in the fiscal 1996 and subsequent budgets, with the $500 million reprogrammed to LLEBG. This reprogramming raised concerns that LLEBG, with its lower match requirement of only 10 percent and fewer restrictions on how funds could be spent, would reduce localities' interest in COPS grants.

Despite these difficulties, the COPS Office "customer satisfaction" orientation succeeded at the outset with small agencies (i.e., those serving jurisdictions of less than 50,000). Among small-agency Wave 1 survey respondents with prior Federal grant experience, nearly 80 percent described COPS applications and administration as simpler than others, as of 1996. This compared to 40 to 50 percent among large agencies, which faced more elaborate application requirements, especially among MORE grantees, who had suffered the most during the Federal budget confrontation and whose applications required more elaborate review.

As startup difficulties were surmounted, the COPS Office shifted its focus to program operations, which were intended to encourage implementation of community policing and new technology and to foster compliance with administrative regulations. It expanded the Community Policing Consortium, which the Bureau of Justice Assistance had created in 1993 to advance community policing. It created Innovative Community Oriented Policing programs. Some of these were intended to develop innovative approaches to such problems as gangs, domestic violence, and methamphetamine. Others were intended to advance community policing in special environments such as schools and distressed neighborhoods, to advance problem-solving skills, and to advance community policing through supportive organizational innovations. Finally, the COPS-funded RCPIs brought academic, practitioner, and community perspectives to bear on training and local innovation for community policing.

To foster compliance with administrative regulations, five units were involved. The COPS Office Legal Division defined compliance by interpreting Title I, writing regulations, and applying them to specific local circumstances. The Grants Division informed the field about requirements, reviewed applications for compliance, and assigned grant advisors to maintain regular telephone contact. The Monitoring Division monitored compliance through site visits to 432 grantees in 1998, with a planned expansion to 900 in 1999. The Office of Justice Programs Office of the Comptroller established a separate branch to monitor compliance with financial and administrative requirements and the adequacy of

grantees' accounting and administrative controls. The Office of the Inspector General audited COPS grantees onsite for possible violations of the Title I statute.

Between 1996 and 1998, as the COPS Office process of awarding grants yielded some of the center stage to compliance activities, the satisfaction of large local/county agencies with COPS Office operations declined somewhat. The percentage of hiring grantees describing COPS grants as easier than others to administer declined from 63 to 47 between 1996 and 1998. While nearly 90 percent continued to describe their grant advisors as helpful, the percentage who found them "easy to reach" dropped from 81 to 74 percent.

With this description as background, the following sections report findings on the questions raised above.

COPS Application Decisions

In this section we describe who participated in local decisions to apply, what considerations weighed in their decisions, and what their future application plans were as of 1998.

Who participated in agencies' application decisions?

Law enforcement agencies' decisions to apply for Federal grants typically are a fairly closed process involving the chief law enforcement executive, elected officials or their staffs, and, in larger agencies, the unit that will administer the grant and the agency grant manager, if one exists. Yet many believe community policing initiatives are more likely to succeed with broad and deep participation in planning throughout the agency.

For COPS applications, agencies' chief executives were reportedly involved in virtually all decisions and elected officials in more than 80 percent. According to the Wave 1 survey, about half the agencies brought sergeants into the application decisions, nearly 40 percent involved

patrol officers, and various segments of the community were brought into 20 to 45 percent of decisions. Less than 25 percent involved union representatives. Despite COPS Office success in simplifying application procedures, some 40 percent of applicants nevertheless involved consultants in the application process.

Which agencies became grantees, and why?

We estimate that 19,175 law enforcement agencies were eligible for COPS grants. This estimate was obtained by merging law enforcement agency lists maintained by the Bureau of Justice Statistics, the FBI's National Crime Information Center (NCIC), the UCR Section, and the COPS Office. Duplicate records were removed and agencies that appeared to be ineligible deleted. Of these agencies, 10,537 (55 percent) requested and received at least one COPS grant by the end of 1997. Of grant recipients, 761, or about 7 percent, had withdrawn by March 1998.

After the COPS startup period, when short application deadlines and related local logistical problems discouraged some agencies from applying immediately, financial considerations became the primary influence on agencies' decisions not to apply. Financial concerns during the grant period—the explicit 25-percent match requirement and the implicit match needed to cover annual salary and fringe benefits exceeding $33,333 and collateral costs of an officer such as training and equipment—were the most commonly mentioned reasons given in 1996 by agencies for their decisions not to apply in 1995. By mid-1998, concern over the cost of retaining the officers after grant expiration was the primary influence on their decisions not to apply, and this concern also led to an estimated 40 percent of the agency withdrawals. At that time, the nature of the retention requirement was unclear: The Justice Department had not announced the length of the required retention period (one complete budget cycle after grant expiration), and we believe the prevailing assumption was a much longer and more costly period.

Resistance to community policing was not a significant deterrent to applying for COPS grants. Objections to community policing or to Federal grants in general were mentioned by only 8 percent of respondents. Moreover, 88 percent of the largest agencies in our sample that had received LLEBG funds reported they used them to support community policing, even though there was no requirement to do so. It appears that by covering collateral costs not covered by COPS grants, the advent of LLEBG may have encouraged participation in the COPS program.

What are agencies' future application plans?

In June–July 1998, the program remained popular among grantees; 74 percent of local/county grantees stated they planned to apply for at least one additional COPS grant in 1998 or 1999: 66 percent of small agencies (jurisdictions of less than 50,000), 78 percent of medium-size agencies (50,001–150,000), and 89 percent of large agencies (150,001 or more). Among the prospective applicants, MORE technology grants were resoundingly popular; 20 percent planned to apply for that type only, and an additional 41 percent planned to request MORE-funded technology in combination with officer hiring, civilians, or both. The most popular combination was technology plus sworn officers (25 percent of prospective applicants). Only 6 percent planned to apply for hiring grants only, and 3 percent for civilians only.

As with prior application decisions, financial considerations strongly influence future intentions. Of the large local/county agencies surveyed in Wave 3, the local match requirement was described as "very important" by 55 percent of the agencies, restrictions on allowable *purposes* for which grant funds could be spent by 48 percent, restrictions on allowable *types of resources* by 43 percent, and uncovered collateral costs by 40 percent.

Distribution of COPS Funds

In this section, we summarize the amounts of COPS grants awarded and highlights of the distribution pattern.

What is the total value of COPS grants for increasing the level of policing?

By the end of 1997, according to COPS Office records, awards had been announced of 18,138 grants worth $3.47 billion. Of those, 754 were for innovative programs. The remaining 17,384 grants were intended to increase the level of policing. They carried a total of $3.388 billion in awards: about 16 percent under COPS MORE and 84 percent under hiring grant programs including PHS and COPS Phase I. These programs, plus FAST, AHEAD, and UHP supported the hiring of approximately 41,000 officers. COPS MORE supported the acquisition of other resources (primarily technology and civilians) whose productivity was projected to yield the FTE of approximately 22,400 additional officers for at least 3 years, for a total of 63,400 officers and equivalents.

By May 12, 1999, according to COPS Office press releases, another $1.9 billion had been awarded, about 74 percent under hiring grants and the remainder under MORE. At a ceremony that day, the White House announced that the goal of funding 100,000 police officers had been reached. We estimate that by then, the COPS Office and its predecessors had awarded $4.27 billion in hiring grants and another $1.017 billion in MORE grants, for a total of $5.387 billion, exclusive of innovative program support. These funds supported the hiring of 60,900 officers and the acquisition of other resources projected to yield 39,600 FTEs of officer time through productivity gains.

How were COPS funds distributed?

Eligible agencies' application decisions led to significant variation by region, but regional patterns differed depending on how they were measured. The Pacific region ranked first in terms of the percentage of eligible agencies receiving grants but third in terms of COPS dollars awarded per capita and sixth in terms of COPS dollars per crime. The Mid-Atlantic region ranked eighth in terms of agency participation, but first on both the per capita and per crime measures.

Of all agencies selected for awards by the end of 1997, only 4 percent served core city jurisdictions (i.e., central cities of Census Bureau Metropolitan Statistical Areas), which are home to 27 percent of the U.S. population. They received 40 percent of COPS dollar awards for all programs combined, and 62 percent of all COPS MORE funds. On average for the United States as a whole, core cities received substantially larger awards per 10,000 residents ($151,631) than did the rest of the country ($86,504). However, their average award per 1,000 index crimes ($184,980) was less than two-thirds the average for the rest of the country ($299,963).

Which types of agencies received the most COPS grants?

Some 75 percent of hiring and MORE funds went to municipal or county police agencies, 15 percent to sheriff's and State police agencies, and the remainder to a variety of special jurisdictions. As required by Title I, dollars awarded were approximately evenly split between jurisdictions with populations of more than 150,000 and smaller jurisdictions.

The growth in awards during 1996 and 1997 was driven largely by repeat awards to existing grantees rather than by first awards to new grantees. By the end of 1997, $1.42 billion, or 47 percent of all funds designated for award, had been allocated to agencies with four or more grants. As a result, the distribution of COPS funds became skewed, so that through 1998 the 1 percent of grantee agencies with the largest grants had received 41 percent of grant funds.

Did COPS funds go where the crime is?

Awards to repeat grantees helped focus cumulative COPS awards on jurisdictions that suffer disproportionately from serious crime. Of the 8,062 UCR contributors that had received at least one hiring grant by December 1997 or one MORE grant by June 1998, the 1 percent with the largest 1997 murder counts received 31 percent of all funds awarded through the end of

1997. They reported 54 percent of all U.S. murders. The 10 percent with the highest murder counts received 50 percent of total COPS awards. A nearly identical pattern occurred with respect to robbery.

Officer Hiring, Deployment, and Retention Planning

After the COPS Office announced the awards, the OC reviewed and approved the budget and obligated the Federal funds. Following OC approval and obligation of the funds, the COPS Office mailed a formal award package informing grantees of all conditions. Grantees were allowed to draw down funds only after they had returned a signed acceptance of the award and conditions to the COPS Office. For the hiring grants, in which conditions were fairly standard and most OC review issues involved merely calculation of salary and fringe benefits, these processes moved fairly smoothly, even through the Federal budget dispute and government shutdown in 1995–96. During those years the mean elapsed time between COPS Office receipt of the application and mailing the award package to the grantee was 149–154 days for hiring programs, and grantees who had returned their signed acceptances by mid-1997 did so in an average of 70–75 days, for a total elapsed time of 224 days.

How did officer hiring and deployment proceed?

Once funds became obligated and available to spend, hiring of COPS-funded officers proceeded smoothly throughout the entire 1996–98 observation period. In 1996, more than 95 percent of agencies reported hiring their officers within 10–12 months of award obligation. As of June 1998, 83 percent of medium and large local/county grantees reported they had hired all their officers funded through the end of 1997. Nearly 70 percent of them reported all of their officers had finished training and begun working in their first regular assignments. All the agencies reported expecting to have 100 percent of their officers awarded through 1997 on the street by June 2000.

As of our 1996 Wave 1 survey, half of all small-agency (COPS FAST) grantees reported deploying their new officers directly into community policing, and 38 percent assigned them to "backfill" in routine patrol assignments for more experienced officers redeployed to community policing. About 68 percent of medium and large-agency (COPS AHEAD) grantees reported using the backfill strategy, which the COPS Office recommended.

How do COPS-funded officers spend their time?

Two of the three prime components of community policing articulated by the COPS Office—partnership building and problem solving—were the most commonly expected uses of COPS-funded officers' time; each was mentioned by about 40 percent of the medium and large local/county agencies in our Wave 3 sample. About 26 percent of those agencies reported their COPS-funded officers would spend substantial amounts of time on "quality of life" policing, a style which some believe requires strong control by the community if it is not to undermine community partnership building. Routine patrol and "squeezing in proactive work" were both mentioned by around 30 percent of the agencies. The COPS-funded officers were expected to spend substantial time on routine patrol by 40 percent of the agencies with agencywide community policing and in 24 percent of the agencies with specialized community policing units. Some 23 percent of the agencies reported their COPS-funded officers would spend at least some of their time on undercover and tactical assignments, and 35 percent expected them to spend at least some time on administrative or technical assignments.

As an indirect measure of COPS-funded officers' activities, we asked how those activities affected other agencies. Among the large local/county grantees, 83 percent reported greater demands on code enforcement and sanitation agencies; 83 percent reported greater demands on community organizations and businesses; and 66 percent reported greater demands on agencies

that deal with violence in the home. These impacts are consistent with direct reports of strong emphasis on problem solving and partnership building, along with referrals of domestic violence cases.

How were agencies planning to retain the COPS-funded officers as of 1998?

Through the 3-year hiring grant periods, 98 percent of our respondents reported they had either kept their COPS-funded officers on staff or replaced departed officers expeditiously. At the time of our Wave 3 survey in 1998, our sample contained few agencies with expired grants. Therefore, our findings are limited to plans and expectations regarding retention, not actual retention experience.

The Wave 3 survey was conducted before the COPS Office announced the length of grantees' retention commitment: compliance with the retention requirement requires keeping grant-funded officer positions filled using local funds for at least one budget cycle beyond grant expiration. Despite the uncertainty, approximately 66 percent of Wave 3 respondents reported they were "certain" their agencies would retain the COPS-funded officers when their grants expired. Another 24 percent indicated they were "almost positive" they would retain the officers, 6 percent were "pretty sure," and only 4 percent stated they were "not sure at all."

Next, respondents were asked whether they agreed or disagreed with a series of statements intended to describe in more detail their expectations about how their agencies would retain the COPS-funded officers. About 95 percent reported that the COPS-funded officers either were or would be part of the agency's base budget by the time the grant expired. About 52 percent stated they were uncertain about long-term retention plans. Only 10 percent of the respondents reported that despite the "good faith effort" required as a grant condition, unforeseen conditions were likely to keep their agencies from retaining all of the positions.

Other common responses are difficult to interpret and suggest that despite extensive COPS Office efforts to educate agencies about the retention requirement, the persons authorized to speak to our interviewers on behalf of the agencies may have been uncertain about what the requirement entailed. About 37 percent reported expecting the COPS-funded officers would be retained by "using positions that open up" (i.e., through attrition, indicating an intention to retain the COPS-funded officers but not the positions). About 20 percent reported expecting the COPS-funded officers would be retained by cutting back positions elsewhere, a plan that would constitute supplanting under many common conditions; and 5 percent agreed that the COPS-funded officers were likely to be retained both through attrition and cutbacks. Now that the retention requirement has been spelled out in more detail, we are re-examining long-term retention plans in the Wave 4 survey.

MORE Awards and Projected Productivity Gains

COPS MORE was a pivotal component of the COPS program. From the administration's perspective, MORE was key because it accounted for 39 percent of the 100,000 officer total using only 19 percent of the COPS budget. From the grantees' perspective, MORE-funded resources, especially technology, were extremely attractive because they promised a variety of local benefits without the burden of postgrant retention costs that new officers carried. This section describes what is being acquired with COPS MORE awards, how implementation of MORE-funded technology and achievement of productivity gains is proceeding, and how MORE-funded civilians are being integrated into grantee agencies.

How are COPS MORE funds being allocated and used?

COPS MORE has been especially popular with large jurisdictions, and awards have been more heavily concentrated than hiring grant awards in relatively few agencies. Of the 17 agencies serving populations of more than 1 million, 53 percent had received at least one COPS MORE grant by the end of 1998, compared to just 5 percent of agencies serving populations of less than 25,000. By the end of 1997, the 1 percent of grantees with the largest MORE grants had received 48 percent of the $528 million awarded to that point, compared to 37 percent for the largest hiring grantees. The concentration of large MORE grants was even greater among local/county police agencies, and it increased slightly during 1998.

In 1996, the General Accounting Office reported that technology absorbed a little more than half of 1995 COPS MORE resources, civilians somewhat less, and overtime less than 10 percent. Overtime was not supported by COPS MORE after that year. By 1998, 38 percent of MORE grantees had obtained exclusively technology, another 44 percent were funded for both technology and civilians, and 5 percent were funded for technology, civilians, and overtime.

What is the relationship between COPS MORE grants and counts of officers?

To receive a MORE grant, an applicant had to produce a credible projection that the funded resources would yield at least four FTEs in increased productivity per $100,000 of grant funds—the rate at which Federal COPS funds supported officer hiring. On average, in a random sample of 1995 MORE grant applications, civilians were projected to yield 4.54 FTEs per $100,000, largely through replacements of officers on a one-for-one basis. Technology projections averaged 6.12 FTEs per $100,000.

Starting in 1996, the COPS Office converted dollars from MORE technology grants to projected FTEs at the four-per-$100,000 minimum needed to demonstrate cost-effectiveness—a more conservative assumption than applicants' projections. The conservative projections were used in COPS Office estimates of total FTEs funded and were the standard of accountability

imposed on grantees. Even under the conservative assumption, technology accounts for 64 percent of total productivity gains projected for COPS MORE.

Implementation of MORE-funded technology

Starting with the budget review and funding obligation process, COPS MORE technology implementation was problematic. Because of the additional complexity of COPS MORE plans and budgets, Federal processing of applications required at least 4 months longer than hiring grants. For 1996 applicants, the average time between receiving a MORE application at the COPS Office and mailing the award package to the grantee was 269 days, compared to 149 days for hiring programs.

Between October 1995 and April 1996, the MORE award process was stretched out even further by a Federal budget confrontation. A government shutdown halted OC review of 1995 applications in the pipeline. Also, uncertainty over the fiscal 1996 COPS Office budget delayed award decisions on applications received just before the September 30 end of fiscal 1995, which had pushed the total requests for fiscal 1995 beyond available MORE resources. As a result, successful 1995 MORE applicants waited an average of 16 months between submitting their applications and receiving authority to draw down funds.

The balance of this section first describes the types of technology purchased with MORE funds. It then describes the status of implementation, productivity gains, and other costs and benefits MORE grantees accrue from their technology.

What types of technology were acquired and what redeployment was projected? At the time of our Wave 1 survey in 1996, few agencies had received more than one MORE grant, and so most local/county MORE technology grantees pursued only one type of technology. By far the

most common was mobile computers, being implemented by an estimated 60 percent of these agencies, followed by management/administrative computers (23 percent) and booking/arraignment technology (10 percent). Some agencies pursued telephone reporting systems (2 percent), Computer Aided Dispatch (CAD) systems (1 percent), and other technologies, such as geo-mapping and reverse 911 systems.

By 1998, many MORE grantees were implementing more than one type of technology. Therefore, the fractions implementing each technology type had grown to 79 percent for mobile computers, 45 percent for management/administrative computers, 12 percent for CAD systems and booking/arraignment technology, and 6 percent for telephone reporting systems. The 1996–98 changes make clear that most CAD and telephone reporting system projects were begun more recently than most mobile and management/administrative computer projects.

Although automated COPS Office records do not allow one to attribute projected FTEs to specific technologies, it was possible to compute the number of FTEs for categories of MORE technology grantees, based on their combinations of funded technologies. These computations suggest the mobile computers were projected to play an important role in increasing productivity. Of 16,870 projected FTEs funded through June 1998, 34 percent were generated by agencies with mobile computers only, and 29 percent by agencies with a combination of mobile computers, management/administrative computers, and other technologies. Only 24 percent were projected to come from agencies without mobile computers.

The knowledge base from which MORE applicants could develop their projections of FTEs saved through productivity gains was sparse. For most of the technologies, projections clustered around 2.4 hours per officer per shift, slightly more than the 2 hours used by the COPS Office as an example in the MORE application kit.

How rapidly is implementation proceeding?
Technology implementation was far from complete as of summer 1998, even by agencies whose first COPS MORE grant was awarded under the 1995 program. Among those agencies, the fractions reporting that each technology type was fully operational was 61 percent for management/administrative computers, 47 percent for telephone reporting systems, 45 percent for booking/arraignment systems, 44 percent for mobile computers, 39 percent for CAD systems, and 65 percent for other technologies. For computing technologies, implementation has proceeded most rapidly among small agencies: 50 percent of agencies serving jurisdictions of less than 50,000 have all mobile computers operational, compared to 23 percent of agencies with jurisdictions of more than 150,000. For management/administrative computers, the comparable percentages are 78 percent and 53 percent.

Some management/administrative and mobile computers were not operational simply because they were purchased not long before our Wave 3 survey. Nevertheless, for two reasons these figures probably understate the adverse effect of delays in mobile computer implementation on achievement of projected productivity increases. First, CAD and telephone system projects began, on average, under more recent grants than computer implementation. Second, the one available time study indicates any projected mobile computer productivity increases will be due to wireless field reporting, which eliminates trips to stations to write reports—not from wireless inquiry functions to driver's license, vehicle registration, and other files. The inquiry capability produces benefits such as improved officer safety, elimination of waits for clear voice-radio channels, and protection from scanners but is unlikely to save measurable officer time that can be redeployed to community policing. Yet, to our knowledge, as of June 1999, no major police department has achieved departmentwide implementation of wireless field reporting, although three are reportedly in the final phases of testing. Therefore, all the agencies that reported they had operational mobile computers were referring to inquiry capability, not wireless field reporting.

What productivity gains are being achieved and reallocated to community policing?
Because of the delays in technology implementation, our 1998 Wave 3 survey offers only a fragmentary basis for comparing actual productivity gains with those projected in MORE grant applications. As of June 1998, MORE grantees from 1995 expected to achieve only about 49 percent of the projected FTEs, but our Wave 3 sample was not designed to produce a definitive national estimate. Our estimate of productivity gains will be updated in a future report based on our Wave 4 survey, fielded in June 2000, when more grantees are expected to have experience with fully operational technology.

What other benefits and costs of technology are local agencies experiencing? While prospects for achieving 100 percent of the projected productivity gains are not encouraging at this time, agencies report expecting or achieving a variety of other benefits from their mobile computers, even without wireless transmission capability. These include:

1. Automated field reporting: More complete, accurate, and recent real-time information and permanent records; improved crime/data analysis capability; more accurate/complete/ timely records; improved spelling/grammar/ legibility; more report writing; easier retrieval of information; shorter review process; and reduced time for records staff.

2. Wireless query and response functions: Improved officer safety due to faster, more secure responses to queries regarding license plates, vehicle registrations, and persons; secure car-to-car communication; and fewer demands on dispatchers.

3. Increased effectiveness: Higher clearance and conviction rates due to improved reports; better recovery of stolen property; positive response from the community (though some agencies report adverse reactions from victims and witnesses); more information sharing across shifts; better communications with neighboring agencies; better tracking of com-

munity events; easier provision of information to the public; and better preparation for court.

4. Agency benefits: Opportunity for staff to learn computers; officer morale booster (sometimes after a break-in period); and expected financial savings in the long run.

Agencies also experienced extra costs due to the new technology. The most common were computer staff time, system installation time, and time to train officers in use of the new technologies. The time of computer staff and/or vendors was an especially common expense in agencies that had ongoing technology projects that the MORE-funded technology had to fit. Some agencies that anticipated the costs included them in their initial grant budgets without sacrificing the cost-effectiveness of their MORE programs.

Others found that the local costs of the MORE grant increased by 10 percent or more over their initially planned local match. Depending on technology type, 23 to 27 percent of MORE technology grantees implementing the five most common technology categories reported that unexpected implementation costs increased the local cost of their MORE grants by at least 10 percent over the match they had originally planned.

Not surprisingly, the likelihood that an agency would experience unexpected costs increased as implementation progressed. The percentage reporting unexpected costs rose from 21 percent of agencies with mobile computers NOT fully implemented to 31 percent of agencies that had completed implementation. The percentage reporting unexpected costs rose from 22 percent to 29 percent for agencies implementing desktop computers, from 26 percent to 43 percent for CAD systems, from 3 percent to 60 percent for automated booking systems, and from 12 percent to 32 percent for telephone-reporting systems.

Three categories of cost have been especially problematic for agencies funded for mobile computers, especially those pursuing wireless

field reporting. These are upgraded telecommunications capacity, integration of field reporting with existing (or developing) records management systems, and vehicle mounts, which were frequently designed from scratch.

Use of MORE-funded civilians

In this section, we describe the functions being performed by MORE-funded civilians, civilian hiring and retention, and deployment of the officers replaced by the new civilians.

How did hiring, deployment, and retention of civilians proceed? During 1995, the first year of COPS MORE, the program awarded $145 million to fund civilians to create 6,506 FTEs of sworn officer time. By June 1998, this amount had risen to $287.2 million, to support 12,975 FTEs. At that time, more than 80 percent of the grantee agencies reported having completed their civilian hiring, and all expected to complete their civilian hiring by the end of 1999. Sixty-four percent of the grantees reported all their civilian hires were still on staff, and 80 percent of the remainder reported they had replaced all who had left. An estimated 96 percent reported the civilians saved officer time, and, for the four most common civilian positions, 73 to 80 percent of agencies reported their new civilians had been used either to create a new position or to increase the total number of people in each position.

The MORE civilian program appears to have provided modest encouragement to an ongoing trend toward "civilianization." Approximately 45 percent of MORE civilian grant recipients claimed to be already in the civilianization process when they received their grants. The annual average increase in civilians between 1993 and 1997 (which span the early COPS years) was 4 percent, up from 3 percent annually over the preceding 3 years.

What functions are the MORE-funded civilians performing? MORE-funded civilians were hired to increase resources for community policing in four ways:

1. Shedding routine tasks from sworn officers to civilians, such as clerical/administrative positions (e.g., typing, filing, scheduling duty rosters, taking phone messages) and record maintenance.

2. Replacing sworn personnel in existing specialist positions, such as desk/duty officers, dispatchers, telephone reporting unit staff, and evidence technicians.

3. Filling new or existing specialist positions that are expected to improve officer productivity, such as computer technicians.

4. Staffing new community policing positions such as community coordinators/organizers, domestic violence specialists, or CPTED (Crime Prevention Through Environmental Design) planners.

The most common assignments of MORE-funded civilians were to clerical/administrative positions (43 percent of agencies assigned at least some civilians to such positions), dispatchers (34 percent), and telephone response unit members (26 percent).

COPS Effects on Policing Levels

The effect of the COPS program on policing levels is the total of the two components discussed in the preceding sections. The first is sworn officers hired because of COPS grants and retained after the grants expire. The second is productivity gains measured in officer FTEs yielded by MORE-funded resources. This report contains preliminary estimates of both effects.

For several reasons, the estimates in this report should be treated with caution. First, anticipating the Wave 4 survey, we did not design Wave 3 to survey a representative sample of small local/county agencies or, indeed, any samples of other types of agencies. Second, Wave 3 data were collected at a time when grantees had little actual experience on which to base estimates of two key factors in the projections: the fraction of hired officers that will be retained following the required period and the actual number of

FTEs generated from resources acquired with COPS MORE grants. The Wave 4 survey and other data will be used to produce updated, more valid estimates.

With these cautions in mind, we report estimates of COPS program impacts as of two points in time: the impact, through the end of 1998, of grants awarded through 1997; and the long-term impact of grants awarded through May 12, 1999, the date the White House announced that the goal of funding 100,000 officers had been met.

How will COPS hiring grants affect the number of law enforcement officers in the United States?

We first used the Wave 3 survey data to estimate the number of COPS-funded officers hired as of June 1998. Through 1997, the COPS Office had awarded hiring grants for 41,000 officers; survey results indicate about 39,000 of them had been hired. The difference reflects grantee delays in accepting awards, recruiting candidates, and hiring officers.

This gross increase is partially offset by delays in filling vacancies for non-COPS positions and cross-hiring between agencies. Allowing for these factors, we estimate the 41,000 officers awarded by the COPS Office as of the end of 1997 resulted in a national net increase of between 36,300 and 37,500 officers by the end of 1998.

In the longer term, offsetting factors include certain federally approved cuts in sworn force size and less-than-complete retention of COPS-funded positions beyond the 3-year grant period. Recognizing the uncertainty surrounding these factors, we constructed a "best case" scenario, in which grantees would retain 91 percent of their new hires indefinitely, and a "worst case" scenario of 64 percent.

By May 1999, the COPS Office had awarded agencies approximately 60,900 officers through hiring grants. Under the best case scenario, we

project that these awards will produce a peak effect of 57,200 officers by the year 2001, and that after postgrant attrition, the permanent effect of the grants will stabilize at 55,400 officers by 2003. The minimum retention scenario, in contrast, suggests the net impact of these awards will peak at 48,900 officers in 2000 but then decline to a permanent level of 39,000 officers by 2003.

How will COPS MORE grants affect the number of FTE officers redeployed through increased productivity?

All of our estimates of time savings from MORE grants were based on the Wave 3 survey, which contained a representative sample of 1995 municipal and county MORE grantees. To develop preliminary national estimates, we extrapolated the results of these agencies to other types of agencies and later cohorts of MORE grantees.

By the summer of 1998, the COPS Office had awarded agencies 22,400 FTEs through MORE grants for civilians and technology, and survey results indicate grantees had redeployed 6,400 FTEs with these grants. At that time, however, only 23 to 78 percent of MORE technology grantees (depending on agency population category and type of technology) described some or all components of their technology as fully operational. Therefore, grantees were also asked to estimate future productivity increases they expected to achieve once all grants were fully implemented.

Agencies that had progressed the furthest in making their technology operational projected productivity gains that were smaller (60 percent of the original projections) than those expected by MORE grantees as a whole (72 percent of the original projections), suggesting that agencies adjust their expected productivity gains downward as they gain more experience with operational technology.

We used those figures to compute "best case" and "worst case" interim estimates, though we recognize that the worst case estimates are based on only a partial subsample that has substantial implementation experience. This subsample is growing and becoming more representative over time, and so we plan to revise the estimates of MORE-supported productivity increases later this year using our Wave 4 survey data.

Using these assumptions and an estimated 3-year timeframe for full implementation by grantees, we estimate that by the end of 1998, between 9,100 and 10,900 officers were redeployed from resources funded by MORE grants awarded by the end of 1997. We project that if these implementation patterns hold for post-1998 MORE grants, the 39,600 FTEs awarded as of May 1999 will result in the redeployment of between 23,800 and 28,500 FTEs by 2002.

What will be the combined effect of hiring and MORE grants awarded by May 1999 on the level of policing in the United States?

By May 1999, the COPS Office had awarded approximately 100,500 officers and officer equivalents through hiring grants and MORE grants. Our estimates for the two types of grants are combined in table 1–1. Upper-bound projections based on June 1998 survey estimates of maximum officer retention and maximum officer redeployment suggest that these awards will result in a peak national net increase of 84,600 officers and equivalents by 2001, before declining somewhat and stabilizing at a permanent level of 83,900 by 2003. Lower bound projections based on estimates of minimum officer retention and minimum officer redeployment suggest the COPS-supported increase in the number of officers and FTEs deployed at any point in time will peak at 69,000 officers in the year 2001 and decline to a permanent level of 62,700 by 2003.

Total COPS-funded FTEs added to police agencies throughout this period will be greater than the number available during any particular year, especially if our lower-bound projections prove more accurate. In this regard, the COPS program might be compared to an "open house" event, in which the total number of visitors to the event is

larger than the number present at any given point in time. Using this open house concept, we estimate that COPS awards made through May 1999 will result in the temporary or permanent hiring of 60,900 officers and the deployment of between 23,800 and 28,500 FTEs, thereby adding between 84,700 and 89,400 FTEs to the Nation's police agencies at some point between 1994 and 2003, though not all these FTEs will be simultaneously in service at any single point in time.

Whether the program will ever increase the number of officers and equivalents on the street at a single point in time to 100,000 is not clear. The COPS Office has continued to award COPS grants since May 1999. If the agency continues to award hiring and MORE grants in the same proportions and our upper bound projections are correct, roughly 19,000 additional officers and equivalents awarded could be enough to eventually produce an indefinite increase of 100,000 officers on the street. If the lower bound assumptions are more accurate, the program may require an additional 59,000 officers and equivalents awarded to create a lasting increase of 100,000 officers. More definitive answers to these questions will be available following completion of our Wave 4 survey.

COPS and the Style of American Policing

The COPS Office listed four principal goals of community policing: building police-community partnerships, problem solving, crime prevention,

Table 1–1. Estimates of COPS Impact on Level of U.S. Policing						
	Awards Through December 31, 1997			Awards Through May 12, 1999		
		Officers Hired and FTEs Redeployed			Estimated Net Hired or Redeployed	
Program	Funded (12/97) **(1)**	Gross (6/98) **(2)**	Net (12/98) **(3)**	Funded **(4)**	Year	Projection **(5)**
Hiring (PHS, COPS Phase I, FAST, AHEAD, UHP)	41,000	39,000	36,300–37,500	60,900	High 2001 2003[+]	: 57,200 : 55,400
					Low 2000 2003[+]	: 48,900 : 39,000
MORE	22,400[†] [‡]	6,400	9,100–10,900	39,600	High 2002[+]	: 28,500
					Low 2002[+]	: 23,800
Total	63,400	45,400	45,400–48,400	100,500	High 2001 2003[+]	: 84,600 : 83,900
					Low 2001 2003[+]	: 69,000 : 62,700

[†] Net of 3,600 second- and third-year supplements for retaining civilians, which are included in COPS Office records of 26,000 FTEs funded.

[‡] As of June 1998.

[+] Indicates "steady rate" projection, e.g., 2003[+] indicates "for year 2003 and beyond."

and organizational support for these programmatic objectives. We used three approaches to observe how the COPS program affected law enforcement agencies' pursuit of these goals. First, at three points in time, our national survey of agencies measured agency representatives' official statements about the implementation status in COPS grantee and nongrantee agencies of 47 tactics for pursuing these objectives, as well as the role of COPS funds in grantees' implementation of those tactics. Second, teams of police practitioners and researchers visited 30 sites, many twice, for programmatic site assessments of the ground truth underlying agencies' statements about the tactics in use. Third, to explore the roles of local leadership and COPS resources in facilitating community policing innovations, 10 case studies were conducted by a Kennedy School of Government team.

Has the COPS program advanced the adoption of community policing in the United States?

The answer is "yes," but it must be quickly qualified. "Adoption of community policing" has very different meanings in different jurisdictions, and COPS funds seem more likely to have fueled movements that were already accelerating than to have caused the acceleration.

Between 1995 and 1998, the use of a number of tactics commonly labeled as community policing swept the country among grantees and nongrantees. Among those that reportedly spread the fastest were citizen-police academies; cooperative truancy programs with schools; structured problem solving along the lines of SARA (Scanning, Analysis, Response, Assessment); and patrolling on foot, bike, or other transportation modes that offered more potential than patrol cars for interacting with citizens. Grantees and nongrantees alike reported revising their employee evaluation measures and their mission, vision, and values statements to codify their versions of community policing. Packaged prevention programs, such as neighborhood watch and drug resistance education in schools, which in 1995 were already among the most widespread

tactics commonly described as community policing, became almost universal by 1998.

We have no measure of the extent to which the COPS program played various roles that may have indirectly encouraged nongrantees to adopt these tactics. Possible mechanisms included training and technical assistance programs and materials, publicizing grantees' community policing successes, and acting as a catalyst that encouraged grantees to demand more community policing training from regional and State academies. However, the advancement of community policing among nongrantees offers some weak evidence that the COPS program provided fuel but not the launch pad for the nationwide proliferation of community policing tactics between 1995 and 1998.

With a few exceptions, COPS grantees' reported use of community policing tactics grew more rapidly than did nongrantees'. However, the difference in reported adoption rates was statistically significant for relatively few. They include joint crime prevention projects with businesses, citizen surveys, techniques for bringing the community more fully into problem solving, and bringing probation officers into problem-solving initiatives. Grantees were significantly more likely than nongrantees to report adopting late-night recreation programs and victim assistance programs. Finally, grantees were significantly more likely than nongrantees to report instituting three organizational changes in support of community policing: new dispatch rules to increase officers' time in their beats, new rules to increase beat officers' discretion, and revised employee evaluation measures.

In this information age the community policing vocabulary is well known. Federal funding rewards departments that profess the successful implementation of community policing principles. In that context, survey findings that agencies' use of community policing tactics grew between 1995 and 1998 could merely reflect socially desirable responses, at least for COPS grantees. Our site visits were intended to

learn the ground truth behind the survey reports and to shed light on the different meanings that law enforcement agencies assign to strategies and tactics commonly labeled as community policing. In our limited time on site, one might expect it to be difficult to separate the rhetoric of community policing from the reality of what law enforcement agencies actually do. Indeed, it often was. Therefore, the enormous variation we detected across sites in the operational meanings of key community policing concepts is especially telling. This variation is described next.

How are COPS grantees building partnerships with communities?

Problem-solving partnerships for coordinating the appropriate application of a variety of resources are commonplace in many of the agencies visited. Yet, all too often, partnerships are in name only, or simply standard, temporary working arrangements. Partnerships with other law enforcement units and agencies merely to launch short-term crackdowns are not in the spirit of problem solving *or* partnerships, nor are partnerships in which citizens and business representatives are merely "involved," serving primarily as extra "eyes and ears" as before. True community partnerships, involving sharing power and decisionmaking, are rare at this time, found in only a few of the flagship departments. Other jurisdictions have begun to lay foundations for true partnerships, however, and as problem-solving partnerships mature and evolve, the trust needed for power sharing and joint decisionmaking may emerge.

How are COPS grantees implementing problem solving?

Certainly, it appeared on site that the majority of agencies visited are engaged in problem solving, although its form and visibility vary widely from agency to agency. Some of the strongest features of problem solving that we observed included the evolution of problem solving from "special operations" to more complex activities that attack disorder and fear and that require police to search

for interventions other than arrest; administrative systems that recognize problem solving at multiple scales and multiple levels within the organizations; broadly distributed authority to initiate problem-solving projects; systems to assess the impact of particular projects and to learn from them; and the ability of the law enforcement agency to engage other government agencies in defining and solving community problems.

In some jurisdictions, traditional enforcement and investigative activities are called problem solving under the community policing umbrella when these activities are directed toward problems the community has identified as concerns. Problem-solving projects dominated by enforcement actions, however, rarely advance the objectives of community policing because they are unlikely to either fix underlying causes or attract the community support needed to maintain solutions. Therefore, enforcement-based solutions to stubborn problems are likely to be short term, although when successful, they sometimes encourage residents to re-enter public spaces and develop more permanent solutions.

A visible sign of enforcement-based problem solving is the recent and growing trend toward "zero tolerance" policing, a term also lacking consensual definition. In the sites visited, zero tolerance policies take different forms. Some are manifested as zero tolerance efforts of short duration (e.g., operated for a few days each quarter or once a year) with a narrow focus (e.g., street drug dealing or public drinking on July 4) and within a circumscribed area (e.g., high trafficking area or downtown). In other jurisdictions, zero tolerance is less focused. What might have been called a crackdown 5 years ago is now implemented under zero tolerance or order maintenance policies and classified as part of community policing.

Zero tolerance policies have been included by some agencies under community policing, since they often focus on quality-of-life crimes and incivilities and primarily because "the community wants it." Zero tolerance policies may help

achieve some community policing goals within a framework that uses community input to set priorities and delegates discretion to officers working under mission statements that value the dignity of citizens, even suspected offenders. However, there are dangers that without adequate mechanisms for the diverse communities within most jurisdictions to register their demand for or opposition to zero tolerance tactics, those tactics may directly undercut the objective of partnership building by alienating potential community partners.

How are COPS grantees implementing crime prevention?

Prevention efforts abounded in the sites we observed, primarily manifested as traditional prevention programs now subsumed under the community policing label. Neighborhood Watch, DARE, and a wide variety of youth programs remain the mainstays of prevention efforts. Beyond the standardized programs, examples were rare of systemic prevention efforts based on the resolution of the underlying causes of crime.

What legacy will remain from community policing initiatives stimulated or facilitated with COPS funds?

There are shining stars among the COPS grantees, which provide examples of what most observers would classify as "the best of community policing." There are far more agencies striving to change their organizations to pursue community policing objectives, and are somewhere along the long and tortuous road. A few agencies want nothing to do with it.

Our national survey and site visit results indicate that COPS funding has helped to accelerate the adoption and broaden the definition of community policing. The effects of this massive support for community policing have both positive and negative aspects. Certainly COPS funding has enabled a great number of law enforcement agencies to move ahead in their implementation of community policing as locally defined. Funding conditioned expressly on community polic-

ing implementation, coupled with peer pressure to embrace this model of policing, has also led a substantial number of law enforcement agencies to stretch the definition of community policing to include under its semantic umbrella traditional quick-fix enforcement actions, draconian varieties of zero tolerance, long established prevention programs, and citizen advisory councils that are *only* advisory.

Our supplemental study of multiple funding streams in large grantee agencies hinted at the power of local decisions to determine the course of the community policing movement. Of the 100 largest grantee agencies in our national sample, 88 reported using their LLEBG funds to augment COPS and local funding of community policing, despite the absence of any requirement to do so. However, 82 of the 100 agreed or strongly agreed that their "agency has a clear vision and is able to interpret grant requirements to support that view."

Given the power of local decisionmakers, the COPS program will almost certainly wind up affecting the nature of policing in three ways. In some jurisdictions the forces fueled by COPS grants will achieve the community policing objectives articulated by the COPS Office. In others, local forces will transform the objectives into something unrecognizable by forebears and creators of the program. In still others the forces will fizzle out for reasons that have to do with leadership, implementation strategies, turnover at top levels, organizational processes within grantee agencies, and communities' capacities and willingness to join the enterprise.

Precisely where each of these outcomes occurs will not be known for some years. However, change seems most likely to be institutionalized and sustained when planning for change is broad based; the commitment to change is rooted throughout the senior leadership of the agency and the political leadership of the jurisdiction; changes are organizationwide rather than limited to a special unit; organizational changes become embodied in a new physical plant or technology;

the new programmatic objectives are reflected in administrative systems (e.g., for personnel administration or performance measurement); and the change redefines the culture of a department, or at least of an entire age or rank cohort within the department.

Measures of Success

Readers of an evaluation report are entitled to the clearest possible answer to the question "Did the program succeed?" In the case of COPS, the clarity of the answer depends on the criterion for success. At least the following success criteria warrant attention:

- Client satisfaction.

- Effect on the quantity or level of policing in the United States.

- Effect on agencies' transitions to community policing.

- Effectiveness in stimulating technological and organizational innovation.

- Effect on crime.

Client satisfaction

If one considers grantees the clients of a Federal grant program, the COPS Office "1-page" application and customer service orientation largely succeeded with law enforcement agencies serving small jurisdictions (i.e., those serving populations of less than 50,000). For many of those agencies, COPS was their first Federal grant experience, and they reported high levels of satisfaction with the application and administration processes; small agencies with prior Federal grant experience found COPS grants easier than others to request and administer. Larger agencies tended to find administrative burdens no less burdensome than other grant programs, but a number of innovative departments combined COPS funds with other funding streams to support their community policing initiatives.

Simplification had one unfortunate consequence. By avoiding tedious explanations, the grant application kits failed to resolve ambiguity in

two key administrative requirements: retention of COPS-funded officer positions and non-supplanting of local fiscal effort. At least a few jurisdictions failed to apply because of their overly conservative interpretations. Other jurisdictions adopted more aggressive interpretations. Determining the compliance status of some of those required several years for Office of Inspector General (OIG) audits, COPS Office appeals of audit findings, and independent mediation to resolve disagreements between OIG and the COPS Office regarding compliance status.

Effect on level of policing

Our best estimate at this time is that by 2003, the COPS program will have raised the level of policing "on the street" by the equivalent of 62,700 to 83,900 full-time officers. This estimate contains two elements: 39,000–55,400 hired officers (net of attrition and cross-hiring between agencies), and 23,800–28,500 full-time equivalents (FTEs) of officer time created by productivity gains due to technology and civilians acquired with COPS MORE funds. To those who considered the level of policing in 1994 inadequate, this constitutes success, even though it falls well short of the announced target of "100,000 new cops on the beat."

Even though we plan to update and refine these estimates after our Wave 4 survey, the actual increase is unlikely ever to be known precisely for several reasons. First, if the optimal number of police officers in a jurisdiction is related to local conditions, such as crime rates or tax receipts, then the benchmark against which the COPS-funded increase is counted should shift when conditions change. Second, only about half the COPS MORE grantees have systems in place to measure productivity gains, and because the measurement requires before-and-after comparisons, it is already too late to put measurement systems in place. Third, even where measurement systems are in place, they are likely to understate the productivity gains because some of it occurs in very small increments of time, which officers may well forget to record.

Effect on transitions to community policing

It seems clear that the COPS program accelerated transitions to locally defined versions of community policing in at least three ways. First, by stimulating a national conversation about community policing and providing training and technical assistance, the COPS program made it difficult for a chief executive seeking professional recognition to avoid considering adopting some approach that could plausibly be labeled "community policing." Second, the COPS hiring funds and innovative policing grants allowed chief executives who were so inclined to add new community policing programs without immediately cutting back other programs, increasing response time, or suffering other adverse consequences. Third, the COPS funds created an incentive for agency executives to adopt community policing.

Whether, in accelerating transitions to community policing, the COPS program distorted or "watered down" the concept is difficult to say. Tautologically, more replications of any strategy that encourages tailoring to local conditions will stimulate deviations from one specific definition of that strategy. In addition, two policing strategies burst onto the national scene during the life of COPS but apparently independently of it: zero tolerance and COMPSTAT (computer comparison statistics), the New York City Police Department's system for increasing commanders' accountability. While the obligation of COPS grantees to pursue community policing may have encouraged some police executives to describe those strategies as "community policing because the community wants it," it seems at least plausible that use of those techniques would have proliferated even if there had been no COPS program.

Effects on organizational and technological innovation

In agencies whose chief executives were inclined toward innovation, the COPS program facilitated their efforts in several ways. First, the broad se-

mantic umbrella offered by the term "community policing" creates latitude for experimentation with new policing tactics and organizational structures. Second, the application required specification of a community policing strategy, thereby offering an occasion for engaging broad segments of the agency and community in planning that strategy. Third, COPS resources allowed departments the opportunity to add new modes of policing without drawing resources away from existing priorities. Fourth, although achieving the projected productivity increases from MORE-funded mobile computers required telecommunications and other technology that was unavailable at the outset of COPS, the MORE funds fueled a large enough market to attract vendors' interest and to stimulate their efforts to satisfy the new demand. This represented perhaps the largest effort to bolster development of law enforcement technology since the recommendations of the 1967 President's Commission on Law Enforcement and Administration of Justice.

Effects on crime

As a process evaluation, this study did not address the question of whether the COPS program had an effect on crime. Indeed, that question could not have been seriously addressed in the early years of COPS because "the COPS program" meant something different in each jurisdiction.

However, the adoption of new policing tactics by so many agencies as they expanded their sworn forces presents an opportunity to investigate which tactics (or clusters of tactics) had beneficial effects on crime rates. By statistically relating local crime trends to the adoption of new tactics, it should be possible to identify promising strategies that were more likely than not to reduce crime more rapidly than the national average. Once promising strategies or tactics are identified statistically, semistructured site observations should help to identify the qualitative aspects of implementation that distinguish effective from ineffective uses of these promising strategies.

2. Origins and Objectives of the COPS Program

Stephen J. Gaffigan, Jeffrey A. Roth, and Michael E. Buerger

Title I of the Violent Crime Control and Law Enforcement Act of 1994 (hereinafter referred to as the Crime Act) was a landmark piece of legislation that altered the Federal role in State and local law enforcement. Never before in U.S. history had Federal legislation so aggressively encouraged local and State law enforcement agencies to pursue two objectives simultaneously: increasing the number of sworn officers on the street and adopting a specific policing approach, namely community-oriented policing (i.e., community policing). At a time when virtually no one was calling for an expansion of the Federal Government, a new Office of Community Oriented Policing Services—the COPS Office—was created to carry out that mandate.

The COPS story begins at the confluence of two significant forces—one grounded in presidential politics and the other with roots in policing practice and research. First, perceptions of increased levels and viciousness of violent crime during the late 1980s had driven public fear and anger over crime to high levels and had created questions about the ability of government at any level to achieve its constitutional mandate to insure domestic tranquility. Responding to those concerns, presidential candidate Bill Clinton pledged to put 100,000 new police officers on the streets of the Nation, as part of his campaign.

Second, policing reforms over the previous two decades provided both the need for and seeds of new approaches to policing, which had become known as community policing and problem-oriented policing. Community policing stressed greater police responsiveness to the community at several levels, including more personal service;

greater citizen input into police priorities; increased police attention to previously ignored "quality of life" issues—behaviors, actions, and conditions that were low-level nuisances to the police but major problems to residents and business people; and an expanded commitment to crime prevention without sacrificing the quality of crime suppression. Community policing emphasized community organizing and interagency cooperation to a greater degree than ever before.

Herman Goldstein first articulated problem-oriented policing in 1979 as a critique of past police practices. Goldstein (1979) argued for disaggregating the traditional police crime categories such as the Uniform Crime Reports (UCR) index, looking for common patterns within the disaggregated categories and in other demands for police service, and identifying the common causes that linked seemingly unrelated events that came to police attention. Like community policing, problem-oriented policing placed a premium on identifying resources and partnerships external to the police agency and bringing a coordinated response from all levels of government and all segments of the community to bear on common problems. However, problem-oriented policing did not necessarily require the fundamental change in the relationship to the community that COPS represented. Problem solving could be, and often was, conducted as a police-only exercise with modest and police-controlled community participation where needed.

Since problem-oriented policing was a relatively well-defined strategy that often produced visible successes, it rapidly gained adherents in the

police community (Goldstein, 1979; Eck and Spelman, 1987; Sherman, Buerger, and Gartin, 1989). By contrast, community policing was originally promulgated as a philosophy, lacking specific strategic or tactical applications. Its definition varied from one jurisdiction to another during its developmental phase, often taking the form of small, self-contained programs staffed by volunteers. Community-oriented policing (COP) acquired an image as inherently "soft" policing, giving rise to a common locker room joke that COP means "Call the Other Police." It was rejected by some as "not real police work"; derided by others as "just what we've always done, only now they've figured out what to call it"; and even when recognized as a laudable goal, dismissed on the grounds of being too labor intensive for existing staffing levels to accommodate.

Some academic observers also found little that was substantively new in community policing; Klockars (1991), for example, described it as merely "the latest in a fairly long tradition of circumlocutions whose purpose is to conceal, mystify, and legitimate police distribution of nonnegotiably coercive force." In contrast, other academics considered community policing not only a viable strategy but the "only form of policing available for anyone who seeks to improve police operations, management, or relations with the public" (Eck and Rosenbaum, 1994:4).

Despite the divergent viewpoints, some prominent police administrators recognized community policing as an important development by the early 1990s. Though recognizing the need for more police resources in the wake of the rising crime rate and level of public concern, local governments also understood that more officers pursuing crime suppression solely by arrest would not stem the crime problem. A new approach was needed to make communities less vulnerable to crime and disorder, and community policing seemed to hold promise. In a survey by Trojanowicz (1994), 42 percent of all police departments serving jurisdictions of more than 50,000 reported having adopted some form of

community policing. Perhaps more importantly, city administrators recognized the importance of community policing: Several major cities (including Philadelphia, Milwaukee, and Los Angeles) instituted community policing as a reform in the wake of high-profile incidents that exacerbated the tensions between their police departments and their minority communities.

New Federal resources seemed a plausible incentive for a local agency to launch or accelerate a transition to community policing, especially in view of its reputation as labor intensive. Nevertheless, simultaneous Federal pursuit of both objectives—putting more officers on the street quickly while encouraging agencies to change their ways of doing business—created a fundamental dilemma. Too much Federal coercion to change might discourage local agencies from participating in the program, thereby jeopardizing the goal of augmenting overall police staffing levels. At the other extreme, simply increasing officer counts without a fundamental change of mission would effectively dilute any benefits that problem-oriented policing and community policing offered to communities and agencies.

Other inherent conflicts also influenced the shape of the program. Although the Crime Act nowhere mentioned a target number of new officers, presidential campaign promises had made 100,000 the benchmark for success. Expanding the Federal share of the cost could aggravate public concern over the Federal budget deficit, yet requiring localities to pay too great a share of the cost could discourage their participation. The formidable volume of administrative regulations and procedures that had grown up around Federal assistance to law enforcement since the 1968 Omnibus Crime Control and Safe Streets Act caused additional difficulties. Most Bureau of Justice Assistance (BJA) funds intended for localities had to pass through State criminal justice planning agencies dominated by gubernatorial appointees, a longstanding procedure. Lengthy advance Federal and State reviews of grant applications and cumbersome monitoring

procedures had been imposed to ensure grantees' compliance and prevent diversion of grant funds to unintended purposes. The advance reviews necessarily slowed the distribution of funds, and local concern over ongoing administrative requirements (the "Federal strings attached" to the money) potentially discouraged program participation. An additional obstacle was created when some visible leaders among mayors and law enforcement chief executives explicitly questioned whether new officers were the most useful form of Federal assistance (see, e.g., Committee on Law and Justice, 1994:17). The stage was set for a difficult balancing act.

The remainder of this chapter describes in more detail how these forces shaped the multiple objectives of the COPS program. In turn, the multiple program objectives shaped the objectives of this evaluation.

The Evolution of a Presidential Initiative

Fear of crime and violence

Americans' fear of crime and violence has ebbed and flowed in public opinion polls over the decades. In the early 1990s, it registered quite high on the "political barometer." In February 1992, during the presidential primary election season, a Gallup Poll reported record high expressions of public concern about crime. Fifty-four percent of the poll respondents, the highest since 1981, felt that crime in their area was "more" than the year before, while 89 percent, the highest in the 20-year history of the poll, felt that crime throughout the United States was higher than the previous year.

Without attempting to present a definitive explanation of the peak in concern over crime at that time, it is worth mentioning some possible causes. Statistically, lethal violence had increased substantially since the mid-1980s, particularly among male African-American youths and young adults, so that by 1992 many cities throughout the United States reported record numbers of homicides. The seemingly random and indiscriminate nature of many of these killings left an indelible mark on the public psyche. "Drive-by shootings," often committed with semiautomatic pistols that killed bystanders and other unintended targets who happened to be in the wrong place at the wrong time, were especially unsettling. Such killings broke the traditional profile of homicides, which involved people who knew each other and intimate situations in which the parties lost their self-control. The news media reported brutal attacks frequently, even those in faraway cities, focusing on crimes in which the killers were strangers to their victims.

Some evidence suggests this increase in lethal violence resulted from the rapid expansion of the crack cocaine trade (Reiss and Roth, eds., 1993; Blumstein and Rosenfeld, 1998). Cash and drugs flowed in volume through rapidly expanding and unstable drug markets that lacked mechanisms for nonviolent resolution of disputes. Rival drug dealers' competition over turf (i.e., sales territory), personal affronts, and challenges to authority frequently led to violent outbursts and retaliatory attacks. The almost daily experience of hearing shots fired and seeing the consequences created a sense of hopelessness among the residents in the most heavily affected inner city neighborhoods. Attitudes in the larger community were influenced by media reports that, not surprisingly, tended to focus on the most spectacular incidents. Daily news broadcasts and newspaper articles in some large cities occasionally resembled war time reporting of the latest "body counts," often accompanied by graphic footage and pictures of the carnage. This saturation of violence took a painful toll on the American psyche:

> In cities, suburban areas, and even small towns, Americans are fearful and concerned that violence has permeated the fabric of their communities, and degraded the quality of their lives. This anxiety is not unfounded. In recent years, murders have killed about 23,000 people annually, while upward of 3,000,000 nonfatal but serious violent victimizations have occurred each year. These incidents are sources of chronic

fear and public concern over the seeming inability of public authorities to prevent them. (Reiss and Roth, eds., 1993:vii.)

As if this real violence were not destructive enough, fictional television dramas and "action" movies further amplified its effect on the public mind set. Graphic and gratuitous violence was becoming a mainstay in television programming and movie production. Beyond passive forms of entertainment, arcade and video games appeared that encouraged players to "seek out and destroy" countless human targets, and toy stores stocked simulated guns and other means of pretend destruction. According to an article commissioned by the U.S. Department of Justice (DOJ):

> The public's concerns about crime seem to be somewhat independent of the actual crime rate, a phenomenon that may discourage law enforcement professionals but underscores just how frightening this issue is for most people. Deeply held public fears developed over decades may be slow to dissipate even in the best of circumstances. Many observers have suggested that public fears about crime are driven by media coverage rather than by any real knowledge of crime rates in their area. (Johnson, 1994:10.)

Public opinion regarding public institutions

Perhaps even more troubling to policymakers than the public's rising fear of crime was the growing crisis in confidence expressed in similar polls concerning the ability of the government, especially the criminal justice system, to do anything constructive about it. In a democracy, such erosion of confidence in so vital an area could be catastrophic. Indeed, a small but growing band of commentators contrasted presumed advantages of private deterrence achieved by private citizens carrying concealed firearms with presumed disadvantages of public deterrence achieved by police and the criminal justice system (See, e.g., Benson, 1990).

In a 1995 Gallup poll, respondents were asked to rank 14 institutions in American society according to the levels of respect and confidence they held for each. In the final ranking in this poll, Congress placed number 12 and the criminal justice system was last at number 14.

> Opinion research strongly suggests that, for the public, the concept of justice includes both protecting the rights of the accused and redressing wrongs done to victims and society. The vast majority of Americans appears to believe that the balance between these two goals has tipped too far in favor of the accused.
>
> Eighty-six percent of Americans say the court system does too much to protect the rights of the accused and not enough to protect the rights of victims (ABC News, February 1994). Only 3 percent of Americans say the courts deal too harshly with criminals; 85 percent say they are not harsh enough (National Opinion Research Center, May 1994). (See Johnson, 1999.)

In contrast, respondents to another poll taken at about the same time ranked the police number two in respect and confidence, behind only the military.

Importantly for the development of the COPS program, other polls reflected not only general respect but a belief that police might be able to solve the problem that other public institutions failed to address. According to a review commissioned by DOJ:

> Putting more police officers on the streets as an effective way to fight crime is broadly supported. Nine in ten Americans say that increasing the number of police is a very (46 percent) or somewhat (44 percent) effective way to reduce crime (ABC News, November 1994). And, given the general skepticism people feel about many institutions and most of government, Americans

voice substantial confidence in law enforcement. Fifty-eight percent say they have a "great deal" or "quite a lot" of confidence in the police; another 30 percent say they have "some" confidence in the police; only a handful (11 percent) express very little or no confidence. (The Gallup Organization for CNN/*USA Today*, April 1995.)

The review went on to discuss critical links between proper police behavior and the maintenance of such high levels of confidence in police ability to control crime and violence. But the high public confidence in police offered the possibility that the public might accept deploying additional police officers as a plausible governmental response to this visible concern.

Past Federal responses to crime

The early 1990s were not the first time that violence had seized public attention and bipartisan Federal concern. The decade of the 1960s gave rise to multiple Federal initiatives to address the precipitous rise in public violence related to antiwar and civil rights protests.

In July 1965, as part of the Federal response to the "long, hot summers" of racial protest and rioting in the Nation's inner cities, President Lyndon Johnson created the Commission on Law Enforcement and Administration of Justice (hereinafter, the Crime Commission), chaired by former U.S. Attorney General Nicholas Katzenbach. Its report, *The Challenge of Crime in a Free Society,* was released in February 1967 (U.S. Government Printing Office, 1967) and became the most influential of all the 1960s commissions over the next two decades. Its 200 recommendations spanned all of law enforcement and criminal justice, urged the Nation toward a fundamental rethinking of crime and the national response, and urged pursuit of seven objectives. Three of the objectives were intended to reorient the societal response to crime toward prevention; the remaining four dealt with upgrading the capacity and operations of the criminal justice agencies.

The three components of the intended reorientation were to focus on preventing crime before it occurred; to eliminate injustices within the criminal justice system; and to create shared responsibility for criminal justice with the citizenry, social institutions, and agencies at all levels in government. Upgrading criminal justice system operations included developing new ways of dealing with offenders; attracting people with greater expertise, initiative, and integrity into the criminal justice professions; increasing the knowledge base by conducting more basic and applied research on crime and criminal justice administration; and giving the agencies more money.

Shortly after release of the Crime Commission's report, the Omnibus Crime and Safe Streets Act of 1968 (Pub. L. 90–351) was enacted by Congress and signed by President Johnson. To support the Crime Commission's objectives to improve criminal justice system capacities, the 1968 Act created the Law Enforcement Assistance Administration (LEAA). LEAA contained separate units to disburse Federal grants to State and local criminal justice agencies, sponsor and disseminate research intended to improve criminal justice practice, and encourage States and localities to expand their use of criminal justice information systems and the statistics they can generate. Initially, LEAA operated through an elaborate structure of regional offices, which, in turn, distributed block grants to States on a formula basis, along with some Federal discretionary funds. State criminal justice planning agencies, in turn, allocated funds to local jurisdictions. Although the structure has been streamlined since 1968, the LEAA mission and functions were retained, and they are still active within DOJ's Office of Justice Programs (OJP). BJA awards formula and discretionary action grants to law enforcement and criminal justice agencies, and State planning agencies still allocate much of the Federal funding to localities— a structure that continues to rankle mayors and city managers (Committee on Law and Justice, 1994). The National Institute of Justice (NIJ)

sponsors and conducts criminal justice research and program evaluations. The Bureau of Justice Statistics (BJS) manages a variety of criminal justice statistics and information systems programs. Until 1994 these agencies served as the sole mechanisms of Federal support to State and local law enforcement agencies for noninvestigative functions.

The prevention agenda espoused by the Crime Commission received less attention than did the enhancement of the criminal justice system, but it was far from ignored. In 1968, after another wave of riots engulfed the Nation in the wake of the assassinations of the Rev. Martin Luther King, Jr., and Sen. Robert Kennedy, President Johnson selected Republican Milton Eisenhower to chair the National Commission on the Causes and Prevention of Violence. The Eisenhower Commission's 1969 report identified poverty and inequality as root causes of much of the violence of the decade and called for a frontal attack on both. Less heralded than the LEAA, the legacy of the Eisenhower Commission's recommendations included the Model Cities program and a spectrum of community organizing and community-building initiatives that laid the groundwork for many later aspects of community policing. The Ford, Eisenhower, and Mott foundations, among many others, sponsored a panorama of social reform projects as well as some high-profile law enforcement initiatives. The latter included Ford's creation of the Police Foundation to conduct policing research and Mott's sponsorship of the original Flint (Michigan) Foot Patrol Experiment. This course paralleled the LEAA initiatives and prefigured today's public/private partnerships.

During the 1980s and early 1990s, the U.S. Congress passed little comprehensive legislation that carried as much potential for changing State and local practice as the 1968 act. The Sentencing Reform Act of 1984 abolished parole and created a commission to develop Federal sentencing guidelines, which some hoped would provide a national model for replication by the States.

However, the national debate on criminal matters came to be dominated by a "get tough" approach, and criminal justice system reform took an increasingly punitive direction. Subsequent legislation nullified one area of the U.S. Sentencing Commission's work through a series of mandatory minimum sentences that exceeded the guideline ranges for various drug distribution and use offenses. Though drug distribution and use were the initial targets of mandatory minimum sentences, other statutes extended the list of Federal crimes and authorized Federal prosecution of other crimes that had traditionally fallen under State purview.

Alternatives to "getting tough" became more politically unpopular as crime continued to rise. The 1988 Democratic presidential candidate, Massachusetts Gov. Michael Dukakis was vigorously attacked in both the primary and general elections over the case of Willie Horton, a convicted murderer who raped a Maryland woman and savagely beat her fiance while on furlough from a State prison during Dukakis' gubernatorial term. Conservative Federal and State legislators seized the Horton episode as a national symbol of the futility of rehabilitation programs and painted the Democrats who supported them as being "soft on crime." Republican George Bush defeated Dukakis, and conservative legislators successfully overrode proposals to expand crime prevention programs.

The Bush administration coincided with the rise in violence during the late 1980s and a peak in public concern over the crack cocaine trade. For the most part the administration promoted "get tough" responses. A 1992 report authored by Attorney General William Barr called for greater use of such tactics as pretrial detention, mandatory minimum sentences, the death penalty, and adjudicating juvenile offenders as adults (Barr, 1992). The administration continued building new prisons as well, to cope with the prison crowding that was the predictable result of longer sentences and sharply curtailed prospects for parole.

However, within the Bush administration and, later, in Congress, the realization emerged that pulling together the bipartisan consensus needed to "do something about crime" would be more easily achieved if the response combined symbols and elements of crime prevention with those of tough enforcement. The product of this new course, launched near the end of the Bush administration's term, was Operation Weed and Seed (OWS), which attracted supporters from across the political spectrum. Weed and Seed represented a hybrid that combined tough, no-nonsense enforcement efforts to bring order to crime-plagued neighborhoods ("weeding") with a broader governmental effort to sustain order through social services and neighborhood redevelopment ("seeding"). Through Weed and Seed, community policing became a formal part of Federal policy for the first time and was described in the program implementation manual as the "bridge between weeding and seeding" (Executive Office for Weed and Seed, 1992:1–4).

OWS encountered obstacles, and some targeted neighborhoods were suspicious and reluctant to participate. The local initiatives were housed in U.S. Attorneys' offices, which were seen as enforcement-oriented and remote from communities. The weeding metaphor embodied in the program name was seen as insulting because the weeds targeted for removal were often residents—sons, cousins, or neighbors of community members who viewed their lawbreaking more as a result of disenfranchisement than of moral bankruptcy. Seeding components proved difficult to mount, in part because the infrastructure needed for service delivery was lacking in some neighborhoods and separate, often cumbersome, grant applications were required to obtain seeding funds from programs in the departments of Health and Human Services, Housing and Urban Development, Education, and Labor.

Nevertheless, OWS was recognized as a break from past programs that emphasized solely enforcement *or* solely services. In addition, programs in several cities reduced crime in the Weed and Seed neighborhoods, giving credence to the concept. By fiscal 1993, when Bill Clinton was inaugurated, OWS was funded in 21 sites at a total of $13.5 million (Dunworth and Mills, 1999); it had expanded to 200 sites by fiscal 1999.

Another Bush administration crime control program reflected the combined approach philosophy. The Public Housing Drug Elimination Program (PHDEP), jointly funded by BJA and HUD, combined aggressive tactical police sweeps to remove drugs and drug traffickers from housing projects with enhanced access to drug treatment and prevention resources. This program resulted in the development of comprehensive training and technical assistance resources for use by local communities, and a small consortium of organizations was funded to deliver these services to local teams.

The new administration takes charge

The 1992 presidential campaign shifted into high gear during a period of growing public pressure on elected officials and candidates for a visible, plausible response to crime and violence. Mindful of the role played by the Willie Horton episode in their 1988 defeat, Democrats and presidential candidate Bill Clinton seized the initiative on crimefighting. Arguing that restoring order in communities was a critical precursor to other initiatives, Clinton proposed an aggressive approach to the crime problem in which the substantial Federal role included a massive infusion of funds to support local jurisdictions. Recognizing from national polls that law enforcement agencies still commanded public respect, Clinton called for the hiring of 100,000 new police officers to be deployed by State and local law enforcement agencies on the streets of the Nation's cities and towns.

In its early months, the Clinton administration continued the dual approach of enforcement and prevention. Clinton's new Attorney General, Janet Reno, had established herself as a prosecutor in south Florida; she brought with her a

strong belief that local coalitions and partnerships between law enforcement agencies and community-based organizations were necessary to achieve any kind of meaningful and lasting impact upon crime and violence.

Two early programs emphasized the development and coordination of such partnerships. The unfunded Pulling America's Communities Together (PACT) was run initially from the office of the deputy attorney general. Later, BJA launched the funded Comprehensive Communities Program (CCP), which incorporated several innovative features. CCP grants required preliminary planning by all potential partners, as well as monitoring and support for the planning process. Grant applications could access multiple programs through a single application process, with federally preset funding allocations across the various partners. This went a long way toward eliminating any potential infighting over money: Potential partners knew from the start what money they could expect, so the planning process could focus on program goals rather than resource allocation. Emphasizing the need to build or strengthen local capacities to participate in partnerships, BJA provided targeted training and technical assistance to all CCP sites for that purpose (Kelling et al., 1998). While PACT provided no funds, its technical assistance components also emphasized partnership building.

The new administration recognized that such partnership building, while potentially important, would be seen neither as a sufficient response to the Nation's crime problem, nor as redemption of the campaign promise of 100,000 police officers. Two basic obstacles remained, however: how to pay for the officers in the midst of an outcry over Federal budget deficits, and how to deploy them in ways that would reinforce emerging police-community partnerships without visibly compromising the image of "toughness."

Solving the fiscal problem required two decisions to be negotiated with Congress. Costs of the officers would be shared with localities, and the Federal share would be paid for out of a Violent Crime Reduction Act Trust Fund financed by savings from downsizing the Federal Government.[1]

For a deployment strategy that showed promise of reinforcing police-community partnerships, the administration drew on community policing, a concept that had evolved for some time and had gained adherents among law enforcement executives, yet remained ambiguous.

From Police Reforms to Community Policing

Though community oriented policing was spoken of as a dominant or at least emerging model of policing in the early 1990s, its popularity was tinged with ambiguity. The Trojanowicz (1994) survey indicated community policing *in some form* was being adopted by almost half the agencies serving more than 50,000 people; Moore (1994) reported at about the same time that "in practice, no department has yet fully implemented community policing as an overall philosophy." Several years earlier, in an attempt to clarify the community policing concept, Goldstein (1986:8) noted in passing that the term served a useful purpose as a *rhetorical device.* He speculated that the term was useful for calling attention to values that should underlie policing in a free society: more community involvement, greater accountability to the community, and improved service to the community.

Controversy over what community policing really is or really means has attended the discussions of its implementation down to the present day. For Trojanowicz and his colleagues it was a *philosophy* for guiding every aspect of a police agency's operations. In some cases, it is indeed merely a *rhetorical device* used not in Goldstein's terms but in Klockars': a progressive-sounding verbal smoke screen to protect traditional methods and values quite different from the philosophy articulated by Trojanowicz. To many scholars and observers of the police, community policing is primarily a collection of *programs or tactics* employed in good faith within agencies that still cling to traditional deployments and attitudes.

In a small number of departments, community policing represents a long-term *strategy* that uses the smaller programs and tactics as a means to bring about a slow but permanent change in the overall way the agency does business.

Arguably, the concept has played all four roles at various times and in various endeavors, including the development of Title I and the operation of its programs. During congressional debate over the 1994 Crime Act, the simultaneous popularity and ambiguity of community-oriented policing enhanced its *rhetorical* value as a device for attracting the legislative majority needed to pass the Act. As had been true of Weed and Seed, advocates of get-tough crime control (weeding) could hear "policing" while community enhancement (seeding) adherents could focus on "community oriented."

Later, the new COPS Office created to carry out Title I took a step toward defining community policing by asking Congress to judge its success (and applicants to describe their intended uses of grants) in terms of three objectives: building partnerships with their communities, adopting problem-solving tactics, and refining organizational structures and functions to support the programmatic objectives (Brann, 1995). Crime prevention had been added to the programmatic objectives by the time more than 11,000 law enforcement agencies submitted their required community policing *strategies* with their first grant applications.

In turn, those strategies outlined the *programs and tactics* they planned in pursuit of those objectives. Given the practical difficulties of obtaining valid measures of progress toward those objectives on such a large scale, the COPS Office monitored strategy implementation in terms of the programs and tactics. Similarly, for the present study, the Urban Institute based its comparison of community policing implementation by grantee and nongrantee agencies on a national survey of law enforcement agencies' adoption of tactics used more or less commonly to pursue the four COPS Office objectives. Although

measuring tactics implementation was the only practical way to develop a national picture of progress toward the stated objectives, other components of this study found examples of grantee agencies changing their mission, vision, or values statements or taking other steps to incorporate community policing explicitly into their agencies' *philosophies*.

Not only has the term "community policing" played multiple roles with respect to the COPS program, but also, as chapter 6 makes clear, police agencies employ the term to cover a wide variety of practices. The term offers such a wide umbrella for at least two reasons. First, to the extent that community policing means addressing the needs and using the resources of local neighborhoods, diversity of neighborhoods calls for diversity in community policing strategies and tactics. Second, the term seems to have acquired a variety of meanings because over the past several decades it has been applied to a rather wide variety of policing reforms, innovations, and programs.

A review of the history of community policing is beyond the scope of this evaluation. Nevertheless, to give readers some appreciation of the wide range of meanings that well-informed and well-meaning legislators, program administrators, grantees, and observers assigned to the term "community policing," this section offers an overview of some strategies and tactics to which the term has been applied.

The reference point: Professional law enforcement

Community policing is perhaps best understood in relation to what it is not. Such a benchmark is especially useful in light of frequent objections that community policing is "what we've always done." Following Moore (1992), we use "professional policing" as the reference point.

The professional policing vision was fairly clearly described in chapter 4 of the 1967 report of the President's Commission on Law Enforcement

and Administration of Justice (U.S. Government Printing Office, 1967). The Crime Commission viewed crime as a broad social problem, with root causes that lay well beyond the domain of policing. For the commission, the mission of the police was "not to remove the causes of crime, but to deter crime, and to deal with specific criminals whoever they are, and with specific crimes whenever, wherever, and however they occur." The commission reminded readers that the police are "only one part of the criminal justice system," and the criminal justice process is "limited to case by case operations, one criminal or one crime at a time" (1967:93).

To carry out this mission, the commission described the "heart of the police law enforcement effort [as] patrol, on foot or by vehicle, of uniformed policemen … If they are motorized, they spend much of their time responding to citizen complaints and the reports of crime that are relayed to them over their radios … A principal purpose of patrol is 'deterrence,' [and] [w]hen patrol fails to prevent a crime or apprehend the criminal while he is committing it, the police must rely on investigation" (1967:95–96). The commission went on to note that "[p]reventive patrol … by visible and mobile policemen … is universally thought of as the best method of controlling crime that is available to the police" (1967:116). Moreover, "… in view of the limited area that foot patrolmen can cover, … [t]he extreme mobility and coverage provided by motor patrol compels its use, despite losses in neighborhood contact" (1967:117).[2]

Beyond the loss of neighborhood contact, the commission anticipated other issues that would later resurface in discussions of community policing. Recognizing that public and private services tended to be poor in the high-crime neighborhoods to which patrol officers should be assigned for the sake of efficiency, the commission recommended creating "community service officers" who would report badly maintained parks and other conditions that should be corrected (1967:98). Lamenting how differently whites

and nonwhites perceive the police and recognizing that "professionalization of the police has meant … improving efficiency by various methods [that lessen] informal contact between policemen and citizens," the commission called for community relations programs and for making community relations "the business of an entire department" through frequent meetings with precinct-level citizens' advisory committees (1967:100–101). Recognizing that lengthy procedures manuals usually fail to give officers on the street adequate guidance on the use of discretion that is called for every day, the commission called on agencies to develop policies guiding use of discretion in such matters as "the issuance of orders to citizens regarding their movements or activities, the handling of minor disputes, the safeguarding of the rights of free speech and free assembly, the selection and use of investigative methods, and the decision whether or not to arrest in specific situations involving specific crimes" (1967:104).

Organizationally, the commission was firmly committed to the "guiding organizational principle of central control." The vision was that, with the advice of trained specialists and an internal board cutting across functions and ranks, the chief and his staff should be "developing, enunciating, and enforcing departmental policies and guidelines for the day-to-day activities of line personnel" (1967:114–115). The commission noted that large police departments were nearly always characterized by organizational fragmentation, with separate and poorly coordinated units responsible for patrol, investigation of specific crime types, and community relations. To improve efficiency, it called for experimentation with "team policing," a structure that would put all such functions under unified command at the district level (1967:117–118).

Despite the commission's acknowledgment of limitations and calls for innovation, most of its recommendations presumed a hierarchical organization and sought to improve the efficiency or effectiveness of what Moore (1992:108) called

the principal tactics on which professional policing relied: patrol, rapid response to calls for service, and investigation of crimes. Shaped by the commission's thinking, testing and refinements of these functions formed the centerpiece of professional policing in the following years. For the general public at the time, the essence of professional policing was captured by Jack Webb's character in the radio and television series *Dragnet*: Detective Joe Friday, whose signature phrase "Just the facts, ma'am," became a national cultural symbol of police practice at the time.

Over time, research prompted by the commission's work generated additional questions about the professional model. Moore (1992) summarized these challenges to the four fundamental assumptions underlying the professional model: that patrol deters crime (Kelling et al., 1974), that detectives can often solve crimes using crime scene evidence (Greenwood et al., 1977), that rapid response often leads to apprehension of perpetrators (Kansas City Police Department, 1980), and that arrest, even if followed by conviction and incarceration, deters crime (Blumstein et al., 1978).

It overreaches the evidence to suggest the findings of those four studies show police can do nothing about crime. They nevertheless seriously called into question the claims of some politicians, police officials, and academics at the time that crime could be controlled simply by having more police doing more of these activities. The research challenge to the efficacy of policing *as then practiced* stimulated two kinds of responses: efforts to improve the professional model and efforts to replace or augment the professional model with promising alternative approaches.

Most efforts to improve the professional model involved thinking of crime and crime fighting efforts in more systemic ways. For example, Differential Police Response (DPR) to calls for service introduced formal call screening protocols to free patrol units from mundane tasks so

they would be available for more serious matters, reduce response time, and provide better service. Managing Patrol Operations (MPO) formalized directed patrol activities to target specific crime problems in communities. Managing Criminal Investigations introduced formal case screening protocols to optimize the use of criminal investigators on more serious cases and allocate other investigative work to patrol officers. The Integrated Criminal Apprehension Program (ICAP) introduced crime analysis to allocate patrol resources to target specific crime types and attempted to formalize the roles of patrol officers, investigators, and other specialists in criminal investigations. "Career criminal" or "repeat offender" programs targeted the relatively small number of chronic and violent offenders for more intense police scrutiny and higher priority prosecution.

Between the early 1970s and early 1990s, other police executives and scholars developed alternatives to the professional model. Although many locally conceived projects received Federal support, the energy of this period was essentially a grassroots attempt to improve policing. No master plan of systematic design, pilot testing, experimental testing, and replication governed the process, although instances of each occurred. New ideas were tried in their home settings, sometimes accompanied by fairly robust evaluations, and then introduced (with Federal help) on the national stage for replication and modification. At one level, LEAA's research arm, the National Institute of Law Enforcement and Criminal Justice and its successor the National Institute of Justice, promoted evaluation of the programs and disseminated the findings through the Exemplary Projects series, "Best Practices/Model Programs" publications, and national conferences, among other channels. At another level, law enforcement professionals kept one another informed of promising ideas and innovations through articles in practitioner magazines, such as *The Police Chief* and *FBI Law Enforcement Bulletin*, and in presentations at their national conferences.

Among the most prominent alternatives cited by Moore (1992) were team policing, community relations units, community crime prevention programs, problem-oriented policing, and fear reduction projects. Though each had its limitations and some visible failures, collectively they broadened the police perspective and mission. Perhaps more importantly, they changed the nature of police executives' conversations.

Nationally published evaluation findings, rigorous local experiments, and conversations with police executives from other jurisdictions all legitimated the cross-fertilization of ideas throughout the police community. Progressive policing came to be defined in part by police executives' willingness to test and evaluate new ideas, often through the research programs of the Police Foundation, the Police Executive Research Forum (PERF), the International Association of Chiefs of Police (IACP), and other organizations.

At the center of this evolutionary process were the five alternatives listed above, each of which was an important precursor to the broad reconceptualization of the police mission we now call community policing. Some were tested or implemented under grants from LEAA, BJA, or NIJ. Compared to the professional policing model, all of them had the potential to align police concerns more closely with those of the community, bring officers in closer contact with community residents, or both. To help understand the origins of the ambiguity of community policing in the context of COPS, we briefly describe the five alternative approaches in the following sections.[3]

Alternative 1: Team policing

Police departments in New York City, Cincinnati, and Los Angeles were among the first to act on the commission's recommendation to test the *team policing* concept as a means of establishing neighborhood-level control over all police resources. The concept was still in operation in Los Angeles at the time of our first site visit. As practiced there, the patrol force was divided into

"X cars" that could be dispatched throughout the city and "basic cars" that remained in their assigned neighborhoods. A senior lead officer was assigned to each basic car and given higher pay for establishing and maintaining liaison with the community. The city was divided into 70 patrol areas, each policed by 3 to 5 basic cars and commanded by a lieutenant, who directed not only patrol but all the specialist units and had 24-hour accountability for conditions in the area. Because of this neighborhood-level focus, Moore (1992:133) described team policing as "the first modern model of what [was] becoming community policing" at that time.

Moore reports that evaluations of team policing in several locations found the model was popular with the public and sometimes improved neighborhood conditions, including crime rates. However, even successful examples fell by the wayside, perhaps because of resource constraints, opposition by higher-ups in the chain of command, or incompatibility with an organizational culture committed to the professional model. Even the Los Angeles team policing model was discontinued between our first and second site visits. Despite the virtual demise of full-blown team policing in most jurisdictions, several of its vestiges—dispatch rules that keep beat officers in their beats, a team approach to decisions in the field rather than chain of command, and pushing decisionmaking responsibility down to the beat level—are prominent in descriptions of community policing today.

Alternative 2: Community relations units

As described by Moore (1992:134), community relations units dated back at least to the 1950s, when "Officer Friendly" visited schools, made speeches, and spoke to citizens in other forums as a means of gaining support from community residents. In the wake of urban riots in the 1960s, these units' activities in some agencies evolved into what we now know as community meetings, often with community activists playing visible roles. Because the community relations officers kept senior command staffs abreast of tensions

and plans, Goldstein, in a 1990 conversation with Moore (1992:134), described the units as among the first innovations to alert chiefs to the potential value of community policing.

In some departments, regular community meetings evolved into permanent citizen action or advisory councils, which, then as now, offer potential "megaphones for the department [and] … antennae tuned into neighborhood concerns (Moore, 1992:135)." The balance between those two functions varies across jurisdictions, but the meetings offer a structure through which a motivated department can make community relations "the business of an entire department from the chief down," as the Crime Commission (1967:100) had recommended. In some jurisdictions, community meetings raised the issue of external accountability, which sometimes led to new policies, procedures, and practices. One such practice, the civilian review board, offered a formal mechanism for community input and monitoring of police misconduct.

Regular meetings and councils offered the necessary communications channels, and the emergence of review boards may have helped to create a congenial climate, for building police-community partnerships. However, they did not necessarily lead the new partners to action agendas. Those were more likely to arise from two strategies with different orientations: community crime prevention and problem-oriented policing.

Alternative 3: Community crime prevention

Experiences of the fledgling partnerships demonstrated that communities have legitimate and important roles to play in crime prevention—roles that go well beyond being the "eyes and ears of the police." As noted by Dennis Rosenbaum in a 1986 evaluation report on community crime prevention:

> The sentiments underlying community crime prevention arose partly out of a growing realization that the institutions represented by the police and the court

system were failing in their mission to reduce the crime problem and to restore and maintain the existing social order (Silberman, 1978). This extended conception of citizen involvement through community crime prevention programs acknowledged that the success of law enforcement was highly dependent upon the participation and cooperation of the populace in anti-crime efforts, and that some crime prevention activities were better conducted by residents themselves. (Rosenbaum, 1986:21.)

Around the same time, evaluations produced evidence suggesting that effective crime control involving communities need not be restricted to a passive role of the community in support of the police. Potentially useful active roles for residents included marking property to deter burglars, Neighborhood Watch, resident patrols, "hardening" business premises against shoplifting and robberies, cleaning up crime-prone spaces open to the public, and reducing the loitering and public drinking that bred simple assaults and petty crimes. In implementing these tactics, some community residents possessed expertise not available to the police, and many communities also possessed resources that could be directed toward these problems.

In reviewing rigorous impact evaluations of four well-executed community crime prevention programs, Rosenbaum (1986) concluded that, under favorable conditions, they could reduce burglary and robbery while increasing residents' feelings of security. However, he and others concurred that the necessary favorable conditions are hard to generate and even harder to sustain (Lurigio and Rosenbaum, 1986; Rosenbaum, 1988). In Skogan's (1988:42, 45, cited in Buerger, 1994) words, "Anticrime organizations are often most successful in communities that need them least … [and] least common where they appear to be most needed—in low-income, heterogeneous, deteriorated, renting, high-turnover, high-crime areas." Nonetheless, for some, the occasional

successes of community crime prevention tactics warranted their inclusion among the potential tools for implementing community policing strategies.

Alternative 4: Problem-oriented policing

In a seminal article, Goldstein (1979) proposed an alternative to the "one crime at a time" approach that characterized professional policing. While the Crime Commission had already recognized that some 70 percent of calls for police service concerned nonemergency matters, Goldstein focused on the theory that clusters of calls frequently reflected some underlying problematic cause. He reasoned that if police came to understand the problem well enough, then they, working with others, could reduce future call volumes by solving it.

As an example of problem-oriented policing, scanning of dispatch records might reveal that an agency devoted disproportionate resources in responses to frequent late night complaints of noise, muggings, and larcenies from autos from a residential area near an entertainment district. Further analysis might discover the underlying problem: revelers parked illegally in the residential neighborhood to avoid high parking fees in the entertainment district. As they returned to their cars, they were likely to make noise, they were easy targets for muggers, and they were likely to find valuables had been stolen from their cars during the evening. The illegal parking might be prevented with such responses as parking enforcement units doing directed ticketing, officers and community residents erecting permanent physical barriers to illegal parking, or nightclub managers validating parking garage ticket stubs for free parking.[4] The success of any of these responses could be assessed by a reanalysis of dispatch records, by community surveys, or both.

The problem-solving approach was popularized by the Police Executive Research Forum (Eck and Spelman, 1987), using an acronym SARA (Scanning, Analysis, Response, Assessment).

As a logical process, SARA need not enhance police-community contact; common problem-solving responses such as enforcement of housing or alcohol codes, truancy reduction initiatives, and graffiti eradication can take place without community involvement. However, one goal of analysis is to identify property managers, organizations that supervise potential offenders, or others in the neighborhood who may be in a position to help solve the problem and have a stake in doing so. Therefore, at a minimum, bringing community and agency partners into the problem-solving process almost certainly broadens the range of plausible alternative responses and may augment the resources available for the response. Beyond that, seeking and using residents' input in identifying problems, priority setting, and analysis increases the likelihood that problem-oriented policing projects address problems of concern to the community, develops responses consistent with neighborhood values, and avoids unnecessary confrontations because residents understand the rationale for the response. For these reasons, Moore and Trojanowicz (1988) described problem-oriented policing and community policing as overlapping, though each has a distinctive thrust.

Alternative 5: Fear reduction

Reducing communities' fear of crime emerged during the 1980s as a policing problem in its own right, for several reasons. First, observers recognized fear of retaliation as one of several barriers to citizen participation in community crime prevention and problem-solving activities (Grinc, 1994; Rosenbaum and Lurigio, 1994). Second, the finding that fear of crime was not highly correlated with the actual level of crime (Skogan, 1987) implied that reducing fear would require something different from techniques that successfully reduced crime.

Third, police practitioners and researchers developed two promising strategies for reducing fear: expanding police presence and policing disorder. As recounted by Moore (1992), the initial spark for fear reduction initiatives came from success-

ful experiments with foot patrols in Flint, Michigan, and Newark, New Jersey. While the foot patrols did not reduce property or violent crime, they did reduce citizens' fears; the Flint experiment was so popular that voters passed a tax to continue the program, and calls for service declined (Police Foundation, 1981; Trojanowicz, 1982). Later, two federally sponsored experiments in Newark and Houston, Texas, demonstrated that police could reduce fear using such techniques as opening neighborhood substations, contacting citizens about neighborhood problems, and stimulating citizens to form new neighborhood organizations (Pate et al., 1986; Wilson, 1989).

The second fear reduction strategy, policing disorder, is a response to what is sometimes known as the "Broken Windows" theory, after the title of an *Atlantic Monthly* article by Wilson and Kelling (1982). The authors argued that, left uncorrected, signs of physical decay (the metaphorical broken window) and social disorder (e.g., public drinking, groups of loiterers) communicated a message that "anything goes." In turn, frightened law-abiding people would avoid the area, leaving it to the disorderly and criminals. Skogan (1990) later discovered strong supporting statistical correlations. The metaphor became the rationale for a variety of joint police-community efforts to repair signs of *physical* decay: examples include neighborhood cleanups, graffiti removal, and building code enforcement.

The strategy became more controversial when applied to *social* disorder. Kelling and Coles (1996) describe Kelling's experience with two examples from New York City, both involving proactive arrest and jailing. One target was "fare beaters," who avoided subway fares by jumping turnstiles instead of inserting tokens. The other was "squeegee men" who, unasked, "washed" the windows of cars stuck in traffic and then intimidated drivers into giving them money.

As carried out, these proactive order maintenance efforts had community policing objectives: arresting squeegee men was intended to reduce fear,

and the fare-beater crackdown originated in a problem-oriented policing exercise (Kelling, 1999). In recent years, much to Kelling's (1999) regret, opponents now describe the New York Police Department's proactive order maintenance strategy as "turning police loose" in ways that led to the well-known Louima and Diallo tragedies; Kelling (1999) himself remarks that some NYPD adherents to "tough" policing have misconstrued successful assertive policing as license for combative or military policing. To prevent such misinterpretations and tragedies, while advancing police-community partnerships, Kelling (1999) advocates explicitly structuring discretion in order maintenance policing with guidelines, developed jointly with citizens whenever possible.

What is community policing?

The brief overview above should demonstrate that as debate began over the 1994 Crime Act, anyone advocating community policing as a break with the dominant professional policing model could point to a variety of objectives, strategies, and tactics as examples of differences. But beyond that, little was settled. Reasonable people could (and still do) argue whether the strategic objective of community policing was to improve community relations, encourage community crime prevention, expand the use of problem-oriented policing, reduce fear, or accomplish some combination of the above. As Congress debated the 1994 crime bill, advocates and opponents of community policing could plausibly describe it in terms of tactics that ranged from appearances by Officer Friendly or McGruff the Crime Dog to sophisticated analyses of calls for police service, regular meetings in high crime communities, citizen advisory boards, and assertive order maintenance policing.

BJA had already recognized that the widespread confusion posed a threat to the diffusion of community policing to police agencies across the country. To help build and disseminate a consensus on the meaning of community policing, BJA

established and funded the Community Policing Consortium (CPC) in 1993. CPC began operations under the aegis of four of the major national law enforcement organizations: the International Association of Chiefs of Police (IACP); the National Sheriffs Association (NSA); the Police Executive Research Forum (PERF); and the Police Foundation. Beginning in Phase III of the CPC's work, the National Organization of Black Law Enforcement Executives (NOBLE) was added as the fifth CPC organization.

In Phases I and II of the CPC Richard Ward, then director of BJA's Discretionary Grant Program, guided CPC's development as BJA's pivotal provider of community policing training and technical assistance on behalf of DOJ. One important rationale for CPC was the previously described lack of definition and consensus in the law enforcement profession as to the meaning of community policing. As Ward described it:

> By the early 1990s, law enforcement realized many problems with community policing were definitional. Nobody knew exactly what it meant. To some it implied social work. Others thought it moved away from professionalism and wouldn't work. When I asked chiefs what they meant by community policing, I'd get a different answer each time. 'I've got a foot patrol officer in one of my high crime districts.' 'We're doing some crime prevention work.' Until we got beyond the hurdle of defining community policing, we couldn't convince practitioners that's what they needed to do.

> BJA believed that if the largest professional organizations could get together, everybody might eventually start reading off the same sheet of music. The idea behind the Community Policing Consortium was to establish some fundamental definitions. We started with a theoretical model that scared everybody, went to a prototype, and finally developed a framework that effectively describes the umbrella concept. Now we

can plug in the technical assistance and training that support the conceptual framework (Community Policing Consortium, 1995).

Under the direction of BJA and the heads of the four organizations, CPC developed "Understanding Community Policing: A Framework for Action." Based upon that publication, a core set of training modules was developed and training commenced in 1993. CPC was to become the coordinator of all community policing training and technical assistance supported by BJA funds and to dedicate very intense training and technical assistance support to selected demonstration sites. CPC was tasked in this manner to develop multiple community policing "models" from all of these sites and to further develop prescriptive training and technical assistance curricula and publications that could assist other jurisdictions in the implementation of community policing.

The consortium was still new as the 1994 Crime Act was being formulated, and concern was expressed at the time that such a massive infusion of funds into an evolving reform might weaken this ambiguous concept before it was fully defined. Would the importance of a coherent local community policing strategy, developed with input from diverse perspectives, be lost in a mad scramble for Federal dollars to hire new police officers and acquire technology? Would agencies merely graft community relations or prevention programs from the past onto ongoing professional policing practices? Would agencies simply adopt a few signature tactics (Moore, 1992) as a facade of some version of community policing without making the organizational changes needed to make them work? In short, would this huge effort to promote community policing water the concept down still further, or change it in undesirable ways? These questions remained as the Crime Act was debated and passed.

The 1994 Crime Act

By any standard the Violent Crime Control and Law Enforcement Act of 1994 was a massive

piece of Federal anticrime legislation. This legislation authorized the spending of a staggering $30 billion to help State and local law enforcement agencies fight crime over the 6-year life of the bill's coverage. Of this total, Title I—The Public Safety Partnership and Community Policing Act of 1994—authorized the largest expenditure, $8.8 billion over 6 years, to increase the number of police officers on the Nation's streets. Although Title I nowhere mentioned a specific number of officers, the Clinton campaign pledge of 100,000 officers was still fresh, and the statutory cost-sharing formula would fund that number of officers from the $8.8 billion. Because Federal assistance to the entire local criminal justice function, including law enforcement, had never substantially exceeded $1 billion on a sustained basis, and Title I represented an unprecedented Federal intervention into local law enforcement.

Understandably, legislation of this magnitude required careful negotiations and compromises. Concerns were expressed about Title I and other parts of the bill "federalizing" a traditionally State and local function, and it was deemed critical to design its programs to ensure that the Federal assistance role did not preempt local autonomy and control. There were also divided opinions, principally along Democratic and Republican party lines, about crime fighting ideology and the designation of "soft" community policing as the desired core crime fighting strategy. These contending forces shaped the programs authorized by the bill when it was eventually signed into law.

The administration proposal

On January 25, 1994, President Clinton reiterated his campaign pledge to put 100,000 new police officers on the streets of America. Later that year, on August 21, the House of Representatives approved the Violent Crime Control and Law Enforcement Act of 1994 on a bipartisan vote of 235 to 195. Four days later, the Senate voted to approve the act on a vote of 61 to 38. On September 13, 1994, Clinton signed the act

into law in a ceremony on the South Lawn of the White House. This swift legislative victory reflected planning that had begun shortly after Clinton's inauguration.

An internal DOJ working group had met in the spring of 1993 to draft elements of the "COPS on the Beat" program. This group consisted primarily of staff from OJP and DOJ who basically tried to establish eligibility and funding standards for the planned program. Although final and serious discussions of the final crime bill did not start in earnest until a year later, in the spring of 1994, these earlier discussions led to Police Hiring Supplement grants, which BJA awarded in late 1993. The application kit contained an introductory letter in which the Attorney General described PHS as "the first stage" of efforts to fulfill the President's pledge of 100,000 community policing officers. PHS contained several features that later appeared in the COPS program: the 3-year grant period, an explicit 25-percent local match requirement, and a 3-year grant maximum of $75,000 per officer. PHS also contained a provision that was intended to ensure that jurisdictions of all sizes would have equal access to funding. Half the funds were awarded to agencies serving jurisdictions with populations of 150,000 or more, and half were awarded to smaller jurisdictions.

In the spring of 1994, serious negotiations took place among the White House, DOJ staff, and Congress over the emerging crime bill. Compromises were made to develop bipartisan support. One such concession was to permit grantees to spend grant funds for officer overtime, which PHS had prohibited. (The overtime prohibition was restored after the first full year of the new program.) Another was to retain the PHS population demarcation of 150,000, so that Title I would target equal aggregate amounts for agencies over and under that benchmark. Beyond that, advocates for rural and tribal jurisdictions demanded and received a statutory requirement for a simplified grant application process for jurisdictions of less than 50,000. These provisions were politically attractive because they

ensured some level of funding support for all jurisdictions, regardless of size. This feature was obviously important to garner necessary congressional support, and it was consistent with the White House priority, which was first and foremost to deploy the 100,000 new police officers.

Another change made late in the process led to COPS MORE (Making Officer Redeployment Effective) grants. Several prominent police executives and mayors urged that funds be available for resources other than sworn officers—specifically, civilians and information technologies. The administration desired these advocates' support for the legislation, but civilians and technology lacked the appeal of "cops on the street" to tough-on-crime constituencies and would not necessarily help redeem the 100,000-officer campaign pledge.

The COPS MORE resolution required applicants to estimate officer productivity gains from the new technology or civilians, measured as full-time equivalents (FTEs) of officers, and to demonstrate that COPS MORE grants would yield FTEs at least as cost effectively as grants to hire actual officers.[5] The FTEs generated by the productivity gains would then be counted toward the target of 100,000. No sound empirical basis existed for such estimates, and so these calculations and machinations would prove to be troublesome later. At the time, however, sponsors found it appealing that the COPS MORE device could apply a given amount of resources toward two goals, simultaneously advancing the program toward the 100,000-officer mark and providing the localities the additional benefits they sought from technology and civilianization.

At the senior levels of DOJ, however, there were other critical interests expressed in terms of the scope and intent of this massive Federal initiative. The Deputy Attorney General and other senior staff at DOJ strongly advocated two priorities for the emerging anticrime legislation. First, they felt this large Federal investment would build on the "professional policing" model across the United States. Community

policing was emerging as an alternative, and priority should be given, according to these advocates, to a strong Federal role in helping to facilitate the implementation and expansion of this new policing strategy.

The second desired priority within DOJ was more controversial, given the need to fashion a legislative majority. Some senior DOJ executives supported targeting Crime Act resources particularly at the highest crime jurisdictions in the country, rather than the "shotgun" dissemination implied in the equal allocation based upon population size. Outside government, such renowned experts as James Q. Wilson and Lawrence Sherman also advocated this position. They argued that while $8.8 billion and 100,000 new police officers were formidable numbers, dispersing the funds and new officers too broadly would greatly dilute any potential for meaningful impact upon crime and violence in the areas having the most need. It is clear from the distribution formula in the final legislation that the advocates of a targeted funding formula did not prevail. Because any grantee could apply for a second or subsequent grant in future years, however, the extent to which COPS funds were targeted on high-crime areas remained an empirical question.

The congressional debate

A substantial part of the explanation for the final shape of the Crime Act was purely political. Although the politics of crime and this historic crime act are not the subject of this evaluation report, the political climate helped to shape not only the act itself, but ultimately how the newly created COPS Office would execute its mandates.

The actual negotiations in Congress over a large Federal crime act dated back to early 1993. These negotiations, and the various versions of different bills that emerged, reflected the sometimes deep ideological differences between the Democratic and Republican parties. Even though the Democrats at that time maintained numerical control of both chambers in Congress,

the presence of conservative Democrats guaranteed that any "final" crime act would somehow have to mediate these ideological differences.

The Democrats, and particularly candidate (and later President) Clinton, were determined to reclaim the crime issue they had "lost" to the Republicans as far back as the late 1960s. The memory was fresh in their minds of the successful use of the crime issue in the 1988 presidential campaign, as epitomized by Willie Horton. The 100,000-officer campaign pledge was intended, in part, to preempt a repeat in 1992.

The Republicans supported responses to crime that were very popular in the country, particularly the death penalty and other "get tough" measures on criminals. The public, given the spiraling crime rates almost everywhere, had lost its patience for the old Democratic party line of the past 30 years, which was seen as too liberal and too supportive of the rights and needs of criminals.

Given this climate, Joseph Biden and Charles Schumer, then chairs of the Senate and House Judiciary Committees, respectively, adopted the following three-part legislative strategy for passing the 1994 Crime Act:

First, Biden and Schumer recognized that Democrats' basic weakness on the crime issue was their perceived opposition to the death penalty, since capital punishment is the most powerful litmus test used by voters to determine whether a politician is "tough on crime"…

Second, Biden and Schumer went on the offensive, mounting a strong attack against the Bush administration's crime plan, which was designed to honor his 1988 campaign promises to "reform" presumptively liberal and permissive crime policies….

Third, Biden and Schumer proposed their own innovative crime plan, which in comparison to Bush's approach, was "real, not rhetorical." The Democrat approach can be summarized in a few brief words: more police, fewer guns. (Chernoff et al., 1996.)

As a "new" and desired policing strategy, the abstract and ambiguous term "community policing" offered the flexibility needed to gain the necessary political support for the Crime Act. The term also allowed wide latitude to State and local police agencies in the application of this concept within their agencies. Avoiding even the perception of a "one size fits all" approach was seen as critical to the success of the Crime Act, and necessary also to ameliorate some concerns being expressed that one of the bill's outcomes could be to create a national police force. The bill incorporated such key elements of community policing as partnerships and problem solving and described these principles loosely in terms of their application within a police organization and in communities. In fact, these core principles were consistent with much of the language of the police profession itself as expressed in various publications, reports, and other community policing documents both at the national and local levels.

Beyond the civilians and technology to be funded under COPS MORE, other funds were set aside to support local initiatives and programs thought to show particular promise in dealing with crime and violence issues (domestic violence, gangs, youth firearm violence, and so forth). In the final version of the bill, these kinds of programs became part of the Innovative Community Oriented Policing (ICOP) section, which could be funded with up to 15 percent of the appropriation each year. Similarly, in recognition of the need to provide State and local agencies some level of training and technical assistance support, up to 3 percent of the annual appropriation could be utilized to provide these services. Both of these categories of programs and services are described in a later section of this chapter.

A broad range of constituencies influenced the bill's content and helped ensure its passage. Supporters included national police management and labor organizations and other political organizations, such as the U.S. Conference of Mayors, the International City Managers Association, the National Governor's Association and the National League of Cities. This diverse group of supporters became critical in ameliorating the philosophical tension in Congress between forces favoring the creation and funding of a large Federal crime program that would award grants directly to local jurisdictions, in contrast to the longstanding practice of disseminating these funds through State-level planning agencies controlled by gubernatorial appointees.

Planning and Launching the COPS Program

As the Crime Act was being crafted during the spring and summer of 1994, DOJ high-level organizational planning continued. The goal of the planners, who completed their work under the new Associate Attorney General, was to award grants for new officers within days after passage of the bill—an unprecedented goal for a new grant program.

A critical organizational question was how to integrate the grant program for new officers with other Crime Act grant programs and with other local assistance programs, some dating back to the 1968 Safe Streets Act. For the most part, these were administered by the Office of Justice Programs and its component bureaus. Normally, programmatic aspects of Federal assistance to law enforcement and criminal justice agencies were managed by BJA, and the Office of the Comptroller (OC) conducted financial administration. The Attorney General assigned then-Associate Attorney General John Schmidt to coordinate implementation of the Crime Act within DOJ. To strengthen coordination, oversight responsibility for OJP was moved from the Deputy Attorney General to the Associate Attorney General. Because the new program was in some sense an expansion of the OJP mission,

and, in fact, BJA and OC had already begun funding new officers through Police Hiring Supplement Grants in 1993 and 1994, it was recognized that future coordination with OJP entities would be critical if the COPS Program were to be smoothly implemented and ultimately successful.

Organization of the COPS Program

A top priority of the Attorney General and Associate Attorney General (ASG) was the need to expedite the receipt and processing of COPS Program grant applications, which drove both startup decisions and all subsequent oversight activity. The core and most critical mission of this new program would be to fund the hiring of 100,000 new police officers throughout the United States. Given features of the bill that encouraged small agencies to apply, the ASG and his staff estimated that within weeks the new agency could be confronted with applications from as many as 17,000 agencies, some applying to more than one program and some planning to apply for additional grants in future years. Any chance of funding 100,000 officers in the 6-year COPS Program authorization period would require a highly efficient and responsive organization.

The ASG had two options at the time: Integrate the program within the existing OJP entities or create a separate new organization. The 1994 planning meetings, which continued up to early fall and involved, among others, the leadership and staff of OJP, ultimately led to the decision that there was a rationale and need to create a new office outside OJP because of the unique statutory mandate, magnitude, and short lifespan of the COPS Program. This decision was approved by the Attorney General, and the Office of Community Oriented Policing Services (COPS Office) was created in the fall of 1994.

It seems that the ASG and other staff ultimately felt that creating a new COPS Office would facilitate the development of an organization with a new culture that would focus on the mandates and goals of the 1994 Crime Act. To fulfill one

critical goal—expeditious processing and awarding of a very large number of grants—a single-minded organization seemed like the logical step to take. Over the years OJP, faced with broad and complex mandates, had developed voluminous regulations intended to prevent various administrative problems. The State planning agencies were accustomed to playing a central role in distributing Byrne grants, BJA's largest assistance program. The tension inherent in seeking to coordinate OJP and its six components, each headed by a presidential appointee, had occasionally hindered interagency cooperation. In that context, trying to alter the structure and culture of OJP to ensure success of the highly political and ambitious COPS program was probably thought to be too risky. The decision to create a new agency was balanced by giving OJP components visible responsibilities connected to the COPS program. NIJ, for example, would have important research and evaluation program responsibilities funded under COPS.

A key organizational decision was made to have the COPS Office rely on OJP's existing Office of the Comptroller for financial administration instead of creating its own comptroller operation. This decision, along with OC's decision to create a branch specializing in COPS grants, was certainly critical to quick COPS Office startup. However, because of separate "chains of command," some time elapsed while the COPS Office and its OC branch developed shared visions of organizational mission and goals, customer service, and appropriate timetables for responding to the needs of prospective and existing grantees.

Launching the COPS Office

The selection of a COPS Office director became a priority task for the ASG. The first candidate seriously considered for this position withdrew his name from consideration. As a result, Kent Markus, from the Associate Attorney General's staff, assumed the position of Acting Director from October to December 1994. At that time, Chief Joseph Brann of Hayward, California, was selected and appointed by the Attorney

General. He took the helm as the permanent director in early 1995 and remained as director until mid-1999.

To expedite the hiring process, the Office of Personnel Management granted the COPS Office Schedule A hiring authority for a limited period of time since it was a new Federal agency. Under this authority, the agency could bypass the normal process of posting positions and screening civil service lists before making hiring decisions. Without Schedule A authority, this process could have taken at least 3 to 4 months, which would have been far too long.

The COPS Office recruited staff even before the crime bill was passed and hired staff immediately after the Act was signed. The ASG hired all of the senior management team members during this period, except the assistant director of training and technical assistance, who was not selected until early 1996. The obvious hiring priority was the Grants Division staff. With a first-year budget of $1.3 billion and White House pressure to achieve results quickly, there was tremendous urgency to hire this staff quickly and accelerate the grant solicitation and awarding processes.

During its first year of operation, the COPS Office was established as a "full service" organization under the supervision of the ASG. Staff were hired and assigned to multiple functions within the office: grant administration and monitoring, training and technical assistance, congressional liaison, intergovernmental liaison (working with national and other political organizations), and communications (for coordination with media and the handling of all critical office communications of other types). Other support staff were hired for the personnel, computer support, and administrative areas within the office. Thus, the office would conduct all aspects of its business in the awarding and monitoring of grants and the liaison with key external oversight and constituency groups without having to rely on any other DOJ office. These organizational decisions, again, were in support of the office's most visible mission—funding the

100,000 new police officers within the 6-year Crime Act authorization.

Given its highly political and visible role and the direct connection of its program to the President of the United States, the COPS Office, by necessity, had to coordinate certain announcements and other activities through the ASG with the Attorney General, the White House, and members of Congress. At one level, the new office perfected the process of coordinating these kinds of high-level announcements. Key staff from all internal divisions were involved in a highly coordinated effort to process and announce all significant grant awards. At another level, however, COPS Office critics saw the coordinated announcements and attendant publicity as signs of a politically driven organization rather than one driven by substantive policing issues and needs.

During 1995 that same visibility and connection to President Clinton also made COPS a target of Republicans, who won control of both Houses of Congress just 2 months after the President signed the 1994 Crime Act. Not only were the Republicans bent on reducing total Federal expenditures, but the COPS program, which was seen as one of the President's and Democrats' most visible legislative accomplishments, was an immediate and frequent target of many who wanted to abolish it. These issues dramatically affected the program starting in October 1995, when negotiations between the White House and Congress over the fiscal 1996 budget reached an impasse and the Federal Government "shut down" until April 1996.

COPS Office staff were exempt from the shutdown and continued to process grant applications with a skeleton staff. Nevertheless, the agency was hobbled during the fall of 1995 and into the spring of 1996 in terms of its ability to obligate fiscal year 1996 funds, given the uncertainty of its future existence and appropriated funding level. House Republicans favored a budget that would have eliminated the COPS Office and shifted all grant funds to a new Local Law Enforcement Block Grant (LLEBG) program. LLEBG was developed as a Republican alternative to COPS that would distribute funds to jurisdictions proportionately based on their violent crime levels, permit grantees to use funds for virtually any type of resources, and free jurisdictions from any commitment to community policing. In the end, the fiscal 96 budget reduced COPS Office funding from $1.9 billion to $1.4 billion, with the $500 million difference being added to BJA's budget for disbursement under the LLEBG program.

COPS and LLEBG coexisted at roughly those appropriations levels for the next several years, but the flow of grant funds had already been interrupted for the 7 months between October 1995 and April 1996. Because of the possibility of being "zeroed out," the COPS Office did not award many grants, either continuations from the previous year or new, until the final budget compromises made its future clear.

This forced delay particularly affected pending MORE applications. Because fiscal 95 applications for COPS MORE grants had exceeded available MORE funds, COPS Office staff told a number of MORE applicants informally during September 1995 that their applications would be accepted but that formal award and obligation of the funds would be delayed into the first few weeks of fiscal 96. Because OC staff were not exempt from the shutdown, however, those weeks stretched into months, and the applicant agencies were kept in suspense until May 1996. COPS Office budgetary uncertainty also delayed until May 1996 grant awards for the hiring of police officers under Universal Hiring Program grants.

The COPS Office culture

From its inception, the new COPS Office consciously sought to differentiate itself from other Federal grant making agencies by creating what some have called a "corporate" operating culture that, internally, emphasized an informal team management style. Externally, the COPS Office

adopted procedural simplification and customer service as guiding principles for its relations with grantees.

Management style. In the early days, the ASG personally participated in and coordinated the management of critical COPS program decisions, along with the acting and permanent COPS Office directors. The Office was committed to a team management approach with emphasis on a flat and streamlined organization with ample opportunity for all key staff to participate in decisionmaking. During his entire tenure, the ASG met weekly with the COPS Office senior management team, which consisted of the director, deputy directors, and all assistant directors. This weekly forum provided regular opportunities for all key players from the COPS Office and the ASG's staff to candidly discuss and decide key program issues.

Under Director Brann's leadership, the COPS Office developed a mission statement that committed the agency to this open management style that fostered innovation, to developing and maintaining customer relationships with law enforcement agencies, and to advancing the practice of community policing:

> We, the staff of the Office of Community Oriented Policing Services, dedicate ourselves, through partnerships with communities, policing agencies, and other public and private organizations, to significantly improve public safety in neighborhoods and communities throughout the country.

> We will accomplish this by putting into practice the concepts of community policing in order to reduce levels of disorder, violence and crime through the application of proven, effective programs and strategies. We will meet the needs of our customers through innovation and responsiveness. We will create a workplace that encourages creativity, open communication, full participation, and problem solving.

> We will carry out these responsibilities through a set of core values that reflect our commitment to the highest standard of excellence and integrity in public service. (COPS Mission Statement, 1997.)

Simplifying grant applications. The objective of the COPS Office simplification effort was to eliminate grant submission requirements that often generated voluminous proposals with "addenda" and other related materials appended to each proposal. In the minds of some, such grant application packages created undue burdens on both the agencies that had to prepare and submit them and DOJ program managers and staff members, who had to review and evaluate them in the process of making funding decisions. Indeed, a number of COPS Office staff members had acquired experience with such applications in previous positions in the OJP agencies.

COPS staff designed greatly simplified forms and submission requirements. These forms, initially as short as one to two pages for jurisdictions of less than 50,000, were designed to record only the information that was critical to program decisionmaking. Appended to each of these applications were the required "Assurances" that were signed by each applicant stipulating that all information in the package was accurate and truthful.

The staff designed the grant solicitation packages for each of the major grant initiatives to streamline and speed up the process. These were color coded according to the particular type of solicitation. These packages provided prospective applicants with easy-to-read information concerning the scope of the program, the funding requirements and expectations or desired outcomes. They included a question and answer section that provided answers to questions that the staff thought would be frequently asked by applicants.

Serving customers. The dominant service standard within the COPS Office was a strong

commitment to rapid, responsive, and quality customer service. Management was determined that the new agency would not become a large bureaucracy in the traditional and negative sense and that its "customers" would always come first.

For example, a DOJ Response Center was created within the COPS Office and staffed by Aspen Systems, the contractor that already provided support to OJP in the operation of the National Criminal Justice Reference Service (NCJRS). The COPS Office widely disseminated the Response Center's toll free number and encouraged agencies to call for all grant-related information and other relevant publications produced by the COPS Office, OJP, or their grantees.

COPS Office grant advisors were assigned to specific States and regions of the country as points of contact on all existing and prospective grant initiatives supported by the office. These staff members were to get to know the agency representatives in their assigned geographic areas and to keep themselves available to answer telephones and questions. A high priority also was given to returning telephone calls as soon as possible.

Pursuing Program Objectives

Through its first 5 years, the COPS Office maintained the cultural priorities discussed above as it pursued three primary functional objectives: fulfilling presidential promises regarding 100,000 police officers, ensuring that funds were spent according to the provisions of Title I, and promoting community policing as the wave of the future.

100,000 officers

The first statutory purpose of Title I (Sec. 10002 (1)) was to "substantially increase the number of law enforcement officers interacting directly with members of the community," with no specific target number mentioned. However, White House speeches put 100,000 on the public screen and, soon thereafter, into COPS Office public information materials. Through its first 5 years, the COPS Office pursued this target through aggressive marketing and a demanding but fast-paced review procedure for grant applications. On May 12, 1999, these efforts culminated in a White House ceremony at which it was announced that the 100,000-officer goal had been met. The following subsections describe the marketing and grant review processes more fully and explore implications of the announcement.

Marketing COPS grants. To further its first purpose, the COPS Office developed an aggressive external marketing and dissemination strategy to inform law enforcement agencies of its planned and pending grant solicitations on a timely and user-friendly basis. Individual grant solicitation packages were developed by Grants Division staff to summarize all relevant administrative requirements for COPS grants in the simplest possible language. These information packets were reinforced by an active Web site, a widely disseminated newsletter, and a series of fact sheets that addressed specific areas.

The COPS Office director traveled extensively throughout the country to conferences and meetings to "market" the program and educate the law enforcement community about resources available to them as part of the 1994 Crime Act. In telephone conversations, grant advisors and other staff encouraged executives of grantee and nongrantee agencies to apply for supplemental or new grants. Aggressive marketing was a key activity because COPS Office executives felt it was critical to attaining the goal of funding 100,000 police officers. Jurisdictions needed some level of convincing that the COPS Office grant process was, in fact, streamlined rather than cumbersome and that the office culture emphasized being "customer friendly" rather than bureaucratic.

From applications to awards. While external processes were designed to make grant applica-

tion and administration as customer friendly as possible, elaborate but fast-paced internal review and administrative procedures were required to ensure that funds were spent as Title I intended while demonstrating progress toward the goal of 100,000 officers.

COPS Office grants staff, supervisors, and managers reviewed each application and made funding decisions. From the outset of the COPS hiring programs, key programmatic decisions about each application concerned agency eligibility, adequacy of its community policing strategy, evidence of intent to use the grant funds for precisely the purposes and types of resources allowed under the specific COPS program funding the grant, and the status of applicants' compliance with other DOJ regulations. Later, checks were added to ensure that awards would reflect need and would not impose undue financial burdens at the end of the grant. COPS MORE applications requesting support for technology had additional requirements. Finally both COPS Office and OC staff screened applications for compliance with administrative requirements.

For most law enforcement agencies, eligibility status was clear before the application was submitted: Public general jurisdiction law enforcement agencies were eligible, whether they policed municipalities, counties, States, Indian or tribal lands, or special jurisdictions such as highways, university campuses, or parks. Jurisdictions with startup agencies were eligible, as were jurisdictions with no law enforcement agencies, which could apply for grants either as members of consortia or to contract for services from county- or State-level agencies. Private jurisdictions such as homeowners' associations were ineligible. Eligibility decisions for sheriffs' departments were made on a case-by-case basis, depending on whether the department had law enforcement functions beyond operating detention facilities. The Methodological Appendix contains further details about eligibility criteria.

Each applicant, regardless of the type of program solicitation, was required to complete a

community policing information sheet as part of the grant application package. This form was designed to facilitate the quick profiling of agencies in terms of their level of commitment or experience with community policing. In addition, agencies serving jurisdictions of more than 50,000 were required to submit written community policing strategies; the strategies submitted ranged from simple to elaborate.

Evidence of insufficient knowledge or commitment regarding community policing did not result in rejection of the grant application. Rather, staff used information from this work sheet to identify agencies in need of training and technical assistance to familiarize them with community policing and its implementation. These services were offered by the Community Policing Consortium (CPC), which BJA had launched in 1993.

Applications for COPS MORE funds were subject to three additional checks. First, *"[e]quipment and technology which does not directly contribute to increased community policing presence through redeployment …"* (Office of Community Oriented Policing Services, 1994a:2–3. Emphasis in original) was not an allowable use of COPS MORE funds. For some types of technology, the basis for exclusion was evident: Weapons, office furnishings, and equipment for undercover operations or riot control were unlikely to increase community policing presence. Other distinctions were more discretionary: Automated booking systems, for example, were listed as an example of eligible technology, while an application to purchase a flashing speed sign was rejected even though the jurisdiction projected that the sign would free up an officer from radar patrol to community policing.

Second, applicants were required to demonstrate that the MORE funds would free up full-time equivalents of officers at least as cost-effectively as a hiring grant of the same amount. For agencies with annual salaries and fringe benefits exceeding $33,333, this requirement would be met if the applicant projected that the MORE-funded resources would yield at least four FTEs per

$100,000 funded.[6] The COPS Office required justification for the projection, politely reduced obviously inflated projections and, after fiscal 1995, used four FTEs per $100,000 as the standard for agencies' accountability and as the counting factor toward the goal of funding 100,000 officers.

Third, because applications for COPS MORE funds exceeded the statutorily available amounts,[7] some eligible applications were rejected on the basis of proposal quality and related discretionary factors.

A final step in the COPS Office award decision process involved vetting applications at senior levels within DOJ. Normally, executive management and the relevant U.S. Attorney were given 2 weeks to point out "vetting problems" such as ongoing investigations or findings of noncompliance with programmatic or administrative requirements on other DOJ grants, civil rights violations, or other matters.

In June 1997, the COPS Office grant administration unit added a "pre-vetting" step, which was intended to ensure that applications reflected legitimate needs and that applicants were not taking on nonsustainable financial burdens to retain COPS-funded officer positions after grants expired. To check needs, staff used data on sworn force per capita to ascertain whether award of a requested number of officers, combined with previous awards, would give an applicant substantially more officers per capita than other agencies in its State. To check on sustainability, staff computed the percentage increase in the applicant's sworn force that an award would produce. When a requested grant would raise the count of COPS-funded officers per capita by too much in relation to its current size or to the average for the applicant's State, applicants were contacted by phone and case-by-case decisions were made. The usual remedy was to reduce the size of the officially recorded request and award.

When the COPS Office decided to make an award (in official terms, to "accept the application"), it normally notified the relevant U.S. Representative, then the successful applicant, that an award would be made, subject to budget and administrative review by the OJP Office of the Comptroller (OC). Awards in this category were commonly accumulated over several weeks, publicly announced by a high-ranking DOJ or White House official, and counted in the total of police officers "funded" for public information purposes.

Meanwhile, the accepted applications would have been forwarded to OC for clearance. For hiring grants, OC reviews typically concerned relatively clear-cut financial issues, such as the allowability of all fringe benefit components and the accuracy of computations. For COPS MORE grants, more complex but fairly unambiguous issues arose, such as the allowability, procurement procedures, and pricing of specific components of the overall technology. While resolving these issues sometimes entailed delays and exchanges of correspondence, they had only short-term program effects, which are discussed in chapter 3.

Following OC clearance, the COPS Office mailed successful applicants an award package, containing official notice of the award and its administrative and programmatic conditions. OC obligated the grant funds (i.e., made them available for grantees to draw down) upon receipt of the grantee's signed acceptance of the award and agreement to comply with the conditions.

A milestone reached? On May 12, 1999, at a White House ceremony, President Clinton announced that "[t]he COPS Office met its goal of funding 100,000 community policing officers, ahead of schedule and under budget." (U.S. Department of Justice, 1999:4). The meaning and accuracy of this claim quickly fell into dispute; resolution of the dispute is clouded by semantic matters, local implementation issues, and program complexity.

The claim was first officially questioned just 2 months later, in a summary report by the DOJ's Office of Inspector General (OIG) based on its audits of 149 COPS grantees (USDOJ/OIG, 1999). OIG began by questioning the COPS Office description of its goal as *funding* (i.e., approving grant applications for) 100,000 officers by the end of fiscal year 2000, in contrast to having 100,000 officers *hired and on the street* by that time. OIG quoted a DOJ annual report and strategic plan, as well as press releases by the COPS Office and the White House that seemed to point to the latter objective. Having officers on the street is, of course, a more demanding goal and one that depends on actions at both the Federal and grantee levels. After the COPS Office "accepts" a hiring grant application and begins counting the awarded officers, the application must still clear OC review and local acceptance before the grantee can begin the process of recruiting, testing, training, and deploying them. As discussed further in chapter 4, training inexperienced recruits requires upwards of 5 months in many large agencies; recruiting, testing, and postacademy field training can further delay deployment by several months.

For COPS MORE grantees, redeployment of officers or their full-time equivalents to community policing cannot occur until civilians are hired or technology procured (both are usually under time-consuming local regulations), technology is implemented, civilians are trained in their specialties, and (in some agencies) officers are trained in community policing. To accommodate these considerations, it was common for grantees to request and receive no-additional-cost extensions of their hiring and MORE grants; the OIG report cites a COPS Office projection that only 59,765 of the funded officers would be deployed by the end of fiscal 2000.

While the respective roles of policy makers and public information offices in blurring the distinction between officers *funded and on the street* remain to be sorted out, the OIG argued further that even the goal of *funding* 100,000 officers—in the sense that funds were obligated and avail-

able for grantees to draw down—might not be met by the end of fiscal 2000. OIG estimated that grants accounting for 2,526 officers and FTEs had not been mailed to awardees, and awardees had failed to accept grants accounting for another 7,722 FTEs, even though an average of 12 months had elapsed since they were notified of the award.

Local interpretations of complex features of COPS MORE and the hiring programs added further difficulty to measuring program effects on the number of officers and FTEs "on the street" at any point in time.[8] Measurable productivity gains from MORE-funded resources require both that the resources be deployed and that the expected productivity increases occur.

As explained more fully in chapter 4, observing whether or not both steps have been accomplished is relatively straightforward in the case of civilians: at any point in time the funded civilians are either hired or not, and the sworn officers they were to replace are either redeployed to the field or not. In contrast, achieving projected productivity gains from technology depends on changes in the way humans spend their time—often a matter of a few minutes or hours per day for each officer. Ascertaining the implementation status and field use of a specific productivity-enhancing feature of technology is sometimes difficult; nevertheless, it is clear that implementation of the most commonly requested technology lagged well beyond expectations.

Even worse, measuring changes in officers' use of their time is likely to require elaborate measuring devices and perhaps a fairly complex before/after study design to rule out alternative explanations of an observed change. Therefore, documenting MORE productivity effects can easily require resources that are a sizable fraction of the productivity gain itself. Due at least in part to these difficulties, the OIG reported that 78 percent of the MORE grantees they audited could not demonstrate achievement of their projected productivity gains.

Even measuring how COPS hiring grants affected the size of the sworn force is difficult because of confusion surrounding two complex but key administrative requirements: nonsupplanting and officer retention. The logic of nonsupplanting is simple: Federal resources should supplement and not replace local resources dedicated to the same function. However, as explained further below and in chapter 4, application of this logic to specific local circumstances was occasionally very difficult.

As explained further below, the officer retention requirement evolved over the life of the COPS program into its present form: that grantees retain the COPS-funded officer positions (or MORE-funded resources) using local funds for at least one agency budget cycle following grant expiration. Since 12-month budget cycles are commonplace, some September 1994 awardees could, in theory, have laid off their COPS-funded officers in October 1999 without violating the retention requirement. At that time, new officers were still being funded and hired, and previously awarded MORE-funded technology was still being implemented. Because these resources did not come on stream until later, it seems clear that if the COPS program contribution of officers and FTEs on the street turns out to be 100,000 (or some lower number), that achievement must be interpreted analogously to attendance at an "open house," where some guests arrive early and leave before other guests arrive. Unless all grantees retain their COPS-funded resources well beyond the requirement, there will be no single day on which all COPS-funded resources are deployed simultaneously.[9]

Compliance with nonsupplanting, retention, and other requirements is discussed below, and the implications are explored more fully in chapter 5, where we present interim estimates of the COPS program impact on sworn police strength. We plan to update the chapter 5 estimates in a future report based on an agency survey being conducted during the summer of 2000.

Ensuring compliance with Title I

COPS grantees must comply with nine categories of requirements. This study is intended to evaluate the program not to monitor compliance. Therefore, we made no attempt to define or measure compliance with four basic financial and administrative requirements: filing timely financial and progress reports, limiting expenditures to allowable cost categories, and observing Federal security and privacy regulations on criminal intelligence systems funded under COPS MORE.

Other requirements had programmatic implications and were therefore of interest to us. Requirements to implement community policing and, for some agencies, to be trained in community policing, are discussed later in this chapter, and COPS program effects on community policing implementation are addressed in chapter 6. The requirement that COPS MORE grantees monitor redeployment of officers due to productivity gains from the MORE-funded resources is discussed in chapter 4 and its implications in chapter 5.

Defining and measuring compliance with the two remaining requirements—retention of COPS-funded officers and nonsupplanting of local funds with COPS funds—proved elusive. The resulting uncertainty may well have had implications for local decisions to apply for grants, for the COPS impact on the national count of sworn law enforcement officers, and for later adverse findings in OIG audits.

Fostering compliance. Throughout the first 5 years of the COPS program, five separate organizations dealt with the nonsupplanting and retention requirements as they fostered grantees' compliance with applicable Federal regulations. Within the COPS Office, the Legal Division defined compliance by applying the regulations to specific local circumstances to determine whether or not a given plan or action would

comply and provide legal guidance through determination letters to potential and actual COPS grantees who inquired or were referred for investigation of signs of potential noncompliance.[10] The Legal Division also reviewed COPS Office fact sheets and other publications for accuracy regarding these requirements before they were disseminated to the field.

The Grants Division encouraged compliance by informing potential applicants and grantees regarding eligibility conditions and grant requirements, reviewing applications for compliance with programmatic requirements (e.g., adequacy of the community policing strategy, allowability of proposed technology), and assigning each grantee an advisor to maintain regular contact. Grant advisors served as a two-way communication channel, informing grantees of requirements and informing the Legal Division or other units of possible violations that came up in the course of conversations with grantees, progress reports, or other communications.

The Grants Monitoring Division took a proactive approach to monitoring compliance through site visits to agencies selected randomly or through referrals from grant advisors. Monitoring Division staff visited 432 grantees in fiscal 1998 and planned to expand the number of fiscal 1999 visits to 900. Visits were planned to all grantees with populations of more than 150,000 or total grants exceeding $1 million and to a sample of jurisdictions with smaller populations and smaller grants.

The OJP Office of the Comptroller established a separate branch to monitor grantees' compliance with financial and administrative regulations. OC had two primary concerns: whether grantees' accounting and administrative controls were adequate to detect violations, and whether violations actually occurred. OC's activities included reviews of periodic financial status reports and site visits to observe grantees' controls and record systems.

The DOJ Office of Inspector General (OIG) enforced these and other regulations, criminal and civil laws, and ethical standards for all DOJ programs including COPS. In this role, it audited COPS grantees in search of possible violations of these regulations, either locally or by the COPS Office itself.

Retention and nonsupplanting. Lingering uncertainty in the field over two administrative requirements had potential programmatic consequences both before and after COPS grants were awarded. The first, "retention," is specific to COPS hiring programs and concerned grantees' obligations after expiration of their grants. The second, "nonsupplanting," is a standard requirement of all DOJ grant programs that Federal funds increase total resources dedicated to the purpose of the grant, not replace local resources diverted from that purpose in anticipation of the grant award.

Consistent with the customer service orientation of the COPS Office, early materials disseminated to prospective applicants were designed to explain the requirements as simply as possible. The simple explanation and the evolution of the retention requirement over time created a situation in which applicants and potential applicants could interpret the requirements in unintended ways. From the inception of the COPS program, the Legal Division responded with detailed opinion letters to agencies' questions about applications of the requirements to their specific situations. Later the COPS Office proactively disseminated less simplified guidance materials that were approved by the Legal Division. Nonetheless, some agencies that did not take the initiative to request Legal Division opinions were unnecessarily discouraged from applying because they interpreted these requirements too conservatively, while some grantees were subjected to adverse OIG audit findings because they (and in some cases, the COPS Office) interpreted them more liberally than OIG.

The retention requirement was problematic for three reasons. First, the length of the required

retention period was not determined until August 1998, when the Attorney General approved setting it at one budget cycle following grant expiration. Therefore, prospective applicants in the first 3 years of the program were left to form their own expectations about the requirement.

Second, several years elapsed before all documentation and application forms disseminated to potential applicants consistently made clear that the object of the requirement was officer *positions* rather than *officers* (see, for example, Universal Hiring Program Application Kit, 1995).[11] The distinction mattered because an agency could satisfy a requirement to retain the COPS-funded officers (or replacements) at no local cost through attrition, by failing to replace other officers who left the department. However, this approach would create no lasting net increase in sworn force size, defined in terms of officer positions. The COPS Office Legal Division informed agencies that inquired, or whose retention plans relying on attrition came to its attention, that "retention by attrition" was unacceptable because the correct interpretation concerned officer levels or positions. Nevertheless, confusion on the point remained in the field.

Third, interpretations varied, and rules changed, on whether formal retention plans were required. The 1995 COPS Universal Hiring Program Application Kit (OMB #1103–0027, exp. 5/98, Community Policing Information Part II, p. 2) required an explanation of how retention would be accomplished only from agencies that did not provide written assurance from their local governments that the officers would be retained.[12] A 1997 COPS Facts publication on monitoring made clear that grantees were required to *plan to retain* their officer positions but did not address the question whether a formal written *retention plan* was required. Later, however, following audits of several agencies in which OIG could find no written documentation of good faith efforts to retain the officers, it recommended that the agencies develop a written plan although it was not a formal grant requirement. In August 1998, the COPS Office began requiring written retention plans as a grant condition (USDOJ/OIG, 1999).

The August 1998 articulation of the retention requirement—in terms of both the required length of time and the need for a written plan—barely preceded expiration of the first large wave of 3-year COPS FAST grants to more than 6,500 agencies serving jurisdictions of less than 50,000. Retention was problematic in some small communities, in which the addition of just one or two officer positions could amount to a 25 or 50 percent increase in sworn force size, and therefore in the law enforcement budget following grant expiration. To ease the transition, the COPS Office established a Small Community Grant program on September 1, 1998, which awarded grants to cover 1-year retention costs in 774 small jurisdictions.

The nonsupplanting requirement requires the applicant to certify: 1) "that Federal funds will not be used to replace or supplant State or local funds … that would, in the absence of Federal aid, be made available to or for law enforcement; and 2) that funds required to pay the … 'cash match' … shall be in addition to funds that would otherwise be made available to or for law enforcement purposes" (see COPS Universal Hiring Program Application Kit, OMB #1103–0027, exp. 5/98, Appendix A—Legal Certifications). Further, the kit expressed an expectation that "grantees … proceed with new hiring at a level consistent with historical practice, and … take positive steps to fill all vacancies resulting from attrition."

The nonsupplanting requirement, of course, discourages the strategy of "retention through attrition." Yet it, too, raises a series of fairly subtle questions: What constitutes a commitment to hire—an offer letter, authorization to hire, or a local budget appropriation to hire? What if "positive steps" fail to fill all vacancies, as is often the case in poor, low-salary jurisdictions? What if "historical practice" entails a chronic

gap between actual and authorized sworn force levels because of turnover? What if "historical practice" is to reduce sworn force size during periods of declining crime? Useful guidance was especially difficult for prospective applicants to obtain with respect to two issues: the meaning of supplanting in the context of a declining trend in funds for law enforcement and the precise benchmark for measuring supplanting.

From the start of the program, COPS Office materials prominently featured the requirement that grant funds must supplement and not supplant local expenditures. Most explanations included an example similar to the following from the Universal Hiring Program Grant Application Kit (OMB No. 1103–0027, p.5): "If a grantee, prior to applying to participate in the COPS Universal Hiring Program, had committed to hire ten new officers, then the grantee must hire those ten officers in addition to those requested under COPS Universal Hiring." Further, both COPS and OIG posted examples of supplanting on their Web sites. COPS examples included grantees hiring officers before award dates, using COPS funds for the salaries of previously hired officers, and using COPS funds to pay for previously *authorized* positions (emphasis added) (http://www.usdoj.gov/cops/toolbox/general_info/compliance/default.htm, 6/23/99, page 1 of 6). OIG examples included: a department with vacancies at the start of the grant period that hires no new officers other than COPS-funded hires, a department that does no timely hiring to fill vacancies created by attrition before or during the grant period, and use of grant funds to replace or reallocate funds already *committed* for law enforcement purposes (emphasis added) (http://www.usdoj.gov/oig/au9914/-9914pt2.htm, 6/19/99, page 2 of 6).

The two agencies' explanations were not entirely consistent at all times, and none of the published examples suggested the possibility that an agency could avoid supplanting in the context of a local hiring freeze or declining trend in the size of its sworn force. It is possible that the absence of

such explanations or examples discouraged agencies in fiscally stressed jurisdictions from applying. Yet agencies that proactively requested advice on these questions were advised that it was possible that no violation would occur if the jurisdiction certified that the reduction or freeze would have occurred regardless of the anticipation of grant funds.

Similarly, as we discuss further in chapter 3, confusion about whether the appropriate benchmark for supplanting was the "authorized," "committed" (i.e., budgeted), or "actual" sworn force level may have unintentionally discouraged some eligible agencies from applying for grants. Because full law enforcement careers are typically only 20 or 25 years long, large police agencies often faced attrition rates of at least 6 percent annually, and so their actual sworn force levels tended to be chronically below their authorized levels. In jurisdictions that anticipated a semipermanent replacement lag, it was not unusual for the budgeted sworn force to lie between its authorized and actual levels.

Although the *committed or budgeted* level was the intended benchmark throughout the program, some potential applicants may have been confused by various widely disseminated uses of the other standards. The only benchmark requested on the one-page COPS FAST application (OMB No. 1105–0081, p. 1) was the actual number. The 1995 COPS Universal Hiring Program application (OMB No. 1103–0027) required the actual and authorized counts but not the budgeted. And for a time, an example of supplanting on the COPS Office Web site erroneously referred to the authorized level instead of the budgeted level (http://www.usdoj.gov/cops/toolbox/general_info/compliance/default.htm, 6/23/99, page 1 of 6).

As in the context of declining budgets, guidance was available upon request from the COPS Office Legal Division. Yet some agencies that interpreted the requirements over-conservatively decided not to apply for COPS funding without

having sought guidance. Others with arguable but more liberal interpretations of the retention and nonsupplanting requirements were later described as noncompliant by OIG auditors. According to the OIG's 1999 Summary of Audit Findings, 58 percent of OIG-audited grantees had violated the retention requirement, and 41 percent showed indicators of supplanting. The COPS Office formally appealed the OIG results, and an independent mediator reviewed a random sample of 64 OIG findings of noncompliance. On December 21, 1999, the Deputy Attorney General adopted the mediator's determination that audited grantees were actually in compliance in 33 percent of the retention issues and 65 percent of the supplanting issues in the sample. The programmatic effects of long-term uncertainty in the field about these two key requirements are discussed more fully in chapters 3 and 4.

While second-guessing individual Federal or local agencies' compliance determinations is not an issue for this report, the possibility that prospective grantees may have had a hazy view of an evolving standard raises the possibility that confusion over these requirements may have had adverse program effects—an evaluation question addressed in chapters 3 and 4.

Starting and accelerating transitions to community policing

The third COPS objective, fostering transitions to community policing, was complicated for a number of reasons. Not the least of these was the wide array of tactics discussed earlier in this chapter, which were plausible elements of community policing at the start of the program. Another was the fact that agencies could adopt "signature" tactics of community policing without embedding them in a comprehensive strategy intended to better align interests of the police and the policed.

The COPS Office took a number of steps to operationalize community policing, disseminate

its view of the concept, and refine the concept. It specified a set of community policing objectives. It expanded the Community Policing Consortium, which BJA had launched in 1993 to provide training and technical assistance. It set up special Innovative Community Oriented Policing grant programs to encourage local agencies to test creative ways of dealing with specific forms of crime or disorder within a community policing framework. It funded 28 Regional Community Policing Institutes under competitive grants and carried out additional training and technical assistance programs. These activities are described more fully in the following paragraphs.

On December 7, 1995, in testimony before the House Crime Subcommittee, COPS Office Director Brann removed some of the ambiguity surrounding community policing by succinctly stating his office's view of its "three critical elements." He described them as: (1) building crime fighting partnerships among the police, community, and other governmental resources; (2) developing effective problem-solving tactics that involve all three of these stakeholders so that officers no longer respond to recurring incidents at the same location, and (3) refining organizational structures and improving deployment tactics to enhance the overall community policing strategy (Brann, 1995). Crime prevention was also a part of the concept, as explained and inventoried, for example, in the COPS FAST community policing strategy checklist.

The COPS Office did not immediately develop any kind of formal publication elaborating on these principles in operational terms. However, it did fund the development of such descriptions by the Community Policing Consortium, which had been launched earlier with BJA support.

At the beginning of Phase III of the Community Policing Consortium's work, the COPS Office picked up the costs of consortium funding and oversight from BJA. The COPS Office faced a formidable problem very different from the one confronting BJA. While BJA had used the

consortium as an incubator for developing and promulgating the community policing concept, the new COPS Office had to anticipate awarding thousands of community policing grants within a few months. It needed a large-scale provider of training and technical assistance that could specifically target the grantees that needed these services. The consortium was a natural to assume this role, given its many community policing curriculum modules in hand, with many more under development by the staffs of consortium organizations. However, it needed to expand and change its approaches to delivering training and technical assistance.

With COPS Office support, the consortium developed a clearinghouse and a series of publications and curricula about community policing, available to all law enforcement agencies. It operated training and technical assistance programs that were available to any agency but required by the COPS Office of grantees whose community policing strategies reflected a lack of understanding or support of the concept. The consortium provided training for many thousands of law enforcement personnel from these grantee agencies. Its operations continue at a high level today.

The 1994 Crime Act authorized the COPS Office to spend up to 15 percent of its appropriation on innovative programs that showed particular promise and hope in dealing with crime and violence. During its first year, the agency chose not to award any of these grants due to the priorities of hiring staff and processing and awarding hiring grants. In subsequent years, however, several of these programs were launched, to award a limited number (usually 10 to 20) of grants for local demonstration initiatives against such problems as gangs, domestic violence, youth firearms violence, and later methamphetamine. Other innovative programs funded community police officers for special areas such as schools and distressed neighborhoods. Still others were funded to implement problem solving and to advance community policing through supportive organizational innovations.

In 1997 the COPS Office solicited competitive proposals and awarded cooperative agreements for 28 Regional Community Policing Institutes (RCPIs) throughout the country. These institutes required partnerships among one or more law enforcement agencies, community-based non-profit organizations, and an educational institution (i.e. police academy or university); because the awards were cooperative agreements rather than grants, the COPS Office itself retained a partner's role. Each RCPI was to design and deliver a broad array of training and technical assistance curricula and services within its region of the country.

Up to 3 percent of COPS funds can be set aside for training and technical assistance. Clearly, the consortium is being funded under this category. Additionally, there were about 11 targeted training grants awarded by COPS in 1996, which involved a number of different projects aimed at the development and delivery of community policing training and technical assistance, including three grants that were awarded to community organizations. Training grants were also awarded to many U.S. Attorneys' Offices throughout the country in support of their coordination of community policing training programs.

Evaluation Questions

The events related above raised a number of questions for this evaluation. Chapter 3 reports our findings on field perspectives on and responses to COPS Office operations: agencies' decisions regarding grant applications and withdrawals, their satisfaction with the COPS Office grant simplification and administrative activities, and the resulting distribution of funds. Chapter 4 describes grantees' implementation of their COPS grants: the hiring and deployment of officers, and expectations regarding postgrant retention; civilianization and technology implementation funded under COPS MORE; and redeployment of officer full-time equivalents from productivity increases due to MORE-funded resources. Chapter 5 draws on the preceding chapters to estimate increases in the number of officers and FTEs

deployed to the street through mid-1998 and to make preliminary projections of eventual deployment based on the grants for 100,000 officers awarded by May 12, 1999. Chapter 6 reports our findings on how grantees met their commitments to implement community policing. Finally, chapter 7 describes how local leaders used COPS funds to change their organizations in various local contexts.

Notes

1. Costs of the COPS program and certain other components of the 1994 Crime Act are still charged against the trust fund as an accounting device in the Federal budget and annual appropriations bills, but the significance of the trust fund has faded as the Federal budget has shifted from deficits to surpluses.

2. The specific methods mentioned decreased the number of officers on foot patrol, reduced the number of precinct stations, and insisted that patrol officers spend less time on maintaining relations with citizens on the street.

3. This description summarizes a more complete discussion in Moore (1992:132–133).

4. The second tactic was the alternative actually used in the Coconut Grove district of the Miami Police Department and observed on a site visit during this project.

5. In fiscal 1995, the first year of the program, COPS MORE grants were also awarded to support officer overtime, but this option was eliminated for subsequent years.

6. The 3-year hiring grants were subject to a 3-year cap of $75,000—an annual average of $25,000 per officer, or, equivalently, four officers per $100,000. Because the grants were to cover 75 percent of salary and fringe, the caps came into play only when those costs exceeded $33,333 per year.

7. In fiscal 1998, MORE requests totaled $760 million, with only $240 million available.

8. Our analyses here and elsewhere in the report abstract from the fact that on average and independently of the COPS program, upwards of 20 percent

of a typical large agency's sworn force is unavailable for street duty on a given day. This gap occurs because of assigned days off during the 7-day week, vacation and sick leave, duty restrictions because of disability, and time required for court appearances, training, and other duties.

9. The OIG report (99–21) estimated that if all grantees attained only minimal compliance with the retention requirement, at least 26,518 funded officers and FTEs will have terminated by the last day of fiscal 2000.

10. Memo to Pam Cammarata, assistant director, from Charlotte C. Grzebian, associate general counsel, "Comments re: Urban Institute Draft Report," August 6, 1999.

11. Interim program guidelines (60 FR 3648, Section 4.2.5.) published January 18, 1995, refer explicitly to "continuation of the increased hiring *level* using State or local … funding." Yet the COPS FAST fact sheet published October 15, 1994, mentioned no retention requirement, and the COPS FAST application form (OMB No. 1105–0081, page 6, item 8) mentions only that "the Federal grant share must decrease each year leading to full local funding of *officers'* salaries and benefits at the end of the grant period." Similarly, the Universal Hiring Program Application Kit (OMB No. 1103–0027), published in May 1995, states that "by the end of the three-year grant period, the department is wholly responsible for funding of the *officers* hired under the grant" (p. 2), and Part II (P.2, item 6) of the accompanying application form refers to plans for a good faith effort to retain the new *officers* following expiration. By at latest mid-1997, in contrast, COPS Facts materials on Monitoring (updated July 14, 1997) and the Universal Hiring Program (updated September 1, 1998) made quite clear that the requirement concerned officer *positions.* [All emphases added.]

12. The item read as follows:
    6. b) Do you have assurance from your local government that these officers will be retained? [Yes or No]

    If you have answered Yes, attach any written letters or other assurances to this application. If you have answered No, explain how you intend to retain the officers.

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3. The Flow of COPS Funds

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To a degree rare among Federal grant programs, local decisions drove the distribution of COPS funds. Beyond a broad statutory requirement that funds distributed to jurisdictions of less than 150,000 population equal funds awarded to jurisdictions exceeding that size, no Federal formula governed the allocation of funds. Yet the program was not typical of discretionary grant programs either.

Initially, Federal discretion was limited to determining applicants' eligibility, vetting applications to prevent awards to agencies that potentially violated statutes or regulations unrelated to COPS, specifying allowable uses of funds, and occasionally postponing award decisions into a new fiscal year as a short-term cash management tool. In years when MORE grant applications exceeded available funds, COPS Office staff reportedly considered the merits of proposed technology projects and applicants' implementation capacities in selecting applications for awards. In 1997, as a few agencies accumulated multiple large awards, the office limited awards to amounts that would not cumulatively increase a grantee agency's sworn force size substantially more than either its pre-COPS size or typical per capita sizes of other agencies in its State. Within these broad limits, local governments' decisions largely determined the patterns of grant awards and COPS funds.

We asked the following questions about local decisionmaking and the resulting flow of funds:

1. Who was involved in decisions to apply?

2. What factors influenced local decisions to apply and occasionally to withdraw from grants after award?

3. What was the total number and value of COPS grant awards?

4. What was the distribution pattern of COPS grants in terms of concentration across agencies, region, population, and crime?

5. How did grantees coordinate their use of COPS grants with other streams of funding for community policing?

6. How satisfied were grantees with their relations with the COPS Office, and what were their intentions to apply for future grants?

7. How much time elapsed between the submission of applications and the receipt of spendable funds?

Wave 1 of our national survey of law enforcement agencies, conducted in autumn 1996, addressed questions 1, 2, and 6. Wave 3 of the national survey, conducted in summer 1998, updated the answers to questions 2 and 6 for medium and large local/county agencies[1] (see the methodological appendix for details of the survey design). We used periodic updates of COPS Office grant management data through the end of 1997 to address question 3 and combined it with Uniform Crime Report (UCR) and Census data to address question 4. To address question 5, we conducted a special survey of the 100 grantees serving the most populous jurisdictions in our Wave 1 sample, and we augmented 5 of our site teams with a grant administration specialist to study that process. Finally, we merged the COPS Office database with a file obtained from the DOJ Office of the Comptroller (OC) in late 1996 to address question 7.

Overview of Findings

Participants in application decisions

Virtually all decisions to apply were reportedly made by law enforcement agencies' chief executives, usually in consultation with elected officials

and sometimes with participation by others. Elected heads of local government and their budget officers were involved in nearly 90 percent of the agencies. Apparently recognizing that successful implementation of the required community policing strategies would require broader consensus and participation, some departments brought other stakeholders into the decision process. When asked to list participants in their application decisions, about half the agencies named sergeants, 40 percent named patrol officers, and 25 percent mentioned union representatives. Various segments of the community were named by 20 to 45 percent.

Despite substantial and successful COPS Office efforts to simplify grant application procedures, some 40 percent of grantees reported using consultants in the application process. Among the largest 100 grantee agencies in our sample, only 11 used consultants, in part because large agencies tend to have their own grant writers on staff.

Influences on application and withdrawal decisions

Throughout the first 4 years of the COPS program, financial concerns were the predominant influence on local decisions to apply, according to survey responses. Of these, the most important in 1996 were costs during the 3-year grant period: both the explicit 25-percent match requirement and expectations about "implicit match" in the form of uncovered collateral costs. For hired officers, these included training, weapons, vehicles and annual salary and fringe benefits exceeding $33,333 per officer. For technology funded by COPS MORE, the most commonly mentioned uncovered cost was technical staff to integrate new systems into ongoing systems or projects.

Postgrant costs, primarily retaining COPS-funded officer and civilian positions and maintaining MORE-funded technology, were mentioned somewhat less frequently in our 1996 survey. However, even though the length of the required retention period was not announced

until after we completed data collection, postgrant costs had become the primary influence on application and withdrawal decisions by 1998. Local government officials in several of the sites we visited mentioned the political dilemma presented by the COPS program: "Do I take political heat now for passing up 'free' officers or later for raising taxes to keep them?"

Various administrative difficulties were a factor in something less than 10 percent of application decisions during the first 2 years of COPS and largely disappeared thereafter. Philosophical objections to either community policing or Federal grants in general were cited as an influence on decisions by about 8 percent of respondents.

In summer 1998, 74 percent of local/county COPS grantee agencies indicated they planned to apply for at least one more COPS grant during 1998 or 1999. Of those, 61 percent intended to apply for MORE technology grants, either alone or in combination with grants to hire officers or civilians. Only 6 percent of the prospective applicants planned to apply for hiring grants only.

Among possible considerations in future application decisions, the most commonly named were the explicit local match requirement (by 55 percent of grantees) and restrictions on allowable purposes and types of resources (by 40 percent each).

Value of COPS awards

By the end of 1997, the COPS Office had received more than 19,000 grant applications for hiring and MORE grants. Virtually all hiring grant applications from eligible agencies that cleared the vetting process were accepted for funding (i.e., the COPS Office announced a decision to award a grant). The COPS MORE program became more popular over time, while the statutory limits on MORE program size remained fixed. Therefore, rejection rates for MORE applications rose from 5 percent in 1995 to 21 percent through 1997.

By the end of 1997, 18,138 grant applications, worth $3.47 billion, had been accepted. Of those, 754 were for innovative programs, which are beyond the scope of this evaluation and are intended to encourage local innovation rather than to support hiring new officers. The remaining 17,384 grants to create additional officer time carried a total of $3.388 billion in awards: about 75 percent under hiring grants, 16 percent under COPS MORE, 7 percent under Police Hiring Supplements and COPS Phase I, and 2 percent to support a variety of innovative programs. Some 75 percent of the funds went to municipal or county police agencies, 15 percent to sheriffs and State police agencies, and the remainder to a variety of special jurisdictions. As required by Title I, dollars awarded were approximately evenly split between jurisdictions with populations of more than 150,000 and smaller jurisdictions.

Grants designated for award by the end of 1997 were projected to support 40,806 hired or rehired officers and 22,437 full-time equivalents (FTEs) of officers projected from productivity gains to be achieved using MORE-funded resources. Under those projections, the grants awarded through 1997 would support the equivalent of 63,243 full-time officers deployable to community policing.

Funding distribution patterns

The growth in awards after the first full year of COPS was driven largely by requests from previous grantees, not awards to new grantees. Between 1995 and 1997, the number of agencies with designated grant awards grew from 8,332 to 9,593, while the value of the awards approximately doubled, from $1.6 billion to $3.4 billion. By the end of 1997 $1.42 billion or 42 percent of all funds designated for award had been allocated to agencies with four or more grants. As a result, the distribution of COPS funds became concentrated over time, with the 1 percent of agencies with the largest grants having received some 40 percent of COPS funds. Those agencies serve approximately 11 percent of the U.S. population.

Awards to repeat grantees helped to focus cumulative COPS awards on grantees that suffer disproportionately from serious crime. Of the 8,062 agencies that submitted 1997 UCR data and received at least one COPS grant by the end of 1997, the 1 percent with the largest murder counts received 31 percent of cumulative COPS awards through the end of 1997. They reported 54 percent of all U.S. murders. The 10 percent with the highest murder counts received 50 percent of total awards. A similar pattern occurred with respect to robbery.

Participation in COPS varied significantly by region, but regional patterns differed depending on how participation was measured.[2] The Pacific region ranked first in terms of the percentage of eligible agencies receiving grants but third in terms of COPS dollars awarded per capita and sixth in terms of COPS dollars per crime. The Middle Atlantic region ranked eighth in terms of agency participation but first on both the per capita and per crime measures.

Of all agencies selected for awards by the end of 1997, only 4 percent served core city jurisdictions,[3] which are home to 27 percent of the U.S. population. They received 40 percent of COPS dollar awards for all programs combined and 62 percent of all COPS MORE funds. On average for the United States as a whole, core cities received substantially larger awards per 10,000 residents ($151,631) than did the rest of the country ($86,504). However, their average award per 1,000 index crimes ($184,980) was less than two-thirds the average for the rest of the country ($299,963). On both the per capita and per crime bases, mean awards to core cities were highest in the Middle Atlantic region and lowest in the West South Central region.

Integrating multiple funding streams

As of autumn 1996, about 25 percent of COPS grantees reported tapping other funding sources for community policing. The most commonly mentioned external source was "State administered funds other than Byrne grants," which often

turned out to be programs that several States created to help local agencies meet the COPS match requirements. Local general revenues, Local Law Enforcement Block Grants (LLEBG), and business sources were the next most commonly mentioned.

In a special survey in 1997, the 100 largest[4] local/county grantee agencies in our national sample described themselves as "integrating the multiple funding streams to implement a local vision." Eighty-two of the 100 believed they interpreted grant requirements to implement that vision. Only 37 reported feeling constrained by grant conditions, and only 31 believed their agencies would be better off if the Justice Department offered only a single law enforcement assistance program.

The most common example of local integration of multiple Federal funding streams was that 88 of these very large agencies reported using LLEBG funds for community policing, despite the absence of a requirement to do so. One common approach was to use LLEBG funds to cover the unallowable collateral costs of hiring COPS-funded officers and implementing MORE-funded technology; the two programs thus complemented each other.

Grantees as customers

One Justice Department goal in creating the new COPS Office was to achieve high satisfaction among its "customers," the grantees, with simplified application forms, rapid decisions, and regular contact. This goal was achieved well in the early years, especially for small local/county police agencies, but less well for sheriffs, State police, and other special jurisdiction agencies. Satisfaction declined slightly between 1996 and 1998, which may have reflected localities' experience with the simpler LLEBG program, increases in COPS Office staff members' workloads, COPS Office staff turnover, or the accumulation of experience with the more complex COPS MORE grants.

Our Wave 1 survey indicated high grantee satisfaction with the COPS FAST program, which used a so-called "one-page" application form for small agencies. About one-fourth of FAST grantees had prior Federal grant experience; of these, 77 percent found the COPS application process easier than other grants, and 73 percent found COPS grants easier to administer than other grants. For the AHEAD program (aimed at larger agencies) and the MORE program, these percentages were some 20 to 30 points lower. In 1996, grantees reported high satisfaction with the COPS Office, with upwards of 80 percent describing their COPS grant advisor as helpful and easy to reach.

Among local/county police, sheriffs/State police, and special jurisdiction police, similar portions (67 to 72 percent) described the COPS grant *application* process as easier than others they had experienced. In contrast, 66 percent of local/county police described grant *administration* as easier than they had experienced with other programs, compared with 50 percent of sheriffs/State police and 47 percent of special jurisdiction police. Local/county agencies were also more likely than the other types to describe their COPS Office grant advisors as "easy to reach."

Between 1996 and 1998, as COPS grantees gained experience with other Federal grant programs, especially the formula-driven LLEBG program, they were less likely to describe the COPS application process as simpler than other Federal programs. As the percentage of medium and large jurisdictions with other program experience grew from 64 to 72 percent, the percentage describing the COPS application as simpler fell slightly, from 49 to 46 percent. Among small-agency MORE grantees, the percentage with other program experience grew more sharply, from 38 to 59 percent, and the percentage describing COPS applications as simpler than others fell from 63 to 47 percent.

Over the same period, the percentage of medium and large local/county agencies describing their COPS grant advisor as "helpful" remained at

around 86 percent, while the percentage who found their advisor "easy to reach" dropped from 81 to 74 percent. While about 78 percent of medium and large local/county agencies described the COPS Office as "excellent" or "good" in answering questions and making decisions, only 68 percent rated paperwork processing speed so favorably. In general, the most populous 10 percent of grantees in the sample rated the COPS Office higher than did other grantees on these satisfaction measures.

Time from application to award

In general, the local processes of hiring officers, hiring civilians, or implementing technology could not begin until grant budgets had been approved, official award documents mailed, Federal funds obligated, and signed acceptances returned by awardees.[5] For hiring grants, the mean time to complete these steps was more than 224 days for both 1995 and 1996 applicants, of which 70 to 75 days was used by the grantees to sign and return the acceptance letters. For MORE grants, whose complex budgets required more extensive reviews, processing required an average of more than 481 days—16 months—for 1995 applications and 322 days for 1996 applications. The extra processing time for 1995 applications was related to a 6-month congressional delay in appropriating the fiscal 1996 COPS Office budget. At the same time, a Federal Government shutdown halted OC's budget review process. The COPS Office was not shut down then but had difficulty filling staff vacancies because its future was uncertain.

The remainder of this chapter examines these matters in more depth. We begin by explaining in some detail the terms of COPS grants, which framed local agencies' decisions to apply or not.

The Terms of COPS Grants

The COPS hiring and MORE programs presented potential grantees with a strategic-decision problem in which the immediate rewards were clear but the costs were unclear because two key re-

quirements were not fully understood from the outset of the program.

Under the FAST and AHEAD programs, and later under UHP, agencies could receive 3-year grants for 75 percent of the first $100,000 of salary and fringe benefit costs incurred for a newly hired entry level officer during the life of the grant—up to a 3-year cap of $75,000. In 1995, the first year of COPS MORE, successful applicants could receive 75 percent of the cost of acquiring new technology, hiring civilians, or paying officers' overtime provided that, according to the applicant's projection, COPS MORE expenditures on these resources would yield at least as many full-time equivalent officers in the form of time saved as would a hiring grant of the same amount. Starting in 1996, overtime was disallowed.

Programmatically, grantees committed themselves to implement community policing as they defined it in strategies submitted with their grant applications. Chapter 6 describes the variety of community policing programs implemented by grantees and nongrantees.

Some of the financial obligations were clear from the outset. Grantees were required to provide explicit match: 25 percent of the first $100,000 in salary and fringe benefit costs during the 3-year grant period. Grantees for which the full 3-year costs exceeded $100,000 per officer (i.e., average annual salary and fringe costs exceeded $33,333) faced an implicit match requirement of the entire excess over the grant period. In addition, all grantees paid the collateral costs of hiring an officer, including training, equipment, vehicles, and uniforms, for example.

As explained more fully in chapter 2, uncertainty existed for several years about two other financial requirements, retention, and nonsupplanting. First, through August 1998, the COPS Office required hiring grant recipients to make a "good faith effort" to retain their COPS-funded officer positions after their grants expired but was silent on the length of the retention commitment. At that

time, the Attorney General set the length of the retention commitment at one grantee budget cycle following grant expiration and required applicants to submit written retention plans.

Until the required retention period was set in 1998, a jurisdiction could reasonably assume it extended through an officer's entire 20- or 25-year career; some jurisdictions made this assumption. Because of the $75,000 3-year cap on hiring grants and the exclusion of collateral costs from reimbursement eligibility, the actual COPS share of the cost of an officer varied markedly depending on the length of the retention requirement and on an agency's levels of salary, fringe benefits, and collateral costs.

Table 3–1 demonstrates this sensitivity in four hypothetical but plausible agency settings. In a "low-salary" agency in which a 3-year hiring grant of $67,500 covered 75 percent of the nominal 3-year salary and fringe cost, the grant

would cover 52 to 60 percent of the real (i.e., inflation-adjusted) 3-year total cost including salary, fringe, and collateral cost, depending on whether the collateral cost is assumed to be 25 or 50 percent of salary. The grant would cover only 7 to 10 percent of the discounted total cost of an officer's entire 20-year career. In a hypothetical "high salary" agency, the grant would cover only 29 to 34 percent of 3-year total cost and about 4 percent of the discounted 20-year cost, depending on the assumed collateral cost.

The expected retention cost for an officer fell dramatically when the expectation was finally set at one budget cycle beyond grant expiration, commonly 1 year. As shown in Table 3–1, a COPS hiring grant to a low-salary, low-cost agency that would cover only 10 percent of the discounted 20-year cost of an officer will cover 38 percent of the discounted 4-year cost (i.e., the grant period plus 1 year) for that officer. A grant to a high-salary, high-cost agency that covers

Table 3–1. Discounted COPS-Supported Share of Officers' Discounted Life Cycle Costs				
	Example 1*	Example 2	Example 3	Example 4
Assumptions and Result	Low Salary, Low Cost	Low Salary, High Cost	High Salary, Low Cost	High Salary, High Cost
Starting annual salary	$23,077	$23,077	$46,153	$46,153
Starting annual salary plus 30% fringe	$30,000	$30,000	$60,000	$60,000
Collateral costs as a percentage of real salary	25%	50%	25%	50%
3-year COPS grant	$67,500	$67,500	$75,000	$75,000
Real 3-year COPS grant value	$65,867	$65,867	$73,186	$73,186
Grant as a percentage of 3-year salary plus fringe				
Nominal	75%	75%	41.7%	41.7%
Real	72.1%	72.1%	40.1%	40.1%
Grant as a percentage of 3-year real total costs†	60.5%	52.1%	33.6%	28.9%
Grant as a percentage of 20-year discounted total cost	9.9%	6.9%	4.4%	3.8%
Grant as a percentage of 4-year discounted total cost	37.7%	32.8%	20.2%	17.5%

* Examples 1–4 are based on an assumed 20-year officer's career, 4% annual raises, and 2.5% inflation.

† Real total cost is defined as salary + fringe + collateral costs, assuming 0% raises and inflation.

only 4 percent of the 20-year cost will cover 17.5 percent of the 4-year cost.

Because of the high retention costs that hiring grants were presumed to entail, COPS MORE was seen as a financially attractive alternative for higher salary, higher cost agencies, especially when funds were used for new technology. MORE grantees assumed the 25-percent explicit match requirement, and some reported unexpected collateral costs for systems development, training, and maintenance contracts (see chapter 4 for further discussion). However, net retention costs for technology may actually be negative or positive, depending on whether the future streams of redeployed officer time and other benefits exceed the future streams of maintenance and other costs of the technology during its useful life.

Second, as with all Department of Justice grant programs, grantees were required to certify that grant funds would supplement, not supplant, local financial effort. Although the COPS Office Legal Division provided guidance on interpretation of the nonsupplanting requirement to agencies that requested it, outreach materials that explained the requirement contained examples of only some allowable courses of action. Therefore, an agency that based its application plans on erroneous assumptions without seeking advance clarification ran the risk of making a less than optimal decision.

Local interpretations of the nonsupplanting requirement ranged from conservative to aggressive. During a pretest of one of our instruments, we encountered one nonapplicant agency whose budget and sworn force were slated to be cut in its next fiscal year; its chief stated he declined to apply for a hiring grant because the grant funds would simply replace the funds and officers to be eliminated—which he construed as a violation of the nonsupplanting requirement. Yet other agencies in similar circumstances treated their anticipated (lower) future budgets as baselines for assessing their own potential compliance with the requirements and successfully applied for COPS grants.[6] During site visits, we

found local agencies were similarly ambiguous about whether to count salaries of staff assigned to ongoing technology projects as a match for their MORE grants—with one MORE grantee having done so and another regretting that it had not.

Agencies' Application and Withdrawal Decisions

In this section we report findings about potential grantees' decisionmaking processes, the grant characteristics, and other factors they considered in applying and the factors they weighed in deciding whether to accept their grants.

The application process

Although COPS is a law enforcement program and chiefs and sheriffs are its primary focus, the potential effects of accepting and implementing a COPS grant ripple well beyond headquarters. Elected legislative and executive officials and their budget staffs accept financial obligations. Most versions of community policing alter the discretion and responsibilities of line officers and their supervisors. New personnel rules that agencies might choose (e.g., to place ethnically appropriate officers in certain neighborhoods, to give community police officers flextime to facilitate work with community organizations, to minimize rotation of community police officers out of their patrol areas) may run afoul of union contracts. Functional community policing creates new relationships between the police and segments of the community such as business, churches, and grassroots organizations. Finally, jurisdictions sometimes involve planning or grants staff in the offices of elected officials, city or county managers, or police chiefs. Some agencies engage consultants to prepare grant applications.

For all these reasons, the list of potential participants in local decisions about COPS grant applications—especially development of the required community policing strategy—is long. We surveyed grantees about their lists of actual participants, as both an indicator of how broadly

they anticipated ripple effects and a possible predictor of success in implementing community policing. We also surveyed both grantees and nongrantees about the considerations that influenced their decisions to apply for grants or to withdraw after receiving awards.

Participation in application decisions

According to Wave 1 survey responses, the application process for COPS grants nearly always involved five categories of participants: senior executives, senior command staff, and planning/grants officers in the law enforcement agency; chief executives of local government; and the local government's budget office. However, a sizable minority of agencies reported a broader range of people "actively participated in the application process" for COPS grants (see the methodological appendix for survey methodology).[7] These results are reported in table 3–2.

Chiefs or sheriffs themselves reportedly participated in virtually all agencies' decisions; for all agency categories except sheriffs and State police, senior command staff reportedly participated in at least 80 percent of agencies' applications. Of the 55 percent of agencies that considered a deputy chief's input "applicable," 75 percent reported that he or she participated in the process. Among local/county agencies, only about half involved sergeants in the application process, and only about 35 percent involved officers below that rank.

Police unions generally did not participate in the application process, even though many styles of community policing involve changes in working hours, assignment procedures, and other working conditions commonly covered in union contracts. Among sheriffs and State police, agencies with special jurisdictions, and small local/county jurisdictions, between 50 and 60 percent reported that unions were not applicable to the process. This

Table 3–2. Participation of Stakeholders in COPS Application Process by Agency Size and Type					
	Local/County				
Stakeholders	**Less Than 50,000**	**50,000 or More**	**Sheriffs/ State**	**Special**	**All**
Inside Agencies					
Chief	94.2	94.5	96.6	98.3	94.5
Deputy chief	71.7	85.9	72.5	87.8	75.0
Agency's chief finance officer	88.7	95.1	85.4	85.8	89.4
Planning director	69.7	74.3	83.6	71.5	71.2
Grant manager	92.4	98.8	98.9	94.6	93.6
Patrol officers	38.7	29.3	36.2	58.0	38.5
Sergeants	46.5	54.2	49.2	67.1	48.8
Command staff	80.0	90.1	69.7	86.5	81.3
Union bargaining group	26.4	20.8	53.9	8.9	25.5
Outside Agencies					
Manager/city manager	87.1	90.3	52.6	61.6	86.5
City council	81.7	81.1	75.4	75.7	81.3
State legislature	22.0	17.3	30.7	21.9	21.6
School system	25.4	38.3	35.7	54.7	29.3
News media	24.1	16.4	35.7	14.1	23.2
Religious community	18.7	32.6	21.2	9.2	20.1
Business community	22.6	37.6	31.4	25.8	24.9
Community organizations	26.0	45.2	51.7	71.0	31.2
Individuals in community	26.8	42.2	35.6	42.1	29.7
Budget office	82.2	86.6	56.4	45.0	81.0
Consultants	41.5	40.3	69.5	47.8	42.8

compares with 21 percent of the medium and large agencies, in which union representation is more common. However, even among agencies reporting that unions were applicable, only 26 percent of small local/county agencies, 21 percent of medium and large local/county agencies, and 9 percent of special agencies reported that unions participated. In contrast, among sheriffs' departments that considered unions applicable, 54 percent reported the unions participated in the COPS application process.

Agency planning directors were described as "not applicable" in about half of all agencies, presumably because the departments had no such position. About 70 percent of the agencies with such positions reported they participated in the COPS application process. Similarly, grant managers were described as "not applicable" in 60 percent of responding agencies; not surprisingly, virtually all the agencies that had them involved them in the application process.

Elected officials and their staffs generally participated in COPS application decisions. Among local/county agencies, 87 to 90 percent described their chief executives (e.g., mayors or city/county managers) as active participants, and only slightly fewer—81 percent—reported their local legislative bodies were involved. Eighty-two to 87 percent of local/county agencies also described their budget offices as involved.

The application requirement to include a community policing strategy evidently drew some nongovernmental participants at least nominally into the application process. Few respondents in any category described the religious or business community, community organizations, or individual residents as not applicable. Generally 19 to 27 percent of small local/county agencies (populations less than 50,000) and 32 to 45 percent of medium and large agencies reported that these segments of the community participated in the process. Site visits revealed substantial variation in the local meaning of participation, however, a matter to which we return in chapter 6.

During the site visits, agency staff typically spoke in terms of four stages in grant application: discovering the opportunity, deciding whether to apply and for how much money, obtaining approval, and preparing the application. Because COPS Office outreach efforts were aimed at agency chiefs, the police chief or sheriff was often the first person to learn of the provisions and deadlines associated with the various COPS programs. Most commonly, word came through COPS Office mailings. However, more than one-fourth of the 100 largest agencies in our sample—agencies that participated in a supplemental study of larger agency grant management—reported using the Internet as a source of grant information. In some of the larger jurisdictions, a centralized grants office reporting directly to the city or county manager or the senior elected official would also become aware of the COPS grants about the same time; however, several jurisdictions we visited that had such offices were in the process of decentralizing grant application decisions to the relevant agencies, including law enforcement.

In small departments that we visited, chiefs or sheriffs typically made initial application decisions, obtained approval, and prepared the streamlined applications for FAST grants. In our special large agency survey, 57 of the 100 largest COPS grantees in our national sample reported having offices staffed by a civilian, midlevel, or senior sworn officer who focused on grant application and administrative activities. Most of these predated the COPS program, but 11 of the 100 agencies had established their grant offices more recently, reportedly because of the increase in grant activity, which was predominantly COPS-related.

Typically, the grants offices in the largest agencies reported they handled budget and procedural aspects of grant applications but relied on staff in the units that would carry out work under the grant to write the substantive content. Under this model, directors of community policing would normally write the community policing

plans for COPS grants and the hiring and retention discussions for hiring grants, while information services units would describe the substance of MORE applications for technology support.

The COPS Office devoted substantial effort to making the application process simple in comparison with other law enforcement grant programs such as Byrne grants, Weed and Seed, and other discretionary programs. This effort was intended both to encourage applications and to comply with a statutory requirement of simplified application processes for "small" agencies that served jurisdictions with populations of less than 50,000. By any objective standard, the COPS Office succeeded in simplifying the application form.

Perhaps ironically in light of the successful simplification effort, consultants participated in COPS applications in all but the largest agencies. About 40 percent of both local/county agencies of all sizes involved them, as did even greater proportions of sheriff/State agencies and special jurisdictions. Only among the 100 largest agencies in our national sample, who were surveyed in a special study of grant administration, were consultants less visible. Eleven of the 100 reported using consultants in grant writing, and about one-third of those—mostly agencies pursuing multiple grants, especially under innovative COPS programs, COPS MORE, and non-COPS programs—described the consultant's role as "major." By way of comparison, only 3 percent of LLEBG recipients in the large agency special study and 7 percent of Byrne grant recipients used consultants in their applications for those grants.

Evidently, the grant managers in large agencies felt confident enough to prepare and submit applications without consultants' assistance. Among small agencies, the explanation for use of consultants seems to have been disbelief that the application was as simple as it seemed, combined with fear of losing the award because of a procedural error. Of survey respondents from small agencies, 72 percent stated they had no

prior experience with Federal grants before the COPS program, and, as one small-agency chief explained to a visiting site team, "We wanted a consultant to check it over and make sure we hadn't left anything out."

Early influences on agencies' application and withdrawal decisions

Through the end of 1997, the share of eligible law enforcement agencies with COPS grants (i.e., their applications were successful, and they had not withdrawn after receiving awards) was 77 percent of the 397 eligible agencies serving large jurisdictions (populations of more than 150,000), 67 percent of the 1,003 serving medium jurisdictions (populations between 50,000 and 150,000), and 49 percent of the 17,775 small-agencies serving jurisdictions with smaller populations. We surveyed grantees and nongrantees in our sample about considerations that had weighed in their application decisions.

Financial considerations. Financial considerations were the primary influences on local agencies' application decisions, with application process difficulties playing some role in the early years of the program and philosophical considerations playing almost no role.[8]

Based on our national survey, financial requirements of COPS grants were among the most common reasons for not applying, as of October 1996. Respondents were most likely to mention the retention requirement (15 percent), the explicit 25-percent match requirement (mentioned by 13 percent), implicit match to cover uncovered fringe benefits and collateral costs (3 percent), and the $75,000 3-year cap on COPS grants (0.6 percent). Local finances also surfaced as an explanation, with 8 percent of agencies reporting "no need" and 2 percent reporting they "had other community policing funds." Our national survey findings, shown in figure 3–1, were approximately consistent with those of the General Accounting Office (1997). Specific categories of agencies' concerns are described below.

Application process. Difficulties with the application process itself, such as tight deadlines and lack of information (20 percent), lack of staff to write the application or administer the grant (16 percent), and local paperwork problems (1 percent) were all cited as reasons for not applying as of autumn 1996, when our first survey was conducted. However, the influence of these startup administrative barriers declined over time, as the rules became more widely understood; they were mentioned only rarely in our Wave 3 survey.

Philosophical considerations. It seems clear that objectives to the community policing objective of Title I were of negligible importance as a barrier to applying for COPS grants. Objections to community policing or to Federal grants in general were mentioned by only 8 percent of grantee and nongrantee agencies in our national sample. Further, we conducted a supplemental survey of the 100 largest agencies in our national sample to ask how they administered multiple funding streams for community policing. Of the 96 agencies in that sample that had received Local Law Enforcement Block Grants, 88 percent reported using at least part of their LLEBG

funds to support community policing initiatives, even though community policing was not a LLEBG requirement. As we discuss further in chapter 6, however, the widespread local approval of community policing as a concept may well be related to its ambiguity, which allowed agencies to apply the label to a wide variety of policing styles.

As another test of the relationship between community policing status and COPS application decisions, we compared COPS awardees with nonawardees as of April 1995, controlling for jurisdiction population, in terms of the extent to which the community frequently interacted with police in nine ways, such as attending community meetings, describing crime patterns in helpful ways, and using influence in the neighborhood to increase citizen acceptance of community policing initiatives. As shown in table 3–3, 1995 differences in community support between grantees and nongrantees depended on population. In places of 50,000 or more, community organizations or residents of grantee jurisdictions were reportedly four times more likely than residents of nongrantee jurisdictions to attend regular meetings with police, twice as

Figure 3–1. Reasons for Nonapplication for 1995 COPS Grants

Reason	Percent
Deadlines/lack of information	19.7%
No application/administrative staff	15.6%
Concern over retention	14.7%
Explicit local match	13.3%
Philosophical objections	8.4%
No need	7.7%
Executive/legislative disapproval	5.2%
Doubted eligibility	4.7%
Implicit local match	3.2%
Excessive administrative requirements	3.2%
Had other community policing funds	2.1%
Logistical/departmental mixup	1.0%
$75K cap	0.6%

likely to provide specific information about active cases, 75 percent more likely to make constructive suggestions for community relations, and 38 percent more likely to use political influence with public officials to promote community policing efforts. However, they were only about 67 percent as likely to assist in operations, and there were only small grantee-nongrantee differences with respect to other tactics. In places of less than 50,000, differences were less clear, although residents of both grantee and nongrantee jurisdictions were reportedly less likely to provide most forms of assistance.

Local officials' priorities. Based on our national sample, 5 percent of the agencies that did not apply for COPS grants cited disapproval by elected executive or legislative officials (see figure 3–1). Such disapproval, of course, may have reflected financial, programmatic, or other concerns. In several sites, elected officials described the local dilemma they believed the COPS program posed. On one hand, they experienced public pressure to accept "free" COPS officers, but on the other, they feared future opposition if there was a need to raise taxes to retain the new positions.

Some large urban jurisdictions that we visited, such as Newark and Milwaukee, expected no such COPS-related future tax increase because the officers were an integral part of a larger economic development strategy. In those and other cities where downtown areas had suffered economic dislocations, it was hoped that the reality and public perception of a safer downtown would draw commercial interests, workers, customers, or conventions back to the city center. If successful, the increased tax revenue stream would finance improvements in city services across the board, including retention of the COPS-funded position.

Misunderstandings of eligibility requirements. As discussed earlier in this chapter, project senior staff encountered a few apparently eligible

Table 3–3. Prevalence of "Frequent" Indicators of Community Support for Police, by COPS Funding Status, 1996				
	Percentage of Local/County Agencies Responding "Frequently"			
	Grantees		Nongrantees	
How Often Do Community Organizations or Residents in Your Jurisdiction	Less Than 50,000	50,000 or More	Less Than 50,000	50,000 or More
Attend regular meetings with police?	19.9	69.3	15.8	16.8
Make constructive suggestions for police/community relations?	27.5	47.9	32.7	27.5
Describe recurring patterns of crime and disorder in their neighborhood?	29.6	43.3	17.5	32.9
Present useful ideas for solving crime and disorder in their neighborhood?	18.8	22.6	11.5	27.0
Provide specific information about active cases to your agency?	33.8	38.0	28.4	17.6
Assist in operations (such as video surveillance)?	13.3	17.2	11.6	26.0
Devote resources of time to crime prevention efforts?	19.3	34.5	16.4	39.8
Use influence "downtown" to promote community policing efforts?	14.3	19.1	16.4	13.8
Use influence in neighborhood to pave the way for community policing?	18.1	37.7	12.5	30.6

agencies that did not apply because they believed they were ineligible, evidently because their interpretations of the nonsupplanting, match, and community policing requirements were erroneous and overly conservative. Situations involving budget cuts were discussed earlier. Other agencies mentioned situations in which their personnel rolls included officers who were expected to leave after the application deadline because of disability or impending retirement. The chief of another small agency reported that he believed in good faith that his agency had engaged in community policing for several years but accepting a COPS grant would require the launch of a new community policing program; he did not apply because he contemplated no new programs.

We could not directly estimate how commonly such misunderstandings prevented eligible agencies from applying. However, we believe that all such cases are included among either the 4 percent of nonapplicant agencies that "doubted eligibility" or the 1 percent classified as "logistical/department mix-up" in figure 3–1.

By the end of 1997, 10,537 agencies had received grant awards, and 761 had withdrawn. Figure 3–2 displays the agencies' reasons for withdrawal, as reported to survey interviewers in autumn 1996 by the 45 sampled agencies that had withdrawn.

As shown in figure 3–2, financial issues dominated agencies' withdrawal decisions, just as they did in the decisions to apply in the first place. However, the relevant financial considerations differed. Forty percent of the withdrawn agencies cited the implicit match requirements—unfunded collateral costs such as training, patrol cars, and other equipment—as the reason for withdrawal. About 18 percent cited the explicit 25-percent match requirement, 6 percent mentioned doubts about the agencies' ability to retain the officers after the grant expired, and 5 percent cited the $75,000 3-year maximum for COPS hiring grants, which makes the grantee responsible for 100 percent of salary and fringe benefits over $100,000 during the 3-year grant period.

Nearly 13 percent cited executive or legislative disapproval as the withdrawal reason. In specific comments, respondents typically blamed this reversal of the decision to apply on a new chief or an inability to obtain reauthorization for the local match payment. In many localities, reauthorization became necessary because the

Figure 3–2. Reasons for Withdrawal From 1995 COPS Grants

Reason	Percentage
Implicit local match	40.3%
Explicit local match	17.5%
Executive/legislative disapproval	12.8%
Excessive administrative requirements	9.2%
Concern over retention	6.1%
Philosophical objections	6.1%
$75K cap	5.1%
Unexpected outcome	2.7%
Received other community policing funds	2.0%
Other	1.3%
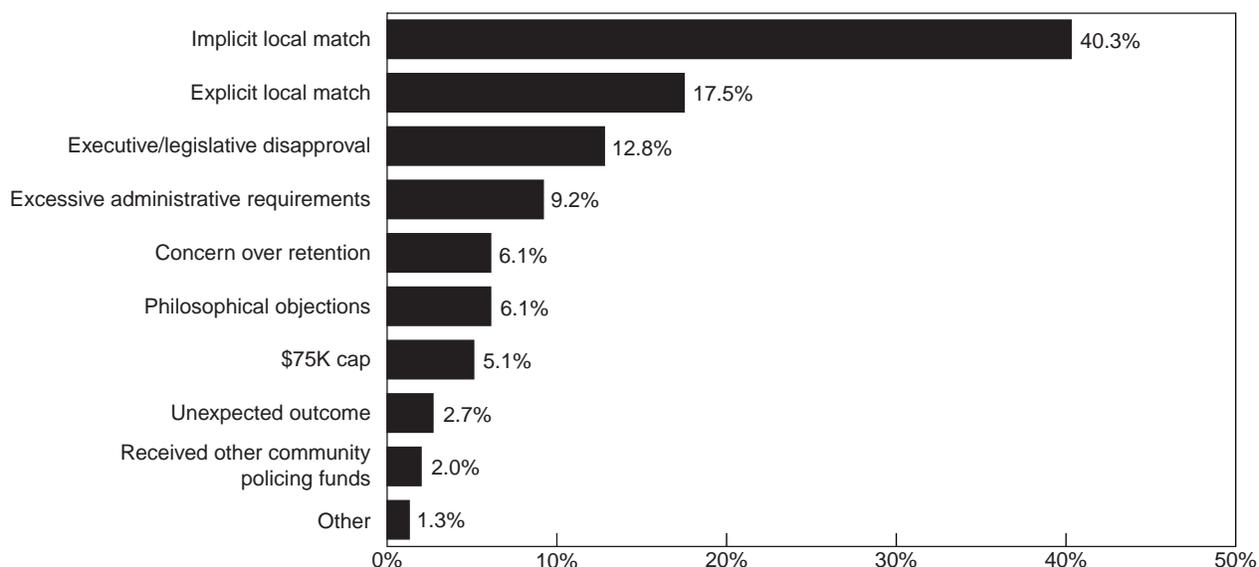
official COPS grant award did not arrive until the local fiscal year following the one for which the local match expenditure had been authorized.

Excessive administrative requirements were mentioned by 9 percent and philosophical objections either to community policing or to Federal grants in general by another 6 percent—usually after a leadership transition. Respondents linked smaller fractions of withdrawals to the receipt of other community policing funds and to "unexpected outcomes" of the COPS grant application. One example was a partial MORE award that covered a civilian operator of technology but not the technology itself.

Trends in decision criteria in medium and large local agencies

For medium and large local and county agencies without COPS grants, we used our Wave 1 and Wave 3 surveys to ascertain, at least roughly, whether the factors that influenced application and withdrawal decisions changed between 1995 and 1998. The comparison is approximate because we coded single responses to an exploratory open-ended question in Wave 1 but asked respondents to mark all that applied from a series of closed-end choices in Wave 3.[9]

Two distinct types of financial concerns emerged from the Wave 1 responses to open-ended questions. Immediate concerns included the explicit and implicit matches and the $75,000 3-year cap on COPS grants. Long-term concerns had to do with postgrant retention of the COPS-funded officer positions. At the time, potential retention costs appeared substantial.[10]

The Wave 3 sample included 42 medium and large local/county agencies that stated they were nongrantees because they had not applied.[11] For them, postgrant money issues had moved slightly ahead of immediate costs as the most common reason for not applying.[12]

Because the Wave 3 respondents could choose more than one reason for not applying, the percentage distribution is not directly comparable with the Wave 1 distribution, which is based on single responses and therefore sums to 100 percent. Therefore, to compare the two sets of responses, we placed them in a rank-order table (table 3–4).

As table 3–4 shows, financial considerations during the 3-year grant were the main reason for nonapplication in 1996. Retention was a distant third. By 1998, long-term retention concerns had moved slightly ahead as the top reason for nonapplication, followed by immediate financial considerations and problems related to application and administration. Agencies evidently began to think beyond the initial grant administration and match concerns that were so important the first year.

Table 3–4. Reasons for Nonapplication, Wave 1 and Wave 3, Ranked in Order of Mentions		
	Wave 1*	Wave 3†
Financial considerations during the 3-year grant period	1	2
Problems related to application/administration	2	3
Concerns about retention after grant expires	3	1
No need	4	4
Skepticism about Federal grants in general	5	5
Skepticism about community policing	6	7
Other	7	6

* Wave 1: large local/county agencies only (n=75).

† Wave 3 : (n=42).

In both years, a small percentage of agencies felt they had "no need" for COPS grants. Philosophical objections were broken down into two distinct categories: skepticism about community policing and skepticism about Federal grants in general. Skepticism about Federal grants remained in fifth place for both years. Skepticism about community policing dropped from sixth place in 1996 to last place in 1998. Less than 3 percent of medium and large local/county agencies mentioned community policing skepticism in 1996, and none did so in 1998.

In both 1996 and 1998 a few grantee agencies either failed to accept their grant awards or withdrew after accepting them. At the time of the Wave 1 survey in the autumn of 1996, 45 agencies, 2.3 percent of all awardees, had withdrawn.[13] By the end of 1997, 7.2 percent of the 10,537 awardee agencies for whom grant awards had been designated had withdrawn.

As with reasons for nonapplication, we asked Wave 1 respondents from withdrawn agencies an open-ended question about their reasons. We coded the responses and used them as closed-end responses for Wave 3 respondents from nongrantee agencies that had either declined to accept their grant awards or withdrew from their grants. Because of the difference in approaches, we used the same kind of rank-order table to compare reasons for withdrawal or nonacceptance at the two points in time. However, in the Wave 3 sample, only 4.6 percent of nongrantees had withdrawn, and 5.6 percent had not accepted. Therefore, our findings about reasons for withdrawals and declinations to accept awards are based on only 12 observations and must be treated cautiously.

At Wave 1, reasons for withdrawal were similar to those for not applying: immediate financial concerns and application/administrative problems dominated the list, with concerns about retention and skepticism about Federal grants lower on the list of concerns. Among the 12 agencies surveyed in Wave 3 for whom the question was relevant, the leading reasons for withdrawal and failure

to accept grants were retention, immediate financial considerations, and skepticism about Federal grants. No agencies in either year attributed their withdrawals to skepticism about community policing.

The Flow of COPS Funds

This section describes the distribution of COPS awards through 1997 in terms of grants and dollars, funding concentration, and funding distribution patterns.

Agency participation in COPS programs

For the COPS hiring programs, an eligible agency's decision to apply virtually assured award of a grant, although requested grant amounts were occasionally reduced. Cumulatively through 1997, the COPS Office rejected only 217 applications including those from ineligible agencies, out of 14,508 applications received, a rejection rate of 1.5 percent.[14] In contrast, discretionary rejections of COPS MORE applications became more common over time as the program became more popular, while the statutory limit on the size of the MORE program remained in place. The cumulative rejection rates for MORE applications grew from 5 percent through 1995 to 13 percent through 1996 and 21 percent through 1997.

During 1994 and 1995, about 45 percent of all eligible law enforcement agencies received at least one grant from one of the following programs: Police Hiring Supplements (PHS), COPS Phase I, a COPS hiring program, COPS MORE, or an Innovative Community Policing Program. During the next 2 years participation broadened very little, but previous grantees continued to request and receive additional grants.

This section, which is based on COPS Office grant records, describes 1995–97 trends in the number of agencies receiving grants from the COPS Office or its predecessors. We categorized agencies as small if they served jurisdictions of less than 50,000 in population;[15] medium if they served jurisdictions between 50,000 and

150,000; and large if they served jurisdictions with populations of more than 150,000.

As shown in table 3–5, we estimate that a minimum of 19,175 agencies was eligible for COPS grants: 17,775 small agencies, 1,003 medium agencies, and 397 large agencies. Table 3–5 also reports that the COPS Office rejected applications that it received from 1,330 agencies, which is about 35 percent of the 3,748 possibly ineligible agencies that came to our attention in databases maintained by the COPS Office, the FBI's UCR and NCIC programs, or the Bureau of Justice Statistics for use in its Law Enforcement Management and Administrative Statistics (LEMAS) survey.[16]

By the end of calendar 1995, the first full year of COPS Office existence, grant awards had been announced to 8,612 eligible agencies under PHS, a grant program administered by the COPS Office, or both.[17] Awardees included 7,655 small agencies, 667 medium agencies, and 290 large

agencies. Coverage increased with jurisdiction size, so that 43 percent of eligible small agencies, 66 percent of eligible medium agencies, and 73 percent of eligible large agencies had applied and been awarded funding by the end of 1995.

The second full year of COPS, 1996, saw slow growth in the number of grantee agencies in all three size categories: to 8,408 small agencies (less than 10 percent growth), to 693 medium agencies (4 percent growth), and to 328 large agencies (13-percent growth). In 1997 the number of small-agency awardees continued to grow at about half the rate of the preceding year. However, the increase in agencies designated for award was more than offset by withdrawals during 1997 and expirations of grants awarded during 1994. Therefore, the actual number of grantee agencies fell by 16 for medium agencies and 22 for large agencies. For all size categories combined, the number of grantee agencies increased by 4 percent, to 9,776 (see figure 3–3).

Table 3–5. COPS Grant Status of Agencies, by Jurisdiction Size, Eligibility, Program, and Application Status, 1995–97 (Cumulative)								
		Eligible Agencies (n=19,175)						Possibly Ineligible Agencies (n=3,748)	
		Agencies With Grant From:							
		Primary Programs†	PHS & INNOV Only	INNOV Only	Any Program Not Withdrawn†	Awarded and Withdrawn	None Awarded	Had Not Applied	Applied, Not Accepted*
Less than 50,000	1995	7,458	195	2	7,655	365	9,755	2,568	827
	1996	8,208	176	23	8,407	406	8,962	2,510	885
	1997	8,667	53	73	8,793	702	8,280	2,285	1,110
50,000– 150,000	1995	613	53	1	667	37	299	128	101
	1996	639	49	5	693	33	277	118	111
	1997	644	12	21	677	50	276	132	97
More than 150,000	1995	261	26	3	290	7	100	40	84
	1996	294	18	16	328	5	64	18	106
	1997	282	3	21	306	9	82	1	123

† Primary programs include FAST, AHEAD, Universal Hiring, and MORE.

* COPS Office status "accepted" includes agencies accepted for at least one program that did not withdraw from that program.

Nearly all the agencies that received any COPS grant received at least one under one of the hiring programs (FAST, AHEAD, or UHP) or COPS MORE. By the end of 1997 this proportion was nearly 99 percent for small agencies, about 95 percent for medium agencies, and 92 percent for large agencies. Overall, the number of agencies receiving awards under at least one of these four programs grew by only 15 percent, from 8,332 to 9,593, between 1995 and 1997. Because these four COPS programs were the only ones that were operating as we designed the evaluation, they received our primary evaluation attention. Therefore, as shorthand through the

rest of this chapter, we refer to those four COPS programs collectively as "primary programs."

As early hiring grant awardees began greater participation in COPS MORE, the number of agencies with both hiring and MORE grants more than doubled, from 825 in 1995 to 1,733 in 1997. Between 1995 and 1997, the number of designated MORE grantees grew by 90 percent, from 1,264 to 2,399. This 1,135-agency increase is composed of 908 agencies with both hiring and MORE grants but just 227 MORE-only agencies.

As shown in figure 3–4, COPS program growth between 1995 and 1997 reflected primarily

Figure 3–3. Agencies Accepted for COPS Programs by Jurisdiction Size (Cumulative Totals)
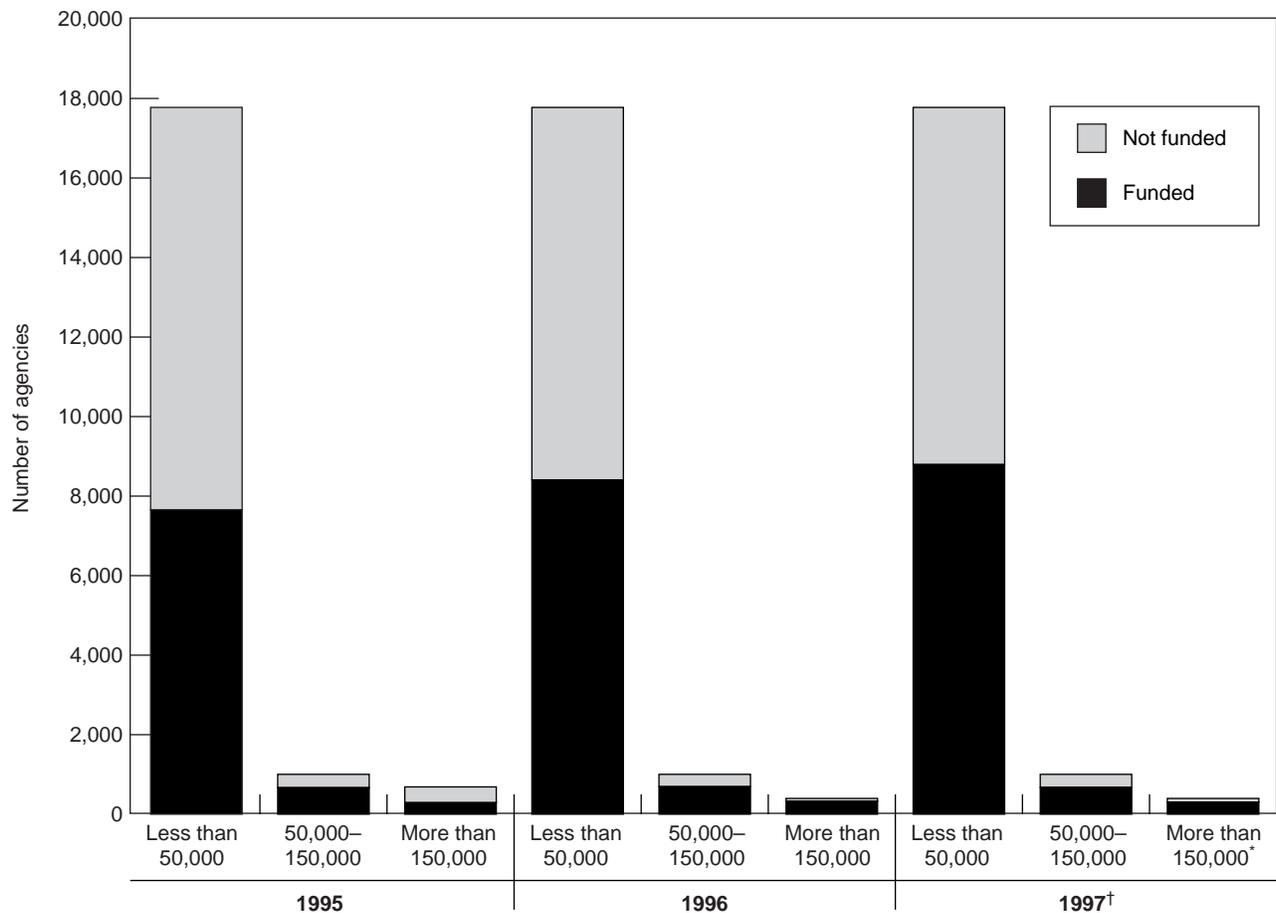
Note: Population categories were estimated for 4,579 agencies; the universe of eligible agencies is 19,175 and represents those eligible and in service between June 1993 and April 1996.

* Less than 100 nongrantees in category.

†Preliminary estimates.

supplements and new awards to previous grant-ees rather than a broadening of the program to new agencies. The number of grantee agencies with only one primary program grant decreased in both absolute and relative terms, from 7,387 (89 percent of all grantees) to 5,327 (55 percent of all grantees). Meanwhile, the number of agencies with three or more grants grew by a nearly offsetting amount, from 57 (0.7 percent of all grantees) in 1995 to 1,907 (19.8 percent of all grantees) in 1997. By 1997, 11 percent of grant-ees, or 1,060 agencies, had been designated for four or more grants. During 1996, the COPS Office awarded only 874 Universal Hiring grants and 45 MORE grants to agencies receiving their first grants.

The trend toward greater concentration of COPS grants among multiple grantees was especially pronounced among the large agencies. While the number of large-agency grantees grew by only 8 percent, from 261 to 282, between 1995 and 1997, the percentage with three or more grants more than tripled, from 15 percent to 55 percent. By 1997, 40 percent of large-agency grantees had applied for and received four or more pri-mary COPS grants.

Funding distribution patterns

Through the end of calendar 1997, the COPS Office had awarded about $3.388 billion in grants under the primary programs. About 75 percent of those funds, $2.52 billion, were awarded under the officer hiring programs FAST, AHEAD, and UHP (see figure 3–5). Just under 15 percent of all awards, $528.3 million, were made for resources to support redeployed officer time under COPS

Figure 3–4. Accepted Agencies by Number of Grant Applications Accepted, Size, and Year (Cumulative)
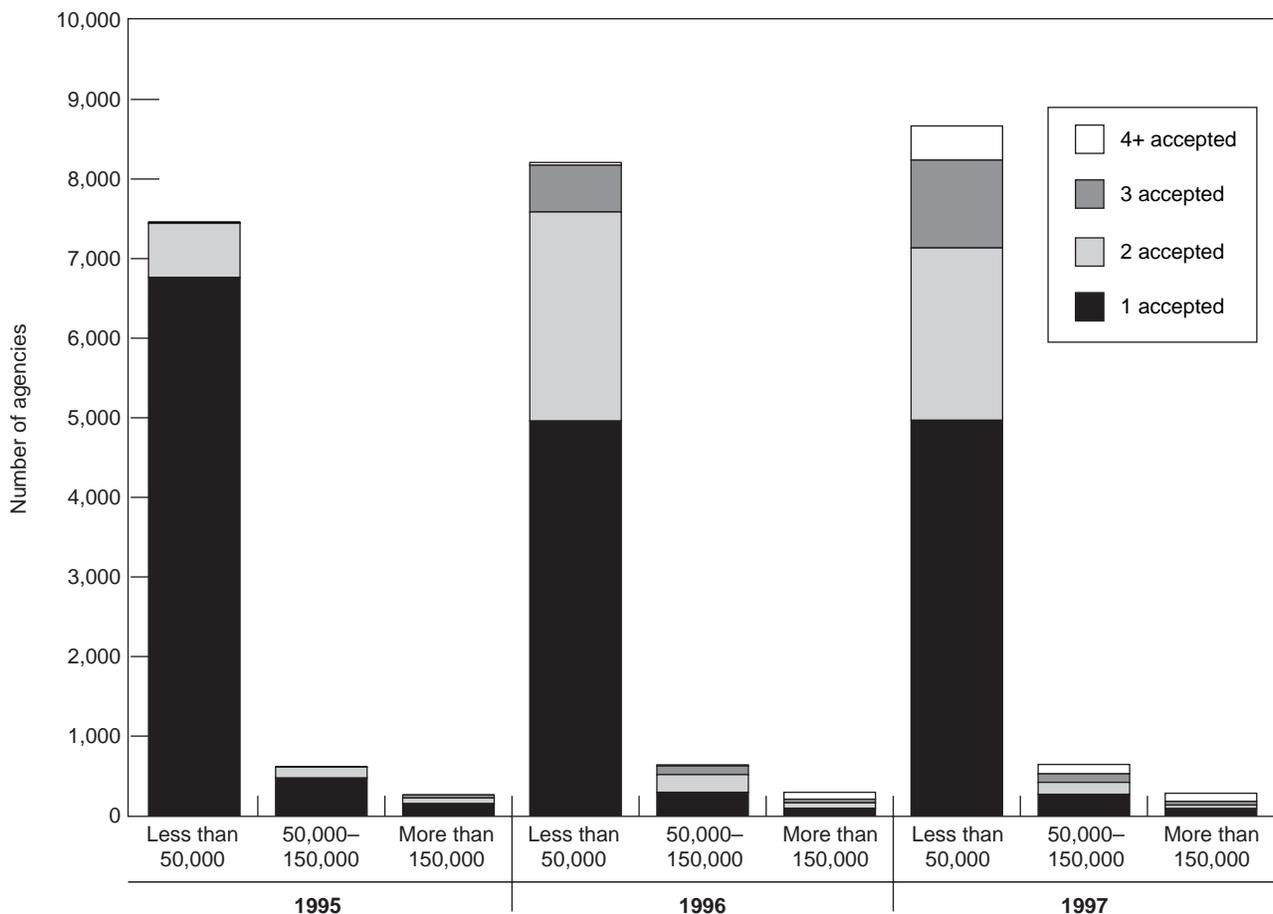
Figure 3–5. Total COPS Grant Awards, by Programs Through 1997 ($3.47 Billion Total)

Millions of Dollars

- Hiring: 2,520
- MORE: 528
- PHS/Phase I: 340
- Innovative: 82
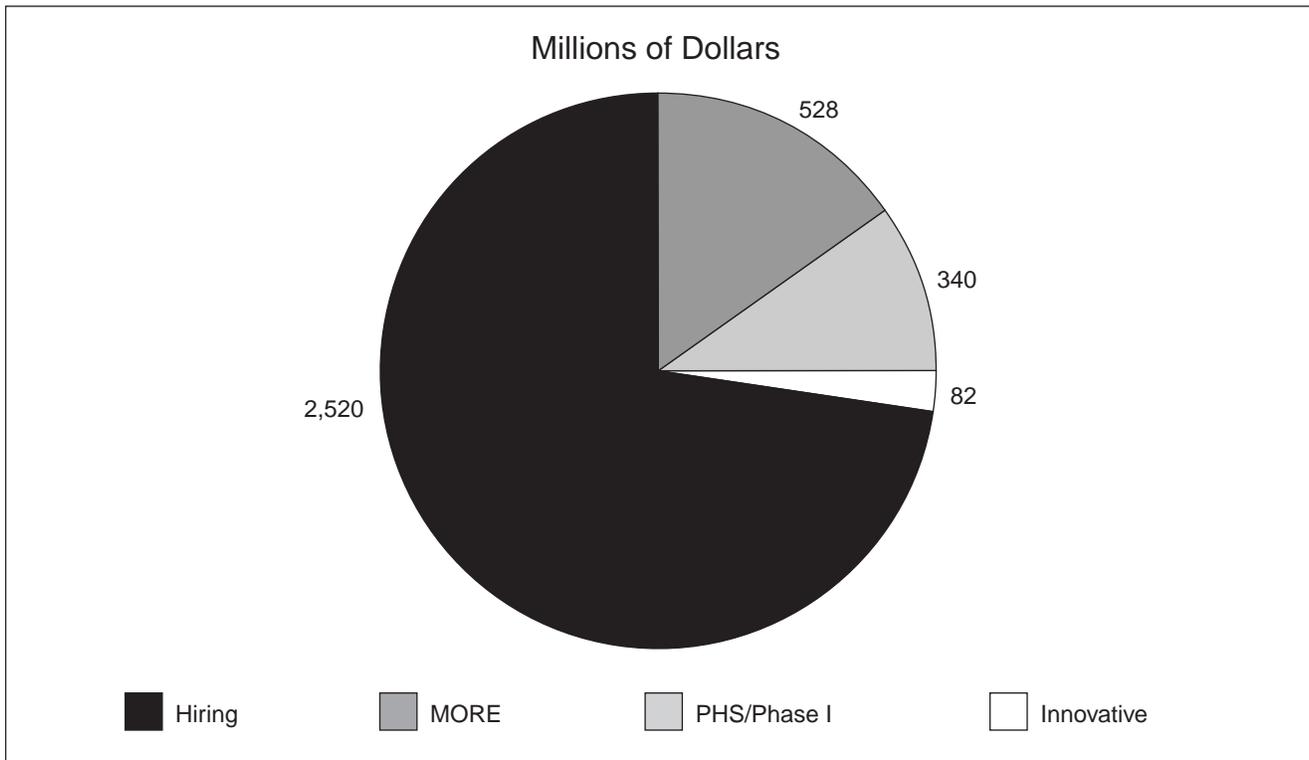
MORE, reflecting statutory limitations on MORE program size. Another $81.7 million was awarded for innovative programs, and PHS and Phase I grants awarded in 1994 accounted for another $340 million.

Distribution by agency type. As the COPS program grew between 1995 and 1997, local and county law enforcement agencies applied for and received about three-fourths of the awards designated each year. As shown in table 3–6, which displays cumulative COPS MORE and hiring grant awards, local and county police departments had accumulated $403 million in COPS MORE awards by the end of 1997, along with $2.0 billion in COPS hiring awards—a total of $2.4 billion. By the end of 1997, sheriff's departments and State police had accumulated about $517 million in hiring and MORE grants. Others, including tribal and other special-jurisdiction agencies, had been awarded $176 million.

Concentration of COPS funds. Between 1995 and 1997, COPS grant funds became heavily concentrated among multigrant agencies, as repeat grantees sought and received increasingly large hiring and MORE awards. Figure 3–6 displays cumulative grant awards by jurisdiction size and number of grants designated for award through 1995, 1996, and 1997. During that period COPS funds awarded to agencies with only one primary program grant decreased in both absolute and relative terms, from $787.9 million through 1995 (64 percent of grant funds designated for award) to $547 million through 1997 (18 percent of grant funds), as more agencies applied for and received multiple grants. During the same period, funds awarded cumulatively to agencies with three or more grants grew about 16-fold, from $123.6 million (10 percent of 1995 grant funds) to $1.98 billion (65 percent of funds awarded cumulatively through 1997). Through 1997, $1.42 billion, or 47 percent of all

Table 3–6. Estimated Award Distribution by Agency Type and Year (Cumulative in Millions)				
		Total Dollars Awarded	Hiring Dollars Awarded	MORE Dollars Awarded
Local/County Police	1995	928.5	751.4	177.1
	1996	1,949.0	1,662.0	287.0
	1997	2,356.4	1953.6	402.8
Sheriffs/State Police	1995	223.9	201.3	22.6
	1996	396.2	357.8	38.4
	1997	516.8	432.1	84.7
Others	1995	79.4	61.6	17.8
	1996	184.9	153.8	31.1
	1997	175.7	134.8	40.9

Figure 3–6. Estimated Total Award Distribution by Number of Grant Applications Accepted, Jurisdiction Size, and Year (Cumulative)
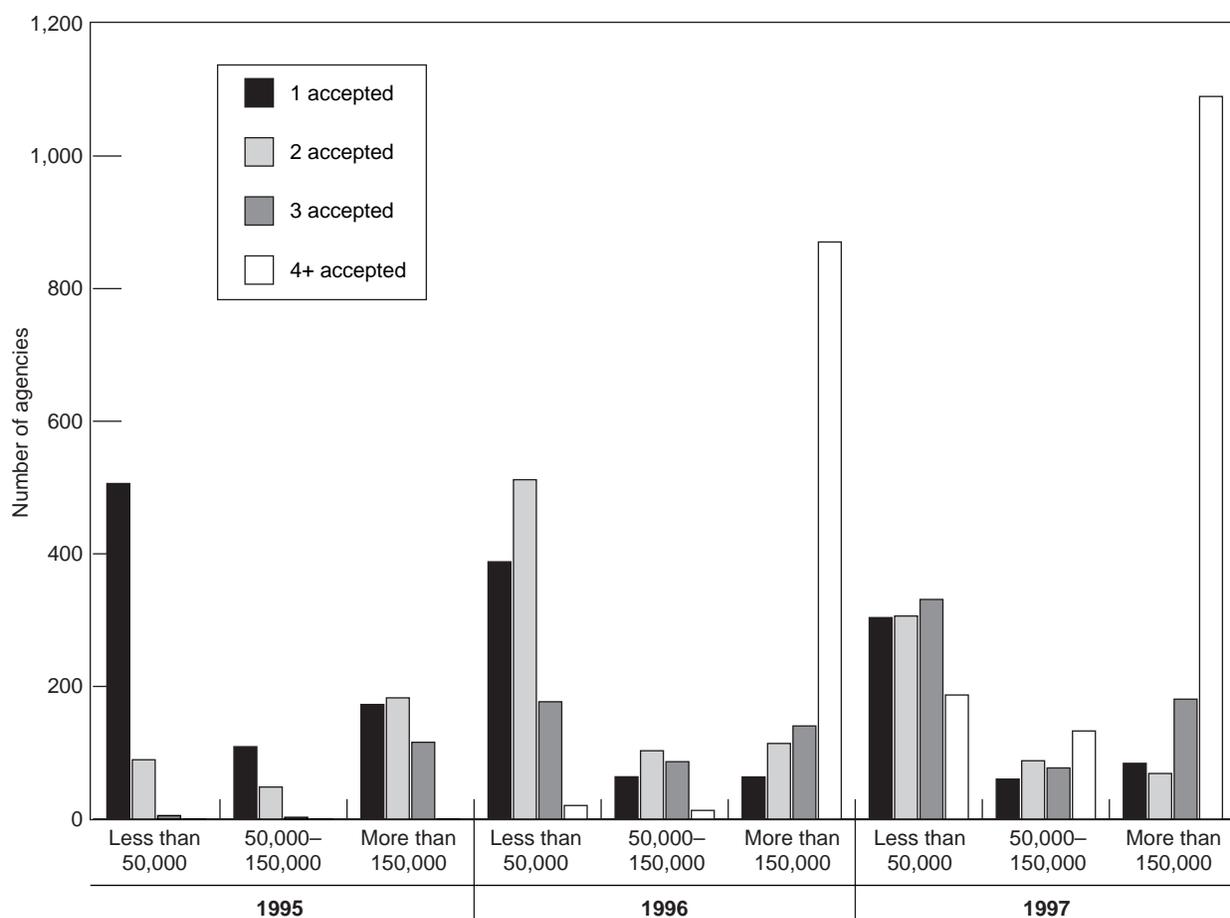
**Figure 3–7. Estimated MORE Award Distribution by Number of Grant Applications
Accepted, Jurisdiction Size, and Year (Cumulative)**
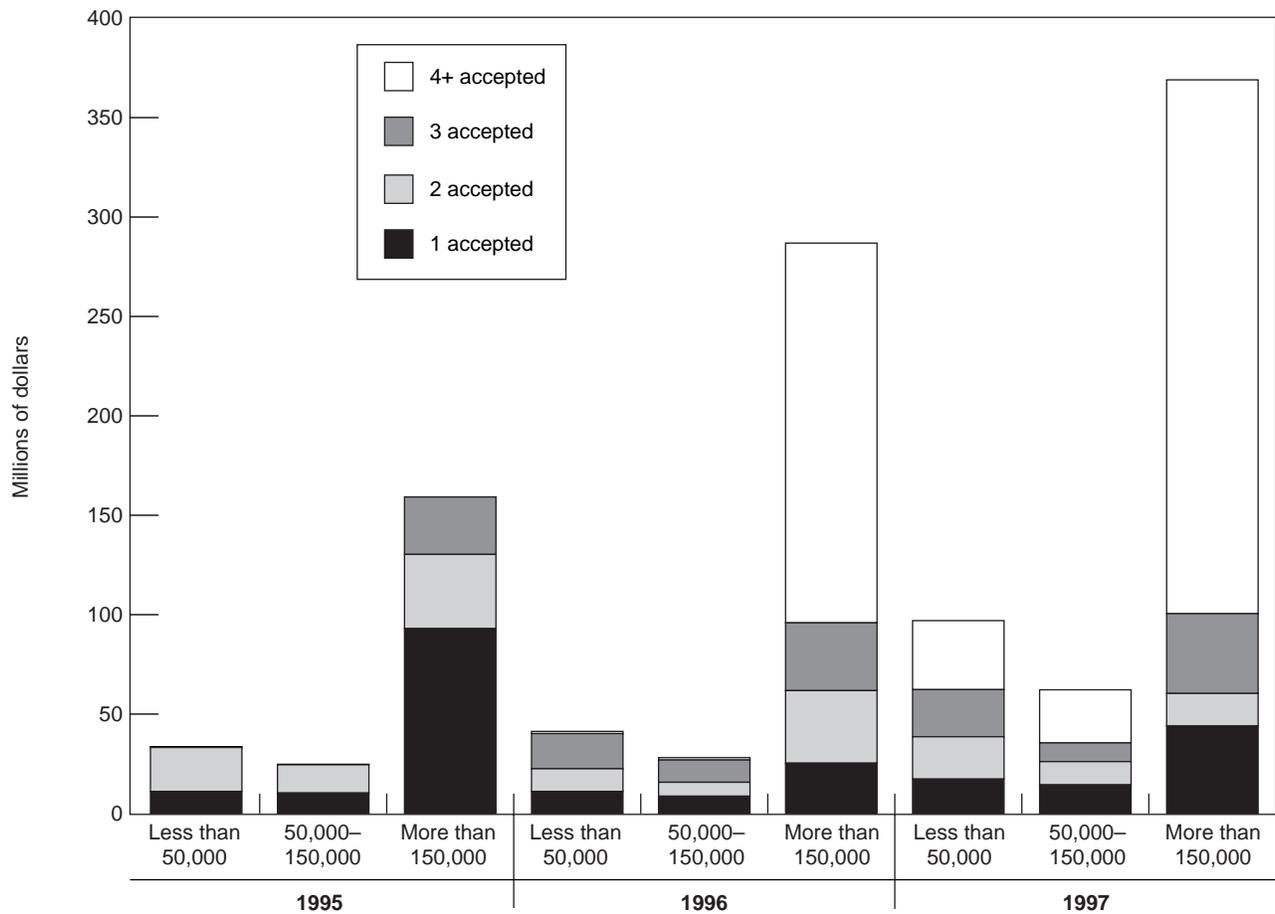
funds designated for award, were allocated to agencies with four or more primary hiring or MORE grants. COPS MORE awards were even more heavily concentrated. Figure 3–7 shows that agencies with four or more grants received $329.9 million in MORE funds, 62 percent of all MORE awards through 1997.

Some effects of repeat applications on the concentration of awards are summarized in figure 3–8 and table 3–7. The 1 percent of agencies with the largest cumulative grant awards, which serve about 11 percent of the U.S. population, received about 40 percent of all funds awarded through 1998. The 5 percent of agencies with the largest grants serve 27 percent of the U.S. population and received 56 to 59 percent of all funds awarded. Award concentration was similar for local/county agencies and for all agency types combined and

changed only slightly between 1996 and 1997. A related question is whether the process of multiple applications and awards helped to target COPS resources on jurisdictions where crime disproportionately occurs. To examine that issue, we ranked the 8,062 COPS grantees that also participate in UCR in descending order of their reported 1997 UCR murder counts. We then tabulated the shares of total COPS grant awards (including grants to nonparticipants in UCR), cumulatively through 1997, that went to grantees that account for large shares of total U.S. murders. The 1 percent of grantees with the largest UCR murder counts accounted for 54 percent of all murders and received 31 percent of total COPS funds awarded through 1997. The top 5 percent received 44 percent of funds, and the top 10 percent received 50 percent of total awards. We found a similar pattern for robbery.

Figure 3–8. Concentration of COPS Grant Awards Through 1998

Percentage of Grant Dollars (y-axis)

Percentage of COPS Grantees (x-axis)

Table 3–7. Distribution of COPS Funds for All Agency Types and for Local/County Agencies						
	Percentage of Grant Dollars					
	Local/County			All Agencies		
Percentage of Grantee Agencies	Through 1996	Through 1997	Through 1998	Through 1996	Through 1997	Through 1998
1	43	42	43	41	40	41
5	57	58	60	56	57	57
10	65	66	68	64	66	66
25	78	80	81	78	80	80
50	89	91	91	89	91	91
75	96	96	96	96	96	97
100	100	100	100	100	100	100

Figure 3–9. Percentage of Eligible Agencies Receiving One or More COPS Grants, by Region

1997 COPS
Participation Index

56.2% to 58.5%
44.2% to 53.4%
36.6% to 44.0%
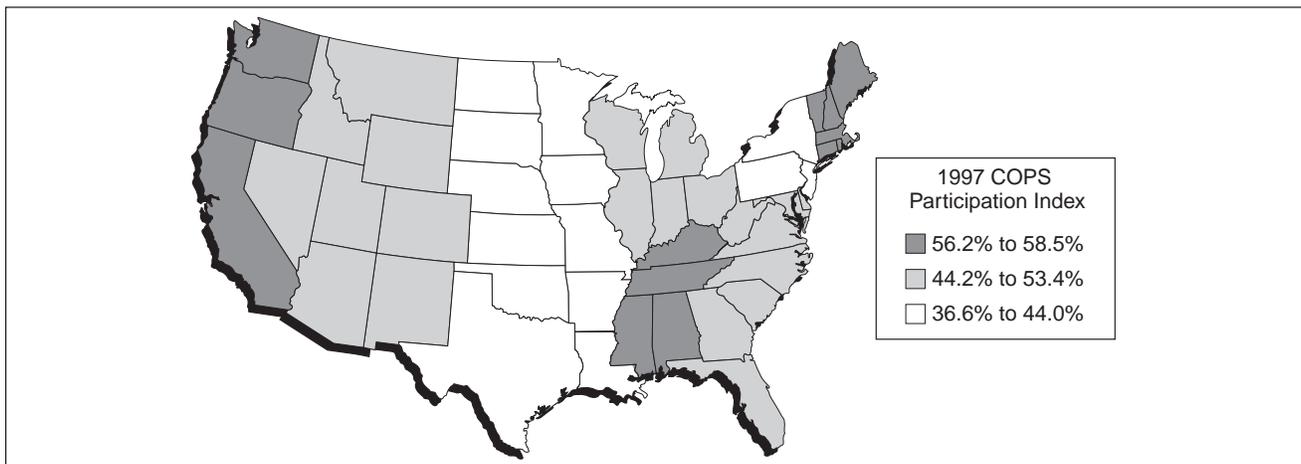
Figure 3–10. Dollar Amount of COPS Awards per 10,000 Residents, by Region

1997 Dollar Amount
of COPS Awards
per 10,000 Residents

114,158 to 155,755
103,416 to 108,828
89,001 to 102,836
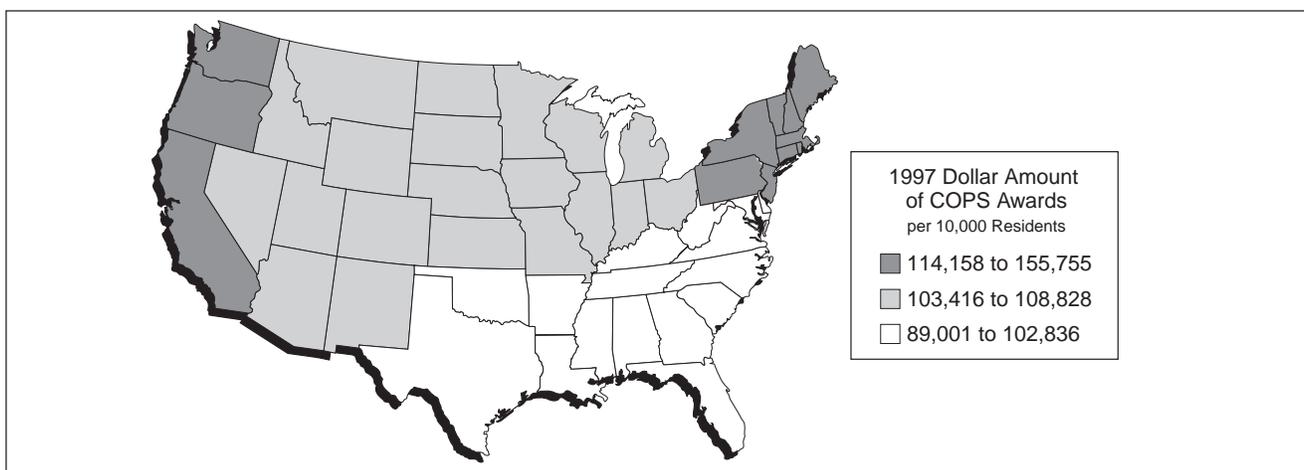
Figure 3–11. COPS Awards per 1,000 Index Crimes, by Region

1997 Dollar Amount
of COPS Awards
per 1,000 Index Crimes

283,104 to 377,408
215,620 to 245,119
165,952 to 208,475
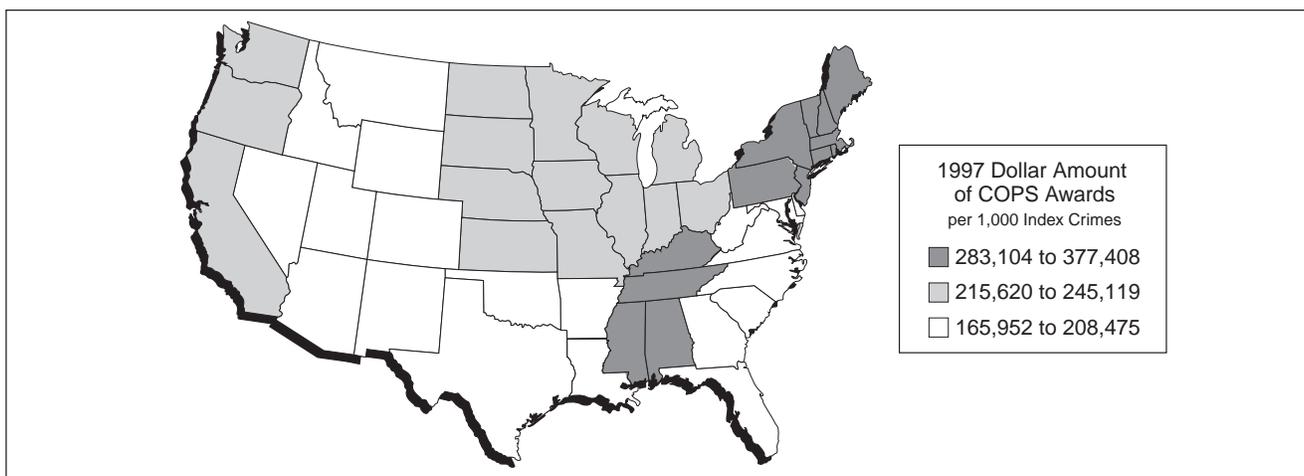
Distributional equity

Within broad constraints, such as annual appropriation amounts and the requirement that funds be split equally between jurisdictions with populations of more and less than 150,000, the allocation of COPS funds was largely the outcome of eligible agencies' decision processes, which we described earlier in the chapter.

Despite the driving role of local decisions in the allocation of COPS funds, it is reasonable to ask how "equitably" those funds were distributed. At least three criteria for equity are potentially relevant: the relationship between awards and the number of agencies, the relationship between awards and population, and the relationship between awards and crime patterns.

Patterns by region. We measured regional COPS funding distribution patterns in three ways: the percentage of all eligible agencies in a region that requested and received at least one grant, cumulative grant award per 10,000 population, and cumulative grant awards per 1,000 index crimes. The results are displayed in table 3–8 and figures 3–9, 3–10, and 3–11.

Regional COPS participation patterns emerged in 1995 and remained stable through 1997, as measured by the ratio of grantees to eligible

agencies (see table 3–8 and figure 3–9). Through 1997, 58.5 percent of eligible agencies in the Pacific region—the most active—had received at least one COPS MORE or hiring program grant. Just behind were the New England (57.2 percent) and East South Central (56.2 percent) regions. The two least active regions were West North Central (36.6 percent) and Middle Atlantic (41.3 percent).

As figures 3–10 and 3–11 indicate, regional distributions of COPS funds on per capita and per crime bases differ from the distribution measured in terms of eligible agency participation. The Pacific region, which was top-ranked in terms of eligible agency participation, ranked third in COPS dollars awarded per capita and sixth in dollars awarded per 1,000 index crimes. The Middle Atlantic region (i.e., New York, Pennsylvania, and New Jersey), which ranked first in terms of both per capita and per crime awards, ranked eighth in eligible agency participation rate; this probably reflects large awards to major metropolitan police departments, while the many town and township police departments were less likely to apply for grants at all. New England ranked second on all three measures, and the West South Central ranked among the bottom third on all measures. The table also displays mean jurisdiction size (i.e., population per eligible agency) and indicates that it correlates rather poorly with all three distribution measures.

Table 3–8. Regional Distribution of COPS Hiring and MORE Grants and Funds Through 1997								
	Percentage of Agencies Receiving 1+ Grants (1997)		Mean Population per Eligible Agency (1997)		Cumulative COPS Awards per 10,000 Residents (1997)		COPS Awards per 1,000 Index Crimes (1997)	
Region	Rank	Value (%)	Rank	Value (000)	Rank	Value ($)	Rank	Value ($)
Pacific	1	58.5	3	100.5	3	114,158	6	215,620
New England	2	57.2	4	44.1	2	124,527	2	313,111
East South Central	3	56.2	9	18.1	8	100,364	3	283,104
South Atlantic	4	53.4	1	105.7	7	102,835	8	202,732
Mountain	5	51.9	8	25.7	5	108,364	7	208,474
East North Central	6	44.2	5	40.6	6	103,416	4	245,118
West South Central	7	44.0	6	30.8	9	89,001	9	165,952
Middle Atlantic	8	41.3	2	103.6	1	155,755	1	377,408
West North Central	9	36.6	7	27.9	4	108,827	5	231,301

Urbanization patterns. Of all agencies selected for awards by the end of 1997, only 4 percent served core city jurisdictions,[18] which are home to 27 percent of the U.S. population (see table 3–9). They received 40 percent of COPS dollar awards for all programs combined but 62 percent of all COPS MORE funds. Through 1997, on average for the United States as a whole, core cities received substantially larger awards per 10,000 residents ($151,631) than did the rest of the country ($86,504). However, their average award per 1,000 index crimes ($184,980) was less than two-thirds the average for the rest of the country ($299,963).

On both the capita and per crime bases, mean awards to core cities were highest in the Middle Atlantic region and lowest in the West South Central region.

Table 3–9. Regional Distribution of Grants to Core City and Other Grantees, Cumulative Through 1997								
Region	Accepted Agencies (%) (n=7,561)	Population (%)	Total Estimated COPS Awards (%) $2.689 B	Estimated COPS Hiring Awards (%) $2.214 B	Estimated COPS MORE Awards (%) $475 M	Estimated Award per 10,000 Residents ($)	1993 Index Crimes (%) (n=10.464 million)	Estimated Award per 1,000 Index Crimes
U.S.								
Core city	3.8	27.3	39.7	35.0	61.7	151,631	51.7	184,980
Other	96.2	72.7	60.3	65.0	38.3	86,504	48.3	299,963
East North Central (20.8)								
Core city	0.7	4.3	4.3	4.4	3.6	104,261	7.9	130,090
Other	18.5	12.4	10.5	11.4	6.3	88,465	6.6	383,468
East South Central (7.6)								
Core city	0.2	1.3	1.3	1.4	0.8	108,108	2.2	148,760
Other	9.1	4.8	4.1	4.6	1.5	88,781	2.4	402,930
Middle Atlantic (14.0)								
Core city	0.5	4.8	12.2	9.8	23.4	263,877	8.5	346,356
Other	13.7	9.9	8.6	9.3	5.3	89,883	4.8	432,584
Mountain (5.7)								
Core city	0.2	1.7	1.4	1.4	1.1	85,450	3.2	103,352
Other	6.3	4.1	4.4	5.0	1.7	112,918	3.4	307,291
New England (5.5)								
Core city	0.4	1.3	1.8	1.8	1.5	147,692	2.2	199,170
Other	6.3	3.9	3.9	3.9	3.6	104,312	2.2	429,752
Pacific (6.2)								
Core city	0.4	5.3	9.0	7.4	16.6	178,152	9.5	228,813
Other	7.4	10.7	7.4	7.3	8.4	72,023	8.8	201,417
South Atlantic (12.2)								
Core city	0.6	3.3	5.0	4.4	7.8	159,198	7.6	158,264
Other	15.4	14.5	12.2	13.3	7.4	88,298	12.9	228,631
West North Central (15.5)								
Core city	0.3	1.5	1.6	1.6	1.9	113,695	3.2	124,645
Other	9.6	5.5	4.1	4.5	1.9	76,814	2.7	356,209
West South Central (12.3)								
Core city	0.5	3.9	3.1	2.8	4.6	82,758	7.5	100,238
Other	9.6	6.9	5.1	5.8	2.1	77,441	4.5	276,000

Note: Award distribution is based on the total estimated awards to accepted agencies that appear in the UCR and COPS Office databases. Population estimates are based on the 1993 UCR distributions by region and core city. All estimated awards totals are cumulative through the end of the year. Estimated award per 1,000 index crimes is based on the total estimated award and index crimes for accepted agencies that reported crimes to UCR in 1993. Index crimes are based on imputed estimates for agencies not reporting for the entire year.

Coordination of Multiple Grants for Community Policing

Prevalence of multiple grants

By autumn 1996, when Wave 1 of our national survey occurred, about 25 percent of all COPS grantees were combining other sources of support with their COPS grants for their community policing initiatives. This fraction continued to grow, at least among medium and large urban departments as they committed LLEBG funds to community policing programs.

Table 3–10 describes how commonly agencies reported using specific other sources, both as a percentage of all COPS grantees and as a percentage of all grantees that used at least one other source. Agencies reported that besides COPS grants, support for their transitions to community policing came from a broad spectrum of sources, including all levels of government and local business communities. The four non-COPS resources most commonly tapped for community policing were State funds other than Byrne grants (by 14.5 percent of COPS grantees), Local Law Enforcement Block Grants (by 7.8 percent), local general funds (by 7.3 percent), and business communities (4.9 percent).

Byrne grant support for community policing was mentioned by 4.5 percent of COPS grantees. Many of the agencies that reported use of State-administered funds other than Byrne grants mentioned State programs created specifically to pay the local match for COPS grants. California, New Jersey, and Virginia were among the States that created such programs.

Table 3–10. COPS Grantees' Use of Non-COPS Funds for Community Policing		
	Percentage Using Source for Community Policing	
Non-COPS Source of Funds	Of All Grantee Agencies N=1,127	Of Grantees Using at Least One Other Source N=395
Private Sources		
Business	4.9	19.1
Foundation	1.8	7.0
Local Government		
General funds	7.3	28.6
Other funds	3.7	14.6
State-Administered		
Byrne grants	4.5	17.4
Other funds	14.5	56.6
Federal		
COPS-Administered		
Policing hiring supplements	2.0	7.7
COPS Phase I	1.1	4.4
Comprehensive Community Program	0.6	2.2
Domestic violence	1.3	4.9
Other Justice Department		
Local Law Enforcement Block Grants	7.8	30.4
Operation Weed & Seed	1.4	5.3
BJA discretionary	1.4	5.5
Other Federal		
HUD Community Development Block Grants	1.2	4.7
Other		
CSAP Community Partnership Grants	0.8	3.1

Use and coordination of multiple grants

To explore the use of multiple grants in more detail, we conducted a supplemental telephone survey of the 100 COPS grantees in our national sample with the largest numbers of sworn officers. We also augmented five of our programmatic site assessment teams with an additional member, a criminal justice planning expert. The intent was to learn how agencies managed and coordinated COPS Hiring, MORE, and Innovative Program grants along with grants from the other two large programs that assist local law enforcement agencies: the Edward Byrne Memorial State and Local Law Enforcement Assistance Program (Byrne grants) and Local Law Enforcement Block Grants.[19] Results of that supplemental study will appear in a forthcoming report.

As expected, the 100 very large city and county agencies selected for the supplemental study tended to manage several large grants from multiple sources. Of the 100 agencies surveyed, 65 percent of the agencies had at least one COPS hiring grant, and their average cumulative amount was $5,399,000. Seventy-one percent had COPS MORE grants, with a mean cumulative value of $1,146,000; 49 percent had grants for one or more of the COPS Innovative Programs, averaging a total of $361,000; 30 percent had Byrne grants, worth an average of $586,000; and 98 percent had LLEBGs, which averaged $1,260,000.

The vast majority, 86 of the 100 respondents from these agencies, reported their agencies used their grant funds from all these Federal sources to make permanent agency improvements. The most commonly cited specific improvements were updated technology (mentioned by 38 respondents), increased staff (20 respondents), and the creation of new programs and patrol units (18 respondents). Eighty respondents stated they expected these improvements to have long-term agency impacts.

Only 37 respondents agreed or strongly agreed that for at least one of these grant programs,

"specific grant conditions often constrain us from using grant funds in ways that best support agency needs." Twenty-three respondents agreed with that assessment of COPS hiring grants, 18 with respect to COPS MORE, 13 with respect to a COPS innovative policing program, 13 with respect to Byrne grants, and even 10 percent with respect to LLEBGs.

Despite these concerns of a few, most respondents portrayed their agencies as orchestrating multiple funding streams to implement a local vision of policing. Few saw themselves as entrepreneurs seeking all available Federal funds, regardless of how grant program conditions fit into their overall programs. Of the 100 agencies, 35 strongly agreed and 47 agreed with the statement that their "agency has a clear vision and is able to interpret grant requirements to support that vision." Only nine disagreed or strongly disagreed with that statement. Respondents preferred the complexity of administering multiple grants to the potential loss of freedom that might accompany a "monopoly" grant program. Only 31 percent agreed or strongly agreed with the statement that "local agencies would be better off if DOJ set up just one law enforcement grant and stuck with it," while 43 percent disagreed or strongly disagreed.

Both the survey data and onsite observation suggest that the three types of COPS grants, LLEBG, and Byrne grants were used in complementary ways to fit large agencies' specific local circumstances. For example, a common refrain during site visits to large metropolitan jurisdictions was that COPS offered big city agencies much better opportunities for grants than did the Byrne block grant program, which is administered at the State level.

The very large agencies in this supplemental study blended COPS and LLEBG funds to advance their visions of community policing, even though community policing was not an LLEBG requirement. Of the 100 agencies, 88 reported using LLEBG funds to support their community policing initiatives, despite the absence of a

requirement to do so. During site visits, many agencies mentioned they used their LLEBG funds to cover the unfunded collateral costs associated with COPS-funded officers and technology. In short, the agencies appeared to combine their COPS and LLEBG funds into a package for covering the short-term costs of transition to their visions of community policing.

Grantees as Customers

As explained in chapter 2, one of the primary motives for creating the new COPS Office instead of processing grants through existing agencies in the Office of Justice Programs was that a new agency, inventing its policies and procedures from scratch, would encourage participation in the program by achieving a high level of satisfaction among its "customers," the grantees. We first examined this dimension of success in our Wave 1 survey by asking grantees various questions about their satisfaction with application and administrative procedures for COPS grants. Later, for local and county agencies, we measured changes in satisfaction between Waves 1 and 3. Also in Wave 3, we surveyed respondents about their intentions to apply for COPS grants in future years.

Customer satisfaction: The early years

In the Wave 1 survey, respondents designated by chief executives to speak on behalf of funded agencies were asked a series of questions about their satisfaction with application and administrative procedures for COPS grants. Of all those questioned, 39 percent had personal experience applying for other government grants and were therefore in a position to compare experience with COPS grants with experience with other Federal grants. Of these experienced respondents, 71 percent said applying for a COPS grant was easier than applying for previous grants.

Fewer respondents in small agencies had previous Federal grant experience, but those who did found the COPS grant application relatively simple. Only 36 percent of small-agency respon-

dents reported previous application experience, while 68 percent of the largest agencies reported past experience. Smaller agencies were, however, more likely to view the COPS application process as easier than were larger agencies (73 percent compared with 57 percent). This reflects a success of the "one-page" COPS FAST application, which was designed to satisfy the Title I mandate for a simplified application process for agencies serving jurisdictions of less than 50,000 in population.

Thirty-one percent of respondents reported having administered grants of similar size. Of these, 64 percent said in the Wave 1 survey that COPS grants were easier to administer. As with the application process, smaller agencies reported less experience with administering similar grants (28 percent) than the largest agencies (56 percent). Among agencies with such experience, the percentage that rated administration easier for COPS grants declined as agency size grew, from 67 percent of small agencies with populations less than 50,000 to 52 percent of the large agencies with populations exceeding 150,000.

Satisfaction with the COPS application process was similar for all agency types. The percentage of respondents describing the COPS application process as relatively simple was 71 percent for local/county police agencies, 67 percent for State and sheriff agencies, and 72 percent for agencies with special jurisdictions.

State police, sheriffs' agencies, and special police agencies were somewhat less satisfied than local/county agencies with grant administration. Exactly 50 percent of State/sheriff agencies and 47 percent of special agencies said COPS grants were easier to administer than other grants, as opposed to 66 percent of local/county agencies. Further, 22 percent of State and sheriff agencies reported that COPS grants were more difficult to administer than other grants, compared with only 5 percent of local/county agencies, and 3 percent of special agencies.

Finally, looking at agencies' satisfaction with application procedures and administrative requirements by grant program reveals some major differences in agency satisfaction. Among agencies with previous experience, FAST grants, with their "single-page" applications for small agencies, were considered easier to apply for and administer (77 percent and 73 percent respectively) than other types of COPS grants. Only 43 percent of larger agencies rated AHEAD grants as easier to apply for than other government grants. MORE and UHP grants also registered low ratings for ease of administration compared with other COPS grant programs; 45 and 49 percent respectively said these grants were easier to administer than other government grants.

Overall, satisfaction with the COPS office staff was high and largely unrelated to the size or type of the agency. Ninety percent of funded agencies said the COPS staff was helpful, and 84 percent said their COPS Office contact was easy to reach. State, sheriff, and special agencies reported somewhat less ease in reaching their COPS office contact; 26 percent said their contact was hard to reach as opposed to 15 percent of local/county agencies.

Customer satisfaction trends in local/county agencies

For medium and large local/county agencies with MORE or hiring grants and small agencies with MORE grants, we measured changes between 1996 and 1998 in opinions about COPS program administration, based on a series of questions at Wave 1 and Wave 3.[20]

Our Wave 3 sample comprised three subsamples of local/county agencies: Wave 1 interviewees in the medium/large AHEAD and UHP strata, Wave 1 interviewees in both the small and the medium/large MORE strata, and medium/large Wave 2 interviewees in a stratum of 1996 first-time UHP awardees. To measure 1996–98 customer satisfaction trends for medium and large local/county agencies, we analyzed only the 303 such agencies interviewed at both Wave 1 and

Wave 3. For small agencies, the trend analysis is based on only the 176 members of the small MORE grantee stratum interviewed at both Wave 1 and Wave 3. The 303 medium/large agencies were used throughout the customer satisfaction analysis, including the analysis of several new questions added to the survey at Wave 3. In general, satisfaction levels declined slightly over time, and the highest satisfaction levels were found among the very largest grantee agencies.

Between 1996 and 1998, the medium and large local/county grantees in the Wave 1 and Wave 3 samples gained in personal experience with Federal grants other than COPS, and there was a slight drop in ratings of ease of the COPS grant application process. The percentage of respondents from medium and large local/county agencies that reported previous personal experience rose from 64.3 percent in 1996 to 72.2 percent in 1998. Among those with such personal experience, the percentage that considered COPS grant applications easier than other Federal grant applications fell slightly, from 48.9 percent to 45.6 percent over the same period. This small drop may reflect the start of LLEBG, which simultaneously broadened experience with Federal grants and set a new standard for application simplicity, since these funds were distributed by formula.

We found somewhat greater changes between 1996 and 1998 for small agencies with MORE grants.[21] At Wave 1, 37.5 percent of the small jurisdiction MORE grantees reported personal experience with other Federal law enforcement grants, and 63.4 percent of those agencies stated that the COPS application was easier in terms of applying for funds. At Wave 3, 59.1 percent of small MORE grantees reported involvement with other Federal grants, but only 47.1 percent described the COPS application as easier than other grant programs. The decreased perception of simplicity between 1996 and 1998 may reflect additional budget reviews and revisions that occurred for MORE grants still in process at the time of Wave 1 data collection.

Among the medium and large local/county grantees, overall satisfaction with the COPS Office remained high between 1996 and 1998, with one exception. The percentage of this sample that described the COPS Office as "helpful" remained in the 86 to 87 percent range between 1995 and 1998, while the percentage saying the COPS Office was "easy to reach" fell from 81.2 to 73.6 percent. However, the agencies with the largest grants reported more positive experience; 85.4 percent of agencies with total grant sizes above the 90th percentile described the COPS Office in 1998 as easy to reach.

Several questions were added in 1998, which asked respondents from local/county grantees to describe COPS Office speed and accuracy in answering questions, making decisions, and processing paperwork. On the first two measures about 78 percent of respondents described the office favorably (i.e., "excellent" or "good") in terms of answering questions and making decisions. Only 67.7 percent of respondents rated the speed of COPS in processing paperwork as excellent or good (see figure 3–12). In each instance, agencies with grants larger than the 90th percentile rated the COPS office more favorably than did agencies with smaller grants. This group ranked the speed and accuracy of answering questions 10 percentage points higher than the total and the speed and accuracy of making decisions 6 percentage points higher than the total. The favorable rating for processing paperwork rose from 67.7 percent for all medium and large agencies to 78.3 percent (10 percentage points) for 10 percent of agencies with the largest grants.[22]

Figure 3–12. Customer Satisfaction: 1998, Large Local/County Grantee Agencies*
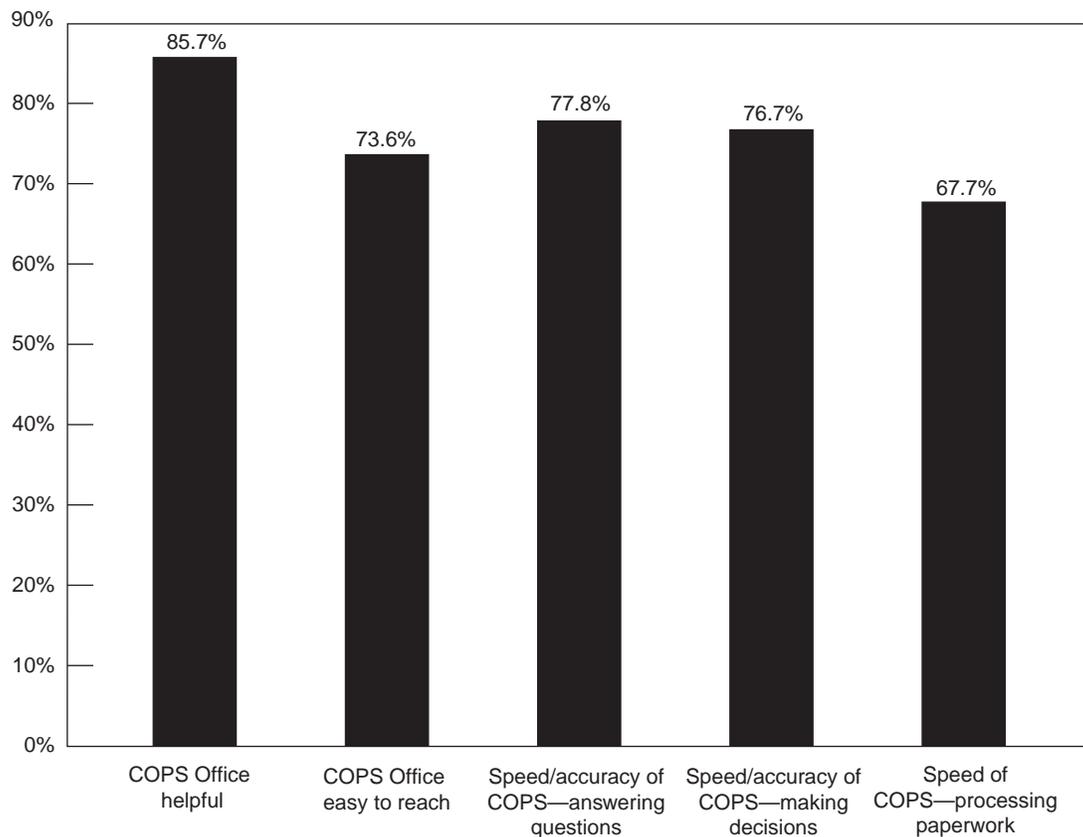
* Large local/county grantee agencies, Wave 3 (n=303).

Future application intentions

To learn grantees' intentions to seek additional funding under COPS, we asked all 547 grantee respondents in Wave 3 what they planned to do about future grant applications. As of summer 1998, 73.5 percent of grantees stated they planned to apply for additional grants in 1998 or 1999; 65.9 percent of small agencies, 78 percent of medium agencies, and 88.6 percent of large agencies planned to apply in the future. MORE technology grants were the most popular choice, named by 80.7 percent of grantees, followed by UHP (57.5 percent), Innovative Programs (43.7 percent, although applications for these grants have been by invitation only), and finally MORE civilian grants (31.3 percent).

As the large sum of these percentages suggests, respondents were asked to list *all* the types of grants they planned to apply for, and many re-

sponded with multiple choices. Figure 3–13 displays the various grant combinations chosen.

Among the agencies that did plan to apply again, MORE technology grants and combinations including them were resoundingly popular. Of all agencies, 20 percent named MORE technology only, 7 percent planned to apply for MORE technology and MORE civilians, 25 percent planned to apply for MORE technology plus UHP, and 9 percent planned to apply for all three—MORE technology, MORE civilians, and UHP. Only 13 percent planned to apply exclusively for combinations of grants to hire sworn and civilian staff (6 percent UHP only, 4 percent MORE civilian and UHP, and 3 percent MORE civilian only or not sure).

The UHP grant is of interest to more grantees than the MORE civilians grant. The most popular combination is MORE technology and UHP,

Figure 3–13. Future Intentions of Local/County Grantees
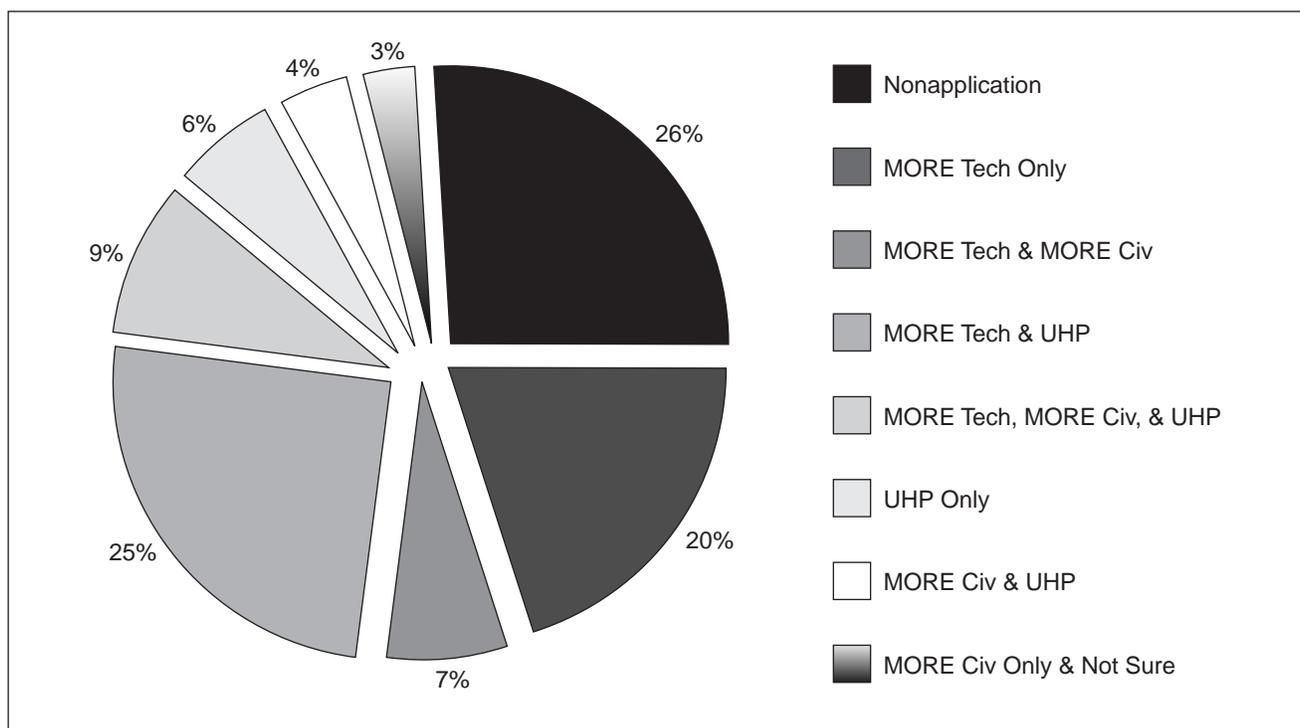
with 25 percent of grantees planning to apply for that combination of grants in the future. Only 7 percent of grantees plan to apply for MORE grants involving technology and civilian hiring.

Grantees—both prospective applicants and others—were asked what factors could affect their decisions about grant applications. The categories were presented to the respondents as a closed-end list of options, and they were asked to rank the importance of each category to their decisionmaking process for grant application (see figure 3–14).[23]

As in our earlier surveys of influences on application decisions, financial concerns topped the list of considerations, with 54.9 percent of grantees describing the required local match rate as a very important consideration in grant application decisions. Grant flexibility was also described as important. Restrictions on the *purposes* for which grant funds could be spent and the *types of resources* on which grant funds could be spent were each very important concerns for more than 40 percent of the grantees. Agencies also cited unallowable but expected collateral costs like training, equipment, or uniforms for hiring grants, and systems development, training, and maintenance contracts for MORE grants (see chapter 4). As with Wave 3 nongrantees, characteristics like difficulty of application and administration were not as important.

From COPS Office Grant Decisions to Funds Expended

Through calendar year 1997, the COPS Office made decisions to award 17,384 hiring and MORE grants worth $3.388 billion to increase numbers of officers or hours of officer time. Under projections included in grant applications, these grants were intended to support the full-time equivalent of 67,216 new officers deployable to community policing for at least 1 year. Before grantees can achieve that potential, funds must be obligated after budget reviews, official grant award packages must be prepared, and awardees must accept all award conditions in writing.

Figure 3–14. Factors Described as "Very Important" Influences on Future Application Decisions*
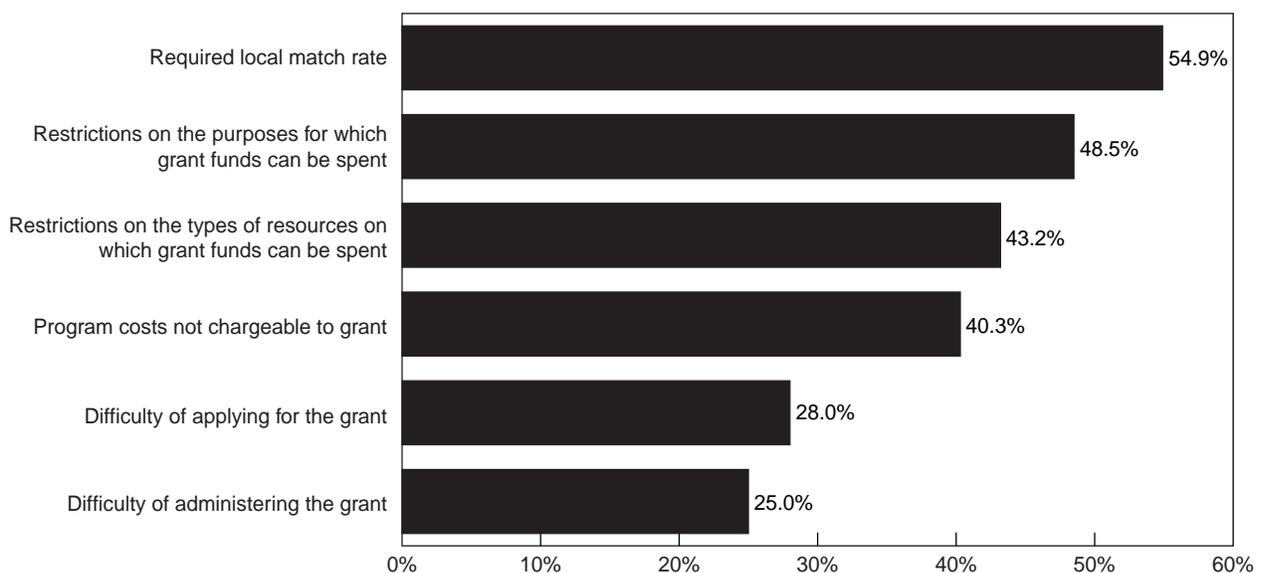
* Wave 3 data for medium and large local/county grantee agencies (n=371).

In the early years of the COPS program, the times required for these steps limited the speed with which officer deployment and technology implementation could begin.

COPS Office award decisions

Tables 3–11a–c summarize cumulative award decisions through calendar years 1995, 1996, and 1997, tabulated from a COPS Office grants management database received in April 1998. As shown in table 3–11c, the Justice Department had decided by the end of 1997 to award an overall total of 18,138 grants worth $3.47 billion (i.e., COPS Office databases indicated "accepted" status). As the "hiring subtotal" line indicates, 17,384 grants to create additional officer time carried a total of $3.388 billion in awards. These grants were projected to support 40,806 hired or rehired officers and 26,410 full-time equivalents through MORE-funded resources—the equivalent of 67,216 officers deployable to community policing for at least 1 year, and 63,243 for at least 3 years.

These 1997 figures were the culmination of substantial increases since 1995, the first full year of the COPS program, when 9,946 awards had been made totaling $1.57 billion in value, intended to support 32,784 officers and FTEs (see table 3–11a). During calendar 1996, de-spite a 6-month delay in approval of the COPS Office fiscal 1996 budget, the agency's award decisions had brought the hiring subtotal of grants to 14,652, worth $2.868 billion, intended to support 53,140 new officers and FTEs (see table 3–11b).

Application processing time

The decision to award a grant ("accept the application" in COPS Office nomenclature) is only the first step in making funds available to grantees. As explained in chapter 2, the Justice Department's Office of the Comptroller reviews all grant budgets to ensure that only allowable expenditures are included, that budget assumptions comply with departmental regulations, and that the grantee maintains adequate fiscal and administrative controls. This process was relatively straightforward for hiring grants, where issues involved primarily compliance with the nonsupplanting and match requirements, along with allowable items to include in calculating fringe benefit rates. For MORE grants, budget review was far more complex and time consuming because of issues surrounding the purchase of expensive and elaborate technology; frequently, the process required budget revisions and resubmission by the applicants. Following successful budget review, official award packages were prepared and mailed to awardees. The

Table 3–11a. Accepted Grant Applications and Sum of Awards and Officer-Equivalents (Cumulative Through 1995)				
	Accepted Grants	Awarded (Millions)	Total Officers	Officers per Million Dollars
FAST	5,871	$411	6,311	15.4
AHEAD	539	293	4,274	14.6
UHP	1,660	310	4,077	13.2
MORE	1,264	218	13,469*	61.8*
Primary total	9,334	$1,232	28,131	22.8
PHS/PHASE I	612	340	4,653	13.7
Hiring subtotal	9,946	1,572	32,784	20.9
Innovative	287	22	0	—
Overall total	10,233	$1,594	32,784	—

* Counts of FTEs redeployed due to MORE-funded resources do not adjust for the 1-year duration of grants for civilians and overtime.

Table 3–11b. Accepted Grant Applications and Sum of Awards and Officer-Equivalents (Cumulative Through 1996)				
	Accepted Grants	Awarded (Millions)	Total Officers	Officers per Million Dollars
FAST	5,821	$407	6,257	15.4
AHEAD	504	290	4,082	14.1
UHP	6,094	1,476	21,262	14.4
MORE	1,621	356	16,902*	47.5*
Primary total	14,040	$2,529	48,503	19.2
PHS/PHASE I	612	339	4,637	13.7
Hiring subtotal	14,652	2,868	53,140	18.5
Innovative	652	83	0	—
Overall total	15,304	$2,951	53,140	—

* Counts of FTEs redeployed due to MORE-funded resources do not adjust for the 1-year duration of grants for civilians and overtime.

Table 3–11c. Accepted Grant Applications and Sum of Awards and Officer-Equivalents (Cumulative Through 1997)				
	Accepted Grants	Awarded (Millions)	Total Officers	Officers per Million Dollars
FAST	5,717	$401	6,149	15.3
AHEAD	490	282	3,983	14.1
UHP	7,294	1,837	26,021	14.2
MORE	3,271	528	26,410*	50.0*
Primary total	16,772	$3,048	62,563	20.5
PHS/PHASE I	612†	340	4,653	13.7
Hiring subtotal	17,384	3,388	67,216	19.8
INNOVATIVE	754	82	0	—
Overall total	18,138	$3,470	67,216	—

* Counts include renewals of 1-year grants for civilians and overtime. Consolidation reduces Total Officers to 22,437 for MORE, 58,590 for Primary Total, and 63,243 for Overall Total. Consolidation reduces Officers per $1 million to 42.5 for MORE and 18.7 for Hiring Subtotal.

† Includes PHS/Phase I grants as of 1995, their peak level; of the 612 grants, 364 had expired by the end of 1997.

packages listed award conditions with which applicants had to promise compliance by returning an acceptance of the award signed by an authorized official.

Table 3–12 summarizes the mean elapsed times for these steps for 1995 and 1996 applicants. For 1996 applicants, the average time between receipt of the application at the COPS Office and mailing the award package to the grantee was 269 days for MORE grants and 149 days for hir-

ing programs. The 4-month difference reflects the extra complexity of MORE budget reviews.

Negligible time elapsed between mailing the award packages and formal obligation of the funds (i.e., creation of an account from which the grantee could draw down funds as needed). However, 1996 applicants took an average of 75 days to return their signed acceptances of hiring grant awards and 53 days to accept their MORE awards (the average excludes the 24 percent

Table 3–12. Elapsed Time in Processing COPS Grant Applications, by Stage					
		Mean Days Elapsed (Range)			
		1995 Applicants		1996 Applicants[*]	
Processing Stage		Hiring (n=7,863)	MORE (n=1,488)	Hiring (n=4,986)	MORE (n=1,305)
From	To				
Application received	Award mailed	154	400	149	269
Award mailed	Award obligated	0	15	0	0
Award obligated	Signed award returned	70	66	75	53
	Percentage not yet returned	10.40%	5.20%	23.90%	23.50% (19–534)[†]
Application received	Signed award returned	224	481	224	322

[*] Based on applicants whose applications were accepted by the COPS Office that were not withdrawn as of March 16, 1998.

[†] Includes 77 1995 applicants and 12 1996 applicants who signed and returned award letter *before* funds were obligated.

Table 3–13. COPS Grant Obligations and Debits by Program Selection and Year (Cumulative)			
	Obligated (In Thousands of Dollars)	% of Awards	Debited (In Thousands of Dollars)
Total Award			
1995	950,359		105,659
1996	2,096,969		474,523
Hiring Award			
1995	822,373	60	105,349
1996	1,841,742	73	409,018
MORE Award			
1995	127,987	58	310
1996	255,227	78	65,565

who had not returned their acceptances by April 1998, when our database was created). This delay probably involved a combination of routine paper flow delays at the local level, time to resolve second thoughts over acceptance of the award as the costs of implicit match and retention became more concrete, and the need for local reauthorization of the matching funds in jurisdictions that had begun a new fiscal year between application submission and award receipt. In total, then, for 1996 applicants, the average elapsed time for the entire process, from application receipt to award acceptance by the grantee, was 224 days for hiring grants and 322 days for MORE grants.

MORE applicants in 1995 faced much longer elapsed times because of congressional budget debates between October 1995 and April 1996. While the COPS Office was exempted from the Federal Government shutdown caused by that debate, it was affected by the 7-month delay in approval (and $500 million cut) of its fiscal 1996 budget. Because MORE applications received during the first 9 months of 1995 exceeded available fiscal 1995 funds, many applicants were informed in the closing weeks of fiscal 1995 that approval was likely but would have to be delayed until fiscal 1996 funds became available. While that period would have been no more than a few days under normal

conditions, it became a matter of 7 months because of the delayed appropriation. For these reasons, MORE awards to 1995 applicants occurred an average of 400 days after applications were received. As a result, for 1995 applicants the entire average elapsed time from MORE application receipt to award acceptance was 481 days, or 16 months.

Award obligations and expenditures

Because of the processing delays just explained, COPS funds obligated at any point in time were less than the award amounts discussed in earlier sections.

As shown in table 3–13, obligated total awards for all programs intended to increase policing strength (i.e., PHS, Phase I, FAST, AHEAD, UHP, and MORE) were $950 million by the end of 1995 and $2.1 billion by the end of 1996. Respectively, these amount to 60 percent of funds awarded by the end of 1995 and 73 percent of the funds awarded by the end of 1996. In each year, these percentages were similar for MORE and the hiring programs.

Notes

1. Throughout this chapter, "local/county agencies" refers to municipal and county police agencies; sheriffs were classified separately. We defined "small" agencies as serving jurisdictions with populations less than 50,000, "medium" as serving jurisdictions of 50,000 to 150,000, and "large" as serving still larger jurisdictions.

2. Regions were defined as follows: New England (ME, NH, VT, MA, RI, CT); Middle Atlantic (NY, NJ, PA); East North Central (OH, IN, IL, WI, MI); East South Central (KY, TN, AL, MS); South Atlantic (MD, DE, VA, NC, SC, GA, FL); West North Central (MN, IA, MO, ND, SD, NE, KS); West South Central (AR, LA, OK, TX); Mountain (MT, ID, WY, CO, NM, AZ, UT, NV); Pacific (WA, OR, CA, AK, HI).

3. Core cities are the largest city in a Metropolitan Statistical Area (MSA). MSAs must include: (a) one city with 50,000 or more inhabitants or (b) a Census

Bureau-defined urbanized area of at least 50,000 or more inhabitants and a total metropolitan population of at least 100,000.

4. Measured by jurisdiction population.

5. Through the end of 1995, the primary hiring programs, COPS FAST and COPS AHEAD, were "accelerated," in the sense that applicants were encouraged to recruit and hire on the basis of preliminary notifications ("Go FAST" and "Go AHEAD" letters) that they were likely to be awarded funds for a specified number of officers.

6. For the COPS Office Legal Division, no supplanting would occur in this situation if the budget cut was made independently of the COPS program and not in anticipation of a grant.

7. Reported percentages are based on agencies that did not classify the named position as "not applicable."

8. Respondents were asked to name all explanations that applied.

9. In survey Wave 1, seven categories of nonapplication reasons displayed in figure 3-1 were coded from responses to an open-ended question about why an agency did not apply for a COPS grant. In Wave 3, these categories were presented to respondents as a closed-end list of options, from which they could select as many as needed. The categories were as follows: no need for funds, problems related to the application or administrative requirements, financial considerations during the 3-year grant period, concerns about officer retention after the grant expires, skepticism about community policing, skepticism about Federal grants in general, and something else.

10. In our Wave 1 sample, 75 large local/county agencies (71 percent of all nongrantees) had not applied for a COPS grant as of 1995. The frequency with which they cited various reasons were: immediate financial considerations (40 percent), application/administrative problems (33.3 percent), retention costs (9.3 percent), no need (8.0 percent), skepticism about Federal grants (5.3 percent), skepticism about community policing (2.7 percent), and other (1.4 percent).

11. The 42 nonapplicants in the Wave 3 sample are not a pure subset of the 75 nonapplicants in the Wave 1 sample; 45 Wave 1 respondents were removed from the Wave 3 sample, and 12 agencies in the Wave 3 sample did not appear in the Wave 1 sample. The 45 agencies removed consist of: 9 nonrespondents to Wave 3; 6 "item nonrespondents" that skipped the relevant Wave 3 items; 19 that became grantees between Waves 1 and 3; 2 that became members of funded consortia; 2 that applied but were rejected; 1 that withdrew; 5 that responded "something else happened" (other than the above); and 1 "don't know." The 12 agencies in the Wave 3 sample that were not in the Wave 1 sample included: 5 that were selected as nongrantees for Wave 1, but reported they had grants at Wave 1, and answered as nonapplicants in Wave 3; 3 that were grantees at Wave 1 but claimed not to have applied at Wave 3; 3 that successfully applied but withdrew between the two waves; and 1 that applied but was rejected between the two waves.

12. The top three reasons were concern about retention after grant expires (87.7 percent), financial consideration during the 3-year grant period (85.3 percent), and problems related to application/administration (80.9 percent). Another 7.6 percent stated no need as a reason, followed by 5.5 percent who were skeptical about Federal grants in general and 1.3 percent who gave another reason. None of the nongrantees mentioned skepticism about community policing as a reason for nonapplication.

13. Of the 45 Wave 1 withdrawals, 15 withdrew from MORE grants, 28 withdrew from hiring grants, 2 withdrew from both hiring and MORE grants.

14. We believe that all 217 rejections involved either ineligible agencies or problems that surfaced during the Justice Department's vetting process, but we did not undertake the manual inspection of applications that would have been needed to verify this belief.

15. The "small" category also included agencies with unknown populations. As explained in chapter 2, these cutoff points had statutory and administrative significance: Title I required a simplified application process for jurisdictions of less than 50,000 and equal distribution of funds between jurisdictions of less than and more than 150,000.

16. Our procedures for ascertaining eligibility are explained in the methodological appendix. The sum of eligible and ineligible agencies in table 3–5, 22,923, is larger than our sample frame of 20,894 as reported in table MA-2 of the methodological appendix. The difference is due to additional agencies identified after our sample was drawn when we received the updated Bureau of Justice Statistics sample frame created for use in LEMAS. N=19,175 is a conservative estimate of eligible agencies, limited to agencies recognized by the Bureau of Justice Statistics.

17. In this chapter, we use the term "awarded" as equivalent to "accepted" status in the COPS grants management databases, meaning that the COPS Office had accepted the application and notified the applicant of the award. We do so to distinguish this stage from signed acceptance of the award by the grantee. Our counts of grants and funds awarded and funds drawn down by grantees are based on databases generously provided by COPS and the Office of the Comptroller. In these analyses, "COPS programs" refers to several programs in addition to the "primary programs" that received our central focus, COPS FAST, COPS AHEAD, Universal Hiring (UHP), and COPS MORE. The additional programs included in these counts are: Police Hiring Supplements, COPS Phase I, Troops to COPS, and all the "innovative programs" developed or administered by the COPS Office.

18. Core cities are the largest city in a Metropolitan Statistical Area (MSA). MSAs must include: (a) One city with 50,000 or more inhabitants or (b) A Census Bureau defined urbanized area of at least 50,000 or more inhabitants and a total metropolitan population of at least 100,000.

19. LLEBG was created in 1996 as the first block grant program to distribute funds by formula directly to local law enforcement agencies, which may spend the funds for functions and on types of resources of their own choosing, subject only to very broad constraints. The Byrne Program makes funds available in two ways: through a small program of discretionary grants directly to local agencies and private organizations for specific programs; and through a large program of block grants to States, whose planning agencies administer subgrants to local agencies and private organizations for projects to achieve any of 26 statutorily prescribed purposes. Each program

is funded at approximately $500 million annually, about one-third the annual COPS appropriation during our period of study. However, while only law enforcement agencies are eligible for COPS and LLEBG funds, Byrne funds can be used to support all functions of criminal justice.

20. Three additional customer satisfaction questions were added at Wave 3.

21. At Wave 3, the sample included large local county agencies and all MORE agencies. Therefore, the only comparable group of small agencies at Wave 1 and Wave 3 is small MORE agencies (n=176).

22. The agencies above the 90th percentile in terms of total awards are repeat grantees, with a large fraction of the Nation's crime problems. However, because this group contains only 31 agencies, findings should be interpreted with caution.

23. The rank options were very important, fairly important, not important at all.

4. Using COPS Resources

Jeffrey A. Roth, Christopher S. Koper, Ruth White, and Elizabeth A. Langston

Once Federal funds are awarded, success in achieving the Federal goal of increasing the level of sworn officers on the street by 100,000 depends on grantees' success in implementing their COPS grants. For hiring grantees, implementation requires them to hire and train officers, deploy them to community policing activities, and retain their positions in compliance with grant conditions. Recipients of MORE (Making Officer Redeployment Effective) grants must first either purchase and implement technology or hire civilians. Then they must use these resources in a way that increases sworn officers' productivity and yields officer-hours that can be redeployed to community policing.

We measured grantees' early implementation status in Wave 1 (autumn 1996) and Wave 2 (autumn 1997) surveys, interspersed with site visits. In a Wave 3 survey of two subsamples conducted in the summer of 1998, we updated these data and collected additional information on grantees' retention plans for officer positions and additional deployment enabled by MORE-funded resources. The subsamples were: (1) medium and large local/county recipients of hiring grants, and (2) local/county COPS MORE grantees of all sizes. The surveys are explained more fully in the methodological appendix.

Overview of Findings

This section summarizes our findings about local implementation for officer hiring programs and technology implementation and civilian hiring funded by COPS MORE.

Hiring programs

The COPS hiring programs required grant recipients to: (1) hire the funded officers, train them as needed, and deploy them or an equivalent number of other officers to communities, (2) retain the COPS-funded officer positions after grant expiration, and (3) have the deployed officers practice community policing.

Hiring officers. Officer hiring proceeded smoothly throughout the entire 1996–98 observation period. About two-thirds of 1995 grantees had hired their new officers within 3 months after their awards were announced, and more than 95 percent had hired them within 10 to 12 months of award obligation. About half of all small agencies deployed their new hires directly to community policing, while medium and large agencies more commonly assigned them to "backfill" for more experienced officers who were redeployed to community policing. By autumn 1996, more than 80 percent of officers hired by 1995 grantees were on the street in their first regular assignments. This pace of recruitment, hiring, training, and deployment continued at least through the summer of 1998, when we conducted the Wave 3 survey.

Retaining officers. Through the 3-year hiring grant periods, 98 percent of our respondents reported they had either kept their COPS-funded officers on staff or replaced departed officers expeditiously. At the time of our Wave 3 survey in 1998, our sample contained few agencies with expired grants. Therefore, our findings are limited to plans and expectations regarding retention, not actual retention experience.

The Wave 3 survey was conducted before the COPS Office announced the length of grantees' retention commitment: compliance with the retention requirement requires keeping grant-funded officer positions filled using local funds for at least one budget cycle beyond grant expiration. Nevertheless, survey respondents in 66

percent of the agencies reported feeling "certain" they would retain their officers. However, when we probed more specifically about the nature of these agencies' expectations, their responses indicated uncertainty and confusion. Many respondents reported they intended to follow two or more of the plans we posed to them (a plausible response for agencies with multiple cohorts of COPS officers). Many responded in ways that were arguably inconsistent with Department of Justice retention and nonsupplanting requirements. Some 42 percent indicated expectations of retaining the COPS officers through natural attrition of other officers, and 25 percent expected they would retain the COPS-funded officers by cutting positions elsewhere.

Uses of officer time. Two of the three prime components of community policing articulated by the COPS Office—partnership building and problem solving—were the most commonly expected uses of COPS-funded officers' time; each was mentioned by about 40 percent of the medium and large local/county agencies in our Wave 3 sample. About 40 percent reported their COPS-funded officers would spend substantial amounts of time on "quality of life" policing, a style some believe requires strong community control if it is not to undermine community partnership building. Routine patrol and "squeezing in proactive work" were both mentioned by about 30 percent of the agencies.

COPS MORE grants

COPS MORE grant awards were more highly concentrated than hiring grant awards, with 50 percent of the MORE dollars going to the 1 percent of grantees with the largest grants by the end of 1997. MORE grants tended to fund technology, either alone or in combination with civilian staff.

Grant applicants projected that MORE grants for civilians would yield the full-time equivalent (FTE) of 4.54 officers per $100,000 of grant funds. This projection makes civilian grants a cost-effective alternative to COPS hiring grants,

which yield four officers per $100,000 in agencies where annual salary and fringe benefits exceed $33,333 (see chapter 3 for details). For appropriate tasks, civilians can replace sworn officers on more than a one-for-one basis at lower salary and fringe benefit costs.

Applicants for 1995 COPS MORE technology grants projected on average that their grants would yield an average of 6.12 FTEs per $100,000 through productivity increases. However, the experience base for such projections was sparse, especially for mobile computers, the most commonly funded category of technology. While the COPS Office continued to require subsequent applicants to include projections, it lowered the count—for grantee accountability and for its own published counts of funded officers—to four FTEs per $100,000 for grants awarded from 1996 on.

Uses of COPS MORE technology grants. As of mid-1998, 79 percent of MORE technology grantees planned to use the funds for mobile computers, usually to be deployed in patrol cars for automated reporting, wireless queries to license tag and other databases, or both. About 45 percent of grantees planned to acquire desktop computers for general and administrative purposes. Computer-assisted dispatch (CAD) systems, booking/arraignment equipment, telephone-reporting systems, and other technologies were requested by smaller fractions of MORE grantees.

In 1995 COPS MORE applications, each mobile computer assigned to an officer was projected to yield an average of 2.4 hours per shift. However, research available at the time indicated that automated field reporting could yield such productivity gains only through wireless field reporting, for which no off-the-shelf technology existed. Later research suggested that even with wireless field reporting, productivity gains may be limited.

Implementation of MORE-funded technology. Implementation of MORE-funded technology has proceeded slowly. When we surveyed a

sample of 1995 MORE grantees in mid-1998, only 43 percent with mobile computers described themselves as being fully operational, compared to about 64 percent of grantees with desktop or other management/administrative computers and 38 percent of grantees with computer-assisted dispatching systems. Grantees reported expecting to have all technologies except telephone reporting units fully operational by June 2000; however, confidence must be tempered by the reported expectations of our Wave 2 survey sample of MORE grantees in autumn 1997, 100 percent of whom expected to have their mobile computers fully operational by June 1998.

Implementation of mobile computing beyond basic functions has been delayed by a variety of difficulties. These include developing reporting software, integrating it with existing record management systems, and upgrading or acquiring the telecommunications infrastructure needed for wireless reporting.

Productivity gains from MORE-funded technology. Because of the delays in technology implementation, our 1998 Wave 3 survey offers only a fragmentary basis for comparing actual productivity gains with those projected in MORE grant applications. As of June 1998, MORE grantees from 1995 expected to achieve only about 49 percent of their projected FTEs, but the number of such grantees is too small for an adequate national estimate. Our estimate of productivity gains will be updated in a future report based on our Wave 4 survey, which is being fielded in June 2000, when more grantees are expected to have experience with fully operational technology.

Other benefits of MORE-funded technology. While prospects for achieving 100 percent of the projected productivity gains are not encouraging at this time, agencies report expecting or achieving a variety of other benefits from their mobile computers, even without wireless transmission capability. These include:

1. **Automated field reporting:** More complete, accurate, and recent real-time information and permanent records; improved crime/data analysis capability; more accurate/complete/timely records; improved spelling/grammar/legibility; more report writing; easier retrieval of information; shorter review process; and reduced time for records staff.

2. **Wireless query and response functions:** Improved officer safety due to faster, more secure responses to queries regarding license plates, vehicle registrations, and persons; secure car-to-car communication; and fewer demands on dispatchers.

3. **Increased effectiveness:** Higher clearance and conviction rates due to improved reports; better recovery of stolen property; positive response from community (though some report adverse reactions from victims and witnesses); more information sharing across shifts; better communication with neighboring agencies; better tracking of community events; easier provision of information to the public; and better preparation for court.

4. **Agency benefits:** Opportunity for staff to learn computers; officer morale booster (sometimes after a break-in period); and expected financial savings in the long run.

MORE-funded civilians. MORE-funded civilians were hired to create sworn officer time for community policing in four ways. These include: shedding routine tasks from sworn officers to specialized civilians, such as crime scene technicians; replacing sworn personnel in existing positions, such as dispatchers; placing civilians in specialist positions that are expected to improve officer productivity, such as computer technicians; and staffing new community policing positions, such as domestic violence specialist or CPTED (Crime Prevention Through Environmental Design) planner, instead of a sworn officer.

Hiring of civilians generally proceeded smoothly and rapidly. MORE-funded civilians are generally retained at least for several grant periods, and about 90 percent of MORE grantees with civilians report achieving at least the sworn officer time savings they projected.

These findings are explained in more detail in the remainder of this chapter.

Hiring Grants: Recruiting, Training, and Deployment

For hiring grant programs, the relationship between COPS dollars and officers on the street depended on grantees' success in hiring, training, deploying, and retraining COPS-funded officers. This section describes that progress using data from both the Wave 1 and Wave 3 surveys. The most current results are from the Wave 3 survey, and they describe the progress of medium and large municipal and county agencies (defined as those serving populations of 50,000 or greater) as of June 1998 in utilizing COPS awards they received through the end of 1997 under COPS FAST (Funding Accelerated for Small Towns), COPS AHEAD (Accelerated Hiring, Education, and Development), and the Universal Hiring Program (UHP). FAST grants were awarded to agencies serving populations of less than 50,000, and AHEAD grants were awarded to agencies serving populations of 50,000 or more, so that "FAST agencies" are synonymous

with "small agencies," and AHEAD agencies with "medium and large agencies."

Most of the findings in this section describe the progress of medium and large municipal and county police ("local/county" in much of the following text) agencies because hiring grantees in that category were surveyed at both Waves 1 and 3.[1] Comparisons at Wave 1 suggest that through 1996, local/county agencies above and below the threshold of 50,000 had made similar progress in key respects. Therefore, many of the generalizations drawn below from the medium and large agencies in both samples are likely to apply to small agencies as well.[2,3] The Wave 4 survey, in progress at this writing, will recontact agencies of all types and sizes surveyed in previous waves.

Recruitment and hiring

Throughout the COPS initiative, agencies have made steady progress in selecting, training, and deploying officers. At the time of their interviews, large majorities of the agencies surveyed in the autumn of 1996 and the summer of 1998 had hired and deployed all of the officers for whom grants had been awarded in prior calendar years. The results from both surveys suggest that most COPS-funded officers were hired and deployed within a year of grant award.

As of the September–November 1996 Wave 1 survey period, 94 percent of both the FAST (i.e., small) and AHEAD (i.e., medium and

Table 4–1. 1996 Status of FAST/AHEAD Officers Funded in 1995		
Status	FAST Grantees (n=232) % Responding Yes*	AHEAD Grantees (n=195) % Responding Yes*
Officers hired	94.4	93.8
Officers begun training	83.2	92.8
Officers finished training	70.3	86.2
Officers on the street	82.3	84.6

*Percentages of agencies responding "yes" to the item (other respondents replied with "no" or "don't know"). The question regarding deployment to the street asked respondents when the new officers hit the street or when they were expected to hit the street. Agencies were counted as having their officers on the street if the respondents indicated the funded officers had hit the street prior to the interview date.

Figure 4–1. Reported Hiring and Deployment Status of COPS-Funded Officers, 1998 (Wave 3 Large Local/County Agencies)

Percentage Reporting
N=270
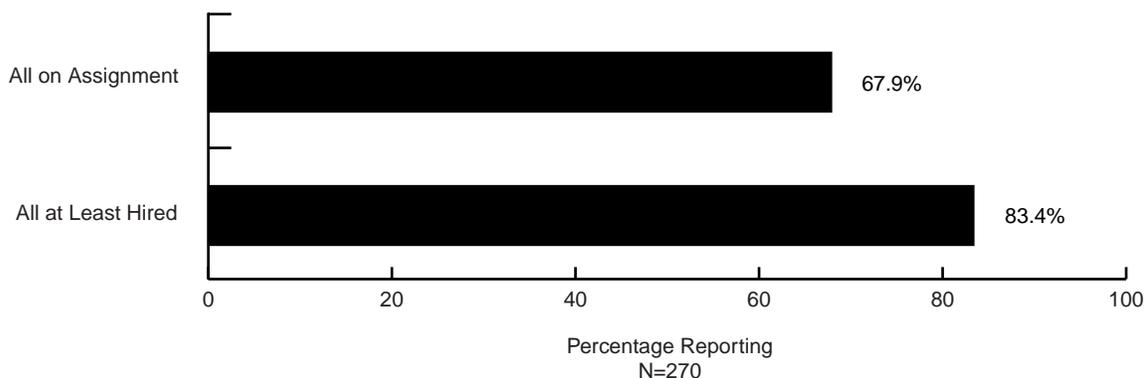
large) grantees reported they had hired their officers funded through calendar 1995 (see table 4–1[4]).[5] More than 80 percent of both FAST and AHEAD agencies reported their new officers were on the street in their first regular assignments. FAST and AHEAD agencies had made virtually identical progress in hiring officers and deploying them to the street at the time of the Wave 1 survey.

In June 1998, nearly 2 years later, 83 percent of medium and large municipal/county agencies reported in the Wave 3 survey they had hired all of their COPS officers funded through 1998 (see figure 4–1). Further, nearly 70 percent of the agencies reported all of their officers were finished training and working on their first regular assignments. Agencies reported expecting to have all of their pre-1999 COPS officers on the street by June 2000 (see figure 4–2).[6]

Relative to the Wave 1 results, the Wave 3 numbers may suggest some gradual slowing in the speed with which agencies have hired and deployed COPS officers. Note, however, that the FAST and AHEAD programs were "accelerated" hiring programs under which the COPS Office permitted and encouraged agencies to hire officers even before funds were officially obligated.

The Wave 1 survey permitted a more detailed assessment of the speed with which agencies hired FAST/AHEAD officers, though these results

Figure 4–2. Expected Dates All Officers Will Be on Assignment for Those Officers Not Already on Assignment (Wave 3, Weighted, Large Local/County Agencies, June 1998)

*n=81
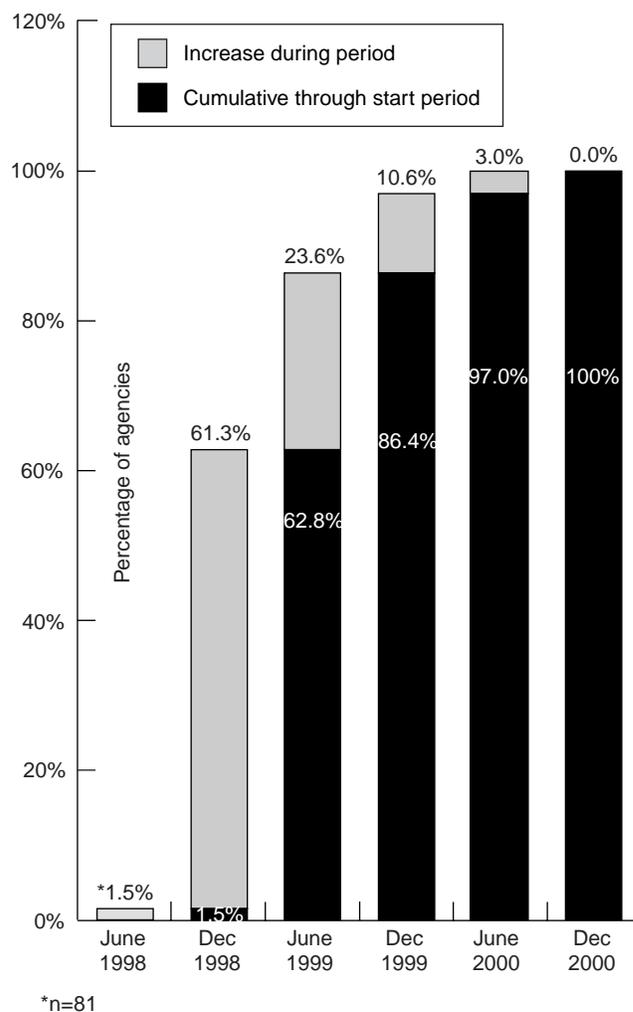
may not represent later COPS hiring grants which did not have "accelerated" status. Among FAST/AHEAD agencies which had hired their officers as of the fall of 1996, approximately two-thirds of FAST agencies and three-quarters of AHEAD agencies had done so within 3 months after their awards were announced and funds were obligated by the Federal government (see table 4–2). More than a third of the FAST agencies that had hired officers and half of the AHEAD agencies that had hired officers did so prior to the award obligations, as was permitted and encouraged under these accelerated programs. FAST agencies that hired their officers during or after the month of award obligation averaged 4.8 months from obligation to hiring. The comparable figure for AHEAD agencies was 4.7 months.[7] The Wave 4 survey is updating time estimates by stage, from recruiting to deployment.

Cross-hiring

The use of COPS funds to hire former sworn officers and to recruit officers directly from other police agencies has been fairly common throughout the history of the COPS program. We refer to the latter practice as cross-hiring. Cross-hiring facilitated the process of moving newly hired officers into their first assignments by reducing or eliminating training requirements. It also helped some agencies to deploy experienced officers directly into community policing assignments. Cross-hiring has the potential to reduce the net national increase in officers attributable to COPS rather than local expenditures.[8] However, estimates presented in chapter 5 indicate this effect was small.

Approximately 40 percent of FAST agencies and 20 percent of AHEAD agencies surveyed in late 1996 indicated one or more of their funded positions was used or would be used to hire former sworn officers. Forty percent of the FAST agencies hiring former sworn officers and 56 percent of the AHEAD agencies hiring former sworn officers recruited directly from another agency. Overall, therefore, 16 percent of the FAST agencies and 11 percent of the AHEAD agencies reported recruiting one or more officers directly from other agencies.

Approximately 41 percent of the agencies surveyed in June 1998 indicated one or more of their funded positions was used or would be used to hire former sworn officers, and about 14 percent reported they had hired or were going to hire former sworn officers for half or more of their new positions. Among agencies hiring former sworn officers, about 43 percent recruited at least some of these officers from other agencies. Therefore, nearly 18 percent of the Wave 3 agencies recruited one or more officers directly from other agencies. In comparison to the Wave 1 figure for AHEAD agencies, this suggests that cross-hiring increased over time among medium and large local/county agencies.

Table 4–2. Time From Award Obligation to Hiring for 1995 FAST and AHEAD Grantees (Agencies That Had Hired Officers as of Fall 1996): Cumulative Percentages Hiring Within Selected Time Frames		
Time in Months	**FAST Agencies (n=211)***	**AHEAD Agencies (n=163) ***
Officers hired prior to month of award obligation	35.1%	49.7%
Officers hired 0 to 3 months after month of award obligation	67.8	76.7
Officers hired 4 to 6 months after month of award obligation	83.4	86.5
Officers hired 7 to 9 months after month of award obligation	88.2	91.4
Officers hired 10 to 12 months after month of award obligation	93.8	94.5

*Time from award obligation to hiring could not be determined for 3.7% of FAST agencies that had hired their officers and 10.9% of AHEAD agencies that had hired their officers.

Table 4–3. Types of Training for COPS-Funded Officers (FAST and AHEAD Grantees)		
Type of Training	FAST* (n=232)	AHEAD (n=195)
State training academy	58.2%	42.6%
Regional training academy	21.6	30.3
Local training academy	22.8	45.1
Community college training	16.8	15.4
Private contractor training	8.2	11.3
Roll-call training	23.3	48.2
Field training by field training officer	50.9	77.4
On the job training	57.3	64.6
Inservice training	50.4	66.2
Other	5.2	14.4
None	5.6	1.5

*One FAST respondent (0.4 percent) did not know what types of training would be provided to new officers.

Training

Wave 1 survey respondents were questioned about sources of training given to or planned for COPS-funded officers.[9] Results are displayed in table 4–3. Training at State academies and on the job training was most common for FAST agencies, followed by field training and inservice training. Field, on-the-job, and inservice training were the most common modes for AHEAD agencies. State and local training academies were the most common forms of formal curricula training for AHEAD officers.

Approximately 5.6 percent of the FAST agencies did not intend to train their officers. The majority of these agencies (69 percent) indicated their COPS-funded officers were former sworn officers. Only 1.5 percent of the AHEAD agencies indicated they were not going to train their COPS-funded officers.

Deployment progress

As noted earlier, 68 percent of hiring grant agencies reported in the Wave 3 survey that all of their pre-1998 COPS officers were on the street in June 1998, and respondents expected all pre-1998 COPS officers to be on the street by June 2000.[10]

The Wave 1 survey allowed a more detailed assessment of the speed with which agencies deploy COPS officers. Table 4–4 displays the distribution of months elapsed from hiring to hitting the street for FAST and AHEAD officers. Newly hired FAST officers hit the streets more quickly than did AHEAD officers. Nearly three-quarters of FAST officers were on the street or were expected to be on the street within 3 months of being hired. On average, FAST agencies reported 2.6 months between hiring and hitting the street. AHEAD agencies were somewhat slower, but three-quarters of their officers were in the field or were expected to be in the field within 6 months of hiring. AHEAD agencies reported an average of 4.5 months from hiring to hitting the street.

Nearly all of the COPS-funded officers for both programs were in the field or expected to be in the field within a year of hiring. Thus, the results suggest that the overwhelming majority of agencies of all sizes deploy all their COPS-funded officers into field assignments within less than a year of hiring them.

Table 4–4. Time From Hiring to Hitting the Street: Cumulative Percentages of Officers Hitting the Street Within Selected Time Frames (FAST and AHEAD Grantees)*

Time in Months	FAST Agencies (n=184)	AHEAD Agencies (n=146)
Officers hit street within 3 months after hiring	73.4	41.8
Officers hit street within 6 months after hiring	84.8	75.3
Officers hit street within 9 months after hiring	91.3	91.8
Officers hit street within 12 months after hiring	96.2	97.3

*This analysis was conducted with agencies that had hired their COPS-funded officers. Agencies were asked the month and year when new officers hit the street or were expected to hit the street. Sixteen percent of the FAST agencies and 20 percent of the AHEAD agencies had to be dropped from the analysis due to missing or invalid date information (dates were considered to be invalid if they indicated that officers hit the street prior to the time of their hiring). A separate analysis was conducted with only those agencies reporting their officers hit the street prior to the date of the interview (n=172 for FAST and n=140 for AHEAD). That analysis produced a distribution virtually the same as in table 4–4.

Community policing deployment strategies

In addition to increasing levels of policing, the COPS program is intended to encourage community policing. Not surprisingly, 94 percent of the Wave 3 respondents reported one officer was being deployed to community policing for every officer hired. Of the others, 63 percent reported that more than half of the COPS-funded officers or the officers they replaced were deployed to community policing. The activities of funded officers are described in the next section, and chapter 6 describes the range of policing styles that COPS grantees described as community policing.

The two major strategies for deploying officers into community policing are the direct deployment and "backfill" strategies. Direct deployment occurs when newly hired officers are deployed directly into community policing roles. The backfill strategy, which the COPS Office encouraged where appropriate, involves replacing existing patrol officers with the new hires and redeploying the experienced officers into community policing roles.

Medium and large agencies have relied more heavily on the backfill strategy throughout the COPS program. Two-thirds or more of those agencies surveyed in both 1996 and 1998 indicated using the backfill strategy exclusively or in combination with direct deployment (see tables 4–5 and 4–6).[11]

In contrast, Wave 1 results suggest that small agencies have made greater use of direct deployment (see table 4–5). The majority of FAST agencies surveyed in 1996 planned to deploy their new officers directly into community policing, while only about 38 percent planned a backfill strategy. Field observations by project staff suggest this reflects the fact that the new COPS

Table 4–5. Community Policing Deployment Strategies, 1996 (FAST and AHEAD Grantees)

Deployment Strategy	FAST Grantees (n=232)	AHEAD Grantees (n=195)
Direct deployment	52.2%	29.2%
Backfill	37.5	67.7
Other	9.5	2.1
Don't know	0.9	1.0

Table 4–6. Community Policing Deployment Strategies, 1998 (Medium and Large Municipal/County Hiring Grantees, n=272)

Strategy	Percentage of Agencies Using the Strategy
Direct deployment	18.5
Backfill	55.9
Combination of direct deployment and backfill	24.8
Other strategy	0.8

officers were frequently the first community policing officers in those agencies. Survey data provide further support for that hypothesis. FAST agencies that reported doing community policing prior to 1995 showed a slight tendency to rely more on the backfill strategy than did FAST agencies that did not practice community policing prior to 1995; 41 percent of the former group and 34 percent of the latter group planned to utilize the backfill strategy.[12]

At both Wave 1 and Wave 3, agencies utilizing a backfill deployment strategy were asked about the process of selecting, training, and redeploying officers into community policing. Wave 3 results indicate 86 percent of agencies had selected all of their backfilled community police officers and 72 percent had reassigned all of their backfilled officers to community policing by June 1998 (see

figure 4–3). Moreover, respondents expected all backfilled community police officers to be redeployed as of June 2000 (see figure 4–4).

In medium and large agencies, the processes of deploying new officers into the field and redeploying older officers into community policing occurred in tandem. As noted earlier, 85 percent of AHEAD agencies had hired and deployed their officers funded before 1996 to the street by October–November 1996. Likewise, table 4–7 shows that 90 percent of the AHEAD agencies employing the backfill strategy had selected, trained, and deployed community police officers by that time. Consistent results were obtained in the summer of 1998. By then, 68 percent of surveyed agencies had deployed all of their COPS officers funded before 1998 into the field and, as shown in figure 4–3, 72 percent of the agencies using the backfill strategy had redeployed all of their community police officers.

Small agencies seem to progress more slowly in training and redeploying backfilled community police officers, based on results from the Wave 1 survey (see table 4–7). As of late 1996, 82 percent of FAST grantees had hired and deployed their new officers (see table 4–1), but only 61 percent of the FAST agencies using a backfill strategy had completed training and redeployment of backfilled community police officers.[13] Therefore, the Wave 3 results indicating that all backfilled

Figure 4–3. Reported Selection and Redeployment Status of Backfilled Community Police Officers, 1998 (Wave 3 Large Local/County Agencies, June 1998)
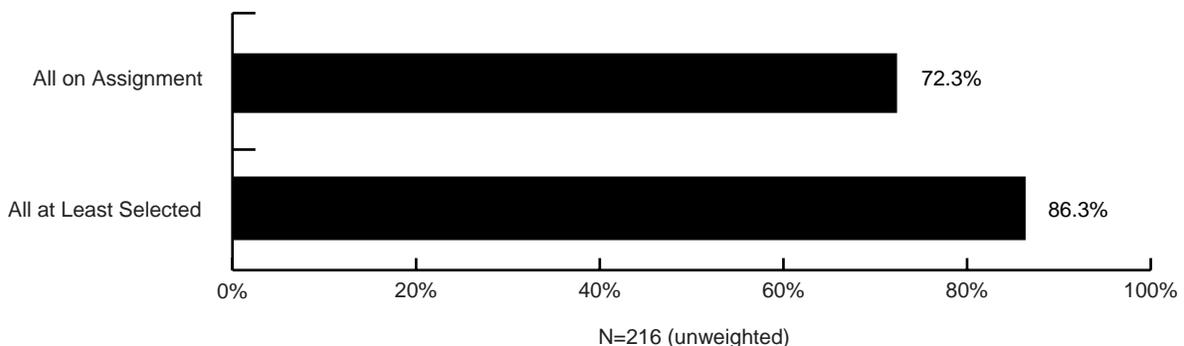
N=216 (unweighted)

Figure 4–4. Expected Dates All Redeployed Officers Will Be in Community Policing Assignments, for Those Officers Who Have Not Begun Their Duties (Wave 3 Local/County Agencies, June 1998)
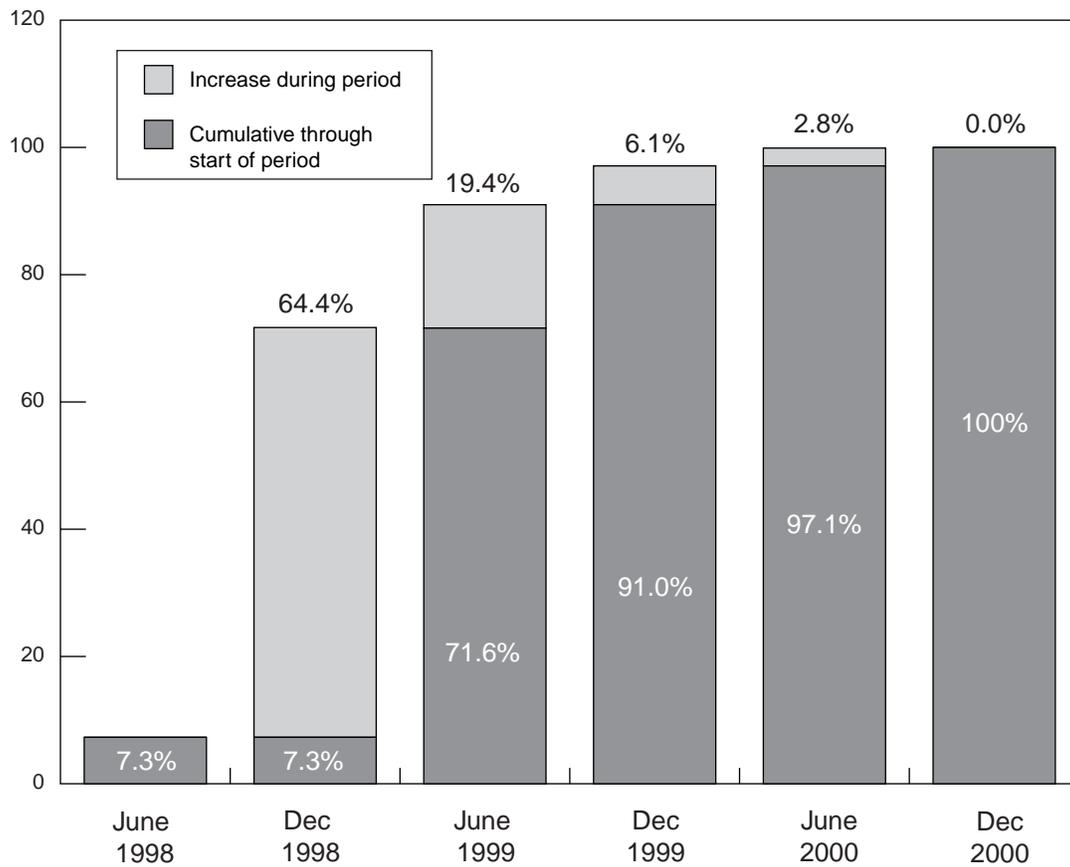
n=59* (unweighted)
*One agency responded "don't know" and was coded as missing.

Table 4–7. Selection, Training, and Deployment Status of Redeployed Officers (FAST and AHEAD Grantees), 1996		
Status	FAST Grantees Using "Backfill" Strategy* (n=87)	AHEAD Grantees Using "Backfill" Strategy* (n=132)
Officers selected for redeployment	80.5%	94.7%
Officers selected and given community policing training	64.4	90.2
Officers selected, trained, and deployed as community police officers	60.9	90.2
*Percentages of agencies responding "yes" to the item (other respondents replied with "no" or "don't know").		

Table 4–8. Training for Redeployed Officers (FAST and AHEAD Grantees)*		
Type of Training	FAST Grantees Using "Backfill" Strategy (n=87)	AHEAD Grantees Using "Backfill" Strategy (n=132)
Roll-call training	31.0%	41.7%
Field training by field training officer	32.2	29.5
On-the-job training	50.6	50.8
Inservice training	47.1	72.0
Other	34.5	42.4
None	2.3	0.8

*A percentage of FAST respondents (1.190) and AHEAD respondents (1.5%) did not know what types of training redeployed officers would receive.

officers will be redeployed as of June 2000 may not be generalizable to small agencies.

Finally, the Wave 1 survey inquired about training modes for the redeployed experienced officers. Training modes for redeployed officers are displayed in table 4–8. Inservice and on-the-job training were the most common modes of training reported by both FAST and AHEAD agencies. AHEAD agencies relied much more heavily on inservice training than did the smaller FAST agencies. Roll-call training, field training by field training officers, and other forms of training were common as well. Agencies utilizing "other" forms of training reported sending officers to a variety of specialized seminars and courses, often conducted either outside the department (e.g., at State or local colleges, police academies, or conferences) or by outside specialists. During site visits conducted in 1998, research teams observed or were told about several successful training sessions conducted by COPS-funded Regional Community Policing Institutes.

Officer Retention and Redeployment

As explained in chapter 2, two key requirements for recipients of COPS hiring grants were retention of the officer positions after the 3-year grants expired and deployment of the hired officers into community policing. This section describes agencies' expectations about how they would cope with the retention requirement and their reports

of the activities to which the COPS-funded officers were deployed.

By June 1998, when our Wave 3 survey was conducted, only 21 percent of all COPS grants awarded by the end of 1997 had expired, and these accounted for only 18 percent of all COPS-funded officers. Therefore, while concern over retention costs loomed large in the minds of many grantee agencies, actual post-grant retention experience was too rare at that time to support meaningful statistical description. None of the respondents in our Wave 3 sample was aware of COPS-funded officers in their agencies whose grants had expired. Therefore, this section describes respondents' estimates of the likelihood that their agencies would retain their COPS-funded officer positions and their plans for doing so.

Turnover and replacement during grant periods

Although 54 percent of Wave 3 respondents reported that some of the original officers funded since 1994 under any COPS hiring program had left their agencies by the Wave 3 survey period (June 1998), 98 percent still retained all their COPS-funded positions.[14] Considering all officers funded under any hiring program, 46 percent of the medium and large local/county agency respondents reported that all of the officers were still with the agency as of the date of the survey in 1998 (table 4–9). For the 54 percent of the

Table 4–9. Share of COPS-Funded Officers Still With the Agency by Number of Officers Funded				
	1–10 Officers (n=103)	11–49 Officers (n=115)	More than 49 Officers (n=42)	All (n=260)
None	4%	1%	0%	3%
Some but less than half	4	7	7	5
Half	5	3	0	4
More than half but not all	25	53	66	42
All	62	36	27	46
TOTAL	100	100	100	100

agencies that reported some officers were no longer with the agency, 92 percent indicated that those COPS-funded officers who had left had been replaced. For those agencies that reported the COPS-funded officers had not been replaced, 71 percent indicated they would replace the officer as soon as a qualified recruit was found. In all, approximately 98 percent of the agencies reported that the original officers had stayed through the grant period, had been replaced, or would be replaced when a suitable replacement was found.

Not surprisingly, the turnover rate depended on the number of officers funded. According to table 4–9, agencies with 1 to 10 COPS-funded officers were more likely to report that all of them were still with the agency (62 percent). Only 36 percent of the agencies with 11–49 officers funded and 27 percent of agencies with more than 49 officers funded reported that all of them were still with the agency at the time of the survey in 1998.

Retention after grant expiration

We asked the respondents in our Wave 3 sample two sets of questions about postgrant retention. First, we asked them how certain they were that their agencies would retain their COPS-funded officers after their hiring grants expired. Second, we asked how their agencies planned to retain those officers. Multiple options were provided for the respondents to choose from, to allow for the possibility of different short- and long-term

retention plans for different subsets of officers. We conducted the Wave 3 survey before the Justice Department announced the duration of the retention requirement: one local budget cycle after grant expiration.

Approximately 66 percent of Wave 3 respondents reported they were "certain" their agencies would retain the COPS-funded officers when their grants expired, 24 percent indicated they were "almost positive" they would retain the officers, 6 percent were "pretty sure," and 4 percent stated they were "not sure at all."

Next, respondents were asked whether they agreed or disagreed with a series of statements intended to describe in more detail their expectations about how their agencies would retain the COPS-funded officers. About 95 percent reported that the COPS-funded officers either were or would be part of the agency's base budget by the time the grant expired. As shown in table 4–10, about 52 percent stated they were uncertain about long-term retention plans. However, only 10 percent of the respondents reported that despite the "good faith effort" required as a grant condition, unforeseen conditions were likely to keep their agencies from retaining all of the positions.

Other common responses are difficult to interpret and suggest that despite extensive COPS Office efforts to educate agencies about the retention requirement (see chapter 2 for details), the persons authorized to speak to our interviewers on behalf of the agency may have been

Table 4–10. Expectations About Postgrant Retention	
Expectations	Percentage of Agencies Reporting
Uncertain about long-term plans (n=244)	52%
Retain by attrition (only) (n=243)	37
Retain by cutting positions elsewhere (only) (n=239)	20
Both attrition and cutting elsewhere (n=239)	5
Probably unable to keep (n=245)	10
Something else (n=246)	7

uncertain about what the requirement entailed. About 37 percent reported expecting the COPS-funded officers would be retained by "using positions that open up" (i.e., through attrition, indicating an intention to retain the COPS-funded officers but not the positions). About 20 percent reported expecting the COPS-funded officers would be retained by cutting back positions elsewhere, a plan that under some conditions would violate the nonsupplanting requirement (see chapter 2); and 5 percent agreed that the COPS-funded officers were likely to retain officers both through attrition and by cutting back elsewhere. Now that the retention requirement has been spelled out in more detail, we are reexamining long-term retention plans in the Wave 4 survey.

Time uses of COPS-funded officers

One purpose of the COPS program was to increase officer time spent doing community policing. Addressing whether that happened directly would have required measurements of individual officers' time use before and after grant award, for representative samples of officers in representative samples of grantee and nongrantee agencies. That approach was impractical because of the large sample sizes needed to achieve adequate statistical power for any given department, the difficulty of obtaining preaward measurements, and the difficulties of multisite analyses using multiple agencies' reporting code systems.

In chapter 6, we measure COPS program effects by comparing grantee and nongrantee agencies' use of community policing tactics before and

after the launch of the COPS program and asking grantees about the role of COPS funds in starting or expanding the use of new tactics. Here, we report the results of an alternative approach to measuring how COPS-funded community policing officers spent their time.[15] We asked respondents approximately how much time their COPS-funded officers spent on a short but varied list of activities, some of which are commonly considered "community" policing, while others are less clear.

Specifically, we asked Wave 3 survey respondents about the planned uses of time by their COPS-funded officers. Respondents were read a list of possible assignments. They were asked to think about the specific duties of the officers deployed in the community, whether directly or through backfill, and whether, for the group as a whole, each assignment duty accounted for "little or none of their time," "some of their time," or "most or all of their time" which we designated "substantial."

More agencies reported that COPS-funded officers were "spending most or all of their time doing" problem solving (43 percent) and working with community groups and residents (39 percent) than any other activity (see table 4–11). The activities next most commonly described in this way were routine patrol (32 percent), "squeezing in proactive work as time permits" (30 percent), and " 'zero tolerance' or 'quality of life' policing" (26 percent). Prevention was described this way by 13 percent. Virtually no agencies reported that their COPS-funded

Table 4–11. Primary Activities of COPS-Funded Officers	
Activity	**Percentage of Agencies Reporting Activity Was "Most or All" of Officers' Time**
Problem solving	42.7%
Working with community groups and residents	39.0
Routine patrol	32.3
Squeezing in proactive work as time permits	30.2
"Zero tolerance" or "quality of life" policing	26.0
Prevention programs such as D.A.R.E.	12.9
Special undercover or tactical assignments	0.5
Administrative or technical assignments	0.5
(n=322), varies due to exclusion of –2 ("don't know").	

Table 4–12. Community Policing Activities: Reported Share of COPS Officers' Time*			
CP Tactic	**Little to None (Percentage)**	**Some (Percentage)**	**Most or All (Percentage)**
Problem solving	4.5%	52.8%	42.7%
Working with community groups	4.1	57.0	39.0
Prevention programs	41.7	45.4	12.9
(n=322), n's vary due to the exclusion of '–2' (don't know), weighted.			
*Percentages may not equal 100 due to rounding.			

officers would spend "most or all" of their time on undercover, tactical, administrative, or technical assignments; however, 20 to 40 percent reported their COPS-funded officers spent "some" time on these activities.[16]

As shown in table 4–12, the majority of grantees (58.3 percent) expect their COPS-funded officers to spend at least some of their time on prevention programs; however, only 12.9 percent expected prevention to occupy a substantial amount of time. Table 4–12 also shows that almost all of the agencies spend at least some of their time working with community groups (95.9 percent) and problem solving (95.5 percent). Less than 1 percent of agencies report spending little to no time on all three of these activities.

As shown in table 4–11, 32.3 percent of agencies reported that their COPS-funded officers (or the redeployed community police officers they backfill for) spend "most or all" of their time on routine patrol. The meaning of this statistic depends on the departmental structure for delivering community policing. In generalist departments, where all officers are expected to incorporate community policing into their daily activities, routine patrol and community policing are intended to be indistinguishable. In specialist departments, where a specialized unit delivers all community policing, one would expect the COPS-funded officers to be assigned to those units. (Our generalist/specialist classification, which is derived from IACP (1997) departmental community policing structures, is explained more fully in chapter 6.[17])

Figure 4–5. Planned Use of Time, by Community Policing Delivery Structures*
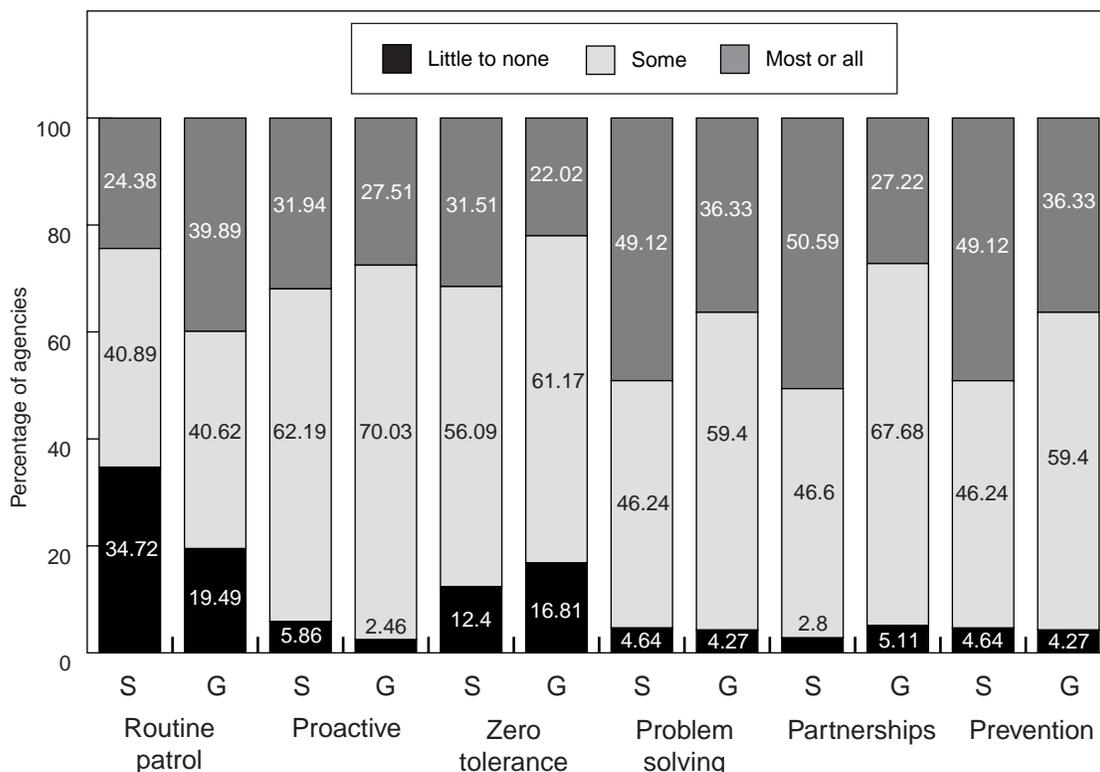
*Policing structures: S=Specialized, G=Generalized (see text for complete definitions of the models).

Table 4–13. Community Policing Delivery Structure and Reported Share of Officers' Time Spent on Routine Patrol			
Community Policing Delivery Structure	**Little to None**	**Some**	**Most to All**
Specialized/split-force (n=145)	34.7%	40.9%	24.4%
Temporal, generalized, mixture (n=158)	19.5	40.6	39.9

As expected, agencies with specialized community policing structures were less likely than agencies with generalist structures to report that their COPS-funded officers spent most or all of their time on routine patrol.[18] As shown in figure 4–5 and table 4–13, "specialist" agencies were 15.5 points less likely than "generalist" agencies to report that their COPS-funded officers would spend substantial amounts of time on routine patrol duty (39.9 percent of generalists, 24.4

percent of specialists). Also, a higher percentage of the specialist agencies (34.7 percent) reported that their new officers spend "little to no time" on routine patrol, as opposed to 19.5 percent of the generalist agencies.

If COPS-funded officers in specialist agencies are not doing as much routine patrol, one would expect them to do more core community policing activities: more partnership building, more

Table 4–14. Community Policing Delivery Structure and Reported Share of Officers' Time "Squeezing in Proactive Work as Time Permits"			
Community Policing Delivery Structure	**Little to None**	**Some**	**Most to All**
Specialized/split-force (n=143)	5.9%	62.2%	31.9%
Temporal, generalized, mixture (n=158)	2.5	70	27.5

problem solving, prevention, and quality-of-life policing where that is considered community policing. That is what specialist agencies report; 49.1 percent of the specialist agencies, as opposed to 36.3 percent of the generalist agencies, report spending "most or all" of their COPS-funded officers' time on problem solving. The trend is similar for other community policing objectives.

More than 95 percent of the medium and large local/county agencies surveyed in Wave 3, whether generalist or specialist, acknowledged their COPS-funded officers would be "squeezing in" proactive work such as the core community policing functions at least some of the time. Moreover, about 30 percent reported they were doing so a substantial amount of the time (see table 4–14). During site visits, our teams frequently observed that instead of setting aside blocks of time for solving problems or building community partnerships, agencies encouraged officers to squeeze these tasks in between responses to calls. We observed a number of creative ways of making time for such activities. Examples included taking a few extra minutes for a walkby security check of nearby high-risk areas when responding to calls from a crime "hot spot" or offering the neighbors prevention advice or quick security checks before leaving the scene of a burglary call. These and other examples are described in a supplemental Issues Brief from this evaluation project (Maxfield, 1998).

Respondents were asked how their agencies encourage the COPS-funded officers in the community to spend their time on community policing activities. Respondents were given a closed-end list and could choose as many methods of encouragement as needed. The most frequently named methods were: memos from headquarters (58.4 percent), reminders from supervisors (75.2 percent), including community policing in performance ratings (60.2 percent), supervisors' periodic monitoring of officers' daily journals (79.5 percent), and awards and recognition for community policing activities (67.3 percent). The most popular methods both involve contact with direct supervisors, as opposed to headquarters or other levels of management. Only two agencies did not report using any methods to encourage community policing activities.

External effects of officers' activities

Most agencies reported their COPS-funded activities affected other government agencies and community organizations.[19] These effects include: a greater demand on local agencies responsible for code enforcement, sanitation, and the like (83 percent); and greater demands on neighborhood or community associations, block groups, and local businesses (83.3 percent). These are consistent with the responses discussed above, that problem solving and partnership building were the activities on which agencies most commonly expected COPS-funded officers to spend substantial time. In addition, 65.6 percent reported that their activities placed greater demands on agencies that deal with violence in the home. This suggests that those agencies began giving domestic violence cases higher priority than previously.

Effects on court caseloads were also reported by many agencies. Most reported an increase in

misdemeanor caseloads (70.4 percent) and felony caseloads (43.6 percent). Fewer reported decreased caseloads for felonies (21.3 percent) and misdemeanors (32.3 percent). One-third of the respondents reported other effects as well.[20] These included a number of verbatim responses that we grouped as "criminal justice system strain" (50.1 percent); partnerships with other government and nongovernment agencies, schools, businesses, and other law enforcement agencies (29.3 percent); and agency self-improvement (9.3 percent).

The effects of COPS-funded activities clearly extends beyond the grantee law enforcement agencies. Community policing strategies involve not only the traditional law enforcement agencies but agencies involved in code enforcement, nuisance abatement, domestic services, and so forth have reportedly experienced ripple effects. More felony and misdemeanor caseloads are increasing strain on the system: effects on courts, prosecution, prisons/jails, and probation and parole were reported by the majority of those reporting auxiliary effects. Chapter 6 describes several examples observed during site visits.

Implementing COPS MORE

The MORE program (Making Officer Redeployment Effective) took an alternative approach to increasing the quantity of community policing effort. Officer time was to be saved through productive use of new grant-funded information technology, civilians, and, in 1995 only, overtime. In turn, that time was to be redeployed to community policing activities. The MORE-funded resources also had other potential benefits to local agencies that could increase their effectiveness; while these no doubt played a role in local application decisions, they were statutorily not relevant to Federal funding decisions.

The extent to which redeployment and other benefits were actually achieved depended on local progress in implementing the technology, hiring the civilians, and productively using newly deployable time of sworn officers. *Tech-*

nology was projected to increase available officer time because it would reduce the time officers spend writing reports, transporting reports, or doing other tasks, depending on the type of technology. Hiring *civilians* was expected to increase available officer time for community policing most directly because selected tasks or positions could be reassigned to civilians, thus freeing up sworn officers to be redeployed to community policing. *Overtime* was usually intended to pay officers to do community policing tasks such as teaching DARE classes only during the school year that, by nature, require less than a full-time officer.

By statute, only applications that projected MORE funds would increase officer time available for community policing were considered. Agencies were required to project that the time saved by the use of the MORE-funded technology, civilians, and overtime would redeploy officers at least as cost effectively as the hiring program.

COPS MORE funding and agency decisions to apply

Larger agencies were more likely than smaller agencies to request and receive COPS MORE grants. As shown in table 4–15, this trend is much more pronounced for the MORE program than for the hiring grants. Of the agencies that serve jurisdictions of less than 25,000, 38.9 percent received at least one hiring grant, but only 5.4 percent received a MORE grant. Of the jurisdictions with populations exceeding 1 million, however, 53 percent received at least one MORE grant, while 77 percent received a hiring grant. This may reflect both large agencies' greater technology needs and the more adverse effects of both the 3-year $75,000 cap and the retention requirement for hiring grants in large jurisdictions facing higher salary structures.

For each population category, table 4–15 also displays, separately for MORE and hiring grants, the mean award amounts per eligible agency and per grantee agency. Not surprisingly, the average sizes of both MORE and hiring

Table 4–15. Accumulated MORE and Hiring Grant Awards by Size (COPS Accepted Local/County Agencies, 1996)						
	Percentage of Local/ County Agencies		Average Grant Dollars Accumulated			
			MORE		HIRING	
Population Served	With MORE Grant	With Hiring Grant	Per Eligible Agency	Per Grantee Agency	Per Eligible Agency	Per Grantee Agency
Less than 25,000 (n=14,924)	5.4	38.9	1,503	27,976	44,140	113,501
25,000–50,000 (n=896)	20.2	63.6	13,586	67,256	174,997	275,083
50,000–150,000 (n=564)	30.3	60.1	35,228	116,191	302,326	502,985
150,000–250,000 (n=83)	39.8	68.7	184,784	464,761	1,085,654	1,580,865
250,000–500,000 (n=66)	43.9	51.5	660,946	1,504,222	2,094,548	4,065,888
500,000–1,000,000 (n=33)	48.5	72.7	874,802	1,804,279	2,958,492	4,067,927
More than 1 million (n=17)	52.9	76.5	8,512,396	16,078,970	20,585,294	26,919,230

grants increase with jurisdiction population. However, the concentration of awards in the very largest cities is striking. The average award to a grantee in a jurisdiction of more than 1 million in population exceeded the average award to a grantee in a jurisdiction of more than 500,000 but less than 1 million in population by a factor of 8.9 for COPS MORE and 6.6 for hiring grants.

Concentration of COPS MORE funding. To compare the concentration of MORE and hiring funds more precisely, we ranked all grantees in order, from largest accumulated MORE awards to smallest and then computed the share of MORE dollars awarded to the agencies with the largest grants. Table 4–16 compares 1996–98 trends in this measure for MORE and for hiring grants, for local/county and for all MORE

Table 4–16. Distribution of MORE and Hiring Grants for 1996, 1997, and 1998												
	Percentage of Grant Dollars for all MORE and Hiring Agencies						Percentage of Grant Dollars of Local/ County MORE and Hiring Agencies					
	1996		1997		1998		1996		1997		1998	
Percentage of Grantee Agencies	MORE	Hiring	MORE	Hiring	MORE	Hiring	MORE	Hiring	MORE	Hiring	MORE	Hiring
1%	54%	37%	48%	37%	50%	43%	63%	38%	55%	38%	58%	39%
5	76	52	69	52	70	60	73	52	72	53	74	54
10	84	60	78	61	79	68	85	60	80	61	81	62
25	92	74	89	76	90	81	92	74	90	76	91	76
50	97	87	96	89	97	92	97	87	96	88	97	88
75	99	95	99	96	99	97	99	95	99	95	99	95
100	100	100	100	100	100	100	100	100	100	100	100	100

grantees. For all grantees, COPS awards through 1998 were, in fact, more highly concentrated for MORE grants than for hiring grants: the 1 percent of agencies with the largest MORE awards received 50 percent of total MORE dollars, while the 1 percent with the largest hiring awards received 43 percent of all hiring program dollars. The contrast between MORE and hiring concentration was even greater among local/county agencies; among them, 58 percent of the MORE funds went to the top 1 percent, compared to 39 percent of the hiring funds.

Trends between 1996 and 1998 indicate that MORE awards became slightly less concentrated over time, while hiring awards became slightly more so. Among all agencies, the MORE share going to the largest 1 percent declined from 54 percent to 50 percent, while the top-bracket share of hiring awards rose from 37 percent to 43 percent. One very large 1995 MORE award to New York City Police Department accounts for the early high concentration of MORE funds among the largest local/county agencies.

Types of resources supported by COPS MORE. In 1995, technology absorbed more than half of the COPS MORE funds, civilians slightly less, and overtime less than 10 percent according to COPS Office records. In 1998, Wave 3 survey results indicate that MORE grantees were still more likely to get funds for technology than for either of the other two resources (see figures 4–6a through 4–6c).[21] The fractions of MORE grantees with only technology grants was 29 percent for medium-sized agencies (with populations between 50,000 and 150,000), compared to 38 percent of large agencies and 45 percent of small agencies. In contrast, 22 percent of the medium-sized agencies had MORE grants for

Figure 4–6a. Use of MORE Funds for Agencies Less than 50,000*
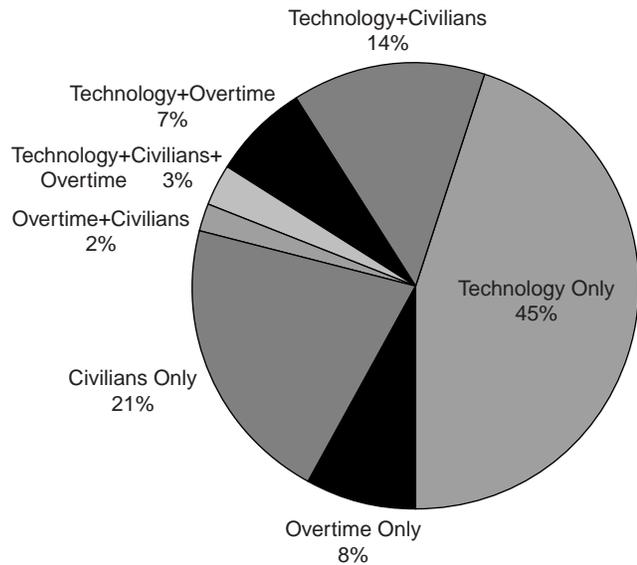
*Percentages are weighted, unweighted N=144.

Figure 4–6b. Use of MORE Funds for Agencies With Populations Between 50,000 and 150,000*
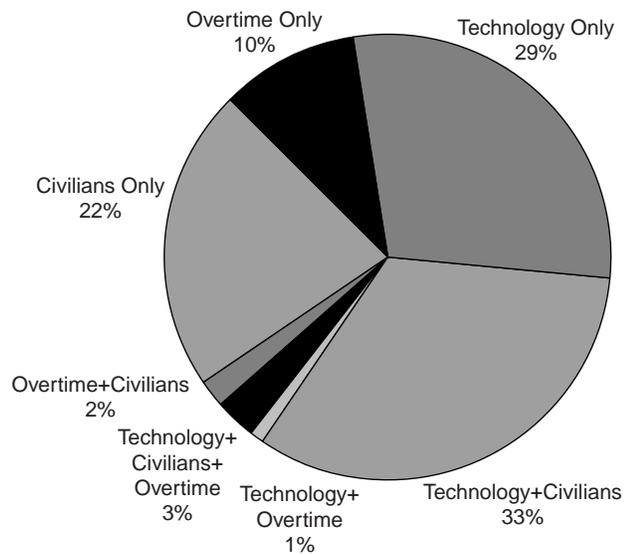
*Percentages are weighted, unweighted N=125.

civilians only, similar to the 21 percent of smaller agencies, but more than the 8 percent of larger agencies. The combination of technology and civilians was most popular among the large agencies (44 percent), compared to 33 percent of medium and 14 percent of small agencies.

Figure 4–6c. Use of MORE Funds for Agencies Larger Than 150,000*

Overtime Only 4%

Civilians Only 8%

Overtime+Civilians 1%

Technology+Civilians+Overtime 5%

Technology+Overtime 0%

Technology Only 38%

Technology+Civilians 44%
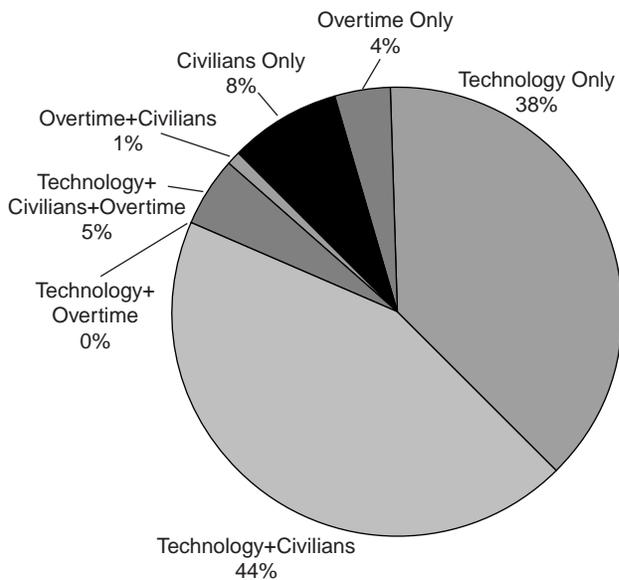
*Percentages are weighted, unweighted N=96.

Redeployment estimates by resource type. Title I required that each MORE grant increase sworn officer time allocated to community policing by at least as much per year as a hiring grant of the same amount. To implement this threshold requirement, the COPS Office asked agencies to estimate the amount of time that would be saved by MORE-funded resources and redirected into community policing. These were estimated in terms of FTEs, meaning the time needed to redeploy one full-time officer for a year, which the COPS Office standardized at 1,824 working hours. The application included a cost-effectiveness worksheet (CEW) to filter out MORE applications that failed to meet the threshold requirement. The CEW took applicants through several calculations, essentially to verify that each $100,000 in MORE funds would generate at least four FTEs of projected officer time.[22] On average, COPS MORE applications projected redeployment of 6.12 officers per $100,000 spent on technology, substantially higher than the 4.54 average for civilians or 4.92 for overtime.

For civilians, the calculation was usually a straight one-to-one replacement of sworn officers, which would precisely meet the cost-effectiveness threshold of four FTEs per

$100,000 of MORE funds if civilian and sworn salary and fringe benefits were equal. Because civilians' salaries and fringe costs are lower on average than officers' and some civilians were slated for positions intended to increase officers' productivity, the actual average projection for civilian awards was higher, 4.54 per $100,000.

Overtime, which was an allowable use of MORE funds only for 1995 applications, was usually requested to support some community policing function during part of a work year, such as a part-time DARE instructor for just the school year. By comparing the part-year overtime cost to the full-year cost of a full-time officer, MORE overtime grants could be projected to yield more than four FTEs per $100,000, despite overtime premiums. The average was 4.92.

For technology, which consumed the largest share of MORE funds, the projections were higher, an average of 6.12 per $100,000. However, they were also far more speculative. Much of the technology was so new or even nonexistent at the time that few working examples were in place to serve as guides for redeployment estimates. During site visits, many of the grant writers acknowledged that their projections were simply guesses.

The lack of an experience base for projecting time savings was especially acute for mobile computing, which was the most common MORE-funded technology. According to the Bureau of Justice Statistics 1997 LEMAS report (Reaves and Goldberg, 2000), 18 percent of municipal police agencies with more than 100 officers used car-mounted digital computers in 1997, and 59 percent used mobile computers. However, only 11 of the 454 municipal agencies in the LEMAS sample used them for wireless transmission of field reports, which was the application typically expected to save officer time.

Recognizing that existing analyses provided little basis for estimating productivity increases from technology, the COPS Office provided guidance in the 1995 MORE application kit, in the form of an example:

> …for example, a mobile computer programmed for automated report generation might be shown to free up two hours in report writing per officer per eight hour shift. If officers using this technology were to engage in community policing during those two hours, the total amount of redeployment would equate to an increased community policing presence of one-quarter year of officer time.

This example would exceed the cost-effectiveness threshold requirement of four FTEs per $100,000 for MORE grants as long as the computers cost less than $6,250 per unit. This is a generous allowance even including ruggedization and vehicle mounts but only if mounts and software are readily available.

Agencies' projections turned out remarkably similar to this example. In a representative sample of 1995 MORE applications, we found the mean projected number of hours saved per 8-hour shift was between 1.8 and 2.6 hours, depending on the type of technology. Projections fell into this narrow range despite wide variation in agency size, local conditions, technology plans, rationale for the time savings, and projection formula used. Although a few large agencies actually carried out small-time studies, formulas of the following sort were more common:

> average time writing reports/year (all officers) = 7012.8 hrs./year x 70

> percent savings of time = 4090 hrs. saved yearly / 2080 = 2.36 FTEs.

The sparse available data calls into question large projections of saved officer time from mobile computers without wireless reporting. A National Institute of Justice (1993) report on a mobile computer project in Los Angeles Police Department found *no change* in the amount of time officers spent in investigation, report writing and approval, or travel activities in connection with report processing. Police supervisors reported *no change* in the amount of time they spent reviewing and correcting reports, and there was a slight *increase* in total clerical time spent on each report because the reports were entered manually into the mainframe computer. However, the report estimated that if the modem connection could be made to work (it was intermittently successful at the time of the project), a cost savings of $5.4 million in officer time could be achieved if officers used wireless transmission rather than traveling back to the station to file each paper report.

A more recent study suggests that even time savings from wireless report transmission will be limited by the small percentage of officer time spent on report preparation (Frank, Brandl and Watkins, 1997). According to this study, only about 8 percent of Cincinnati officers' time is spent preparing reports. Even if the mobile computers saved all the report preparation time—a wildly implausible assumption—units costing $5,000 each (including software and transmission infrastructure) would save officer time only at the rate of 1.6 FTEs per $100,000. The fact that these numbers were not available until recently is reflected in the optimistic projections agencies made when predicting future FTE deployment.

Technology accounted for 52 percent of MORE funds awarded through 1996. However, because of the high productivity estimates, it accounted for 59 percent of projected FTEs.

From the start of COPS MORE, implementation of technology occurred more slowly than civilian hiring or overtime use. The GAO, in its 1996 survey, asked respondents to calculate the number of full-time equivalent positions their agencies had redeployed to community policing as a result of MORE grant funds spent in fiscal years

1995 and 1996. The agencies estimated that only about 40 percent of all FTEs redeployed through fiscal 1996 came as a result of equipment/technology purchases, even though this category had accounted for 52 percent of MORE funds awarded and 59 percent of projected FTEs through the calendar year. Some agencies reported they were unable to calculate redeployment because the equipment had not yet been purchased or had not been installed or it was too early in the implementation phase to calculate time savings. Later sections describe implementation progress since the GAO study.

MORE-supported technologies

The 1995 MORE application kit listed the following examples of items that were allowable technologies if they directly contributed to community policing: portable computers, automated booking systems, cellular telephones, local area networks, and geo-mapping systems. Cell phones were disallowed in 1996 and after. Other disallowed uses of MORE funds included surveillance cameras and beepers for undercover narcotics investigations, office furnishings, riot control equipment, weapons and ammunition, vehicles (including cars, bicycles, motorcycles, and mobile trailers), radios, pagers, uniforms, dogs, horses, bulletproof vests, Breathalyzers™, radar guns, video cameras, phone lines, voice mail systems, educational material (e.g.,

pamphlets, posters, or other literature), and televisions/VCRs.

The technologies that were often funded by MORE '95 and subsequent years are described more fully in the following paragraphs. Table 4–17 shows the proportion of MORE grantees receiving each one in 1996 and 1998, for local/county agencies.

Mobile computers. By far the most commonly awarded technology, COPS MORE had awarded mobile computer technology to 60 percent of technology grantees by 1996, and to 79 percent by 1998. These awards funded primarily two hardware configurations: (1) laptop or notebook computers, either carried by officers or mounted in vehicles, and (2) modular units, with separate keyboard, monitor, and CPU mounted in vehicles. Units permanently mounted in vehicles are most commonly used for so-called "MDT functions" after Mobile Data Terminals, which first came into widespread use in the 1980s. Examples of MDT functions are computerized dispatch; queries to automated databases, such as state vehicle registration, driver's license, and stolen auto files, and the FBI's National Crime Information Center (NCIC); and car-to-car and car-to-station messaging. MORE-funded mobile units not permanently mounted in vehicles, usually ruggedized laptops, were most commonly

Table 4–17. Technology Types Acquired by Local/County MORE Grantees, 1996 and 1998		
	Percentage of Local/County MORE Grantees Acquiring with MORE Funding	
Type of Technology	1996	1998
Mobile computers	60%	79%
Desktop personal computers for general and administrative purposes	23	45
Computer aided dispatch systems	1	12
Booking/arraignment technologies	10	12
Telephone reporting systems	2	6
Other technologies	5	17
N=828		

requested for automated field reporting, so that traffic, crime, and other reports could be completed on the mobile computers while officers maintained a field presence. Reporting software ranged from well-known word processing packages for writing narratives to elaborate locally developed software using menus to navigate through agency-specific reporting forms. Other functions envisioned by some departments include displays of computerized maps, state statutes, and mug shots.

The most elaborate version of mobile computing technology is generally known as Mobile Computer Terminals (MCTs): vehicle-mounted mobile computers that combine the MDT functions with wireless automated field reporting from throughout the jurisdiction, so that officers can potentially save the time of returning to the station during their shifts to submit reports. At the time of our second round of site visits in 1998, no MORE grantees had fully functional departmentwide MCTs in use under this definition, although both the San Diego and Miami Police Departments were reportedly nearing the final stages of field testing. In a random sample of 1995 COPS MORE applications, each mobile computer deployed was projected to free up an average of 2.4 hours of officer time per shift.

Management/administration computers. These desktop or mainframe computers had been awarded to 23 percent of MORE technology grantees by 1996 and to 45 percent by 1998. They are used to do basic administrative functions within the agencies—tasks such as correspondence, records management, payroll, keeping track of staff hours, etc. Some computers were used to develop new databases such as wanted notices and warrants and to computerize arrest reports previously filed on paper only. Among municipal police agencies with more than 100 officers, 98 percent used computers by 1993, according to LEMAS data (Reaves and Smith, 1995). For some of the smaller agencies, however, the MORE-funded computers were among the first in the agency and replaced typewriters. Some agencies also used the MORE-

funded computers for desktop publishing tasks related to community policing, such as publishing community newsletters. In a representative sample of 1995 COPS MORE applications, implementation of the requested equipment was projected to increase officer productivity by an average of 2.6 hours per officer per 8-hour shift.

Booking/arraignment technologies. MORE grants for various booking and arraignment technologies had been awarded to 10 percent of MORE technology grantees by 1996 and 12 percent by 1998. They are intended to reduce the time spent on this lengthy process—easily an hour or more in most jurisdictions. Two new technologies can speed this process. One is an automated fingerprint scanner, which scans fingerprints through a glass plate, transferring the data to fingerprint cards and sometimes sending the data through a modem to local and state fingerprint databases for identification. Remote video camera hookups allow a prisoner to be arraigned by a judge in another location, eliminating the need to transport the arrestee from the jail to the courthouse. In a representative sample of 1995 COPS MORE applications, the booking/arraignment systems requested were projected to free up an average of 2.6 hours per officers per shift.

CAD systems. Computer-aided dispatch systems were awarded to 1 percent of MORE technology grantees by 1996 and 12 percent by 1998. They allow the computer to determine which vehicle is closest to the scene, give responding officers call histories for the call address, and allow agencies to keep track of various statistics such as call response time, time on problem-solving projects, and times that patrol vehicles are in service. In a representative sample of 1995 COPS MORE applications, CAD systems were projected to increase officer productivity by an average of 2.6 hours per officer per shift.

Other items. This category included a geo-mapping system, and a reverse 911 system in which citizens can be automatically called by

Table 4–18. Projected FTEs, by Type of Technology, From MORE Grants Through June 1998	
Type of Technology	**Projected FTEs**
Mobile computers only	5,735 (34%)
Mobile computers, desktops and other only	4,892 (29%)
Desktop computers only	2,531 (15%)
Mobile computers and desktops only	1,351 (8%)
Desktops and other only	1,181 (7%)
Mobile computers and other only	843 (5%)
Other technology only	337 (2%)
Total or mean	16,870 (100%)

a computer system, and a variety of other technologies.[23]

Redeployment from time saved due to MORE-funded technologies: Agency projections

As discussed previously COPS MORE grant applicants were required to include projections of officer full-time equivalents that would be saved through productivity increases and redeployment to community policing after the technology was implemented. Table 4–18 summarizes redeployment projections for MORE technology grants awarded through June 1998, according to COPS Office records. Projections are summarized by mutually exclusive combinations of technology. Because mobile and desktop computers accounted for such high proportions of all technology funded, all others—CAD, booking/arraignment systems, telephone reporting systems, and others—were grouped in an "other" category. The mobile computers only category accounts for 34 percent of all 16,870 projected FTEs funded through June 1998.

From the inception of COPS MORE, the COPS Office screened out clearly inflated projections. Starting in 1996, the office credited only four FTEs per $100,000 toward its running count of officers funded, and it held grantees accountable for achieving only that number. Nevertheless, the accuracy of even the constrained estimates was unknown at the time of award.

Technology implementation status

Different technologies take different lengths of time to become operational, depending upon their complexity, the size of the project, and the novelty of the technology and applications. Small agencies that were funded for stand-alone computers for office work purchased the computers and software off the shelf. Agencies that purchased automated fingerprint devices encountered a delay as they checked to be sure the equipment would be compatible with State or other local systems as needed. Agencies installing mobile computer systems had even longer delays as they and their vendors crossed a number of technological barriers associated with this new technology. These are described more fully in appendix 4–A.

We measured technology implementation status at three points in time: October 1996, September through October 1997, and June through July 1998.

In October 1996, to help us plan site visits to agencies where we could observe the roles of MORE-funded technology in meeting COPS redeployment goals, we conducted a telephone survey of 31 randomly selected agencies with MORE awards for any type of technology. These agencies were selected because they had received official notice by April 1996 that their MORE '95 awards had been federally obligated and were therefore available for local use. Five months after clearance, of the 31 agencies in the sample, 18 had purchased at least some mobile computers, of which 11 reported having their mobile computers in use by at least some of the officers.

A year later (September and October 1997) we collected data on the implementation timetables from 183 agencies to whom MORE funds had been awarded for mobile computers between September 1995 and September 1996. Portable computers were selected for study because they accounted for such a high share of projected FTEs.

Figure 4–7. Percentage of Agencies Reporting Technology Fully Implemented as of June 1998, by Population Category

implementation status for the three most commonly awarded technology categories: mobile computers, desktop computers, and booking and arraignment systems. In the case of laptop and desktop computers, small agencies were most likely to report completion of full implementation. For booking and arraignment systems, large agencies were slightly ahead, with the small agencies not far behind. Small agencies may have had an easier time implementing mobile and desktop computers for two reasons. First, they had less equipment to procure, perhaps less complex procurement procedures to follow, and certainly fewer people to train. Second, larger agencies often had more complex visions for computer systems, which often required upgrading telecommunications technology and integrating the new computing technology with existing records management systems (see appendix 4–A).

Figure 4–8 summarizes agencies' June 1998 reports of their actual and expected implementation progress between 1995 and 2000. Lines on the graph represent actual progress through June 1998 and expected completion dates thereafter. As figure 4–8 indicates, implementation speed depended on the technology type. More agencies reported that desktop computers and "all other" technologies (e.g., scanners, Global Positioning System car locators, digital cameras, in-car video recorders) were more fully complete at the time of the survey in 1998 than other types of technology. However, despite the off-the-shelf nature of the "all other" category, only slightly more than 60 percent of the agencies with those technology types reported having that technology fully implemented. For computer assisted dispatch (CAD), this number is only 30 percent, presumably for two reasons: CAD awards began later,

Most recently, in our Wave 3 survey, July–August 1998, we reinterviewed the local/county agencies in our sample that had received MORE grants in 1995 for any type of technology; these grantees had had the longest time periods to complete implementation. In the following pages, we first report their estimated implementation timetables for all types of technology and then explore the special case of mobile computing technology in more detail.

Technologies other than mobile computing. To determine the status of technology implementation, we used the Wave 3 survey to estimate the percentage of fully implemented technology by jurisdiction size as of June 1998. Figure 4–7 shows the

Figure 4–8. Expected and Actual Dates for Technology Implementation*

Legend:
- Other technology (n=84)
- Mobile computers (n=200)
- Desktop computers (n=113)
- Telephone report systems (n=19)
- Booking systems (n=36)
- CAD (n=36)
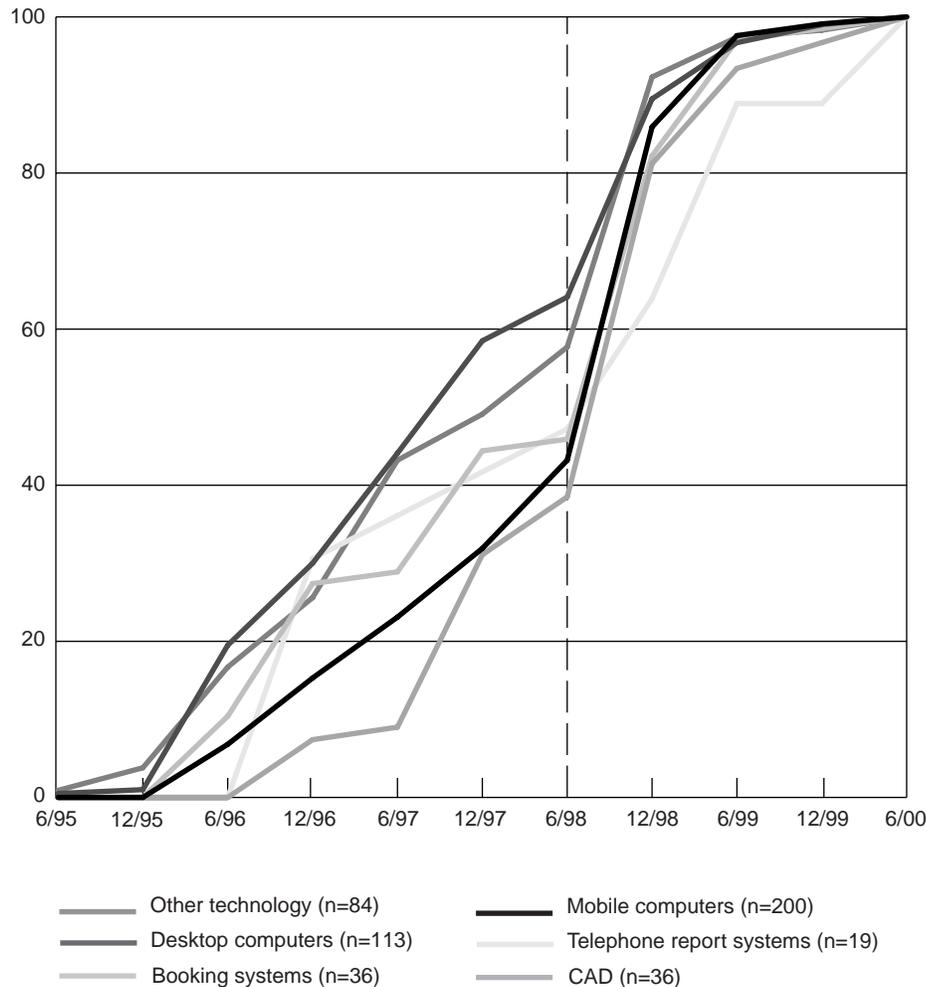
*Respondents who answered "don't know" for month or year were coded missing.

illustrate a persistent optimism concerning implementation schedules.

In December 1996 (Wave 1 data collection completion) 27 percent of MORE grantees funded for mobile computers reported they had selected their equipment and had it in use. By the fall of 1997, this percentage had grown to 59 percent, and 83 percent had taken delivery of the equipment. At that time, 82 percent expected to have the equipment in operation 7 months later, by June 1998. In June 1998, however, our Wave 3 survey found that only 44 percent of MORE grantees funded for mobile computers described themselves as fully operational; the drop probably reflects new awards for mobile computers between fall 1997 and June 1998.[24]

The Wave 2 survey of 1995 mobile computer grantees allowed us to estimate a more detailed timetable of agencies' implementation accomplishments within two years after award: figure 4–9 illustrates the agencies' progress in each of four common implementation milestones. Not all agencies planned to do all of the steps; for example, smaller agencies may not have had to go through a procurement step of releasing a request for proposals (RFP), and not all agencies planned a pilot test. Of the 88 percent of 1995 grantees that planned to release an RFP, 83 percent had done so within 2 years. By that time, 83 percent had their equipment delivered, 58 percent that planned pilot tests had completed them, and approximately 59 percent of the agencies had the equipment in use by the end users.

and implementation requires adapting an off-the-shelf system to local call codes and dispatch procedures.

Agencies were optimistic, though. More than 80 percent of the agencies expected their technology to be fully implemented by the end of 1998, and all expected the technology to be fully implemented by June 2000. We are remeasuring their actual and expected progress in our Wave 4 survey.

Implementation of mobile computing technology. An examination of the implementation history for mobile computing technology helps both to explain the time path of implementation and to

Of 10 1995 MORE grantees selected for site visits on the basis of their reported success in implementing mobile computing technology, only two—Austin, Texas, and Racine, Wisconsin—had the majority of their mobile computers in full use when our visits occurred between February 1997 and June 1998. At that time, Austin was the most advanced operational agency among our sites in its automated report writing, with more than 500 reports per day being submitted by portable computers. The agency estimated the implementation of more than 200 mobile computers, each saving 1 hour of officer time per day, would save an estimated 42 FTE positions. This time savings was to be achieved through more efficient report writing and a reduction in supervisor time. Whether the computers saved this time as estimated could not be independently confirmed during our visit, but the agency had done a small before-after time study that yielded results consistent with projections.

In Racine, the agency estimated its mobile computers would save an average of 1.5 hours per day per officer. At the time of our visit, the computers were used only for the MDT wireless access functions, which save officer time by eliminating the wait for the dispatcher to run license and registration checks from the patrol car. Running a large number of checks sometimes occurs in the course of a problem-solving project, but usually the time savings from wireless checks do not accrue in large enough segments to allow the officers to do other tasks. At that time the wireless access had had the benefit of encouraging officers to run more vehicle tag checks. The biggest redeployable time savings was expected from automated field reporting, which was planned for the future. The agency is setting up a system to take advantage of officer time saved—a loosely structured problem-solving operation which will work as a fourth shift. This shift will handle chronic problems and will be freed from answering calls.

Figure 4–9. Percentages of 1995 Grantees Achieving Four Milestones in Mobile Computer Implementation by Autumn 1998
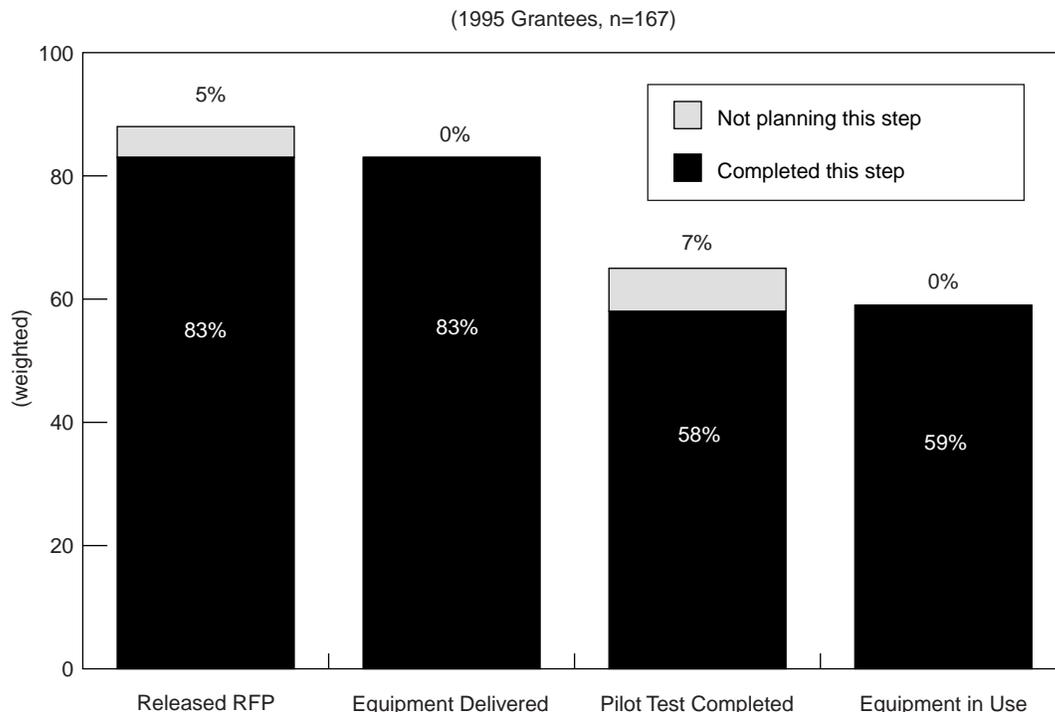
Three of the agencies we visited were pursuing wireless, or at least remote, field reporting with MCTs. Miami Police Department proceeded in stages, had the MDT functions operational by August 1997, and was recently reported to be testing wireless field reporting using Cellular Digital Packet Data technology. The San Diego Police Department (SDPD) was approaching operational status for its elaborate menu-driven field reporting software in several districts, with submission from within 1,000 feet of receiving towers outside district headquarters, using AERONET antenna cards plugged into the computer units. Using the SDPD reporting software, the San Diego School Police planned to save officer time by remote submission from their assigned schools to police headquarters over the school administration Wide Area Network (WAN). Unfortunately, the WAN was upgraded in a way that made it incompatible with the reporting software, and so reports were still being submitted by fax and interoffice mailing of diskettes at the time of our second visit.

Mobile computing technology implementation is complex, and understanding it requires some specific background on its intended uses. These details are explained in appendix 4–A.

Time savings and other effects of technology

As explained in chapter 2, COPS MORE emerged as a resolution of two competing priorities: (1) advancing, through redeployment of time saved through enhanced productivity, the administration's goal of adding 100,000 officers to the Nation's sworn force, and (2) responding to some prominent local police and elected officials' pleas for new technology instead of additional police officers. Therefore, we wanted to measure both productivity increases and other local benefits and costs flowing from MORE-funded technology.

Specifically, our Wave 3 survey included items to learn the following from COPS MORE technology grantees as of June–July 1998:

1. How many FTEs of sworn officer time are being saved from operational technology?

2. How many FTEs of sworn officer time are expected from technology when it becomes operational (which we expressed as a percentage of projected savings in the grant application)?

3. How are sworn officer time savings being measured?

4. What other local costs and benefits are expected from the MORE-funded technology?

Summer 1998 was still early to assess the effects of MORE-funded technologies. Systems other than mobile and management/administrative computers were requested and funded too rarely to support detailed estimates. For the computers, the local knowledge base regarding their operation was sparse because few grantees had fully operational systems. The preliminary data available at that time suggested that redeployable officer time will fall short of projections and be difficult to measure but that other local benefits are already occurring.

Based on Wave 3 survey data, we estimate that, as of June 1998, operational technology of all types yielded 15 percent of the 16,870 projected FTEs funded through December 1997. Grantees expected to receive another 34 percent of projections, so the funded technology would eventually yield 8,326 FTEs or 49 percent of total projections. Mobile computers alone, which accounted for about a third of total projections, were expected to yield only 31 percent of projections when all were fully operational. Only half of all MORE technology grantees reported having systems in place to measure redeployment when and if it occurs.

In contrast, interviewees during site visits named and demonstrated a host of local benefits other than time savings from each of the various technologies. Examples included higher apprehension rates due to wider and faster information dissemination, safer officers when arrestees are arraigned in lockup by video instead of being

transported between jail and court, and better relations with communities from such systems as Reverse 911, crime maps on agency Web sites, and "Are You Okay?" systems to check electronically on homebound citizens. Both productivity increases and local benefits from MORE-funded technology will be reexamined in our Wave 4 survey, which is being fielded in June 2000.

The following subsections explain these Wave 3 findings in more detail.

Time savings. In June 1998, COPS MORE technology grantees in our Wave 3 sample were asked to report the numbers of FTEs of increased productivity already being received from operational technology and, separately, the number of FTEs expected from other technology when it does become operational. Table 4–19 reports the results.

Overall, total FTEs already accruing from operational technology and anticipated from future operational technology total 8,326, or 49 percent of the 16,870 projected FTEs reported in the COPS Office grants management database.[25] Of the 49 percent, 15 percent was estimated to accrue from operational technology, while 34 percent was anticipated when the remaining technology became operational. Grantees with mobile computers and the mobile-desktop combinations report the least optimistic projections. Agencies in these two categories anticipate only 31 percent and 38 percent, respectively, of the FTEs they originally projected. This may indicate that agencies exaggerated their expectations in the beginning or that, as the technology becomes operational, they realized the FTE yield may not be as large as originally thought.

Whether the remaining redeployment projections for MORE-funded technology will be met and whether the redeployment will increase the level of policing in communities are still in question. Few agencies have systems in place to measure time savings and redeployment. Further, whether any time savings will be applied to community policing depends on whether necessary management changes occur.

Table 4–19. Projected and Anticipated FTEs*					
Type of Technology	Projected FTEs	Current FTEs from Any Operational Technology	Anticipated FTEs from Future Technology	Total FTEs Anticipated	Current FTEs Anticipated Divided by Number Originally Projected
Other technology	337 (2%)	18 (1%)	188 (3%)	206 (2%)	61%
Desktop computers	2,531 (15%)	958 (38%)	317 (5%)	1,275 (15%)	50
Mobile computers	5,735 (34%)	442 (17%)	1,353 (24%)	1,795 (22%)	31
Mobile computers and desktops	1,351 (8%)	143 (6%)	364 (6%)	507 (6%)	38
Mobile computers and other	843 (5%)	114 (4%)	418 (7%)	532 (7%)	63
Desktops and other	1,181 (7%)	280 (11%)	231 (4%)	511 (6%)	43
Mobile computers, desktops, and other	4,892 (29%)	584 (23%)	2,916 (51%)	3,500 (42%)	72
Total	16,870 (100%)	2,539 (100%)	5,787 (100%)	8,326 (100%)	49

*The categories in column 1 are mutually exclusive.

Table 4–20. Percentage of Agencies Reporting Time Savings From Operational Technology, 1998, by Status of Time Measurement System*

Measurement System Status	Time Savings Reported (n=128)	No Time Savings Reported (n=9)	Total
In place (n=69)	61 (88.4%)	8 (11.6%)	69 (50.4%)
No measurement system in place (n=68)	67 (98.5%)	1 (1.5%)	68 (49.6%)
TOTAL	128 (93.4%)	9 (6.6%)	137 (100.0%)

*Wave 3, weighted percentages.

The first stumbling block in measuring redeployment is that, in general, agencies were not measuring the time savings as of June 1998. In Wave 3, only 48 percent of the local/county MORE agencies surveyed indicated they had at least one measurement system in place. Among those, 55 percent had officers keeping a log or the agency tracks information provided by the officer; 53 percent used informal estimates; 41 percent analyzed dispatch records; 39 percent analyze assignment sheets or duty rosters; 31 percent conducted surveys; 23 percent had no specific record-keeping system; and 8 percent used other methods. The COPS office has since mounted technical assistance on this issue.

Agencies report great confidence that sworn officer time is being saved already from operational technology and that further savings will accrue as the remaining technology comes on line—albeit in smaller amounts than projected in applications. As shown in table 4–20, 93 percent of MORE technology grantees reported that time savings were accruing. This statement was made by 88 percent of respondents with a measurement system in place and 99 percent of those without.

Even with a system in place, accurately assessing the time savings and redeployment facilitated by mobile computer systems is difficult for at least two reasons. One is that labor-intensive time analyses with rigorous designs would be needed to measure time saved by writing reports

in the field. Another is that in many situations accurate redeployment estimates require that even very small segments of officer time be accurately recorded throughout the day and combined into a time block for community policing activities in both the records and reality. Channeling saved officer time into proactive community policing will require management decisions about the best use of officers' time as well as training, supervision, and creative ways of allowing officers to set aside segments of time for community policing (see Maxfield, 1998, for examples).

Additional costs and benefits from MORE-funded technology. Many MORE technology grantees experienced unexpected technology-related costs beyond the required match, benefits other than measurable productivity increases, or both. These are discussed next.

In general, MORE technology grantees could not request COPS funding for a number of *unexpected costs* related to the technology. Examples include computer staff time, installation time, or training time. Many grants necessitated hiring or redirecting staff for installation and maintenance of equipment. The staff time needed for installation of the technology was often extensive. Some agencies had officers fill these roles, while others hired civilian specialists. Some agencies successfully used the MORE grant to fund consultants, or hired civilian computer personnel through the MORE program. This required

sophisticated grant writing, however, as this time had to be shown as redeploying officers. Some larger agencies included the time of new or existing staff in the entire technology package. Staff or vendor time is also needed to maintain the new equipment. For example, maintenance on computers includes setting them up, fixing them or sending them for repair, backing up data when needed, upgrading the software, conducting virus checks. This cost is one which is not addressed in the COPS funding or the redeployment estimates.

Some agencies experienced significant unexpected implementation costs. Depending on technology type, 23 percent to 27 percent of MORE technology grantees implementing the five most common technology categories reported unexpected implementation costs increased the local cost of their MORE grants by at least 10 percent over the match they had originally planned (see table 4–21 for details). Not surprisingly, the likelihood the grantee would experience unexpected costs increased as implementation progressed. The percentage reporting unexpected costs rose from 21 percent of agencies with mobile computers *not* fully implemented to 31 percent of agencies that had completed implementation. That percentage rose from 22 percent to 29 percent for agencies implementing desktop computers, from 26 percent to 43 percent for CAD systems, from 3 percent to 60 percent for automated booking

systems, and from 12 percent to 32 percent for telephone reporting systems.

During interviews and site visits, staff members in MORE grantee agencies reported receiving *benefits other than measurable increases in officer productivity* from their MORE-funded technologies. The precise nature of these benefits depends on the type of technology.

As reported earlier in this chapter, mobile computers were expected to save more time than any other technology, primarily by reducing travel time back and forth to police stations to file reports. Completing reports in the field, for example, from a public place such as a community policing substation in a mall or restaurant, produces an additional benefit of keeping officers in the public eye. By staying on their beats, officers can respond to calls for service more quickly. In addition, police officers can be more available for community policing functions. However, unless wireless transmission is part of the package, officers must either delay dissemination of the report (thereby, perhaps, delaying the start of an investigation) or take time to travel to headquarters to submit the report.

Other potential benefits of writing reports with mobile computers include automated information retrieval, which is expected to save the time of reviewing supervisors and detectives. For agencies that use the mobile computers to bypass

Table 4–21. Percentage of MORE Technology Grantees Reporting Unexpected Cost, by Implementation Status		
	Percentage of Agencies Reporting Unexpected Costs	**Percentage for Agencies With Fully Implemented Technology**	**Percentage for Agencies With Technology NOT Fully Implemented**
Mobile computers	27% (n=180)	31% (n=120)	21% (n=60)
Desktops	24 (n=109)	29 (n=45)	22 (n=64)
CAD	35 (n=32)	43 (n=20)	26 (n=12)
Booking systems	23 (n=25)	60 (n=10)	3 (n=15)
Telephone reporting systems	23 (n=17)	32 (n=8)	12 (n=9)
Other technology	8 (n=70)	0 (n=37)	20 (n=33)

the dispatcher to do license and NCIC checks, the wait to receive this information may be much shorter than it was in heavy volume situations when the dispatcher or radio frequency is swamped. This produces an additional benefit in terms of officer safety.

COPS MORE funded several different *technologies intended to cut officers' "down time" associated with booking and arraignments*. Depending on their implementation stage, several agencies expected or reported other benefits as well.

One popular MORE-funded technology is a computerized fingerprint scanner. The scanners are intended to save officers' time by eliminating the need to complete multiple fingerprint cards. Because the scanner stores the image digitally, it eliminates the need to roll prints on separate cards for local, State, and FBI files, as well as disposition verification. Officers can also key in alphabetic fields only once.

Grantees tended to choose scanners that were compatible with the Automated Fingerprint Identification System (AFIS), which was developed by the FBI and is used by many State fingerprint repositories. Because AFIS stores and indexes all 10 prints taken from an arrestee, it increases investigators' chances of matching latent prints obtained at the scene of a crime. The Oak Park (Illinois) Police Department, one of our study sites, anticipated other benefits. One is nearly instantaneous electronic fingerprint checks against repositories in the FBI, State identification bureaus, and nearby localities—neighboring Chicago in Oak Park's case. The computer also allows the agency to easily enlarge and print the fingerprints for use in court displays and reduces the cost of doing fingerprint searches for recruit applications, school employees, and cab drivers.

Another type of booking/arraignment equipment is closed circuit television between the lockup facility and the arraignment courtroom. Instead of transporting prisoners back and forth between

the jail and courthouse, the Des Moines (Iowa) Police Department used MORE funding to purchase this equipment. With it in place, initial court appearances are done by video from within the lockup facility. This provides a time savings in transporting prisoners and, in fact, has allowed the agency to reassign two officers back to patrol. While it was not clear to our site team that the officers had been redeployed into proactive community policing, the system produced other benefits: reduced risk of injury to officers, reduced risk of prisoner escape from custody, and a lessening of the indignity offenders may feel as they are physically transported in public areas while handcuffed and in leg shackles.

The Huntington Beach (California) Consortium was building an automated jail booking system to link the eight member agencies that deliver prisoners to the same jail. The Huntington Beach Police Department estimates that large time savings will accrue because arresting officers will "drop off the prisoner and run" instead of completing all six forms by hand at the station. Because the system has scanning capability, officers will no longer deliver forms, fingerprints, and photographs with the prisoner to the county jail. Additional benefits can accrue if access to all that information is shared across the region.

COPS MORE funded two other technologies that can contribute directly to community policing: Reverse 911 and Guardian Alert. *Reverse 911* is a telephone system that can be programmed to make broadcast calls to the community, notifying large numbers of residents about upcoming community meetings and providing them with crime prevention tips or warnings of incidents in their areas. It can also be helpful in calling residents when trying to locate a missing person.

To meet the cost-effectiveness criteria, one department projected time savings from having the system rather than officers make calls to the community. This savings, of course, is only potential unless such calls are already being made, which was not observed on our field visit. The local benefits lie in enhancing the

department's partnership-building effort while reducing its cost, enlisting citizens as "eyes and ears" in search of missing persons or criminals operating in an area, and perhaps encouraging greater use of crime prevention tips.

The *Guardian Alert system*, also known as the "Are You Okay?" program, calls house-bound individuals to check on their well-being. It was in use in two of our visited sites, the Fort Worth and North Charleston Police Departments. If a participant fails to answer the phone, a police car is dispatched.

As with Reverse 911, the time savings projections are potential unless the agency provided this service using officer calls before. But even in a setting where no time savings would accrue, the technology provides a benefit in the form of a new service to the community, which can be thought of as additional community policing. It is likely also to enhance agencies' partnership-building efforts.

MORE-supported civilians

As explained in chapter 2, agencies were allowed to request funding for up to $25,000 per civilian per year through the COPS MORE program. These civilians were to be hired specifically to redeploy sworn officers into community policing activities. The application instructions noted that "examples of permissible support resources include the replacement of sworn officers in administrative or clerical positions with nonsworn employees, programs utilizing volunteers in support of redeployment, additional administrative resources that increase officer presence in communities, or other systems that serve the goals of community policing." Each civilian COPS MORE grant was for 1 year, but the awards for civilians could be renewed for up to an additional 2 years.

Dorothy Guyot (as quoted in Shernock, 1988) has categorized civilian positions in police departments based on the relationships between the civilian position and the sworn position that it

replaces or, in our evaluation terms, redeploys. The categories are as follows:

1. Shedding support tasks from sworn officers to specialized civilians (e.g., administrative/ clerical functions).

2. Replacing sworn personnel in existing positions (e.g., dispatchers, property room manager, or jail/corrections positions).

3. Placing civilians in specialist staff positions to improve officers' productivity (e.g., computer technician, crime analyst, or grant manager).

4. Staffing new community policing positions (e.g., domestic violence specialist, social worker, CPTED planner, community resource specialist, community service officers, or volunteer coordinator).

Under the MORE civilian grant program, grantee agencies use civilians in all four of these ways. Our findings about their use are based on five sources of data: (1) grant databases from the COPS Office listing the numbers and amounts of civilian grants, (2) project visits to 30 sites, conducted in 1997, (3) short phone surveys conducted by U.I. staff in the summer of 1996; (4) a database of 1995 MORE grant applications coded and entered by the U.I. staff; and (5) Wave 3 survey data from June 1998.

Civilian funding. By the end of 1995 MORE awards for civilians that had been mailed or obligated totaled $144.6 million funding 6,506 FTEs. These expenditures averaged $22,228 per civilian. As with the hiring programs, agencies were required to pay a 25-percent match for the funding. The MORE civilian funding was for 1 year only, but agencies were encouraged to request supplemental grants to retain their civilians for up to 2 years after the first grant expired. By the end of 1996, $51.1 million had been awarded as supplemental grants for civilians, 28 percent of the MORE civilian funding. As of June 1998, the amount of civilian funds had grown to $287,178,637, which was expected to support 12,975 FTEs.

The New York City Police Department received $80.8 million, 56 percent of the MORE civilian funds awarded by the end of 1996. The Los Angeles Police Department and the Los Angeles County Sheriff's Department were the next highest civilian fund recipients with $6.1 million (4 percent) and $3.1 million (2 percent) in awarded grants by the end of 1996. The majority of agencies (73 percent) received funding for the FTE equivalent of one full- or part-time civilian. Nine agencies were awarded grants totaling 50 or more and these ranged up to a grant and supplement for 1,560 civilians for the New York City Police Department.

Hiring civilians. Hiring civilians to redeploy officers is, in part, based on the idea that civilians are less expensive than sworn officers. Harring (1981) notes that New York City estimates that civilians cost from one-third to one-half the cost of a police officer, controlling for policing practices and other local conditions. Training for civilians is generally shorter, liability insurance requirements are fewer, and civilians don't necessarily wear uniforms, carry weapons, or require vehicles. Those who are not professionals often receive lower pay than officers and are not part of the police pension system.

MORE funding of civilians provides modest encouragement for a trend toward civilianization of law enforcement that began more than two decades ago, according to Heininger and Urbanek (1983). Between 1990 and 1993, the number of full-time civilians employed by large municipal law enforcement agencies grew at an average annual rate of 3 percent, from 52,191 to 56, 412 (Reaves, 1992; Reaves and Smith, 1995). Between 1993 and 1997, the number of full-time civilians employed by large municipal law enforcement agencies grew at an average annual rate of 4 percent, from 56,412 to 63,458. According to the agencies sampled in June 1998, in the years from 1995 to 1998, from 40 to 50 percent of MORE-funded agencies reported they were already hiring civilians by the year they reported first hiring MORE-funded civilians, and

more than half of the agencies reported they are currently recruiting to fill at least one or two civilian positions.

Our site visits indicated that, in general, agencies progressed much faster in hiring civilians than in implementing MORE-funded technology. As in the technology projects, upon receiving notification of grant funding, many agencies experienced delays in project startup due to local factors. Besides the potential delays that affected all COPS programs, civil service tests were often required, which were subject to local scheduling. Training length varied widely because the positions varied widely.

In June 1998, more than 80 percent of COPS MORE grantees funded for civilians reported they had completed their civilian hiring. As shown in figure 4–10, this figure was approximately the same regardless of the civilian position: clerical, telephone reports, dispatch, and booking positions. All of the agencies expected to have hired all of their MORE-funded civilians for those four positions by the end of 1999.

Replacing sworn with civilian staff. The following are examples of MORE-funded civilian assignments we found on our site visits, classified using the Guyot categories. Under the category of *shedding support tasks* are clerical/administrative and record maintenance positions. The most frequently found positions were clerical and administrative civilians (65 percent). The functions vary by agency, but common ones were typing, data entry, filing, scheduling duty hours, taking phone messages, and maintaining criminal records.

The Austin Police Department at one time was burdened with a record maintenance backlog of 129,000 arrest sheets and 22,000 expungements that needed to be filed. With civilianization, the backlogs of arrest sheets and expungements were completely eliminated. The unit is much more efficient due to the use of technology, specifically computers and photo imaging. Civilians have become proficient at conducting a wide

range of tasks (i.e., Brady Act clearance letters, public fingerprinting, and general clearance letters). The civilianization of the records department allowed a captain, lieutenant, and sergeant to return to field operations.

Under the Guyot category of *replacing sworn personnel in existing positions*, one of the more common uses of civilians is as desk officers. For example, a small agency hired five civilian duty officers to staff the agency's front desk. They take walk-in reports, payments for bond and vehicle tow fees, answer the Crime Stoppers line, dispatch tow trucks, keep books on repossessed and abandoned cars, enter stolen item reports into NCIC, and secure the building at night. Plans were under way to train and use them to guard prisoners being held before being taken to the booking facility. Civilian desk or duty officers are also being deployed to new community policing stations or to substations. For example, in Fort Worth, Texas, seven control officers were hired to staff the front desks in the Neighborhood Patrol District stations.

Another civilian use is dispatch duty. Typically the dispatch function has been one of the first to be transferred to civilians. In our sample of 1995 MORE grantees funded for civilians, 13 percent of the applications requested funds for civilian dispatchers. There has been some concern from the ranks of police about this transition. Many officers believe dispatchers do not understand the realities of the street experience and could therefore jeopardize the officers. The dispatchers also can have quite a

bit of control over situations and officers. They can monitor a patrol officer throughout the shift, file reports on officers, and control who responds to which calls.

One tactic large and small agencies alike are adopting is the use of alternative call responses, or differential response. Agencies are finding ways to sort incoming calls to selectively respond to calls in some less expensive way than immediate dispatch of a patrol car. In Austin, Texas, 10 MORE-funded civilians answer a phone line in which they take police reports on lower priority calls—many of which do not require a police unit to respond to the scene. One of the main uses for this system is to take reports over the telephone for crimes in which the chance of arrest is small because the perpetrator is long gone. Estimating that half of all calls

Figure 4–10. Expected and Actual Hire Dates for MORE-Funded Civilian Positions Where Agency Reported All Civilians Were Assigned to That Position (Wave 3, June 1998)
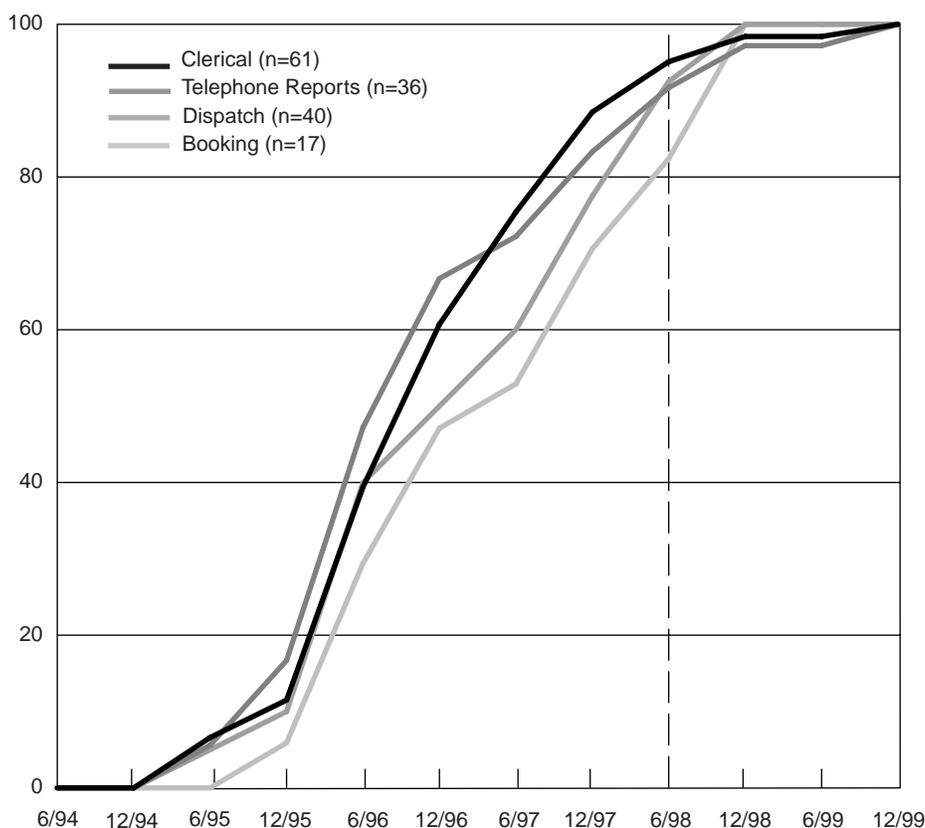
can be handled by telephone at a savings of 78 officer minutes per call, the agency estimated that adding 10 civilian call response employees could save 20.8 sworn FTEs per year.

The San Bernardino (California) Sheriff's Department has a similar program, the Telephone Reporting Unit (TRU), which is staffed with civilians hired with a COPS MORE grant. The sheriff's department did a followup analysis of deputy time savings due to the TRU. They estimate that the TRU saved 6.37 sworn FTEs in 1996, somewhat short of the 8.7 FTEs estimated in the application and the cost-effectiveness threshold for MORE applications, but certainly closer to the goal than some of the MORE-funded projects achieved at that time.

One agency reported a secondary problem with alternative response: getting the information on the low-priority calls back to the precincts from which they came. Without this feedback, disorder patterns may be missed, and staff cannot address these problems.

Civilians are also used as evidence technicians. COPS funding allowed the Oregon State Police (OSP) to hire 26 civilian evidence technicians who collect evidence, freeing up troopers to conduct investigations or work in the crime labs. In the crime labs, the evidence technician tasks generally include the processing of evidence, records keeping, lab cleanup, maintaining evidence in storage, and, when ordered by the court, destruction of evidence. This frees laboratory ("bench") technicians to do analysis.

Since OSP acquired AFIS technology, the agency has received an increasing number of latent print "lift cards" from other agencies. The civilian evidence technicians run an increased number of them through the AFIS system. After attending an 80-hour evidence-handling training course developed by the agency—compared with 4 to 8 hours for rookies in the training academy—the evidence technicians began lifting fingerprints and collecting evidence at crime scenes. By the time of our site visit in January

1997, OSP considered this innovation a success that had freed up substantial, though unmeasured, sworn officers' time.

Placement of civilians in specialist staff positions to improve officer's productivity, another Guyot category, is exemplified by use of civilians as computer specialists. Smaller agencies relied on inhouse sworn personnel with almost no training to install mobile computers. This was also true to some degree in the larger agencies, although training may have been more readily available. In many cases the agencies relied almost exclusively on vendors to plan and implement, leaving the agency in a vulnerable position.

Some agencies used COPS funding effectively to get trained civilian personnel to develop mobile computer systems. The MORE technology application did not explicitly state that funding could be used for computer expertise, but some agencies creatively incorporated this in the funding package. In the civilian package, it was not easy to hire computer personnel unless redeployment was projected to occur directly. One agency that did this was Pocatello (Idaho) Police Department, which hired one crime analyst who also had computer expertise.

Under the category of *new community policing functions* is the civilian position of community coordinator. A number of agencies created positions to assist specifically with the community policing function. A listing of duties for positions in this category include tasks such as: coordinate special community policing projects, gather data on the effectiveness of the community policing program, identify law enforcement problems and concerns and develop relationships with the community, coordinate volunteers, and serve as community resource specialists.

In Fort Worth, a civilian was hired part time with MORE funds to coordinate a program called the Code Blue Neighborhood Watch. In Pocatello, a civilian coordinates the Neighborhood Watch program and has successfully recruited 464 people (in a town of only 50,000) to volunteer

for the police department or to be Neighborhood Watch block captains.

Distribution of civilians by June 1998. Agencies that reported all their MORE-funded civilians were assigned to a single position category were used to compute the distribution of civilians in the positions described above as of June 1998. The top three positions were clerical, dispatch, and telephone response: 43 percent reported civilians were in clerical positions, 34 percent of agencies reported civilians filled dispatch positions, and 26 percent reported civilians filled telephone response positions.

Creating civilian positions. Civilians on COPS grants were intended to make officers available for redeployment to community policing, but some also took the opportunity to expand an activity by creating and filling a newly created position or to increase the total number of people in an existing position. For the top four positions with the highest frequencies of civilian assignment reported in table 4–22 (clerical, telephone reports, dispatch, and booking positions), 50 to 73 percent of the agencies reported a new position was created. Nine to twenty-three percent of the agencies reported civilians increased the total number of a position that had previously existed. Overall, 73 to 80 percent of the agencies indicated they had either created a new position or increased the total number of people in each existing position.

Retention. As of the Wave 3 survey period in June 1998, 64 percent of MORE civilian grantees reported that all of the original civilians hired were still with the agency. Of the remaining 36 percent, 80 percent indicated that all of the hired civilians who had left had been replaced.

Redeployment. Positions in the four Guyot categories raise different problems for estimating and measuring redeployment. Simple replacements are usually the easiest: redeployment occurs on a one-for-one basis (at lower hourly cost) if the civilian simply does what the sworn officer was doing. Measuring the savings from shedding routine tasks requires probability and time estimates for those tasks—for example, in what percentage of cases is evidence collected at the scene and, in those cases, how much time is spent on average. The situation is less straightforward if the introduction of civilians is part of a change in the way policing is done. For example, if 10-minute telephone call taken by civilians replaces a 60-minute car response by officers, then redeployment occurs on a six to one basis.

Despite the range of ways in which civilians could allow officer redeployment, agencies tended to project one-to-one redeployment. An analysis of the 1996 COPS MORE grantee database found that for the 2,100 FTEs requested through civilian redeployment, approximately 2,085 civilian positions were requested, indicating the average redeployment across all agencies was approximately one-to-one. The redeployment estimates varied from 65 civilians providing an estimated 203 sworn officer FTEs in Washington, D.C., to 200 civilians providing 150 sworn FTEs in New York City.

According to many sites, redeployment is planned to occur as civilians perform tasks that previously took officers' time, saving small segments of time from many officers. Ninety-six percent of all agencies in June 1998 reported that civilians saved sworn officers' time. As shown in table 4–23, this percentage was very high regardless of whether or not a measurement system was in place.

Implementation of grants for overtime

The MORE program awarded approximately $29.3 million in overtime grants in 1995 and 1996, which was about 6 percent of the 1995 MORE application. After 1995, MORE grants no longer funded overtime for three reasons: (1) many funded agencies felt the $75,000 limit coupled with time-and-a-half raised the implicit match too high, (2) some abuses were reported to the COPS Office (for example,

Table 4–22. Percentage of Grantees Creating or Expanding Civilian Positions*			
	Percentage of Agencies Creating New Positions	Position Existed Before and Civilians Increased the Total Number	Percentage Creating New Positions or Expanding Old Positions
Clerical (n=103)	68%	12%	80%
Telephone reports (n=73)	73	9	82
Dispatch (n=60)	50	23	73
Booking (n=32)	71	14	85
*Percentages are weighted.			

Table 4–23. Percentage of Agencies Reporting That Civilians Saved Sworn Officers' Time by Whether or Not a Measurement System Is in Place*			
	Time Savings (n=146)	No Time Savings (n=8)	TOTAL (n=154)
Measurement system in place (n=114)	98.6%	1.4%	100%
No measurement system in place (n=40)	90.1	9.9	100
*Wave 3, weighted percentages.			

overtime to officers nearing retirement to raise the salary used in pension calculations), and (3) overtime was not seen by the Justice Department as leaving a legacy.

Redeployment from overtime. The requirement for agencies that wished to request overtime under COPS MORE was straightforward; that is, "Only the payment of overtime for officers actually engaging in increased levels of community-oriented policing activities during the funded overtime period will be funded." The difficulty in this approach for the COPS Office was it would only result in a temporary redeployment of officers. Sites were not required to indicate they would assume this cost after the grant funding expired.

Agencies used Federal funds for up to 75 percent of an officer's overtime wage (including time-and-a-half). This overtime amount was not

to include benefits. Agencies were asked to pay the remaining 25 percent of the wage as a match.

Overtime funds were typically used to have officers conduct new or expanded community policing activities. Often the funds were for some period shorter than a calendar year (e.g., a school year for a school resource officer, evenings during a year for someone assigned to community meetings, or during the winter months to check on vacation homes left vacant).

The 1995 COPS MORE database lists 323 overtime awards totaling $15.4 million, ranging from an award of $738 to the city of Lewisburg, West Virginia, to $4.7 million to the Houston (Texas) Police Department. Most overtime grants were small. Of the 323 awards listed, 219 (68 percent) estimated they would redeploy the equivalent of one or fewer FTEs. (An FTE could be less than one, because they are counted in terms of officer

hours and could be a portion of one officer's time.) In general, overtime funds were used to do typical community policing tactics—conduct foot or bike patrols, attend community meetings, and teach DARE programs, which occur during the school year or on part of an average shift.

For the overtime program the mean number of hours accounted for by one redeployed officer was 1,777, which is 47 hours short of the 1,824 hours that serves as the COPS Office standard for the full-time equivalent of one officer. However, theoretically overtime hours will more directly result in hours of community policing because overtime hours are counted after vacation, sick leave, and training hours.

Benefits of overtime. Overtime was considered by most agencies to have some benefits in spreading community policing. In an Urban Institute survey of 21 randomly selected recipients of MORE grants for overtime, all agreed the overtime enhanced their community policing efforts and provided additional time to engage in community policing without interfering with 911 responses. All but four agencies responded that the overtime funding gave supervisors an incentive to encourage officers to engage in community policing, which allowed the agency to experiment with community policing as an innovation.

Notes

1. The Wave 3 survey sampled only medium-sized and large local/county agencies with hiring grants but all sizes of large local/county agencies with MORE grants. However, some of these agencies also had hiring grants, and they were questioned about those hiring grants. The Wave 3 hiring data from these small MORE grantees are not used in this chapter because the results may not be representative of all small agencies with hiring grants, but they are used in chapter 5 to calculate national estimates of COPS officers hired by small agencies.

2. The Wave 3 survey included only municipal and county agencies, which received 77 percent of hiring awards through the end of 1997.

3. Wave 1 analyses indicated that although large agencies had greater numbers of new officers to hire and train, the ratio of new officers to agency size was greater for smaller agencies. To illustrate, 1995 AHEAD grantees were awarded an average of eight officers through the program, while FAST agencies were awarded one officer on average. Further, AHEAD agencies received a range of 1 to 321 officers, while FAST agencies received a range of only 1 to 10 officers. The number of officers awarded to FAST agencies averaged 20 percent of the size of the existing sworn force and had a median value of 10 percent of the size of the sworn force. Approximately 6 percent of FAST agencies doubled their force. Officers awarded to AHEAD agencies, in contrast, averaged 2 percent of the number of sworn officers (officers granted to each AHEAD agency were limited to no more than 3 percent of the agency's size at the time of application). If these patterns have held for post-1995 COPS hiring grants, they suggest that the process of assimilating new officers has been potentially more challenging for small agencies.

4. Unless otherwise noted, all tables and figures in this chapter based on survey data report weighted counts, means, or percentages. The survey weights are explained in the methodology appendix at the end of this report.

5. The sample of agencies consisted originally of 233 randomly selected FAST agencies and 213 randomly selected AHEAD agencies. For these analyses, 1 (0.4 percent) of the FAST agencies and 18 (8.5 percent) of the AHEAD agencies were excluded because at the time of the survey they no longer had their COPS grant.

6. The Wave 3 sample of large agencies was stratified by COPS grant status as of early 1996 (nongrantee, FAST/AHEAD, UHP, MORE). The estimates presented in this section are weighted to reflect the agencies' differing probabilities of selection (see the methodological appendix on the Wave 3 survey design).

7. Approximately 6 percent of both the FAST and AHEAD agencies had not hired their officers. This small group of agencies, 13 of the sampled FAST

agencies and 11 of the sampled AHEAD agencies (1 AHEAD respondent did not know whether the approved officers had been hired), experienced delays that were at least triple the average time-to-hiring for agencies that had completed hiring. For the nonhiring FAST agencies, an average of 14.8 months had elapsed from the time their funds were obligated by the Department of Justice to the time of the interview. For nonhiring AHEAD agencies, this figure was 16.6 months. Six of these thirteen FAST agencies indicated they were waiting for approval of local matching funds. However, the remaining FAST and AHEAD agencies that had not hired their officers did not identify any predominant reasons for the delay; 1 of the 13 FAST agencies and 2 (18 percent) of the 11 AHEAD agencies indicated the process was moving on a normal schedule. Agencies that had not hired their officers were asked why the officers had not been hired. Interviewers and project staff characterized the responses using categories such as moving on a normal schedule, pending approval of local funds, and pending available space in training classes. The most frequent characterization of the 13 nonhiring FAST agencies was they were waiting for approval of local funds (46 percent). The most frequent characterization of the 11 nonhiring AHEAD agencies was they were waiting to complete their process of recruiting, selecting, and hiring officers (27 percent).

8. Suppose Agency A, a COPS grantee, hires an officer away from Agency B. No net increase in total sworn force size occurs unless Agency B replaces that officer with a new recruit not currently working at another agency. If Agency B is not a COPS grantee, the replacement obviously requires expenditure of local funds. Even if Agency B is a COPS grantee, the replacement would have to be made with local funds to avoid supplanting.

9. Most of the hired FAST and AHEAD officers were in training by the time of the Wave 1 survey (see table 4–1). Twelve percent of the FAST agencies that had hired their officers had not begun training by the time of the interview. However, 42 percent of the 26 agencies that had hired officers but had not begun training stated explicitly they did not plan to train the officers, and another nearly 12 percent indicated the officers were already trained. Thirty-one percent of the FAST agencies that had

not begun training indicated the process was moving on a normal schedule (interviewers and project staff characterized responses about training delays using categories such as moving on a normal schedule, pending approval of local funds, and pending available space in training classes). Only 1 percent of the AHEAD agencies that had hired officers had not begun training them.

10. At Wave 1, interviewers questioned respondents about the date when COPS officers did or were expected to "hit the streets" without explicitly defining the phrase "hit the streets." Consequently, respondents could indicate new officers were on the street even if the officers were still in field training. For both FAST and AHEAD agencies, the modal response was officers hit the street during the same month they were hired (53 percent for FAST agencies and 16 percent for AHEAD agencies). These figures reflect a very fast deployment process, though this might be expected in the case of the smaller FAST agencies. However, the figures may indicate some respondents considered field training to be "hitting the streets." In other cases, the results may reflect respondent error.

The Wave 3 analyses of officer deployment are based on survey items asking if COPS officers had begun their "first regular assignments as new officers." Hence, the Wave 3 figures on officers deployed into the field should be less likely to include officers in field training.

11. The Wave 1 and Wave 3 deployment questions were not completely comparable. The Wave 1 survey required respondents to choose from direct deployment, backfill, and "other" strategies; combination strategies were not offered as an alternative.

12. Fifty-three percent of the FAST agencies reported they did community policing prior to 1995.

13. Note that 80 percent of the backfill FAST agencies that had selected officers for redeployment had also provided the officers with community policing training and about 75 percent had redeployed the officers into community policing.

14. Some agencies had only one COPS-funded officer.

15. We asked about both COPS-funded officers to be deployed directly to community policing and more experienced officers to be redeployed from routine patrol to community policing and backfilled by new COPS-funded officers.

16. The fractions of time reported spent on each activity cannot be interpreted literally because they add up to so much more than full time. This occurred because we neglected to include a "soft check" to resolve such situations during the telephone interview. Nevertheless, we believe the reports offer an approximate guide to the relative importance of these activities in the routines of the COPS-funded officers.

17. "Specialists" include:

- Specialized units: community policing is done by specialized designated community police officers or a community policing unit that normally does not respond to calls; also there are traditional response units.

- Split-force units: within each sector or beat, both specially designated community police officers and traditional response officers operate.

"Generalists" include:

- Temporal units: designated community police officers are assigned to shifts where community policing is most needed and give that program highest priority but also respond to calls as needed.

- Generalized units: instead of making special designations, all officers build community policing into their normal routines.

- Mixture units: a mixture of community policing and traditional response units; officers rotate between the two on a preset schedule.

18. Agencies were categorized into either a specialized or generalized group, based on the respondents' self-definition. Respondents were asked to choose the "approach to delivering community policing" that best describes their agency's approach. Choices included definitions of specialized, temporal, generalized, split force, and mixture structures.

Two dominant groupings emerged from those groups. The community policing structures were coded into two groups, based on the respondent's self-definition. The specialized group consists of specialized unit and split force definitions of community policing. The generalized group consists of temporal, generalized, and mixture structures for community policing: 50.3 percent of agencies reported using the generalized structure, and 47.6 percent of agencies reported using the specialized structure.

19. Respondents were given a closed-end list of options and could choose as many as needed. Options were:

- Larger felony caseloads.

- Larger misdemeanor caseloads.

- Smaller felony caseloads.

- Smaller misdemeanor caseloads but greater burdens on such agencies as homeless shelters and detox units.

- Greater demands on agencies that deal with violence in the home.

- Greater demands on local agencies responsible for code enforcement, sanitation, and the like.

- Greater demands on neighborhood or community associations, block groups, and local businesses.

20. Almost 41 percent of respondents reported "other" (n=131), after recoding; almost 34 percent of respondents stated other (n=107).

21. For all of the 1998 MORE analysis, agencies were included only if they reported having a MORE grant and COPS Office records agreed. New MORE awards for overtime were phased out after 1995, although a few 1995 overtime grants were renewed.

22. Under the $75,000, 3-year cap, the maximum hiring grant would cover the Federal share of one officer for 3 years, an average of $25,000 per officer year. This is the equivalent of 4 officer years per

$100,000 of grant funds if the officer's salary plus fringe benefits totaled at least $33,333 per year.

23. Types of technology included in the "other" category: digital photography, citizen notification systems, tracking devices, automated fingerprint identification system machines, telecommunications, scanning stations, records management, auto vehicle locators, photo-imaging systems, micro-cassette recorders, assorted software, in-car video recorders, digital-imaging systems, mugshot systems, surveillance technologies, court-reporting systems, crime analysis technology, transcription equipment, fax machines.

24. A decrease from 59 percent to 44 percent would occur if, for example, between the two survey waves, about one-third of grantees received new awards for mobile computers, and no grantees with old or new awards became fully operational.

25. Projections were accumulated over all MORE technology grants awarded between 1995 and 1998 to each member of our sample of 1995 MORE technology grantees, weighted and summed within the mutually exclusive categories of technology types awarded.

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Appendix 4–A. Implementing MORE-Funded Mobile Computing Technology

Elizabeth Langston

Mobile computing projects dominated the MORE technology grant program—74 percent of agencies receiving MORE funding for technology in 1995 requested mobile computers. Because of this we made a special effort to document the implementation of these projects through a survey of 185 agencies that received 1995 MORE funds for mobile computing projects. This telephone survey, conducted in the fall of 1997, asked agencies about their implementation and redeployment status and to describe the lessons learned from the experience. Other sources of information for this section include an analysis of 1995 MORE grant applications and visits to 10 sites that implemented mobile computer systems with 1995 MORE funding.

This appendix addresses the following issues:

- What was the intended design and function of the mobile computer projects?

- What stage of implementation had the sites reached?

- What infrastructure was required to implement the mobile computer systems?

- Did implementation and redeployment proceed as expected?

Agency Uses of Mobile Computers

The term "mobile computing" here refers to computers in police vehicles or in the community—uses outside of the normal desktop function. Many law enforcement agencies install computer systems in vehicles, and others issue stand-alone portable laptop computers to officers. The technology used to do this varies. Laptop computers, mobile data terminals, mobile data computers, and handheld computers (recently on the market) are constantly modified to meet law enforcement needs. Mobile *digital* terminals have been available for many years and perform some of the functions now done by mobile computers.

Because these technologies can be used in similar ways, it is helpful to discuss mobile computers in terms of the three main *functions* that they serve in law enforcement. **Automated field reporting** allows officers to complete incident and accident reports (as well as other administrative tasks) while in their communities. This is expected to save officer time and lead to more legible, accurate, and timely reports. **Wireless access** from the computer to the station allows officers to bypass the dispatcher to automatically check vehicle tags, driver's license numbers, NCIC, and State, as well as local criminal justice information systems databases for wanted persons and warrants. **Wireless communication** allows officers to send messages from car to car and car to dispatch. With portable computers, which are used as standalone computers, officers have access to e-mail and the Internet through modems or local area networks (LANs).

Figure 4A–1 describes the planned functions of MORE-funded mobile computer technology, as described in a fall 1997 telephone survey. The majority of agencies (57 percent) plan to implement both field reporting and wireless access functions. Another 37.8 percent of the agencies plan to do reporting only, 1.4 percent plan to use the wireless access functions only, and 4.1 percent plan to do neither. In general, agencies plan to do both these functions using the same computer equipment. We visited 10 sites receiving 1995 MORE funding for mobile computers.

Of these sites, six planned to do both, two planned to do reports only, and one was doing wireless access only. The tenth site, San Diego, had installed mobile data terminals in vehicles before the MORE funding was available. The police department used MORE funds to implement the report writing function. However, the agency found the computers needed for the report writing functions were not compatible with its existing MDT modems, so it programmed the wireless functions as well and purchased AERONET technology for report submission. In the other six sites which planned to do both, most started with the wireless access function and planned to install report writing in the future.

Implementation Status

Figure 4A–2 describes the planning and installation status of six common mobile computing technologies that use wireless access. Most agencies plan to eventually maintain a remote connection to the agency or a 911 center. In the fall of 1997, 17 percent of the agencies had already installed wireless access, and 39 percent had the incident/traffic report writing functions in the hands of most or all of the end users. Functions such as geographic information systems (mapping) and global positioning systems (which indicates vehicle and destination locations) are expected to be available in the future but are a long way from being universally implemented at this time. Many of the sites mentioned they hope officers will eventually take fingerprints from the vehicle and pull up mug shots to identify persons in the field.

Agencies have the option of mounting the equipment in the vehicle or issuing it to the officer as a standalone computer to be used in the field. In our survey we found 57.2 percent of the agencies plan to mount the computer in the car, 36.2 percent plan to issue it as a stand-alone computer and 6.6 percent plan some other way of deploying the computer.

Figure 4A–1. Report Writing and Wireless Areas Functions

(n=167, weighted)

Neither
4%

Reporting only
38%

Both
57%

Wireless areas only
1%
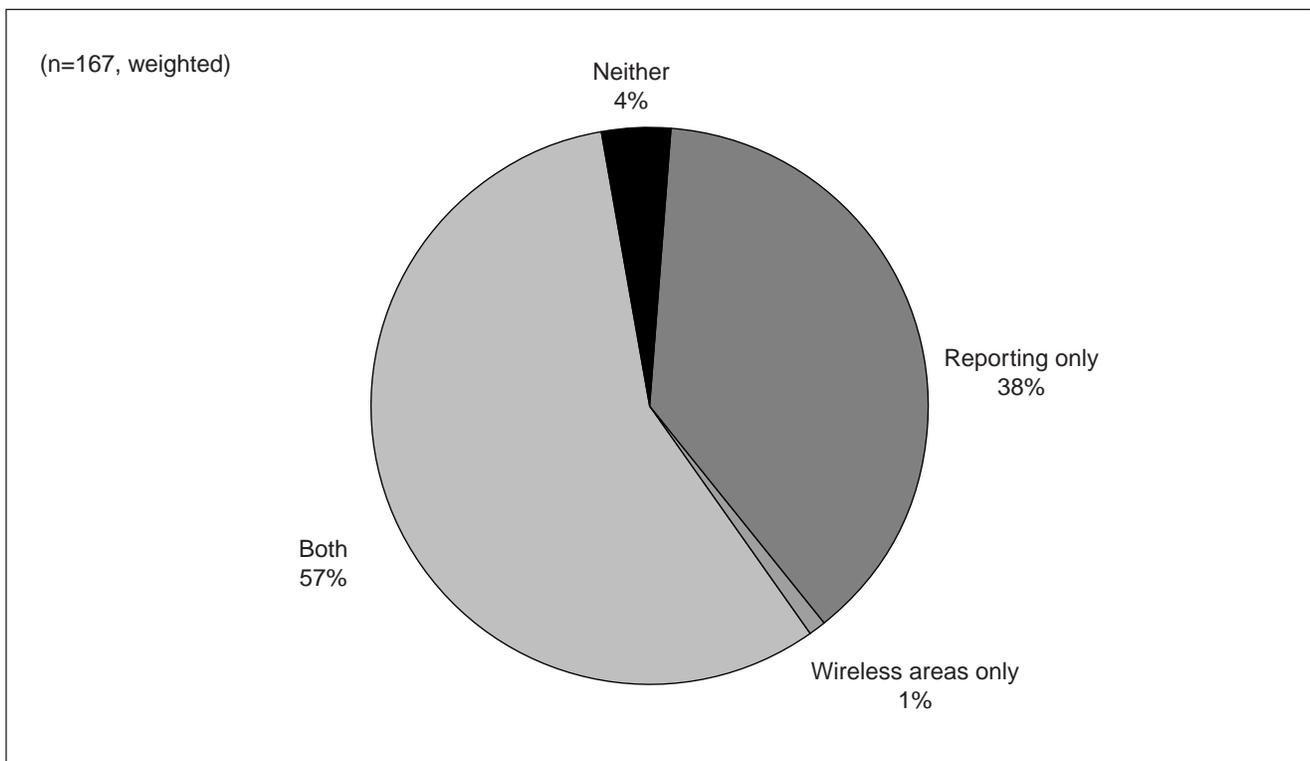
Figure 4A–2. Percentage of Agencies Installed or Planning to Install

(n=145, weighted)
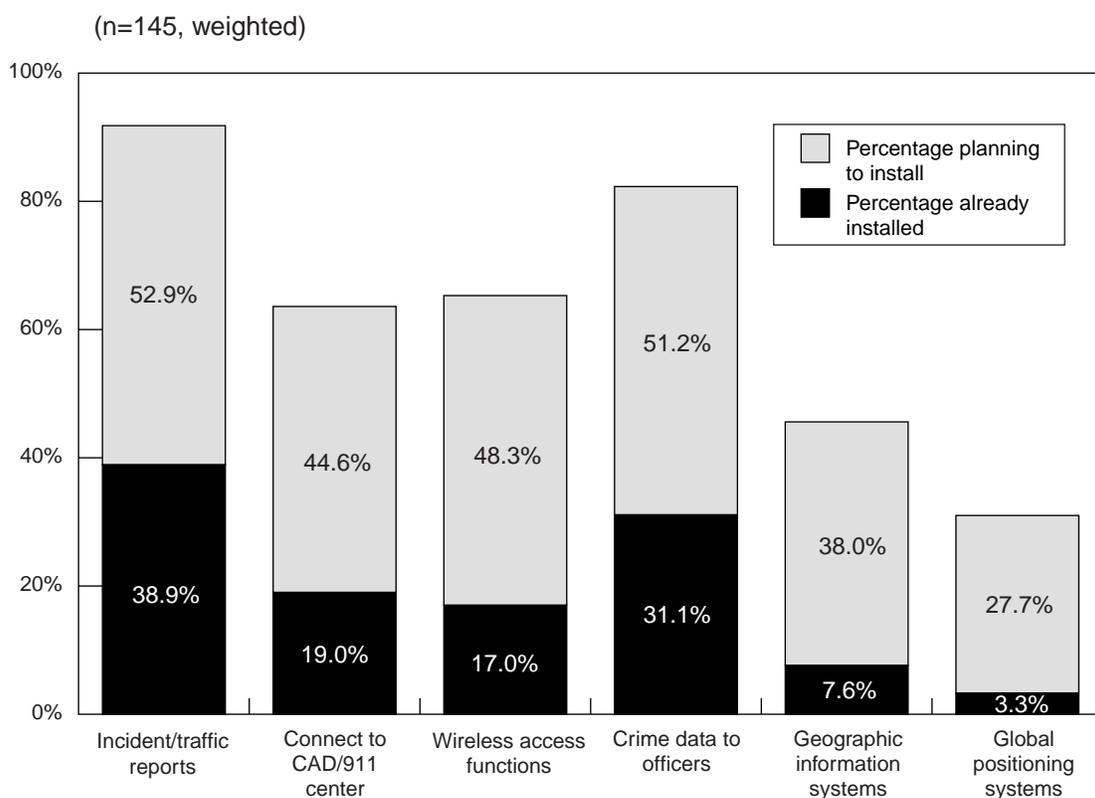
Infrastructure Needs

Wireless connectivity

To allow officers to have wireless access (to bypass the dispatcher to check vehicle tags, driver's license numbers, etc.), a wireless link is required to connect the computer remotely to the necessary databases. Of our 10 initial sites (1995) and 3 additional sites (1996) receiving funding for mobile computing at the time of our first visit, wireless access was being successfully pursued in four sites—San Diego; Oregon State Police; Miami; and Racine, Wisconsin.

Establishing the wireless link required extensive infrastructure and special equipment for the laptops. Data transmission over the wireless link can be accomplished in a variety of ways. If a department has an available frequency on its police radio system, the terminal device can be connected to the radio network via a separate

mobile radio modem mounted in the vehicle, often in the trunk. However, upgrades are typically required for wireless transmission of full reports, mug shots, and other large electronic documents.

One upgrade option for wireless connectivity is Cellular Digital Packet Data (CDPD) that uses a cellular modem to transmit data over the existing cellular network. Although CDPD utilizes the same basic infrastructure as the standard cellular phone network, it is based on an entirely different transmission protocol and is not available in many areas. Fresno County Sheriff's Department, in mid-California, selected CDPD for its data transmission system. This was intended to avoid the capital expenses required to build an infrastructure of transmitter sites and the accompanying maintenance costs. The department will use a system put in place by AT&T for commercial service. Other agencies considered this option but were concerned about the potential for

price hikes under an arrangement with a commercial provider.

In our mobile computer survey we found that the most commonly planned type of wireless connectivity was by radio frequency (40 percent), CDPD (26 percent), analog cellular (13 percent), undecided (14 percent), and other (8 percent). ("Other" included CAD, modem at docking station, cable, "loosely" and downloading at station, answers that suggest the question was not clear to all respondents.)

We asked agencies that planned to connect their units to a central network if they had to upgrade their existing communication system to accommodate data transmission: 72 percent said yes, 26 percent said no, and 2 percent hadn't decided. We then asked what sort of upgrades were needed. Table 4A–1 describes the most commonly mentioned upgrades.

Table 4A–1. Ways Agencies Anticipate Upgrading System to Support Wireless Communications (Of 72 Percent That Plan to Upgrade)

Upgrade System	Percentage*
Add additional frequencies	55
Get a new radio tower	16
Add repeaters	21
Some other way	36

*Does not equal 100 because agencies gave multiple responses.

"Some other way" included adding additional software or computer equipment, radios or radio modems for vehicles, a new CAD system, or new telephone equipment.

Transmitting reports

Agencies planning automated field reporting must find ways to transmit the reports to a central location for further processing, such as a supervisor's review or analysis. Automated field reporting is expected to save commuting time because reports are sent from the field, eliminating an officer's trip back to the station. However, a complete wireless/remote transfer of data in a paperless organization was not found in any of the sites. At present, data is expected to be downloaded mainly when officers return to their dispatch locations. At the time of our survey, 24 percent of the agencies planning this had not yet decided how to do this. Of those that had decided, multiple ways were planned including downloading the files at the station (86 percent) or printing paper copies (75 percent), as shown in table 4A–2.

Table 4A–2. Agency Plans to Transfer Field Reports to Central Location

Plan	Percentage
Download the files at station or precinct	85.5
Print out paper copies	75.1
Transfer using floppy discs	57.5
Use radio frequency	39.6
Use a telephone modem	42.4
Use cellular communications	38.2
Use some other method	29.9

Infrastructure required to implement the reporting systems

Some agencies are trying to integrate the new technology into a mature infrastructure. The new mobile computers must interact with expensive and extensive dispatch and records systems already in place and often years old. However, many agencies awarded funds for technologies were in varying stages of upgrading their records management and CAD systems. Our survey found in 59 percent of the agencies, the mobile computer project is part of a larger technical upgrade. Of these, agencies reported technology projects shown in table 4A–3.

Table 4A–3. Ongoing Technology Projects	
Ongoing Technology Projects	**Percentage**
Revised records management system	32
Upgraded CAD system	19
New 911 center	17
Other	33

As an example of a typical situation involving technological change, in the Pocatello Police Department, a small municipal agency in Idaho, the records system was designed years ago using proprietary software. This ensured that the original vendor had to be called in to write programs to conduct crime analysis. As the agency adopted community policing, they were interested in conducting more sophisticated crime analysis and did not want to rely on the vendor. Independent of its COPS MORE funding for mobile computers, the agency purchased and installed a new records management system. The system upgrade was expected to facilitate the data collection functions of the new mobile computers, making it possible to download records from the new mobile computers, which would not have been possible with the old system.

Implementation Status of the Mobile Computers

Given the installation intricacies, a rather lengthy period of time can be expected to install the mobile computer systems, varying, of course, by the size and scope of the system. As mentioned previously in the body of this chapter, based on a telephone survey of agencies receiving 1995 MORE funding for mobile computers, in September 1997 approximately 59 percent were estimated to have the equipment in use by all or most of the end users. The same survey found that agencies receiving MORE funding for mobile computers estimated they would have their equipment in use by all or most of the end users in a mean time of 10.8 months after receiving the grant award, with estimates ranging from 0 to 32 months.

As a cautionary note for further research, the site teams found it was extremely difficult to distinguish between efforts that had already been completed and efforts in the planning or developmental stages. The interviewees tended to discuss the functionalities of the equipment as though it were already installed and operational, perhaps out of enthusiasm for the vision of the finished project. Actual observation of the equipment in use was required to understand the implementation stage of the project, which often differed from the impressions left by phone and even onsite conversations.

For our first round of site visits in January–March 1997, we visited 10 1995 MORE grantees that, based on a short phone survey, seemed to be ahead of other sites in the implementation process. (We visited three additional agencies with 1996 MORE funding in the second round of visits.) Of the 10 sites, only Austin, Texas, and Racine had the majority of their equipment in use. Four of the first round of agencies were conducting pilot tests or were in the installation process, and four were in the procurement stage.

As reported earlier in the body of this chapter, agencies applying for 1995 MORE funds estimated on average that mobile computers would save a mean of 2.4 hours per officer per 8-hour shift. This estimate varies as time saved depends upon the function of the portable computers. Activities where time savings are expected are concentrated in three areas. The report writing function is expected to decrease the amount of time officers need to complete reports (in part due to fewer corrections, elimination of duplicate data entries, and the use of "cut and paste" options). The relative speed of the two data entry methods (handwritten and computer) has not yet been tested and would be an interesting topic of study.

One might expect that one of the most significant benefits of having officers enter reports into the computer would be reduced clerical time needed to key the data into the computer or file and process the paper reports. Because this clerical time savings is not counted in the

redeployment estimates, it was rarely mentioned as a benefit, except in site visits.

Secondly, laptops and MDTs are expected to reduce travel time to and from police stations. Most agencies plan to do reporting in the field. This can save time in a variety of ways. Officers will be asked to complete reports in the field, from the squad car or from a public place, such as a community policing substation in a mall or in a restaurant. Agencies stated this has the advantage of keeping the officer out in the public while completing reports. By staying within their beats, officers can respond to calls for service more quickly and serve a community policing function. In some agencies officers are asked to return to the station periodically to turn in reports. Time is saved if officers return only at the end of the shift with the reports already entered into the computer. In a few agencies this data transfer can be done in real-time via radio frequency, but this is not common.

The third timesaving effect was through modernized and automated information retrieval. For agencies that use the laptops to bypass the dispatcher to do license and NCIC checks, the officers' wait to receive this information may be much shorter than it was in heavy volume situations when the dispatcher was swamped. During onsite visit ride-alongs, officers complained that during peak hours the wait for the dispatcher to return the calls could take up to 10 minutes.

Redeployment procedures

Once the time savings is realized, officers are expected to be deployed so they will conduct more community policing functions. We asked the agencies how the technology will cause redeployment. As shown in table 4A–4, 82 percent of the agencies reported planning to have each of the officers using the new technology spend their saved time doing community policing. This form of individual-level redeployment is much harder to monitor and measure than collective redeployment, in which small amounts of many officers' time saved are pooled to free up a few officers entirely for community policing. Only 14.5 percent of agencies reported they planned collective redeployment, in which assignments or patrolling structures are changed to free up specific officers for community policing assignments.

Table 4A–4. How Technology Will Cause Redeployment	
Redeployment strategy	**Percentage**
Collective: Time savings will be pooled to free up specific officers who will be redeployed to do community policing	14.5
Individual: Each of the officers who use the new technology will be expected to use their time savings to do community policing	81.9
Other way	3.7

Offsetting costs

While the mobile computing technology is intended to save officer's time over the long run, there are a number of time costs to be expected during the transition. One is the technical staff time needed to install and maintain the computers. Another is the officer time required for training. In our survey, 52 percent of the agencies said they expected the system to take additional time during transition. The ways in which they expect it to take additional time are: training (46 percent), a learning curve/adjustment period (25.2 percent), installation (8.4 percent), software and computer maintenance (9.9 percent), and other (10 percent).

5. Putting 100,000 Officers on the Street: Progress as of 1998 and Preliminary Projections Through 2003

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In this chapter we report a first national approximation of the effect of COPS grants on the level of policing resources hired and deployed throughout the United States. These resources include: (1) sworn officers hired under COPS hiring grants, and (2) productivity increases yielded by COPS MORE-funded resources, measured in terms of sworn officer full-time equivalents (FTEs). To estimate the effect on the national count of sworn officers, we combined our own Wave 3 survey data on hiring and retention with police employment data from the Uniform Crime Reports (UCR). To estimate the MORE-supported productivity increases, we used COPS grant award data and Wave 3 survey data. Our estimates were made for two points in time: June 1998, based on grants funded (i.e., awards announced) through 1997; and the 2000–2003 period, based on grants funded through May 12, 1999, when the White House announced fulfillment of the goal of funding 100,000 officers.

Summary of Interim Estimates

It is important to stress that the interim estimates, which appear in table 5–1, were prepared for early feedback to the U.S. Department of Justice, and the post-1998 projections in particular should be treated with extreme caution. We plan to update and revise them later in 2000.

Hiring grant impact—cautions, assumptions, and interim estimates

The hiring estimates are based primarily upon results from the Wave 3 survey conducted in

June 1998. For COPS hiring grantees, the Wave 3 sample is representative only of municipal and county police agencies serving jurisdictions of more than 50,000, although smaller municipal/county hiring grantees that also received MORE grants were included in the sample as well. Therefore, the extrapolations we made as a first approximation for smaller agencies and other types of agencies are open to methodological question.

We first used the Wave 3 survey data to estimate the number of COPS-funded officers who had been hired as of June 1998. By that time, the COPS Office had awarded 41,000 officers through pre-1998 hiring awards, and our survey results indicate that about 39,000 of these officers had been hired (table 5–1, panel 1, columns 1–2).

As explained more fully in chapter 2, however, the net effect of COPS hiring grants on the number of sworn officers depends on a number of factors largely determined by local agencies' decisions; consequently, net effects may differ notably from the number of officers awarded or hired at a given time. At grant startup, these offsetting factors include agency delays in accepting awards, the speed with which funded officers are recruited and hired, delays in filling vacancies for non-COPS positions, and the extent of cross-hiring between agencies.[1] Based on a time series analysis of UCR police employment data through 1996, we estimate these startup factors generally prevent agencies from fully implementing COPS-funded staffing increases until more than a year after they receive the awards.

Table 5–1. Estimates of COPS Impact on Level of U.S. Policing						
	Awards Through December 31, 1997			Awards Through May 12, 1999		
		Officers Hired and FTEs Redeployed			Estimated Net Hired or Redeployed	
Program	Funded (12/97) (1)	Gross (6/98) (2)	Net (12/98) (3)	Funded (4)	Year	Projection (5)
Hiring (PHS, COPS Phase I, FAST, AHEAD, UHP)	41,000	39,000	36,300–37,500	60,900	High 2001 2003+ Low 2000 2003+	: 57,200 : 55,400 : 48,900 : 39,000
MORE	22,400*†	6,400	9,100–10,900	39,600	High 2002+ Low 2002+	: 28,500 : 23,800
Total	63,400	45,400	45,400–48,400	100,500	High 2001 2003+ Low 2001 2003+	: 84,600 : 83,900 : 69,000 : 62,700

* Net of 3,600 second- and third-year supplements for retaining civilians, which are included in COPS Office records of 26,000 FTEs funded.

† As of June 1998.

+ Indicates "steady rate" projection; e.g., 2003+ indicates "for year 2003 and beyond."

In the longer term, offsetting factors include certain cuts in sworn force size approved by the COPS Office Legal Division as nonsupplanting and the rates at which the hired officers are retained through and after the 3-year grant period. We created preliminary estimates of such long-term factors based on the Wave 3 survey. When we collected the data in the summer of 1998, however, the required retention period had not been announced and relatively few hiring grants had expired. Recognizing that under these conditions retention expectations might be an imprecise predictor of future behavior, we used the data to construct a "best case" scenario in which grantees would retain 91 percent of their new hires indefinitely and a "worst case" scenario of 64 percent.[2] In 2000, we will update our retention rate estimates based on a Wave 4 survey, which emphasizes hiring and retention questions using a nationally representative sample with up

to 2 years' additional chance of having experienced grant expiration after the duration of the retention requirement was known.

The interim, net increase hiring estimates computed under these assumptions and cautions are shown in table 5–1 (panel 1, columns 1–3). We estimate that the 41,000 officers awarded by the COPS Office as of the end of 1997 resulted in a national net increase of between 36,300 and 37,500 officers by the end of 1998 (panel 1, column 3). If we assume that the retention patterns expected by Wave 3 respondents for pre-1998 COPS officers continue into the future, then we can make tentative predictions about net increases that will result from post-1997 hiring awards. By May 1999, the COPS Office had awarded approximately 60,900 officers through hiring grants (panel 1, column 4). Under a maximum retention scenario, we project that these

awards will produce a peak effect of 57,200 officers by the year 2001 and that after postgrant attrition, the permanent effect of the grants will stabilize at 55,400 officers by 2003 (panel 1, column 5). A minimum retention scenario, in contrast, suggests that the net impact of these awards will peak at 48,900 officers in the year 2000 but then decline to a permanent level of 39,000 officers by the year 2003 (panel 1, column 5).

MORE grant impact—cautions, assumptions, and interim estimates

As explained in chapter 2, COPS MORE grants for technology and civilians were intended to create time savings that enable agencies to keep existing officers in the field for greater periods of time. Under the MORE program, every 1,824-hour projected savings is treated as the FTE of one officer. However, there has been little, if any, experience base to guide the applicants or the COPS Office in making projections, and the actual MORE contribution of FTEs depends on the percentage of projections actually achieved.

All our estimates of time savings from MORE grants were based on the Wave 3 survey, which contained a representative sample of 1995 municipal and county MORE grantees. To develop national estimates, we extrapolated the results of these agencies to other types of agencies and later cohorts of MORE grantees.

By the summer of 1998, the COPS Office had awarded 22,400 FTEs through MORE grants for civilians and technology, and survey results indicate that grantees had redeployed 6,400 FTEs with these grants (panel 2, columns 1–2). At that time, however, many grantees had not fully implemented their grants. To illustrate, only 23 to 78 percent of MORE technology grantees (depending on agency population category and type of technology) described some or all components of their technology as fully operational (see chapter 4).

Therefore, grantees were also asked to estimate future productivity increases they expected to

achieve once all grants were fully implemented. Agencies that had greater experience with implementing their grants projected productivity gains that were smaller (60 percent of the original projections) than those expected by MORE grantees as a whole (72 percent of the original projections), suggesting agencies adjust their expected productivity gains downward as they gain more experience with implementing their grants (results from chapter 4 suggest this phenomenon is driven primarily by technology grantees). While we used those figures to compute best case and worst case interim estimates, we recognize that the worst case estimates are based on only a partial subsample with substantial implementation experience. This subsample is growing and becoming more representative over time, and so we plan to revise the estimates of MORE-supported productivity increases later this year using our Wave 4 survey data.

Our interim estimates of COPS MORE effects on FTE officers appear in table 5–1 (panel 2, columns 1–3). Using these assumptions and an estimated 3-year timeframe for full implementation by grantees, we estimate that by the end of 1998, between 9,100 and 10,900 officers were redeployed from resources funded by MORE grants awarded by the end of 1997 (panel 2, column 3). We project that if these implementation patterns hold for post-1998 MORE grants, the 39,600 FTEs awarded as of May 1999 (panel 2, column 4) will result in the redeployment of between 23,800 and 28,500 FTEs by the year 2002 (panel 2, column 5). These estimates should be treated cautiously, however, not only for the reasons discussed above but also because the survey estimates of final redeployment levels were subject to wide sampling variation.

Combined projections for the first 100,000 funded

By May 1999, the COPS Office had awarded approximately 100,500 officers and officer equivalents through hiring grants and MORE grants (table 5–1, panel 3, column 4). Upper bound projections based on June 1998 survey estimates

of maximum officer retention and maximum officer redeployment suggest these awards will result in a peak national net increase of 84,600 officers by the year 2001 before declining somewhat and stabilizing at a permanent level of 83,900 officers by 2003 (panel 3, column 5). Lower bound projections based on estimates of minimum officer retention and minimum officer redeployment suggest the COPS-supported increase in the number of officers and FTEs deployed at any point in time will peak at only 69,000 officers in the year 2001 and decline to a permanent level of 62,700 by the year 2003 (panel 3, column 5).

Total COPS-funded FTEs added to police agencies throughout this period will be greater than the number available during any particular year, especially if our lower bound projections prove more accurate. In this regard, the COPS program might be compared to an "open house" event, in which the total number of visitors to the event is larger than the number present at any given point in time. Using this open-house concept, we estimate that COPS awards made through May 1999 will result in the temporary or permanent hiring of 60,900 officers and the deployment of between 23,800 and 28,500 FTEs, thereby adding between 84,700 and 89,400 FTEs to the Nation's police agencies at some point between 1994 and 2003, though not all these FTEs will be simultaneously in service at any single point in time.

Whether the program will ever increase the number of officers on the street at a single point in time to 100,000 is not clear. The COPS Office has continued to award COPS grants since May 1999. If the agency continues to award hiring and MORE grants in the same proportions and our optimistic projections are correct, roughly 19,000 additional officers and equivalents awarded could be enough to eventually produce an indefinite increase of 100,000 officers on the street. If the pessimistic assumptions are more accurate, the program may require an additional 58,000 officers and equivalents awarded to create a lasting increase of 100,000 officers. More definitive answers to these questions will be

available following completion of our Wave 4 survey later this year.

In the sections that follow, we describe our methods for producing the interim estimates in more detail.

Hiring Grants

In an unpublished interim report, we computed national 1996 end-of-year estimates of gross and net additions of officers attributable to 1994 and 1995 COPS hiring grants. At that time, estimates based on our Wave 1 survey indicated that nearly 10,000 officers awarded under 1995 FAST and AHEAD grants had been hired as of the end of 1996. Furthermore, analysis of financial data from the Office of the Comptroller suggested that another 4,300 officers had been hired by that time with Police Hiring Supplement and COPS Phase I (PHS/Phase I) grants awarded in 1994 and Universal Hiring (UHP) grants awarded in 1995. A time series analysis utilizing COPS Office data on hiring awards and Federal Bureau of Investigation (FBI) data on police employment suggested these gross additions of officers resulted in a real increase of approximately 9,650 officers net of offsetting factors and preexisting trends (we used the time series model to compute our updated estimates and present it below).

This section updates our earlier findings by presenting gross and net estimates of officers added to the Nation's police agencies as of June 1998 through COPS hiring grants. In addition, we assess the longer term impact of these grants by estimating the number of COPS-funded officers likely to be retained after the expiration of their grants.

Data and methodological overview

Most of the hiring estimates are based on the Wave 3 survey of police agencies, which was conducted in June 1998. As discussed in the methodological appendix, the Wave 3 survey included a nationally representative sample of all large municipal/county agencies and a nationally

representative sample of small municipal/county agencies that were 1995 MORE grantees. Respondents were asked about hiring, deployment, and retention of all officers who had been awarded to their agencies under COPS hiring grants as of the end of 1997, regardless of whether the agencies were originally sampled as hiring grantees.

National estimates were generated by generalizing the survey results to the country's total population of police agencies. Technically, however, the Wave 3 survey sample is not a representative sample of all police agencies. The large-agency subsample represents county/municipal agencies in large and medium jurisdictions (i.e., populations of more than 50,000), including agencies that did not receive any COPS grants; however, the small-agency subsample represents only small municipal/county 1995 MORE grantees. Therefore, the small-agency component of our interim hiring estimates is based on the hiring grants that many small MORE awardees also received, and their hiring behavior may not be typical of all small agencies that received hiring grants.

Nonetheless, generalizing these results to the full population of police agencies seems reasonable as a first approximation for several reasons. First, the small-agency MORE grantees were sampled independently of whether they had also received hiring grants. Consequently, both the large- and small-agency samples contain agencies that received early hiring grants (i.e., Phase I, PHS, and FAST/AHEAD grants) and/or later hiring grants (i.e., UHP grants), as well as agencies that received no hiring grants. Second, generalizing results from municipal/county agencies to all agencies seems reasonable since at least 77 percent of awarded COPS officers went to municipal/county agencies according to Cops Office records. Further, Wave 1 survey results from the fall of 1996 showed that municipal/county agencies and other types of agencies (e.g., State police agencies and public university police agencies) made very similar progress in

hiring and deploying officers awarded to them through the FAST and AHEAD hiring programs.[3] Hence, we have no clear reasons for expecting county/municipal agencies to differ from other agencies with regard to their implementation of COPS hiring grants.[4]

The other primary data source used to examine police staffing is a national time series database, which combines COPS Office hiring grant records with 8 years of data from the Police Employment Section of the FBI's UCR. This database was used to examine net changes in police staffing due to COPS hiring grants and is discussed in further detail below.

Gross estimates of officers hired and on the street as of June 1998

Estimates of COPS officers hired and deployed to patrol duty as of June 1998 are based on the Wave 3 survey. Interviewers first asked respondents how many of their COPS-funded officers had started their "first regular assignments as new officers." Interviewers then questioned respondents about the status of those officers not yet serving in their first regular assignments (e.g., not hired, attending training academy). Because the survey questions covered hiring grants extending back to 1994—frequently multiple grants—interviewers did not ask respondents to provide specific numbers of officers hired and deployed. Instead, the hiring questions offered response categories of none, some but less than half, half, more than half but not all, and all of the awarded officers. For projection purposes, we operationalized the response categories as follows: none = zero; some but less than half = 25 percent of the officers; half = 50 percent of the officers; more than half but not all = 75 percent of the officers; and all = 100 percent of the officers. To illustrate, if a respondent reported that half of the agency's COPS officers were on assignment, then the number of officers on assignment for that agency was estimated as the number of officers awarded multiplied by 0.5.[5] If the respondent also indicated that half of the remaining officers (i.e., those not on assignment)

were still being recruited, then the number of officers hired by the agency was calculated as the number estimated to be on assignment plus the product of 0.5 multiplied by the difference of the number awarded and the number estimated to be on assignment. This general question format and estimation technique was used for most of the hiring, deployment, and retention estimates highlighted throughout this chapter.

We calculated national estimates of COPS officers hired by multiplying a survey-based estimate of the proportion of all awarded officers who had been hired by the known count of officers awarded according to COPS Office data as of the end of 1997.[6] The proportion of COPS officers hired was defined as the ratio of the mean estimated number of officers hired to the mean number of officers awarded.[7] In addition, 95-percent confidence intervals were constructed to show the most likely ranges for the true population estimates (formulas for the confidence intervals are presented in appendix 5–A).

Using the method described in the preceding paragraph, we estimate that by June 1998, 97 percent of the officers awarded to large agencies and 94 percent of the officers awarded to small agencies had been hired (see table 5–2). Because the proportion point estimates were close to 1, we computed confidence intervals based on the logarithm of (1-p), where p is the proportion of officers hired. This computation method ensured that the upper bound of the confidence intervals did not exceed 1 (see appendix 5–A). By the end of 1997, the COPS Office had awarded 21,026 officers to large agencies and 19,946 officers to small agencies according to its grants management information system.[8] Combining these data with the hiring proportion estimates from the large- and small-agency samples leads to an overall estimate that 39,069 COPS-funded officers were hired by June 1998, with a statistical confidence interval of 38,634 to 40,000 officers.

Using the same methodology employed for the hiring estimates, we then calculated that 81 percent of the officers awarded to large agencies and 85 percent of the officers awarded to small agencies were working in their first regular assignments by June 1998 (see table 5–2). Overall, therefore, we estimate that 34,131 new COPS-

Table 5–2. Wave 3 Survey Estimates and 95-Percent Confidence Bounds* for COPS Officers Hired and on Assignment by June 1998 (Expressed in Parentheses as a Proportion of Approved Officers)†

Status of Officers and Agency Size	Estimate	Lower Bound	Upper Bound
Officers Hired			
Small agencies (n=177)	18,733 (.939)	18,432 (.924)	19,360 (.971)
Large agencies (n=422)	20,336 (.967)	20,202 (.961)	20,640 (.982)
Officers on Assignment			
Small agencies (n=177)	17,024 (.854)	16,659 (.835)	17,959 (.900)
Large agencies (n=422)	17,107 (.814)	16,721 (.795)	18,145 (.863)

* The confidence intervals are asymptotic and based on the natural logarithm of the distribution of 1-p, where p represents the proportion of approved COPS officers falling into the category of interest (see appendix 5–A). The confidence intervals are not symmetric due to the estimation method. Point estimates were calculated by generalizing the survey results to a universe of 19,946 officers awarded to small agencies and 21,026 officers awarded to large agencies through December 1997.

† Two percent of the large agency sample and 3% of the small agency sample were dropped due to missing hiring data or discrepancies between COPS Office records and agency responses regarding whether or not the agency had a COPS hiring grant. Table n's reflect the sample sizes used for analysis.

funded officers were on the street by June 1998, within a range of 33,380 to 36,104 officers.

From gross to net increases in officers

The estimate of 39,000 officers hired provides a measure of the gross impact of COPS hiring grants awarded through 1997. However, this gross increase in officers will be offset to some degree by a variety of factors. In the short term, COPS-funded staffing increases can be partially offset by factors like delays in the hiring of COPS-funded officers, delays in filling vacancies created by normal year-to-year turnover, and cross-hiring of officers among agencies.[9] An agency with n officers that receives a COPS grant for k officers, for example, may take a few years to reach the full (n+k) officer mark, or it may never reach the (n+k) staffing level. In the long term, staffing increases from COPS hiring grants may be diminished by nonretention of COPS-funded positions following the expiration of the 3-year hiring grants or certain sworn force cutbacks certified by the COPS Office Legal Division to be nonsupplanting. In other words, some of the growth in staffing achieved with COPS hiring grants may be temporary. Further, national data discussed below show that police agencies in general were growing in the years prior to the COPS program. Indeed, agencies sampled at Wave 3 grew on average from 1993 to 1997 whether or not they had COPS hiring grants.[10] Consequently, some of the growth in COPS-funded agencies might have occurred in the absence of the COPS program.

In the following subsections, we assess the short-term impact of COPS hiring grants on police staffing after taking into account other factors and trends influencing police staffing throughout the country. We also take a special look at the issue of cross-hiring. In the next section, we examine long-term retention of COPS-funded positions using data from the Wave 3 survey. We then combine the results of these analyses to form preliminary projections of the net impact of all COPS hiring grants awarded through May 1999. All of these esti-

mates will be updated in the future report on the Wave 4 survey.

Time series analysis of COPS and net changes in police staffing, 1989–96. To analyze short-term net changes in police staffing through the early years of the COPS program, we combined data from 8 years of the police employment section of the FBI's annual UCR.[11]

The UCR contains agency-level data on the number of employees serving in law enforcement functions with police agencies throughout the Nation. We divided the agencies into six types (e.g., local police, sheriffs), which were adopted from agency-type coding schemes used by both the Bureau of Justice Statistics and the COPS Office. The agency codes were used to exclude agencies that were ineligible for COPS grants.

A preliminary analysis based on approximately 14,000 agencies that reported having at least one full-time officer for each year of the analysis revealed that these agencies expanded by 14.5 percent between 1989 and 1996 (see tables 5–3 through 5–5).[12] Although these agencies grew throughout the period, the largest year-to-year change was from 1994 to 1995, when they grew by 4.4 percent. These figures suggest that although police agencies grew in general during this period, early COPS hiring grants (PHS/Phase I and FAST/AHEAD) may have accelerated police growth.

To examine this issue more rigorously, we estimated multiple time series models to determine whether recent changes in police employment could be causally attributed to COPS hiring grants net of other forces affecting police staffing levels during this time period. The data were organized by agency and year, so that each data point represents a single agency during a single year. We created the database using 11,809 agencies that were eligible for COPS funding and reported both officer counts (agencies had to report at least one full-time officer for each year) and counts of population served for each year

Table 5–3. Agencies With Consistent UCR Reporting on Sworn Force Levels, 1989–96

Agency Type	Total Number of Agencies Reporting for Each Year								Agencies Consistently Reporting One or More Full-Time Sworn Officers, 1989–96
	1989	1990	1991	1992	1993	1994	1995	1996	
Local police	11,284	11,394	11,482	11,583	11,662	11,747	11,817	11,853	10,373
County police	88	90	92	96	96	96	97	99	77
State police	1,332	1,334	1,352	1,353	1,408	1,411	1,412	1,412	52
Special police	1,648	1,713	1,848	1,902	1,949	2,030	2,072	2,089	574
Tribal police	16	16	16	17	18	19	20	20	13
Sheriffs	3,062	3,062	3,062	3,062	3,062	3,064	3,064	3,064	2,972
Total	**17,430**	**17,609**	**17,582**	**18,013**	**18,195**	**18,367**	**18,482**	**18,537**	**14,061**

Table 5–4. Actual Changes in Sworn Officers by Department Type (Agencies With Employment Data for Every Year)

Agency Type	Number of Agencies	Number of Full-Time Sworn Police Officers								Change
		1989	1990	1991	1992	1993	1994	1995	1996	1989–96
Local police	10,373	328,370	337,108	338,530	341,460	346,206	354,122	371,835	378,459	+50,089
County police	77	20,590	21,230	21,231	21,885	22,470	23,315	23,647	24,072	+3,482
State police	52	55,127	56,257	55,055	54,882	54,895	55,748	57,747	58,156	+3,029
Special police	574	13,200	13,427	13,854	13,822	13,959	14,010	14,926	14,280	+1,080
Tribal police	13	154	170	154	171	189	218	223	218	+64
Sheriffs	2,972	113,813	117,248	122,520	124,919	124,414	125,823	130,101	133,355	+19,542
Total	**14,061**	**531,254**	**545,440**	**551,344**	**557,139**	**562,133**	**573,236**	**598,479**	**608,540**	**+77,286**

Table 5–5. Percentage Changes in Sworn Officers by Department Type (Agencies With Employment Data for Every Year)

Agency Type	Number of Agencies	Percentage Change in Full-Time Sworn Officers							Overall Change
		1989–90	1990–91	1991–92	1992–93	1993–94	1994–95	1995–96	
Local police	10,373	2.66%	0.42%	0.87%	1.39%	2.29%	5.00%	1.78%	15.30%
County police	77	3.11	0.00	3.08	2.67	3.76	1.42	1.80	16.90
State police	52	2.05	-2.14	-0.31	0.02	1.55	3.59	0.71	5.50
Special police	574	1.72	3.18	-0.23	0.99	0.37	6.54	-4.33	8.20
Tribal police	13	10.39	-9.41	11.04	10.53	15.34	2.29	-2.24	41.60
Sheriffs	2,972	3.02	4.50	1.96	-0.40	1.13	3.40	2.50	17.20
Total	**14,061**	**2.70**	**1.10**	**1.10**	**0.90**	**2.00**	**4.40**	**1.70**	**14.50**

from 1989 through 1996. Because we use lagged variables in our model (to be described below), our analysis focuses on staffing changes from 1991 through 1996.

Our model predicts yearly changes in police staffing as a function of previous year COPS hiring grants and a number of other factors. The basic form of the model is:

$$FTS_{i,t} - FTS_{i,t-1} = a + b * X_{i,t} + b2 * COPS \ award_{i,t-1} + e_{i,t}$$

where $FTS_{i,t} - FTS_{i,t-1}$ is the change in the number of full-time sworn officers for agency i from year t-1 to year t; $b * X_{i,t}$ represents the impact of a number of independent variables to be described below; $b2 * COPS \ award_{i,t-1}$ represents the impact of COPS officers obligated to agency i at year t-1; a is a constant term; and e is an error term with standard properties.[13]

There is an extensive literature on the determinants of police strength and police expenditures. Based on data available in the UCR, we incorporated a number of these determinants into our model. We hypothesized that changes in crime and population would impact local government decisions about police staffing levels with about a 1-year lag. Therefore, changes in both violent and property crime from t-2 to t-1 were computed and entered into the model, as were changes in population from t-2 to t-1.[14] In addition, indicator variables were developed to represent the nine regions of the country as defined by the FBI.[15] The level of urbanization of each jurisdiction was measured with one indicator variable showing if the jurisdiction was within a Metropolitan Statistical Area (MSA) and another indicating whether the jurisdiction was a central city within an MSA. Indicator variables were also developed for the agency types shown in the previous tables. However, tribal police agencies were dropped due to the small number reporting to the FBI, and both special and State police agencies had to be dropped from analysis because estimates of the populations they serve are not available in the UCR.[16] Finally, a series

of yearly indicator variables were developed to capture unmeasured factors that may have impacted police staffing throughout the Nation during particular years of the study (the 1994 variable was omitted from the equation, so all the yearly indicators in the model are interpreted relative to 1994).[17]

Table 5–6 presents the results of estimating our primary model. Holding other factors constant, we estimated that each COPS officer obligated to an agency in year t led to an increase of 0.73 officers on the force from year t to year t+1.[18] Inferences from this model should be considered preliminary, however, for a number of reasons. As shown in table 5–6, the models explained little of the variation in police staffing changes. Some of the predictors proved insignificant, and there are several other important determinants of police staffing that we have neglected here but may incorporate in future analyses. Further, we could only examine very short-term impacts from COPS grants with the available data.[19,20]

Nonetheless, the results suggest that while COPS hiring grants produced meaningful short-term increases in police staffing, these effects were offset somewhat by other factors, such as delays in hiring the new officers, attrition of officers already on the force, and cross-hiring among agencies. However, it is not clear whether the "attrition" implied by the model represents permanent attrition, delays in the hiring process (i.e., implementation delays), or both. Our results suggest, for example, that a hypothetical 100-officer agency receiving a COPS grant for 10 officers in year t will, on average, increase its force to 107 by year t+1. Whether the agency will reach the intended 110 officer mark at some point after t+1 cannot be inferred from our time series because it extends only 1 year after the COPS program began. The agency may hire all of its COPS-funded officers but fail to replace other departing officers, in which case the agency will stay below the 110 officer target. On the other hand, an agency adding COPS-funded officer positions may be temporarily unable to keep pace with both COPS hiring and

Table 5–6. OLS Estimates of the Impact of COPS Hiring Awards (1994–95) on National Net Changes in Police Staffing Through 1996, Controlling for 1991–96 Trends in Police Staffing (N=61,284)

Variable	Estimated Effect	Standard Error	Value	Significance Level
Constant	0.624	.249	2.510	.012
County police department	6.27	.912	6.876	.000
Local police department	-0.689	.157	-4.405	.000
New England	-0.417	.321	-1.300	.193
Middle Atlantic	-0.451	.252	-1.790	.073
East North Central	-5.00E-02	.246	-.192	.848
South Atlantic	0.436	.235	1.853	.064
East South Central	0.304	.283	1.074	.283
West South Central	0.581	.248	2.345	.019
Mountain	0.564	.304	1.857	.063
Pacific	7.10E-02	.289	.246	.805
Core city	2.525	.308	8.211	.000
MSA	0.71	.137	5.194	.000
1992	-0.293	.208	-1.409	.159
1993	-0.545	.209	-2.613	.009
1991	-6.00E-02	.207	-.306	.760
1995	0.492	.217	2.266	.023
1996	-0.533	.218	-2.441	.015
Change in property crime t-2 to t-1	-3.00E-03	.000	-21.430	.000
Change in violent crime t-2 to t-1	-2.00E-03	.001	-3.758	.000
Change in population t-2 to t-1	1.20E-04	.000	5.077	.000
COPS officers awards at t-1	**0.734**	**.019**	**39.262**	**.000**
R2=.046				
F=142.055 (p<.000)				

Note: Each year variable is interpreted relative to 1994, which is the excluded category. The police agency type variables are interpreted relative to sheriffs' agencies. The region variables are based on UCR region classifications. The region variables are interpreted relative to the West North Central region. The lagged variables were constructed with data extending back to 1989.

normal year-to-year attrition (e.g., because of training academy capacity constraints), in which case the agency may reach the 110 officer mark only after some further delay. At any rate, the currently available data suggest that even if COPS grants produce net staffing increases equal to 100 percent of their value, it takes more than 1 year on average for this full impact to be realized. Our future Wave 4 report will add post-1996 UCR data to examine this issue more closely.

In the meantime, our existing survey data provide a preliminary basis for projecting the longer term impact of COPS hiring grants, and the projection is reported later in this chapter. In a later section, we combine the results from this

time series analysis and the long-term retention analyses to produce national estimates of the short- and long-term effects on police staffing of all COPS hiring grants awarded through May 1999.

Cross-hiring. The time series analyses presented in the previous section suggest that various forms of attrition and/or hiring delays partially offset gross additions of COPS officers. One form of officer attrition, which the COPS program may have accelerated unintentionally, is cross-hiring. As noted in chapter 4, cross-hiring occurs when an agency recruits officers directly from other agencies. Sixteen percent of the Wave 3 large agencies with hiring grants and 15 per-

cent of the Wave 3 small agencies with hiring grants indicated they had or would recruit at least some of their officers directly from other agencies. This suggests some agencies, with or without COPS grants, lost officers to other agencies with COPS grants. Although cross-hiring was a common practice well before the COPS program, it may have accelerated as agencies recruited experienced officers to deploy their new COPS-funded hires to duty as quickly as possible. Regardless, cross-hiring reduces COPS' additions to the Nation's overall stock of police officers at least temporarily, and it may be a permanent offsetting factor if agencies losing officers to cross-hiring do not replace them.

To illustrate the impact of cross-hiring with a very simple example, assume the universe of police agencies consists of two agencies, A and B, each having 100 officers. A COPS grant for 5 officers to agency A is intended to increase the national stock of police officers from 200 to 205. If, however, agency A recruits those 5 officers from agency B, then the total stock of police officers will remain at 200 until agency B replaces the 5 officers it lost. If agency B does not replace those 5 officers, then the total stock of police officers will remain at 200 and thus be no higher than before the COPS grant.[21] However, Wave 3 survey results suggest the number of cross-hires attributable to COPS grants has been relatively small. At the agency level, cross-hires were esti-

mated by asking respondents how many of their COPS-funded positions had been or would be used to hire former sworn officers. Interviewers then asked how many of the former sworn officers were recruited from other agencies.[22]

National estimates of cross-hired officers were computed by estimating the ratio of the mean number of estimated cross-hires to the mean number of awarded officers across all sampled agencies. Because the estimated cross-hire proportions were small, the 95-percent confidence intervals were calculated based on the log of p, where p is the proportion of awarded officers who were cross-hired. This ensured that the lower bound estimates were bounded at zero.

Table 5–7 shows that cross-hires accounted for only 2 percent of the officers awarded to large agencies, leading to an estimate of approximately 400 cross-hirees for large COPS grantees. Although cross-hiring was somewhat greater among small agencies, we estimate that cross-hirees numbered less than 1,200 officers (about 6 percent of those awarded) for small COPS grantees.

Long-term retention of COPS officers

The time series model presented in table 5–6 examined the impact of COPS hiring awards made in 1994 and 1995 on police staffing through 1996. Because the data covered a period

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Table 5–7. Wave 3 Survey Estimates and 95-Percent Confidence Bounds[*] for COPS-Funded Officers Recruited From Other Agencies (Expressed in Parentheses as a Proportion of Approved Officers)[†]

Agency Size	Estimate	Lower Bound	Upper Bound
Small agencies (n=177)	1,168 (.059)	658 (.033)	1,391 (.070)
Large agencies (n=423)	416 (.020)	259 (.012)	481 (.023)

* The confidence intervals are intervals based on the natural logarithm of the distribution of p, where p represents the proportion of approved COPS officers falling into the category of interest (see appendix 5–A). The confidence intervals are not symmetric due to the estimation method. Point estimates were calculated by generalizing the survey results to a universe of 19,946 officers awarded to small agencies and 21,026 officers awarded to large agencies through December 1997.

† Two percent of the large-agency sample and 3% of the small-agency sample were dropped due to missing hiring data or discrepancies between COPS Office records and agency responses regarding whether or not the agency had a COPS hiring grant. Table n's reflect the sample sizes used for analysis.

before any COPS hiring grants expired, the COPS effect estimated from that model should be viewed as an estimate of the short-term impact of COPS. As described earlier, the model may underestimate the temporary expansion of police officers caused by COPS hiring grants. In the long term, nonetheless, findings presented in chapter 4 indicate some COPS-funded positions will not be retained after the expiration of their grants, and this will reduce the permanent impact of COPS.

At the outset of the COPS program, the COPS Office awarded grants on the condition that grantees plan a "good faith" effort to retain COPS-funded officers after the expiration of the grants. In April 1998, the COPS Office changed its procedures to require that applicants submit a written retention plan with their applications. Finally, in August 1998, the office developed a more specific criterion for the retention requirement by requiring grantees to retain COPS officers for at least one full budget cycle after the one in which the grant expires.

Further, COPS-funded positions are meant to supplement, and not supplant, preexisting officer positions. In other words, a grantee is not to use COPS funds to replace local funds the grantee would otherwise have used for law enforcement. For instance, grantees should not use COPS funds to replace losses from normal year-to-year attrition. Nor should grantees cut existing positions to retain COPS-funded officers. If, for instance, an agency with a budgeted force of 100 officers receives a COPS grant for 5 officers, then the agency is expected to maintain a force of 105 officers. If this agency losses three officers to retirement after receiving the grant, the COPS Office expects the agency to replace those three officers as well as retain the five COPS-funded officers for at least a year, until completion of the following budget cycle.

The Wave 3 survey instrument included a number of items to assess prospects for long-term retention of COPS positions. As explained in chapter 4, interviewers first inquired about COPS-funded officers who had already left the agency and found that agencies had begun and, in most cases, replaced nearly all officers who left before their grants expired.[23] Interviewers then asked respondents to agree or disagree with each of the following three statements, which were designed to measure nonretention, the retention of officers but not positions, and supplanting, respectively.

- Despite a good-faith effort, unforeseen circumstances are likely to keep us from retaining all the positions. (Nonretention.)

- We plan to retain all or most of the COPS-funded officers using slots that open up when other officers retire or leave the agency. (Retention of persons not levels.)

- We plan to maintain all the community policing positions funded by the 1995 COPS grants, though we may have to cut some positions elsewhere to do it. (Supplanting.)

Agreement with any of these statements suggests the respondent's agency will lose at least some of its COPS-funded staffing increase following the expiration of its grant(s). Because few surveyed agencies had expired grants at the time of the Wave 3 survey, their responses to the retention/supplanting items largely reflected expectations rather than actual experience. For this reason we did not require respondents to quantify the number or fraction of positions to be lost.

We derived two sets of preliminary retention estimates from these items. We computed maximum retention (i.e., best case) estimates by assuming that any agency whose respondent agreed with one or more of the nonretention/supplanting items would lose "at least some but less than half" (i.e., 25 percent) of its COPS-funded staffing increase. In other words, we assumed that 25 percent of the COPS positions in such agencies would not be retained or would be retained only through attrition or cuts of other positions (we used 25 percent to be consistent with the operationalization of the other hiring survey items described earlier). We also computed a set

of minimum (i.e., worst case) retention estimates by assuming that agencies providing indications of nonretention and/or supplanting would lose all their COPS-funded staffing increases. For both the minimum and maximum retention scenarios, we computed national estimates of the proportion of COPS officers likely to be retained by calculating the ratio of the mean number of officers estimated to be retained to the mean number of officers approved.[24]

Table 5–8 presents the estimates of long-term retention for large and small agencies. Note that the upper and lower bound estimates in this table are not confidence intervals; rather, they reflect a range of estimates based on different assumptions about retention. Although the estimates are not very precise, it appears that small agencies overall may retain as few as 59 percent of their COPS-funded positions or as many as 89 percent. Large agencies are projected to keep between 70 and 92 percent of their COPS-funded positions. Combining the estimates from both groups of agencies suggests that grantees will retain between 64 and 91 positions for every 100 positions funded through COPS hiring grants. Overall, therefore, we estimate that COPS grantees will retain somewhere between 26,400 and 37,200 of the 40,972 officers awarded prior to 1998.

However, two further qualifications should be added to these estimates. First, 36 percent of the large COPS agencies that appeared to be keeping all of their COPS-funded positions and 47 percent of corresponding small COPS agencies indicated some uncertainty about the long-term future of their COPS positions.[25] Consequently, these agencies may fulfill the COPS Office short-term retention requirement but not sustain their staffing increases permanently. In this respect, our retention estimates may overstate long-term retention. Second, we should note the survey data give us a basis for judging only whether COPS-funded officers will be retained by their original agencies. It is possible that some officers not retained by their original agencies will be hired by other agencies, in which case long-term additions to the Nation's stock of police may be greater than that estimated above.

Projections for all hiring awards through May 1999

Based on the preceding analyses, we developed a model to produce upper and lower bound estimates of the temporary and permanent effects of each yearly cohort of COPS hiring awards on national police staffing levels. We used this model to estimate the net increase in police staffing caused by COPS through the end of 1998 and to project the eventual impact of COPS hiring awards made through May 1999, when

Agency Size	Worst Case: Nonretaining Agencies Lose 100% of COPS Officers	Best Case: Nonretaining Agencies Lose 25% of COPS Officers
Table 5–8. Percentage of COPS Officers Expected to Be Retained After Grant Expiration, Based on Wave 3 Survey Results for Pre-1998 Grants (Number of Pre-1998 Officers Expected to Be Retained in Parentheses)[*]		
Small agencies (n=177)	58.6 (11,688)	89.2 (17,794)
Large agencies (n=422)	70.1 (14,731)	92.3 (19,404)

* Two percent of the large-agency sample and 3% of the small-agency sample were dropped due to missing hiring data or discrepancies between COPS Office records and agency responses regarding whether or not the agency had a COPS hiring grant. Table n's reflect the sample sizes used for analysis.

Point estimates expressed in parentheses were calculated by generalizing the survey results to a universe of 19,946 officers awarded to small agencies and 21,026 officers awarded to large agencies through December 1997.

the White House announced success in reaching the milestone of 100,000 funded officers and officer equivalents (the latter were funded through MORE grants, which are discussed later in this chapter).

Based on the time series analysis presented earlier in this chapter, the model assumes that officers awarded in year t lead to a net increase of officers awarded multiplied by 73 percent (i.e., .73) in year t+1. Currently, we lack data for making clear predictions for years t+2 and t+3. Therefore, we computed our interim projections by assuming a best case scenario in which the first-year "attrition" represents only temporary factors of the sorts mentioned earlier, and staffing increases in years t+2 and t+3 reach a value equal to 100 percent of COPS-funded officers. Note that the t+2 and t+3 estimates are likely to decline when our time series analysis is updated for the Wave 4 report.

Projections for years t+4 and beyond depend upon different assumptions about long-term retention. These assumptions are based upon the retention estimates presented in the preceding section. Under the maximum retention scenario, the number of COPS positions retained after year t+3 declines modestly to 91 percent of the number awarded.[26] Under the minimum retention scenario, the number of positions retained after year t+3 drops to 64 percent of the number awarded.

Because the survey and time series data used in the hiring analyses were collected during or before 1998, the model's most accurate projections are likely to be those through the end of 1998. Accordingly, the model implies that the 41,000 COPS officers awarded through the end of 1997 produced a net increase of between 34,000 and 35,300 officers by the end of 1998.

Figure 5–1 presents the model's projections for all 60,900 COPS officers awarded with hiring grants through May 1999.[27] These estimates must be qualified by noting that applying our hiring projection model to post-1997 hiring

grants requires the assumption that the patterns of implementation and retention observed and/or expected for pre-1998 hiring grants will continue for subsequent hiring grants. This assumption may be problematic, particularly in light of the Attorney General's determination that retention requirements are satisfied if grantees keep COPS positions for just one budget cycle following the expiration of COPS grants (note that this decision came after the Wave 3 survey was conducted). On the other hand, retention rates may be boosted, at least for a few years, by COPS Office monitoring and education efforts, the 1998 requirement for a written retention plan, and the results of grantee audits by the Office of the Inspector General.

Having noted this caveat, figure 5–1 presents estimates of net officers added and retained for each year from 1995 through 2003. Attrition from hiring grants began in 1998, and from that year forward, the graph shows two sets of projections based on the different attrition estimates presented in the last section. For each year after 1997, the bottom segment of the bar reflects a minimum estimate of officers added and retained (based on the assumption of 100-percent attrition of COPS positions in the fraction of grantee agencies that we predict will not retain all of their COPS positions), while the upper portion of the bar represents a maximum estimate of officers added and retained (based on the assumption of 25-percent attrition of COPS positions in the fraction of grantee agencies that we predict will not retain all of their COPS positions).

Estimates produced for the minimum retention scenario suggest that officers added by COPS hiring grants made through May 1999 will peak at approximately 48,900 officers in the year 2000 but then decline to less than 39,000 by 2003. Under the maximum retention scenario, in contrast, officer additions will climb to a peak of about 57,200 in the year 2001 and then decline somewhat until 2003, at which time they will level off indefinitely at approximately 55,400 officers.

**Figure 5–1. Projections of Net Officers Added and Retained From COPS
Hiring Grants Awarded Through May 1999**
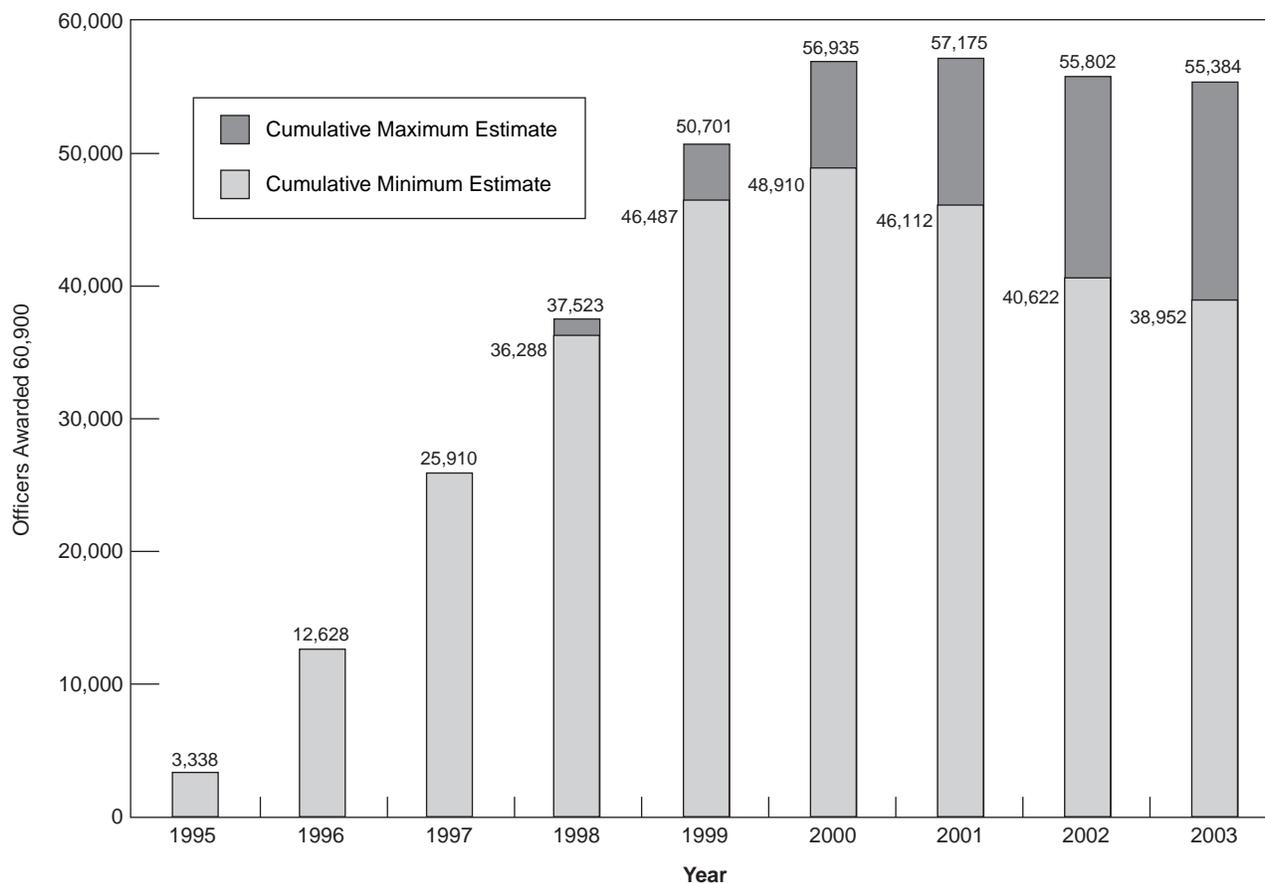
MORE Grants

In addition to the hiring grants examined earlier in this chapter, the COPS Office has also sought to increase police strength through MORE (Making Officer Redeployment Effective) grants for technology and civilians. The rationale for these grants was that utilization of new technologies and greater use of civilian support staff would increase the productivity of existing sworn officers, increasing the share of their time that could be redeployed. Grantees could thereby increase the presence of officers in the field without hiring new staff. In this section, we utilize the Wave 3 survey data to estimate officer redeployments achieved as of June 1998 and to project maximum redeployments that will be achieved with MORE grants awarded through May 1999.

Data and methodological overview

Our estimates of officer redeployments from MORE grants are based upon the municipal and county MORE agencies in a nationally representative sample selected from the population of 1995 MORE grantees (see methodological appendix). For the Wave 3 survey in June 1998, these agencies were interviewed about the implementation of their 1995 MORE grants and all subsequent MORE grants they had received. Among other issues, the interviews included questions about current and future projected time savings from the agencies' technology and civilian grants.

Although the MORE program also included overtime grants during its first year, these awards were 1 year, nonrenewable grants and

have generally expired. Since officer redeployments are no longer being achieved through those grants, we have not included them in our estimates of officer redeployments. However, it is fair to note that those grants did result in the delivery of additional police service to communities for a limited time.

A few caveats should also be noted about generalizing the results of the Wave 3 survey to the full population of MORE grantees. Because the sampled agencies were first-year MORE grantees, they have had more time for implementation than have later cohorts of MORE grantees. If they have therefore made greater implementation progress, the results presented here may overestimate MORE redeployments as of June 1998 for the full universe of grantees. This bias will be offset somewhat by the fact that survey respondents were questioned about all of their MORE grants from 1995 through June 1998. Further, COPS Office records show that 77 percent of all FTEs awarded under MORE as of June 1998 were awarded to agencies that were among the 1995 MORE grantees. Finally, the redeployment estimates presented below are modest. Hence, even if they are overestimates, they do not greatly inflate our final combined estimates of officers hired and redeployed.[28]

As in the hiring analyses, we must also generalize from municipal and county MORE grantees to the full population of agencies with MORE grants. This seems reasonable, given that more than 80 percent of MORE FTEs awarded in 1995 were awarded to municipal and county police agencies. Further, we do not have any clear grounds for believing that MORE implementation progress has been different for different types of agencies.

FTE redeployment

Time savings from MORE grants are measured in full time equivalent units. Each FTE is equal to 1,824 hours, which is the COPS Office estimate of the amount of time that a typical patrol officer works each year. Every 1,824 hours

saved per agency per year is counted like the addition of another police officer. Thus, if an agency receives a MORE grant enabling one or more of its officers to spend a combined, additional 1,824 hours on the street each year, then that is considered to be the equivalent of the agency hiring a new officer.

The basis for FTEs awarded was provided in the agencies' MORE applications, which required applicants to estimate the full redeployment that could be achieved with the requested grant. Hypothetically, for example, an agency might have requested 10 mobile data terminals to install in patrol cars. Using the mobile data terminals, officers would write reports in their patrol cars, thereby allowing them to spend more time in the field. If the department estimated that each data terminal would save 1 hour of officers' time each day, then the department would save a total of 10 hours every day. Multiplying that by 365 days leads to an estimated total of 3,650 hours saved per year by the agency. This is the equivalent of 2 FTEs (i.e., 3,650/1,824). While time-savings projections from civilian grants were often straightforward, applicants had little, if any, data with which to judge the validity of their time-savings projections from technology grants (see the discussion in chapter 4). COPS Office staff often adjusted applicants' projected FTEs downward to reflect the minimum FTE redeployment necessary to make the grant as cost effective as a hiring grant for the same dollar amount, particularly for awards made after 1995. The estimates revised by the COPS Office are used here as the measure of awarded FTEs. However, even this adjusted measure of FTEs awarded is speculative and, for reasons discussed in chapter 4, may overstate the number of FTEs that will ultimately be redeployed by grantees, particularly with respect to technology grants. This point is further illustrated later in this chapter.

In our Wave 3 survey, interviewers asked respondents to estimate the number of FTEs that the respondents' agencies were currently saving from operational MORE-funded technology and/

or civilians.[29] A caveat to these estimates is that a substantial fraction of MORE grantees did not have monitoring systems in place to measure time savings from MORE grants. Among agencies with operational technology, only 46 percent of small agencies and 57 percent of large agencies reported the use of monitoring systems. Monitoring systems were somewhat more common for measuring time saved by civilians. Approximately two-thirds of small agencies with civilians and three-quarters of large agencies with civilians reported the use of monitoring systems. Although many agencies did not use monitoring systems, the reported time savings are modest and do not suggest gross overestimation by respondents. Further, we did not find any consistent tendency for agencies without monitoring systems to report more or less redeployment than agencies with monitoring systems.[30]

In addition, some respondents who indicated their officers saved time from MORE grants could not estimate the specific amount of time being saved. For these cases, we estimated current FTE redeployment based on the average ratio of redeployed to awarded FTEs reported by agencies that both indicated they were saving time and provided specific time-savings estimates.[31]

For both small and large agencies, we used the sample data to estimate the ratio of the mean number of redeployed FTEs to the mean number of awarded FTEs. (Because FTEs redeployed can theoretically be higher than FTEs awarded, the ratio of FTEs redeployed to FTEs awarded is not a proportion measure with an upper bound of one.)[32] The estimated ratios were then multiplied by the known universe of FTEs awarded to small and large agencies to obtain national estimates of redeployed FTEs.

By June 1998, the COPS Office had awarded 22,437 FTEs through MORE grants for technology and civilians. The COPS Office awarded 16,184 of these FTEs to large agencies and awarded the remaining 6,253 to small agencies.[33] Survey estimates presented in table 5–9 indicate that small agencies had redeployed 46 percent of their awarded FTEs by that time. Larger agencies made slower progress with redeployment in relative terms, having redeployed only 22 percent of their awarded FTEs. Combining the estimates from the small and large agencies suggests that MORE grantees overall had redeployed 6,427 FTEs by the summer of 1998 within a range of plus or minus roughly 2,100 FTEs.

We also attempted to assess the relative contributions of technology and civilian grants to FTE redeployment by estimating the fraction of redeployed FTEs attributable to technology grants. As a point of reference, COPS Office records indicate 75 percent of FTEs awarded as of June 1998 were associated with technology grants.[34] In contrast, survey results show that both small

Table 5–9. Wave 3 Survey Estimates and 95-Percent Confidence Bounds[*] for FTEs Redeployed With MORE Civilian and Technology Grants as of June 1998 (Expressed in Parentheses as the Ratio of Redeployed to Approved FTEs)			
Agency Size	Redeployment Estimate	Lower Bound	Upper Bound
Small agencies[†] (n=179)	2,882 (.461)	2,094 (.335)	3,671 (.587)
Large agencies (n=155)	3,545 (.219)	2,177 (.135)	4,913 (.304)

* The confidence bounds are based on the distribution of r, where r represents the ratio of redeployed FTEs to awarded FTEs (see appendix 5–A). The point estimates were calculated by generalizing the survey results to a universe of 6,253 FTEs awarded to small agencies and 16,184 FTEs awarded to large agencies as of June 1998.

† Four agencies were removed from the small-agency sample due to outlier values.

and large agencies achieved only about 55 percent of their redeployment with technology grants. Although the 95-percent confidence intervals (36 percent to 76 percent for large agencies and 40 percent to 69 percent for small agencies) were too wide to clearly determine whether technology or civilian grants generated more FTEs, the results suggest that technology grants are not yet producing FTE redeployment in numbers proportional to their share of awarded FTEs. This pattern seems to be consistent with findings reported in chapter 4 that technology grants often take longer to implement than do civilian grants, and that some agencies appear to have overestimated the time that officers could save from technology grants.[35]

Projected future FTE redeployment from MORE grants awarded through June 1998

The preceding estimates of FTE redeployment are conditional on the progress that grantees had made in implementing their grants as of June 1998. As described in chapter 4, not all agencies had fully implemented their MORE-funded technology and/or hired all their MORE-funded civilians. For these agencies, full implementation of their MORE grants should produce higher numbers of FTE redeployment, though analyses presented in chapter 4 also suggest that many agencies, particularly technology grantees, will not redeploy as many FTEs as originally envisioned. It is also possible that some agencies will lose FTEs, particularly in cases where agencies do not retain their MORE-funded civilians. As with hiring grants, the COPS Office requires that MORE grantees make a good-faith effort to retain funded civilians after the expiration of the civilian grants. In August 1998, the COPS Office modified this policy to require that agencies keep MORE-funded civilians for one budget cycle after the civilians' funding expires.

The Wave 3 survey contained a number of items to estimate future redeployment from awarded MORE grants. First, interviewers questioned agencies with less than fully implemented technology grants about additional redeployment

that the agencies expected to achieve when all MORE-funded technology was operational. We added these expected redeployment to the agencies' current redeployment to project future redeployment from technology grants.

Interviewers also questioned respondents about current and future retention of MORE-funded civilians. Employing response categories like those discussed earlier for hiring questions (none, less than half, half, more than half, all), interviewers first asked how many of the agency's currently funded civilian positions were "on the agency's base budget." Interviewers then asked respondents to estimate how many of the civilians not on the base budget would be part of the agency base budget in the next fiscal year. Using the same approximation methods discussed in the hiring analyses, we used the preceding questions to estimate the number of civilians who were either on the base budget or expected to be on the base budget in the future. For each agency, we then multiplied the number of civilian FTEs ever awarded to the agency by the ratio of "on budget" civilians to total civilians ever awarded to the agency to estimate future redeployment from civilian grants.[36]

After calculating each agency's total expected redeployment, we estimated the ratio of the mean number of expected FTEs to the mean number of awarded FTEs. Our initial estimates are presented in the first two rows of table 5–10. The results suggest that small and large MORE grantees will eventually achieve permanent redeployment of approximately 70 percent of their awarded FTEs. However, there is substantial sampling variation in these estimates, due in part to sample attrition, and the confidence intervals suggest the overall redeployment ratio may be as low as 50 percent or as high as 94 percent.[37]

We attempted to refine this analysis further by examining only those agencies that had some experience implementing MORE grants at the time of the survey. We took this step because a number of agencies estimating future FTEs had not

yet fully implemented any technology and/or hired any civilians. Results presented in chapter 4 suggest that, on average, grantees, particularly those receiving technology grants, tended to adjust their anticipated redeployment downward based on implementation experience.[38] We could not conduct this type of inquiry, however, for small agencies because the remaining sample of small agencies with implementation experience had a distribution of awarded technology and civilian FTEs that was not representative of the universe of FTEs awarded to small agencies.[39]

The results for large MORE grantees with implementation experience are presented in the last row of table 5–10. Although the sample size for this investigation was quite small, the confidence intervals improved relative to the analysis with all large agencies. The redeployment estimates also became more modest. Experienced agencies anticipated that their full redeployment would amount to 58 percent of their awarded FTEs, within a 95-percent confidence range of

43 percent to 73 percent. This implies that the 16,184 FTEs awarded to large agencies by June 1998 will result in a permanent redeployment of 9,381 FTEs within a likely range of 6,960 to 11,801 FTEs.

Although it is not clear that these refined redeployment estimates can be generalized to small agencies, the similarity of the full sample ratio estimates for small and large agencies in the first two rows of table 5–10 suggests that redeployment ratios are probably similar for the two groups. Accordingly, the redeployment estimates provided by large operational agencies may serve as a reasonable benchmark for future redeployment by small MORE grantees. Extrapolations (not shown in table 5-10) of the refined estimates to all MORE grantees suggest that the 22,467 FTEs awarded by the COPS Office as of June 1998 will result in the eventual permanent redeployment of about 13,005 FTEs, within a likely range of 9,649 to 16,360 FTEs.

Table 5–10. Wave 3 Survey Estimates and 95-Percent Confidence Bounds* for Eventual Productivity Increases Expected From COPS MORE Grants Awarded Through June 1998, Expressed as a % of Awarded FTEs (Redeployments Expected From Awards Through June 1998 in Parentheses)

Agency Size	Redeployment Estimate	Lower Bound	Upper Bound
Small agencies (estimates based on all agencies providing projections)† n=126	73.3% (4,581)	54.3% (3,394)	92.3% (5,769)
Large agencies (estimates based on all agencies providing projections)‡ n=102	71.4% (11,552)	47.7% (7,719)	95.1% (15,386)
Large agencies (estimates based on only operational agencies providing projections)+ n=49	58.0% (9,381)	43.0% (6,960)	72.9% (11,801)

* The confidence bounds are based on the distribution of r, where r represents the ratio of redeployed FTEs to awarded FTEs (see appendix 5–A). Point estimates in parentheses were calculated by generalizing the survey results to a universe of 6,253 FTEs awarded to small agencies and 16,184 FTEs awarded to large agencies as of June 1998.

† Thirty-one percent of the sampled small agencies were excluded from analysis due to missing data.

‡ Thirty-four percent of the sampled large agencies were excluded from analysis due to missing data.

+ This analysis is based on sampled large agencies that had implemented some part of their technology and/or civilian grants and could estimate time savings (32% of original sample).

Projected FTE redeployment from MORE grants awarded through May 1999

As noted earlier, it was announced in May 1999 that the COPS Office had reached the milestone of funding 100,000 officers and officer equivalents. Of the total, approximately 39,600 FTEs had been awarded through MORE grants. In this section, we provide preliminary projections of the actual FTE redeployment that will be achieved with all of these MORE-funded resources.

Figure 5–2 presents projections of MORE redeployment for the years 1996 through 2002. These projections are based on the assumption that each yearly cohort of MORE grantees achieve and redeploy their full projection of awarded FTEs within 3 years. The 3-year time frame is a rough estimate of implementation time based on Wave 3 survey results indicating that grantees expected to reach full implementation of all technology and civilian grants by June 2000 (see chapter 4). Because approximately 97 percent of the FTEs awarded by the time of the Wave 3 survey (June 1998) were awarded prior to 1998, it seems reasonable to assume that most of the agencies reaching full implementation in the year 2000 will deploy FTEs awarded in 1997 or earlier. This suggests a maximum time frame of approximately 3 years for full implementation. Based on chapter 4 analyses of actual and expected dates for implementation, we also assumed implementation and deployment occur evenly over this 3-year period. These assumptions yielded projections consistent with our Wave 3 estimate of MORE redeployment achieved as of June 1998, thus lending some support to their validity.[40]

Each bar in figure 5–2 has a lower portion that reflects a worst case estimate of redeployment and an upper edge that reflects a best case estimate. The worst case estimates are based on the expectation that maximum achievable redeployment is approximately 60 percent of awarded FTEs (the 58-percent figure in the bottom row of table 5–10 was rounded to 60 percent for ease of calculation). Under this scenario, we assumed that 20 percent of FTEs awarded in year t are

redeployed in year t+1, 40 percent are redeployed by year t+2, and the maximum redeployment of 60 percent is reached in year t+3.

The best case redeployment projections assume that full redeployment reaches approximately 72 percent of awarded FTEs (see the first two rows of table 5–10). Accordingly, these projections assume that 24 percent of FTEs awarded in year t are redeployed in year t+1, 48 percent are redeployed by year t+2, and a full redeployment of 72 percent is reached in year t+3.

Under these assumptions, we project that the 6,400 FTEs redeployed by the summer of 1998 grew to between roughly 9,100 and 10,900 FTEs by the end of 1998. Looking ahead, the projections suggest that MORE grantees will redeploy between 23,800 FTEs and 28,500 FTEs by the year 2002. As with the hiring projections, these MORE projections should be qualified by noting they are contingent on the assumption that the implementation patterns observed for MORE grants awarded through June 1998 will continue for subsequent MORE grants. Yet, Wave 3 estimates of final redeployment levels may not generalize to later MORE grants. As discussed earlier in this chapter and in chapter 4, the COPS Office often adjusts awarded FTEs downward from applicants' initial projections to reflect the minimum FTEs necessary to make the grant as cost effective as a hiring grant (generally, one FTE for every $25,000 awarded). We have learned from COPS Office staff, however, that this was not always done for 1995 grants. Consequently, the ratio of redeployed to awarded FTEs achieved after full implementation may be lower for early MORE grants. This potential bias is mitigated by the fact that our survey estimates are based on all awards made through June 1998. Nonetheless, full redeployment from post-June 1998 MORE grants could be higher than 60 to 72 percent of awarded FTEs, in which case our projections will understate future MORE redeployment. It is also worth emphasizing again that the survey estimates of future productivity increases (i.e., full FTE redeployment) were subject to wide variation. Hence, final redeployment

Figure 5–2. Projections of FTEs Added From COPS MORE Grants Awarded Through May 1999

Projecting the Course of the First 100,000 Officers Awarded Through COPS
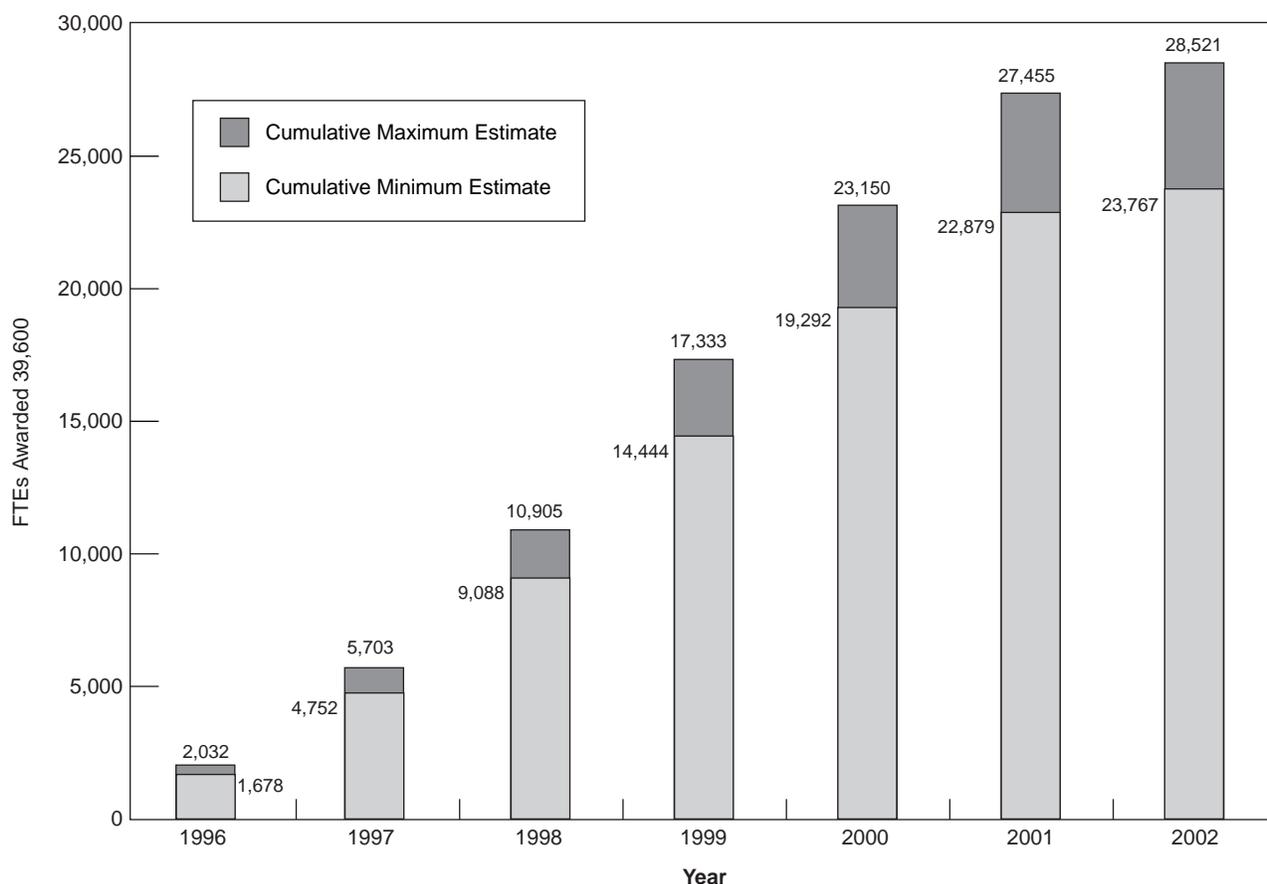
levels for all MORE grants may differ notably (upward or downward) from the range used for these projections.

In this section, we combine the models of hiring and retention and MORE redeployment developed in the previous sections to project the course of all officers and officer equivalents (referred to collectively in this section as FTEs) awarded by the COPS Office through May 12, 1999—i.e., the first 100,000 FTEs awarded through the COPS program.

Figure 5–3 combines the projections for hiring and MORE grants to estimate total FTEs added to the Nation's police agencies by year for the period 1995 through 2003. The estimates reflecting both minimum officer retention estimates and minimum redeployment estimates (shown in the bottom portion of each bar) imply that FTEs will peak at approximately 69,000 in the year 2001 before declining to a permanent level of 62,700 FTEs by the year 2003. Projections based on estimates of maximum officer retention and redeployment (shown above the upper portion of each bar) suggest that FTEs produced by COPS grants will reach a high of 84,600 FTEs by the year 2001, after which FTEs retained will decline slightly to 83,900 by the year 2003. Based on currently available data, therefore, we estimate that the first 100,000 FTEs awarded by the Federal Government will produce a permanent net increase between 62,700 and 83,900 FTEs. In other words, every 100 FTEs awarded will result in a permanent increase of between roughly 63 and 84 FTEs.

It is also worth noting, however, that total COPS-funded FTEs added to police agencies throughout this period will be greater than the number available during any particular year, especially if our pessimistic projections prove more accurate. In this regard, the COPS program might be compared to an open-house event, in which the total number of visitors to the event is larger than the number present at any given point in time. To illustrate, we estimate that COPS awards made through May 1999 will result in the temporary or permanent hiring of 60,900 officers and the redeployment of between 23,800 and 28,500 FTEs, thereby adding between 84,700 and 89,400 FTEs to the Nation's police agencies on at least a temporary basis. Due to the pace of implementation and nonretention of

officers, however, there will not be a single year during which all of these FTEs are available for service. This difference will be relatively small if our best case projections of officer retention and redeployment are accurate; that scenario predicts a peak increase of 84,600 FTEs and an indefinite increase of 83,900 FTEs. Our worst case projections, in contrast, predict peak and permanent effects of 69,000 and 62,700, respectively. Under a worst case scenario, therefore, the permanent effect of COPS would be equivalent to only 74 percent of the FTEs who were available for service at some point during this period.[41]

Finally, the COPS Office has continued to award FTEs since May 1999, and, as of this writing,

Figure 5–3. Projections of Officers and Officer Equivalents Added and Retained From the First 100,000 COPS Officers and Officer Equivalents Awarded
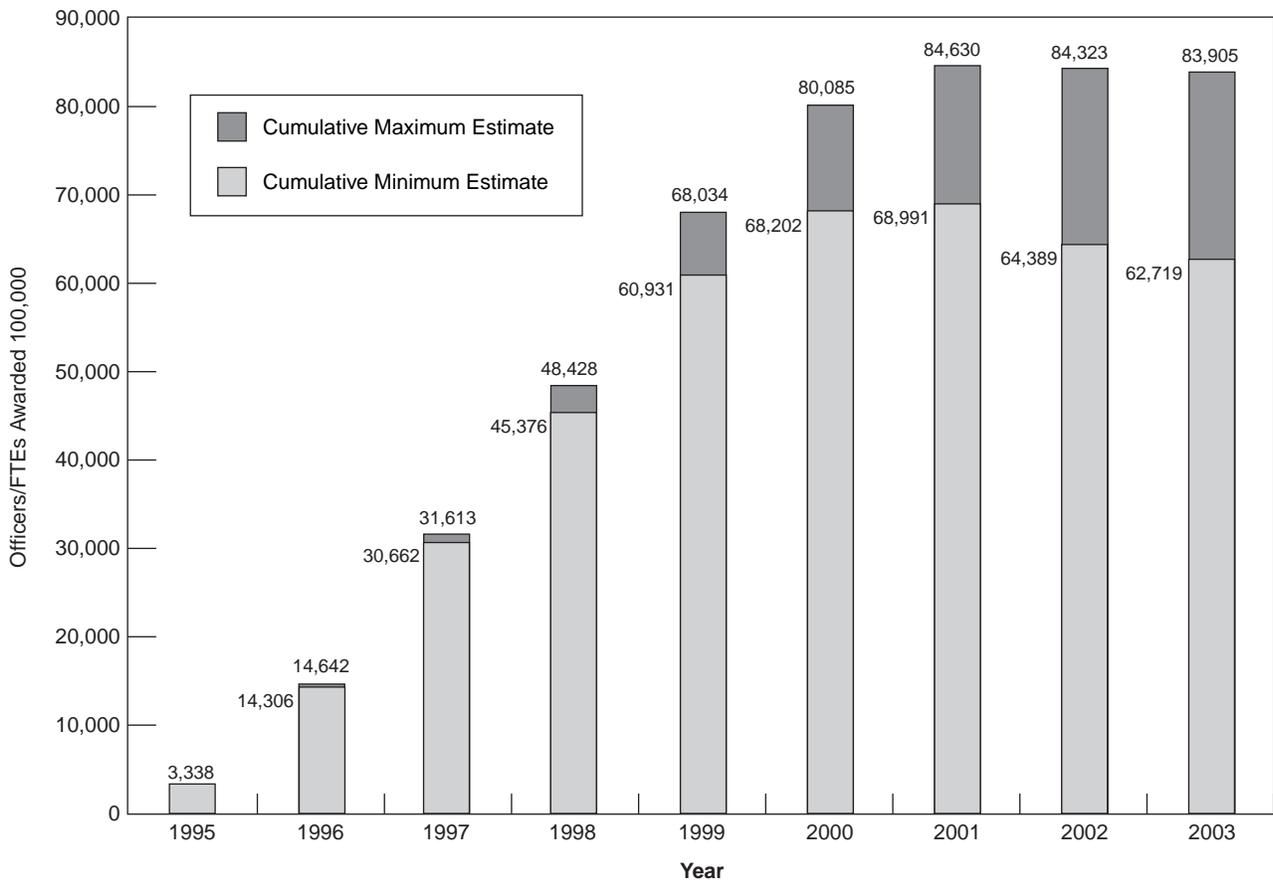
has received additional funding for the year 2000. If the COPS Office continues to award hiring and MORE funds in roughly the same proportions and our best case retention and redeployment models are correct, then the COPS Office may eventually reach the milestone of putting 100,000 FTEs on the street indefinitely by awarding as few as 19,000 post-May 1999 FTEs. If our worst case retention and redeployment projections are more accurate, then creating a permanent increase of 100,000 FTEs may require an additional 59,000 FTEs awarded (again, assuming that hiring and MORE awards continue in the same proportions).[42] We plan to revise these estimates later this year using data collected in Wave 4 of the national survey, which includes a special focus on police hiring and retention practices.

Notes

1. Our counts of awarded officers omit award withdrawals.

2. As explained in chapter 4, when asked about their retention plans for COPS-funded officers, a number of agencies provided indications of possible nonretention by agreeing with at least one of a series of statements that defined nonretention, retention of persons not levels, or supplanting. We computed best case retention estimates by assuming that each of these agencies will lose at least some but less than half its COPS-funded positions, which we operationalized as 25-percent attrition. We computed worst case retention estimates by assuming such agencies will lose all of their COPS-funded new positions.

3. Among small-hiring grantees surveyed at Wave 1, 94 percent of both municipal/county agencies and other types of agencies reported having hired their officers. Among large-hiring grantees surveyed at Wave 1, 95 percent of the municipal/county agencies and 89 percent of the other types of agencies reported having hired their officers. This difference was not statistically significant. Further, nearly identical percentages of the large municipal/county grantees and the other large grantees reported that their COPS officers were on the street (84 percent for the former group and 86 percent for the latter group).

4. As discussed in the methodological appendix, the full large agency sample was drawn from several strata (nongrantees, AHEAD grantees, UHP grantees, and MORE grantees). The large agency hiring analyses were conducted using all sampled large agencies, and the data were weighted to reflect the different selection probabilities of agencies in the different strata (see the methodological appendix). Weighting was not necessary for the small-agency sample.

5. The number of officers awarded to each agency was determined from the COPS Office records. In some cases, however, the number of officers awarded to an agency could have changed during the time that elapsed between the construction of the survey instrument and the fielding of the survey. If, therefore, a respondent agreed that the agency had one or more COPS hiring grants but disagreed with the total number of funded officers known to the interviewer, then the number of officers funded was set to the respondent's report of the number of officers funded.

6. We corrected for withdrawals recorded in COPS Office data and assumed that survey respondents omitted withdrawals from their reference point in answering the hiring questions.

7. For these and all other hiring estimates presented in this chapter, agencies without COPS hiring grants were given zeros for all COPS officer measures.

8. Approximately 7 percent of the officers awarded to small agencies were part-time officers. Part-time officers accounted for less than 1 percent of the officers awarded to large agencies.

9. To illustrate, all surveyed agencies were asked to provide the exact number of officers lost in 1996 and 1997. Large agencies receiving COPS hiring grants were awarded 31 officers on average over the course of 1994 through 1997. However, these same interviewees reported losing an average of 42 officers during just 1996 and 1997. Wave 3 small agencies with COPS hiring grants were awarded an average of almost four officers during 1994–97 and lost an average of four officers during 1996 and 1997 combined. Although COPS grantees were expected to use COPS funds to create new positions rather than fill preexisting positions, officer losses from existing actual sworn forces could at least temporarily offset

the addition of new COPS officers. (Slightly more than 3 percent of the weighted sample of large agencies with COPS grants did not report agency losses for 1996 and 1997. Less than 1 percent of the small agencies had missing responses.)

10. To illustrate this point, Wave 3 large COPS grantees had a 19-percent increase in their full-time sworn staff from 1993 to 1997 (average increase = 48 officers), and Wave 3 small agencies with COPS grants had a 23-percent increase in full-time sworn staff during the same period (average increase = 4 officers). At the same time, however, Wave 3 large agencies without COPS grants grew 32 percent (average increase = 27 officers), and Wave 3 small agencies without COPS grants expanded by 13 percent (average increase of less than 1 officer). (The difference in growth between large COPS and large non-COPS agencies was not statistically significant. However, the growth in small COPS agencies was significantly greater than that in small nongrantees.) These crude change comparisons are illustrative but not definitive because they do not control for factors other than COPS hiring grants, which may have influenced police growth during this time. Nonetheless, they show that non-COPS agencies also grew during this time, thereby reinforcing the point that some of the growth in COPS-funded agencies may have occurred in the absence of COPS hiring grants.

11. There are currently two primary agency-level sources for data on police employment in the United States: the UCR and the Law Enforcement Directory Survey compiled by the Bureau of Justice Statistics and the Census Bureau every 6 years. There is some further discussion of these sources in the methodological appendix.

12. We used only these agencies to control for changes in the number of police resulting from the creation of new agencies, the dismantling of old agencies, and nonreporting by law enforcement agencies.

13. The models presented here assume homoskedastic error terms with no autocorrelation of error terms over time. Though we intend to examine these issues more carefully in future analyses, estimated regression coefficients remain unbiased and consistent when either of these conditions is not satisfied (Kmenta 1986).

14. The effects of population on social phenomena are often controlled by expressing all continuous variables as rates per population rather than by adding population as a control variable. We experimented with models in which the population change variable was removed and all continuous variables (e.g., the police and crime variables) were expressed as population rates. The COPS officers awarded rate variable was insignificant in these models. We believe, however, that the impact of COPS on the ratio of police officers to population is a separate theoretical issue from the impact of COPS on the actual number of police across the country.

15. Numerous studies have confirmed a relationship between regions of the United States and a number of variables relating to government structure, political culture, employee bargaining organizations, and police agency style.

16. Data for State police agencies are typically reported for subunits (e.g., by barrack), and there are no estimates of the populations served by these subunits.

17. Our approach is similar to that known as the least squares with dummy variables (LSDV) approach (e.g., see Sayrs 1989). Typically, this approach involves the use of dummy variables for each time period and each cross-sectional unit. The cross-sectional indicator variables capture stable differences between the cross-sections over time. We did not utilize cross-sectional indicator variables due to the extremely large number of agencies used in this analysis. However, our use of other indicator variables representing agency type, region, and level of urbanization is intended to capture variance unique to theoretically meaningful groups of agencies (see Sayrs 1989, p. 25) and should thus control for stable differences among these groups of agencies.

18. The yearly indicator variables suggest that for reasons unrelated to COPS grants, police staffing grew more during 1994 and 1995 than in other years. However, removing the yearly indicators from the models had virtually no effect on the estimated net effect of COPS awards.

19. We also experimented with a number of other model specifications. In some specifications, we included a control variable for the number of officers in the agency at t-1, based on the notion that the number of officers in the agency at t-1 may have a bounding effect on the amount by which staffing levels are likely to change (i.e., larger agencies are likely to have larger year-to-year changes than are smaller agencies). More generally, the incorporation of a lagged Y into a model of change is an important consideration that can have substantial effects on the results (e.g., see Allison 1990). However, we found that the incorporation of the lagged Y had little impact on our COPS-awarded effect. We also specified models with all continuous variables in levels (as opposed to changes). The levels models tended to suffer from high collinearity among some variables. Further, the national police staffing figures presented in table 5–3 suggest (particularly when examined graphically) that police staffing has been trending upward over the study period and is thus nonstationary. Differencing the variables serves to detrend the staffing level variable.

20. Due to the yearly aggregation of the data, there may be some imprecision in the lag structure of the COPS-award effect. For example, some officers obligated at year t may be hired during year t. COPS officers awarded at year t might also affect changes in staffing beyond year t+1, a possibility that was difficult for us to investigate with so few post-COPS years in the database. At any rate, these factors may cause some bias (most likely a downward bias) in our COPS impact estimate.

21. If the loss of five officers reduced agency B below its budgeted level, it would normally have to replace them with local funds before receiving a COPS grant for additional officers to avoid supplanting.

22. Cross-hires for each agency were estimated to be zero unless the agency provided an affirmative indication of recruitment from other agencies (i.e., agencies that provided don't know responses were treated as having zero cross-hires). The cross-hiring questions utilized the same response categories discussed earlier (all, more than half but not all, half, etc.). If, for example, an agency indicated that more than half but not all of its COPS-funded officers were former sworn officers and that half of these officers were recruited from another agency, then the agency's estimated cross-hires would be the product of the num-

ber of awarded officers multiplied by 0.75 multiplied by 0.5.

23. As noted in chapter 4, a substantial percentage of hiring grantees have reported officer turnover in some of their COPS-funded positions. For this analysis, however, the retention of COPS-funded positions is more important than the tenure of individual officers filling those positions. COPS positions were considered to have been retained unless the grantee indicated the original COPS officers were no longer with the agency, had not been replaced, and were not going to be replaced. Only a very small fraction of agencies indicated they had lost officers who had not been and would not be replaced.

24. We made the working assumption that officers would be retained unless the agency offered a definite indication of nonretention or supplanting. In other words, we assumed that agencies whose respondents answered don't know to retention items would retain their officers unless they gave nonretention responses on other items. This seems to be a reasonable assumption in light of the strong impact that organizational inertia has on police staffing; that is, prior staffing is a very strong predictor of future staffing (Nalla, Lynch, and Leiber 1997).

25. These numbers are based on respondents' agreement with the following statement: "We expect to be able to retain all the [COPS] positions for at least awhile after the grant expires, but we don't know yet about the long term."

26. We assume indefinite retention because our survey data were collected before the COPS Office announcement that 1 year of postgrant retention was sufficient to comply with the retention requirement.

27. To estimate officers and FTEs awarded through May 1999, we utilized the most recent COPS Office databases available to us (October 1998 for hiring grants and June 1998 for MORE grants) and supplemented these data with information from the COPS Office press releases available on the COPS Office Web site (www.usdoj.gov/cops/).

28. In addition, a preliminary analysis of current redeployment comparing large 1995 MORE grantees to the full Wave 3 large-agency sample (which forms

a representative sample of all large municipal and county agencies, including early and later MORE grantees) suggested that results would change little with a sample chosen from all MORE grantees.

29. Interviewers asked respondents to provide specific numbers of FTEs redeployed. Agencies having multiple technology grants and/or multiple civilian grants were not asked to provide separate time savings estimates for each grant. Instead, interviewers asked respondents to provide one overall estimate of time savings from the respondents' technology grants and/or one overall estimate of time savings from the respondents' civilian grants. Some respondents provided estimates of hours saved rather than FTEs saved. In these cases, the hourly estimates were converted into FTEs. Any agency with an expired civilian grant(s) was given a zero for current time savings if the original civilian hires were no longer with the agency and had not been replaced.

30. To provide a rough assessment of this issue, we calculated the ratio of technology FTE redeployment to technology FTEs awarded for each agency (which both had operational technology) and provided an estimate of time savings (including reports of zero time savings) from technology. Similarly, we computed the ratio of civilian FTE redeployment to civilian FTEs currently funded for each agency that both had civilians and provided an estimate of time savings (including reports of zero time savings) from civilians. We divided the agencies into groups based upon whether they had time savings measurement systems and contrasted the ratios of redeployed to awarded FTEs between the groups.

The sample sizes for these comparisons were too small for rigorous analysis, ranging from 36 to 66 in different comparisons. Nonetheless, the comparisons did not show consistent differences between agencies with and without measurement systems. Large agencies with technology grants and no measurement systems tended to report higher time savings ratios than did large technology grantees with measurement systems. In contrast, small technology grantees without measurement systems tended to report smaller time savings ratios than did small technology grantees with measurement systems. Civilian grantees without measurement systems tended to report time savings ratios that were roughly equal to or less than those reported by agencies with measure-

ment systems (in the case of large civilian grantees, agencies without measurement systems reported significantly lower time savings ratios).

An additional caveat to these comparisons, however, is they could be confounded by implementation progress. To illustrate, an agency with one operational technology grant and another nonoperational grant would likely have a lower redeployment ratio than an agency with just one operational technology grant, all other things being equal. Another potentially confounding factor is the mix of different technology and civilian types among grantees. That is, certain types of technologies and civilian workers may tend to produce FTEs more efficiently.

31. Based on preliminary analyses, we excluded four small agencies that had unusually high values of FTEs awarded or redeployed that caused the confidence intervals to be extremely wide. Preliminary analyses also revealed a substantial fraction of cases in which respondents either did not agree with the COPS Office information about their agencies' MORE grants (i.e., whether the agency had any MORE grants and whether the agency had technology and/or civilian grants in particular) or could not estimate the amount of time their agencies were saving. Our initial strategy was to drop these agencies from analysis. However, this resulted in the loss of more than 20 percent of the cases in both the large- and small-agency samples. To avoid losing such a high fraction of cases, we employed the following approach.

First, we assumed that the COPS Office data represented the most accurate measure of agency grants. If, for example, an agency had a civilian grant for three FTEs according to the COPS Office records but had no MORE grant according to the respondent, then we assumed that the agency had three FTEs awarded and zero FTEs redeployed. (Cases involving discrepancies between the COPS Office records and respondent reports were examined closely for the Wave 1 survey. Most commonly, these discrepancies involved circumstances in which respondents were not aware of recently awarded grants, agencies had not yet accepted grants, or agencies had withdrawn from the program between the time we received the COPS Office data and the interviews were conducted. Project staff found no cases where recording errors caused the discrepancies.)

Second, we assumed that each agency had not redeployed any FTEs unless the respondent gave an affirmative indication that his/her agency was saving time (i.e., we gave an agency zero redeployment if the respondent did not know whether the agency was saving time). Finally, as noted in the main text, we estimated redeployment for agencies whose respondents indicated that the agency was saving an unknown amount of time by multiplying the agencies' awarded FTEs by the average ratio of redeployed to awarded FTEs provided by those agencies that reported specific time savings. We did these calculations separately for technology and civilian grants. Although the overall approach outlined here enabled us to retain many more cases, we found that our estimates and confidence intervals were quite similar with both the high- and low-attrition methods.

32. A number of respondents provided redeployment estimates greater than their awarded FTEs. In some cases, the redeployment values were substantially greater than the awarded FTEs in relative or absolute terms. We did not make any adjustments for these cases because it is possible for agencies to achieve more redeployment than expected, especially given our use of the COPS Office minimum FTE awarded value. Further, making adjustments for these cases may introduce bias into the estimates because it is likely that other respondents underestimated their FTE redeployment (for example, agencies were assumed to have zero redeployment if respondents were not aware of their agencies' MORE grants). Our approach assumes that the potential overestimates and underestimates of redeployment offset one another.

33. As noted earlier in this report, civilian grants are 1-year grants that can be renewed for a second and third year. Our counts of FTEs awarded are adjusted so that renewals of civilian grants are not counted as new FTEs. We feel this is appropriate, given the renewal awards do not result in any new redeployment.

34. This calculation is based on FTEs awarded through civilian and technology grants. Overtime grants were excluded from analysis.

35. In preliminary analyses, we attempted to create separate estimates for redeployment from civilian and technology grants. Those analyses tended to produce wide confidence intervals and also left uncer-

tainty as to whether more FTEs were being generated by technology or civilian grants. However, the analyses also suggested that the ratio of redeployed FTEs to awarded FTEs was higher for civilian grants.

36. Civilian FTEs are often counted on a one-for-one basis. That is, each civilian awarded is considered to count for one FTE. However, the COPS Office estimates of awarded FTEs used for these analyses count some civilians on a less than one-for-one basis. In some of these cases, the civilians may be part-time workers. In other cases, the less than one-to-one ratio may reflect the minimum FTEs that the COPS Office expects the grantee to redeploy. Therefore, we did not use the estimated number of "on budget" (i.e., retained) civilians as a direct estimate of "on budget" FTEs. Our method of estimating retained civilian FTEs assumes that the ratio of retained civilians to all civilians ever awarded to each agency is proportional to the true ratio of retained civilian FTEs to civilian FTEs ever awarded. Note, however, that this method constrains retained FTEs to be less than or equal to awarded FTEs. If the retained civilians produce more FTEs than anticipated by the COPS Office, this method may result in some underestimation of future civilian FTEs.

37. We excluded agencies whose respondents did not agree with the COPS Office information about their agencies' MORE grants (i.e., whether the agency had any MORE grants and whether the agency had technology and/or civilian grants in particular) or could not provide estimates of current or future time savings.

38. A caveat to this strategy is the results may be confounded somewhat by differential progress in the implementation of different types of technology and civilian positions. In other words, technologies and civilian positions which take longer to implement may prove to be more or less efficient than those implemented more quickly. If this bias exists, it will be mitigated to some degree by the fact that the Wave 3 survey covered MORE grants awarded over the course of more than 3 years.

39. The COPS Office records indicate 78 percent of FTEs awarded to small agencies as of June 1998 were associated with technology grants. In contrast, the sample of Wave 3 small agencies with imple-

mentation experience had only 56 percent of their FTEs awarded through technology grants. This discrepancy is likely due to the greater ease of implementing civilian grants relative to implementing technology grants.

40. The Wave 3 estimate of overall redeployment achieved by June 1998 falls between the 1997 and 1998 end-of-year redeployment estimates shown in figure 5–2.

41. This calculation assumes a permanent addition of 62,700 FTEs and a temporary addition of 84,700 FTEs.

42. The optimistic projection is based on the assumption that 19,000 additional FTEs will result in a permanent increase of 19,000 x .84 = 15,960 FTEs. Added to the optimistic projection of 84,000 permanent FTEs from awards through May 1999, this brings the tally of permanent FTEs to approximately 100,000. The pessimistic projection is based on the assumption that approximately 37,000 additional,

permanent FTEs will be needed to produce a permanent FTE increase of 100,000. The pessimistic model projections suggest this would require approximately 59,000 additional FTEs to be awarded (59,000 x .63 = 37,170).

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Appendix 5–A. Variances and Confidence Intervals for Estimated Ratios and Proportions

John Marcotte with Christopher Koper

This appendix describes the methodology used to compute variances and construct confidence intervals for the proportion and ratio measures estimated in chapter 5. If θ is the population ratio to be estimated, then the sample estimate of this ratio is:

$$\hat{\theta} = \frac{\overline{K}}{\overline{M}}$$

Where K-bar is the mean of the variable K and M-bar is the mean of the variable M. For example, K might represent officers hired or FTEs redeployed and M might represent officers or FTEs awarded.

If K must be less than or equal to M, θ is a proportion and only values between 0 and 1 are plausible (e.g., the proportion of awarded officers who have been hired).

Confidence bounds for θ based on log(θ)

If θ is a proportion and the sample estimate was less than 0.4, we computed the variances and confidence intervals based on the log of θ. This ensured that the lower bound of the confidence interval did not fall below zero.

$$Var[\log(\hat{\theta})] = \frac{Var[\overline{K}]}{(\overline{K})^2} + \frac{Var[\overline{M}]}{(\overline{M})^2} - 2\frac{Cov[\overline{K},\overline{M}]}{(\overline{K})(\overline{M})}$$

Expressed in terms of the variances and covariance of the *variables* (K and M) instead of the variances and covariance of the *means* of K and M, the formula is:

$$Var[\log(\hat{\theta})] = \left(\frac{Var[K]}{(\overline{K})^2} + \frac{Var[M]}{(\overline{M})^2} - 2\frac{Cov[K,M]}{(\overline{K})(\overline{M})}\right)\left(\frac{1}{N}\right)$$

- Let 100(1 - α) be the confidence level (e.g., 95 percent, 90 percent).
- α is the probability of type 1 error.
- $\Phi^{-1}[1 - \alpha/2]$ is the critical value for the confidence interval and is the inverse of the normal cumulative distribution function.

Lower bound:

$$\hat{\theta}lower = (\hat{\theta})\exp\left[-\left(\sqrt{Var[\log(\hat{\theta})]}\right)\Phi^{-1}[1-\alpha/2]\right]$$

Upper bound:

$$\hat{\theta}upper = (\hat{\theta})\exp\left[\left(\sqrt{Var[\log(\hat{\theta})]}\right)\Phi^{-1}[1-\alpha/2]\right]$$

Confidence bounds for θ based on log(1-θ)

If θ is a proportion and the sample estimate was greater than 0.6, we calculated the variances and confidence intervals based on the log of $(1 - \theta)$. This ensured that the upper confidence bound for θ did not exceed one.

$$Var[\log(1-\hat{\theta})] = \frac{Var[\overline{M-K}]}{(\overline{M-K})^2} + \frac{Var[\overline{M}]}{(\overline{M})^2} - 2\frac{Cov[\overline{M-K},\overline{M}]}{(\overline{M-K})(\overline{M})}$$

Expressed in terms of the variances and covariance of the *variables* (K and M) instead of the variances and covariance of the *means* of K and M, the formula is:

$$Var[\log(1-\hat{\theta})] = \left(\frac{Var[M-K]}{(\overline{M-K})^2} + \frac{Var[M]}{(\overline{M})^2} - 2\frac{Cov[M-K,M]}{(\overline{M-K})(\overline{M})}\right)\left(\frac{1}{N}\right)$$

- Let $100(1 - \alpha)$ be the confidence level (e.g., 95 percent, 90 percent).

- α is the probability of type 1 error.

- $\Phi^{-1}[1 - \alpha/2]$ is the critical value for the confidence interval and is the inverse of the normal cumulative distribution function.

Lower bound:

$$\hat{\theta}_{lower} = 1 - \left((1-\hat{\theta})\exp\left[\left(\sqrt{Var[\log(1-\hat{\theta})]}\right)\Phi^{-1}[1-\alpha/2]\right]\right)$$

Upper bound:

$$\hat{\theta}_{upper} = 1 - \left((1-\hat{\theta})\exp\left[-\left(\sqrt{Var[\log(1-\hat{\theta})]}\right)\Phi^{-1}[1-\alpha/2]\right]\right)$$

Confidence bounds for θ based on θ

If θ is not a proportion (e.g., the ratio of redeployed to awarded FTEs) or if the sample estimate of θ fell between 0.4 and 0.6, we calculated the variance and confidence intervals based on the variance of θ.

$$Var[\hat{\theta}] = \left(\frac{Var[\bar{K}]}{(\bar{K})^2} + \frac{Var[\bar{M}]}{(\bar{M})^2} - 2\frac{Cov[\bar{K},\bar{M}]}{(\bar{K})(\bar{M})}\right)(\hat{\theta})^2$$

Expressed in terms of the variances and covariance of the *variables* (K and M) instead of the variances and covariance of the *means* of K and M, the formula is:

$$Var[\hat{\theta}] = \left(\frac{Var[K]}{(\bar{K})^2} + \frac{Var[M]}{(\bar{M})^2} - 2\frac{Cov[K,M]}{(\bar{K})(\bar{M})}\right)\left(\frac{1}{N}\right)(\hat{\theta})^2$$

- Let $100(1 - \alpha)$ be the confidence level (e.g., 95 percent, 90 percent).

- α is the probability of type 1 error.

- $\Phi^{-1}[1 - \alpha/2]$ is the critical value for the confidence interval and is the inverse of the normal cumulative distribution function.

Lower bound:

$$\hat{\theta}_{lower} = \hat{\theta} - \left(\sqrt{Var[\hat{\theta}]}\right)\Phi^{-1}[1-\alpha/2]$$

Upper bound:

$$\hat{\theta}_{lower} = \hat{\theta} + \left(\sqrt{Var[\hat{\theta}]}\right)\Phi^{-1}[1-\alpha/2]$$

Complex Sampling Adjustment

If the analysis involved the use of a stratified sample (i.e., weighted data), we adjusted the variance formula for complex sampling (this was necessary for the hiring analyses with large agencies). The design effect (**deff**) or **A** factor was multiplied by each variance estimate.

$$A = deff = \frac{\overline{W^2}}{(\bar{W})^2}$$

The design effect is the ratio of the mean of the squared-weight to the square of the mean weight. In this case, the design effect (deff) is always greater than or equal to 1.0.

The design adjusted variances:

$$Var\left[log[\hat{\theta}]\right](deff) = Var\left[log[\hat{\theta}]\right]\left(\frac{\overline{W^2}}{(\bar{W})^2}\right)$$

$$Var\left[log(1-\hat{\theta})\right](deff) = Var\left[log(1-\hat{\theta})\right]\left(\frac{\overline{W^2}}{(\bar{W})^2}\right)$$

$$Var[\hat{\theta}](deff) = Var[\hat{\theta}]\left(\frac{\overline{W^2}}{(\bar{W})^2}\right)$$

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6. COPS and the Nature of Policing

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Title I of the Violent Crime Control and Law Enforcement Act of 1994 provided the legislative basis for the creation of the Office of Community Oriented Policing Services (COPS Office) and authorized grant funds to increase the number and presence of officers on the street. Explicit in the authorizing legislation and consistently promoted by the COPS Office was the message that these grant funds were to facilitate the adoption of community policing. Exactly how community policing was to be operationalized was not specified; rather, details were left up to the individual grantee agencies to decide and state in their grant applications.

In this chapter, we look at the status and nature of community policing in law enforcement agencies from two sources of information: (1) surveys conducted with COPS grantees and nongrantees, in which the community policing tactics were specified by evaluation staff, and (2) interviews with key personnel and reviews of departmental materials obtained during site visits to 30 selected grantees. These two sources provide quantitative assessments by law enforcement agencies of their adoption or expansion of community policing tactics over several years and qualitative assessments of what constitutes their community policing approach. These diverse information sources enabled us to compare and contrast different agencies' adoption of specific tactics, describe what community policing is in the eyes of COPS grantees, and examine how grantees' current views of community policing fit with definitions of key components of community policing promulgated by leading practitioners and researchers.

The information presented in this chapter on the status and nature of community policing in COPS-funded law enforcement agencies dates from 1997–98[1] and encompasses whether and how the COPS funds have assisted grantees to move forward in implementing community policing as they define it. Our information is based on the experiences of law enforcement agencies receiving COPS money for: (1) *hiring more officers* and placing them in community policing positions, placing new officers in patrol to redeploy more experienced officers to community policing functions (i.e., backfilling), or simply hiring additional officers to enable all officers to devote more time to community policing activities; and/or (2) *obtaining new technology and/or hiring civilians* to provide more time for sworn officers to spend on community policing.

Our focus in this chapter is primarily programmatic, describing the adoption of tactics and organizational changes commonly associated with the goals of community policing and assessing the nature of their implementation. We also address the philosophy underlying community policing and how different departmental philosophies, deployment models, and community characteristics combine to produce substantially different policing strategies labeled as community policing. Chapter 7 focuses on slightly different questions—how agency leaders created an organizational climate for community policing innovations, used COPS funds to facilitate change, and attempted to ensure that the innovations would be sustained.

Data Sources and Samples

The information presented in this chapter is drawn from two primary sources: (1) telephone surveys conducted[2] in the fall of 1996 with 267 large local or county law enforcement agencies funded by COPS in 1995 and a comparison group of 149 nonfunded large local or county

law enforcement agencies[3] and repeated in 1998 and (2) site visits made to 30 funded agencies by teams of police practitioners and senior researchers in 1997 and 1998. The survey data provide quantitative, self-reported information from a large number of grantees, while the site visit data provide a rich source of more qualitative data from which to draw deeper insights and useful examples. Throughout the chapter, we summarize the nature of community policing across the 30 visited sites, use practices in particular agencies as examples, and link the qualitative, site visit-based information to the more quantitative survey data and indepth case study assessments of an additional 10 cities. For detailed information on the 30 sites visited, see the site reports.[4]

The agency survey

As explained in chapter 2, the COPS Office operationalized its concept of community policing in terms of four objectives: building community partnerships, adopting problem solving as a policing mode, engaging in prevention, and increasing organizational support for the three programmatic objectives. We measured progress toward all four objectives by surveying representative samples of COPS grantee and nongrantee agencies about their implementation status for each of 47 policing tactics in 1995 and 1998, then measuring changes over time in implementation status (see tactics list in appendix 6–A). For the most part, the tactics were common among agencies implementing one of the varieties of community policing introduced in chapter 2. Other tactics were selected because they arose more or less frequently in presentations and literature on community policing at the time we designed the survey.

The agencies surveyed by telephone were selected to be representative of the population of law enforcement agencies in the United States as of April 1996 but were stratified to permit oversampling of grantee agencies and large agencies. The sample design is explained in the methodological appendix. Among other questions,

respondents (i.e., the chief executive or someone explicitly designated to speak on his or her behalf) were asked to specify the pre- and post-1995 implementation status of tactics for pursuing the objectives of community policing. We asked each agency that reported using a tactic as of 1995 or starting or expanding its use of a tactic between 1995 and 1998 to describe the role COPS funding played in the use of that tactic: to start or expand its use, sustain its use through a budget cut, or have no effect. Given our data collection procedure, the responses should be interpreted as official agency statements regarding implementation status rather than validated reports of actual conditions. We used the survey responses to answer five questions:

1. **Did the number of agencies using community policing tactics grow between 1995 and 1998?** We hypothesized that the forces described in chapter 2, as well as COPS grants, would encourage agencies to adopt community policing tactics during that period. We tested that hypothesis by comparing the 1995 and 1998 fractions of agencies nationwide that reported using each tactic.

2. **Were early COPS grantees more likely than nongrantees to use community policing tactics before 1995, when the COPS program began?** We hypothesized that the early COPS grantees would tend to have previously advanced farther than nongrantees in adopting community policing tactics. This could reflect greater motivation to pursue community policing support, greater facility in writing the required community policing plans for COPS grant applications, or both. We tested this hypothesis by comparing the 1995 fractions of grantees and nongrantees that reported using each tactic.

3. **Between 1995 and 1998, did COPS grantees expand their use of community policing tactics more rapidly than nongrantees?** We hypothesized that COPS grants would encourage agencies to adopt community policing tactics between 1995 and 1998, by providing a financial incentive to do so, by providing

resources that would make it easier to implement existing local community policing plans without cutting back other services, or both. We tested this hypothesis in two ways: first, by comparing the fractions of grantee and nongrantee agencies that reported using each tactic as of 1998; and second, by comparing 1995–98 net changes in the fractions of grantee and nongrantee agencies that reported using each tactic. We tested the statistical significance of grantee/nongrantee differences using a "differences-in-differences" model described in appendix 6–B.

4. **Did COPS grantees attribute their increased or sustained use of "old" (i.e., pre-1995) community policing tactics to their grants?** Instead of crediting COPS grants with all 1995–98 continuation of community policing tactics adopted before 1995, we computed the fractions of COPS grantees reporting the grant started or expanded the use of each old tactic, sustained its use despite budget cuts, or had no effect.

5. **Did COPS grantees attribute their adoption of new community policing tactics between 1995 and 1998 to their COPS grants?** Similarly, instead of crediting COPS grants with all 1995–98 adoption of new community policing tactics, we computed the fractions of COPS grantees reporting the grant started or expanded the use of each "new" tactic it adopted between 1995 and 1998, sustained its use despite budget cuts, or had no effect.

One limitation of this method is that we cannot measure the extent to which COPS program activities may have accelerated *nongrantees'* transitions to community policing indirectly. Such indirect effects could have occurred, for example, if Community Policing Consortium materials informed skeptical agencies about implementation successes, regional or State training academies added or improved community policing modules in their curriculums at the behest of grantee agencies, or media coverage of COPS-funded community policing initiatives in some jurisdictions increased public demand for changes in policing styles elsewhere. We did not believe it was feasible to sort out effects such as these from other influences on the national conversation about innovations in policing.

Another limitation of a telephone survey approach is that it cannot provide the basis for a national picture of the extent to which agencies have embedded signature tactics of community policing into jurisdictionwide community policing philosophies or strategies. To explore that question, we relied on 30 programmatic site assessments discussed in this chapter and 10 case studies that provided the basis for chapter 7.

Programmatic site assessments

From the grantee survey sample, 30 agencies were selected, in 3 groups, for the programmatic site assessments that underlie much of this chapter. A pretest group of four agencies was selected and visited in early 1996 to provide a range of agency types and jurisdiction sizes. Fifteen "Group A" agencies were selected from 1995 COPS MORE grantees for visits in early 1997. The Group A sites were selected as examples of agencies that had made the greatest progress in implementing a diverse array of technologies, but site teams were asked to observe their community policing program as well as their technology implementation. Eleven Group B sites were selected for visits during the summer of 1997 from among agencies that reported to survey interviewers that (a) they were implementing many of the surveyed tactics and (b) COPS funds were instrumental in their implementation. Among agencies that met our selection criteria, we attempted to achieve diversity of agency type, jurisdiction size, and geographic distribution. In late 1997 and early 1998, second site visits were made to 15 sites. Revisit priorities were set primarily on site visitors' assessments of the importance of technological or community policing initiatives in process, the project team's awareness of major transitions in agencies since the first visit, and applicability of lessons to be learned from a second site visit.

The 30 law enforcement agencies visited ranged in size from a handful of sworn officers to close to 10,000, serving areas from a small Native American Indian reservation with a population of 150 to the city of Los Angeles, population 3.6 million. These law enforcement agencies, grouped by the size of the population they serve, are listed in table 6–1.

As shown, the majority of agencies visited are local police departments serving jurisdictions with populations between 50,000 and 150,000. The others include five large city police departments, five sheriff's departments serving coun-

ties, and three law enforcement agencies serving atypical jurisdictions. Although only Mascoutah, Illinois, and the Las Vegas Paiute Tribal Police technically fit the COPS FAST jurisdictional limit of less than 50,000 population, both Oak Park, Illinois, and Pocatello, Idaho, come very close. Within several of the counties (San Bernardino, for example), the sheriff's department provides contractual law enforcement services for small incorporated cities, some of which have received COPS FAST grants. As a group, the agencies visited reflect the range of law enforcement agencies in the United States but underrepresent agencies serving jurisdictions of

Table 6–1. Law Enforcement Agencies Visited, by Type and Population of the Jurisdiction Served	
Type of Jurisdiction, Population Size	**Law Enforcement Agency**
Cities:	
Less than 50,000	Mascoutah, Illinois
50,000–150,000	Flint, Michigan Lakeland, Florida New Bedford, Massachusetts North Charleston, South Carolina Oak Park, Illinois (53,648) Pocatello, Idaho (50,948) Racine, Wisconsin Sandy City, Utah
150,000–500,000	Austin, Texas Buffalo, New York Des Moines, Iowa Fort Worth, Texas Huntington Beach, California Miami, Florida Newark, New Jersey Oakland, California
More than 500,000	Las Vegas, Nevada Los Angeles, California Milwaukee, Wisconsin Nashville, Tennessee San Diego, California
Counties:	
Less than 200,000	Fresno County, California Sarpy County, Nebraska
More than 200,000	Cobb County, Georgia Maricopa County, Arizona San Bernardino County, California
Other types of jurisdictional areas	Las Vegas Paiute Tribal Police Oregon State Police San Diego School District Police
Note: Most population figures were provided by the law enforcement agencies; where missing, 1990 Census figures were used.	

less than 50,000 population, which constitute the majority of law enforcement agencies in the United States. This underrepresentation reflects our Group B priority on agencies with broad-gauge community policing programs, as measured by our tactics list.

Defining Community Policing

To measure progress toward the goals of having more officers dedicated to community policing and giving officers more time to devote to community policing, we must address the difficult problem of developing yardsticks for community policing both nationally and locally. Just what are officers doing when they are "doing community policing?"

In the past 15 years, community policing has become the generally accepted standard for policing in the United States (Eck and Rosenbaum, 1994). Yet, as explained in chapter 2, what community policing encompasses remains a matter of debate (see, for example, Goldstein, 1994; Ryan, 1994a), and the nature of activities defined as part of community policing continues to change. The broad general principles set out by Goldstein (1979) and Trojanowicz and Bucqueroux (1989), however, are accepted by most practitioners as the basic building blocks of community policing (Bureau of Justice Assistance, 1994; Roberg, 1994). These two dominant characteristics are (1) an emphasis on problem solving, also known as problem-oriented policing (Goldstein, 1990; Eck and Spelman, 1987), and (2) community involvement and the building of partnerships among police, citizens, city agencies, and others, which first gained prominence through the "fear of crime" studies (Pate et al., 1986).

Community policing has been called "a philosophy not a program" so many times that the original reference has been lost. Trojanowicz, Kappeler, Gaines, and Bucqueroux (1998) call it "both a philosophy and organizational strategy" (p. xi)—a philosophy that allows the police and residents to work together in new ways to solve problems and an organizational strategy encompassing decentralization and individual autonomy that supports the philosophy. Skogan and Hartnett (1997) concur that community policing is "not something one can easily characterize" and "a process rather than a product" (p. 5). They identify its four general principles as (1) organizational decentralization and patrol reorientation to facilitate communication between the police and public, (2) a commitment to broadly focused, problem-oriented policing, (3) responsiveness to the public in setting priorities and developing tactics, and (4) a commitment to helping neighborhoods solve problems on their own.

The point we are belaboring here is that community policing *remains* a philosophy, an approach, not a clearly defined program or set of strategies a department must implement to say it does community policing. Community policing *should* look different from city to city and within a city, from neighborhood to neighborhood, as police respond to local needs and desires.

A broad and diverse array of strategies is described as community policing by local law enforcement agencies. Uniform measurements and standards were needed to fulfill the purpose of this chapter: assessing the impact of COPS on the style and character of American policing. To provide such a standard, we began with the literature briefly alluded to above and the four Title I community policing objectives discussed in chapter 2: (1) partnership building, (2) problem solving, (3) prevention, and (4) organizational change in support of the programmatic objectives. The four objectives were operationalized in the telephone survey through lists of selected tactics appropriate to each objective. Most of these were selected from tactics mentioned in chapter 2 as having been associated with one of the predecessors to community policing; others were added because they arose commonly in literature and discussions of community policing around the time the survey instrument was designed.

Although the survey-based measures have advantages for analyzing national patterns and

trends in reported implementation status, these measures are subject to well-known validation questions. Moreover, they provide no indication of how any given tactic may be adapted to local conditions. Therefore, we also measured implementation status using a semistructured case study approach (Baltzell, 1980).

Onsite interviews were guided by qualitative questions about selected tactics, referred to as the "ground truth inventory" (for example, where citizen advisory councils are included under building partnerships, ground truth questions explore who is on the council, how they are selected, how often they meet, who dominates decisionmaking, the topics discussed and how, the role of police, etc.). Through this process, the COPS grantees themselves defined what community policing meant to their agency. Their views indicated just how generously proportioned the community policing umbrella is, as it ranges from primary prevention efforts such as D.A.R.E.® to intense crackdowns in target areas.

Thus, our assessment of how the COPS funds have influenced community policing is based on both individual agency definitions of community policing and a common scheme based on the COPS objectives, which enables comparisons to be made within agencies over time and across categories of agencies in the evaluation samples.

Beginning community policing

The impact of the COPS funds on community policing in local law enforcement agencies is determined by many factors. One of them, certainly, is the agency's history of community policing and the current status of its implementation. Three categories have been used to group the agencies visited, based on their starting times for agency implementation of community policing:

- The "early pioneers" began implementing community policing principles between 1985 and 1989, coinciding with the first practice and study of problem-oriented policing and problem solving (Goldstein, 1979; Eck and

Spelman, 1987) and the "fear of crime" studies that were the harbingers of community policing (Skolnick and Bayley, 1986; Pate et al., 1986).

- The "mainstreamers" began community policing in 1990–94, as community policing began to receive substantial national attention and law enforcement agencies across the Nation adopted problem solving and other community policing principles, accompanied by much experimentation, research, and critical review (Rosenbaum, 1994; Greene and Mastrofski, 1988).

- The "latecomers" began their experiments in community policing in 1995 or later, around the start of the COPS program.

As shown in table 6–2, a handful of the agencies visited reported they had started community policing prior to 1990. Several of them are special forces (the Las Vegas Paiute Tribal Police and Oregon State Police) and a sheriff's department that reported "we've always done community policing." The cities of Fort Worth and San Diego are counted among the early pioneers. San Diego is well known for its early, successful experiments in problem-oriented policing. Fort Worth began neighborhood policing in the mid- to late-1980s, in the form of regular meetings with citizens, the formation of citizen advisory committees, and territorial policing (rather than temporal), with supervisors given autonomy to work in concert with the local community as well as full responsibility for both patrol and investigative functions.

Those who say "we've always done community policing" stress their long-term emphasis on community service and an indepth knowledge of the areas served. The Las Vegas Paiute Tribal Police, for example, believes its approach is "inherently" community policing because its service area is so small. More than a few sheriffs say community policing has always been their agency's mode of operation, since (a) sheriffs are elected, and thus they see themselves and their philosophies as intrinsically directed by

Table 6–2. Law Enforcement Agencies Visited, by Approximate Start Date of Community Policing and Type and Population of the Jurisdiction Served

Type and Population of Jurisdiction	Beginning of Community Policing		
	Early pioneers, 1985–89	Mainstreamers, 1990–94	Latecomers, 1995–Present
Cities:			
Less than 50,000		Mascoutah	
50,000–150,000		Flint Lakeland New Bedford North Charleston Oak Park Racine	Pocatello Sandy City
150,000–500,000	Fort Worth	Austin Buffalo Huntington Beach Miami Newark Oakland	Des Moines
More than 500,000	San Diego	Los Angeles Milwaukee Nashville	Las Vegas
Counties:			
Less than 200,000			Fresno County Sarpy County
More than 200,000	Maricopa County	Cobb County	San Bernardino County
Other types of jurisdictional areas:	Las Vegas Paiute Tribal Police Oregon State Police		San Diego School District Police

the community; (b) deputies generally live in the county (many even grew up there), and although distances are vast, they know their territory and many residents well; (c) distances *are* vast and their backups may be 20–30 minutes away, so deputies are more apt to approach situations with tact and conversation rather than bravado and force; and (d) the problems their communities face tend to be minor crime and quality-of-life issues rather than "big city" crime.

More than half of the law enforcement agencies visited may be called mainstreamers because they reported they implemented community policing in the early 1990s. During these years, community policing was heralded as the latest in a long tradition of police reform, promoted by the U.S. Department of Justice, its State-level counterparts, and police executive associations.

A small number of agencies, most of them mainstreamers, trace the roots of community policing in their departments back to various experiments and policies in the 1970s and 1980s—even the 1960s. Flint, Michigan, for example, was the site of the original foot patrol experiments (Trojanowicz, 1982). The Los Angeles Police Department first established its basic beat structure and the principles of beat integrity and territorial imperative in the 1960s. Fort Worth's police department and Fresno County sheriff's department also point to long-established

geo-based deployment practices that reportedly paved the way for community policing. While the Nashville Police Department is in an early stage of transition to community policing, it also points to its walk-and-talk patrols in the 1970s as evidence of early community policing. Some of these early efforts disappeared in the wake of the arrival of crack cocaine in the mid-1980s or simply withered on the vine as new practices and local needs arose. Others have left legacies, particularly the geo- or area-based deployment schemes, that embrace community policing strategies.

A half dozen of the agencies visited reported that community policing began with their first COPS award, in contrast to those from the "we've always done community policing" school and the mainstreamers. These "latecomers" include three sheriff's departments, a school district police department that acquired a new chief almost simultaneously with its first COPS MORE grant, and the Las Vegas Metropolitan Police Department, which created its first Problem-Solving Unit shortly after receiving its first COPS grant. In most of these agencies, the COPS grants were used to form a specialized community policing unit or to deploy officers dedicated to community policing.

Impetus behind community policing in local agencies

The catalyst for community policing may be internal or external. Most law enforcement agencies adopt community policing principles due to internal desires, led by the chief or other command staff, to improve policing service. Major changes in the nature of community policing also often coincide with the placement of a new chief executive in an agency. Los Angeles Police Department (LAPD) is an excellent example of chief-driven change; LAPD employed a split-force style of community policing under Chief Willie Williams, with senior patrol officers (known as senior lead officers) serving as the main community police officers in all beats. Chief Bernard Parks, within a few months of his appointment, returned the senior lead officers to patrol as field training officers and promulgated a generalist form of community policing. Other examples of fairly dramatic changes in policing style due to turnover at the top include the Milwaukee Police Department, where a new chief turned the agency away from partnership building and toward zero tolerance, and the Lakeland, Florida, Police Department, where the new chief did just the opposite.

Several agencies among those visited, however, adopted community policing concepts and tactics due to external political forces. In several cities, crisis was the impetus for community policing. In Los Angeles, for example, the catalyst was the Rodney King beating and the civil disorders following the acquittals of four officers. More mundane external pressure was exerted by the city council in Oakland, which passed a resolution making community policing the operating philosophy of the Oakland Police Department and recruited a police chief to make it happen. In Oak Park, as well, the impetus for community policing emanated from the city council. In Buffalo, a new mayor and police commissioner led the movement for police reform. In other cities, community policing resulted from more generalized accusations of poor police service or from very strained police-community relations, particularly with minority communities.

Several departments appear to have changed direction away from particular forms of community policing of the recent past. In Maricopa County (Arizona), for example, the sheriff's department reports it moved beyond what it called its SARA (Scanning, Analysis, Response, and Assessment) phase in 1991–92. Headed by "America's toughest sheriff," known for his use of chain gangs and pink underwear for unruly prisoners, the department follows the generalist form of community policing said to be inherent to sheriffs. In Newark, neighborhood policing efforts of the early 1990s appear to be on the wane at a time when New York's accountability approach and a new emphasis on patrol are

being implemented in an effort to improve response time and return to a basic level of service. In Milwaukee, community policing that emphasized partnerships with diverse segments of the community gave way to zero tolerance policies, championed by a new chief who took over in the wake of the controversy over police handling of the Jeffrey Dahmer case.

Structures for delivering community police services

Several deployment models for structuring community policing are useful for looking at how COPS-funded agencies have implemented their community policing efforts (International Association of Chiefs of Police, 1997). These models are:

1. The single officer—found primarily in small law enforcement agencies. This model refers literally to having one dedicated community police officer.

2. The specialized unit—a model in which two or more police officers are dedicated to jurisdictionwide community policing and problem solving and usually do not answer calls for service.

3. Split force—in this model, a community police officer is assigned to each area serviced by one patrol unit (i.e., a beat, or perhaps called a precinct, sector, zone, or district). Community police officers are typically charged with developing partnerships and engaging in problem solving with the community and are separate from patrol officers assigned to handle radio calls.

4. Temporal model—in this model, community police officers are assigned to work the times when their services are needed most. They are not separated from the patrol function and therefore answer calls for service while remaining responsible for developing partnerships and problem solving.

5. Total community policing model—this model is also often referred to as the generalist model. All personnel in the department are involved in or support the community policing philosophy. All patrol officers respond to radio calls and engage in community policing.

6. Geographic model—this model reflects the differences between geographic (also known as areal) command and watch command. Traditionally, law enforcement agencies divide responsibility by watch, or work shift—supervisors and personnel assigned to shifts have responsibility for those things that occur during their particular watch. In the geographic command model, supervisors are held accountable for what happens in their area 24 hours a day; the model aims to improve response and build connections to the community. Geographic command structures may coexist with other community policing models.

Categorizing the 30 sites visited into these structural models is easier said than done. The distinctions are not as clear as the categories above suggest, particularly in regard to whether officers doing community policing are "freed from the tyranny of the radio" or not and the extent to which they are assigned to a geographical area. Later in this chapter, additional information is provided on the three deployment structures common to most problem-solving strategies.

It appears that about a third of the 30 sites visited have implemented a specialized form of community policing and about a third have adopted a split force version. One example of a deployment structure difficult to categorize is the Huntington Beach Police Department, where two community liaison officers are each assigned to half the city to concentrate on problem solving. While each officer is dedicated to an area, this area consists of multiple patrol beats and half a city of 190,000; this site has been labeled a split force model.

Approximately a half-dozen agencies appear to have a generalist structure of deployment, although at times this is difficult to separate from traditional policing (several of these sites are those who say "we've always done community

policing"). With the exceptions of the Austin and San Diego police departments, all these agencies serve very small areas or are countywide sheriff's departments. In these agencies where "every officer is a community police officer," patrol officers are to find opportunities to interact with the community and identify and resolve specific problems, while conducting their regular patrol activities as well. Most officers report difficulty finding time for proactive community policing; this is reflected in the data presented in chapter 4, where about a third of the departments report officers spend a substantial amount of time doing routine patrol and "squeezing in" proactive work as time allows. Departments with generalist structures reported spending more time patrolling than those with specialized or split force models; while those with specialized or split force models spend more time on partnerships, prevention, and problem-solving approaches reflecting zero tolerance policies.

No agencies visited had the single community police officer deployment structure. The Las Vegas Paiute Tribal Police has the fewest number of officers (seven), but embraces a generalist model. The smallest municipal police department, Mascoutah, has 11 officers, all of whom patrol as generalists but also have a specialty area linked to community policing, such as D.A.R.E.® or Neighborhood Watch.

Racine Police Department is the only department visited that has a temporal deployment structure. The department has a small specialized unit of seven officers, a sergeant, and a lieutenant, who work out of six community-based police offices. The department also has a "fourth" patrol shift—officers with a special task assignment from 7 p.m. to 3 a.m. who are partially freed from calls for service in order to concentrate on problem solving.

Although we did not visit a department with a geographic model of community policing, departments have adopted geographic commands as part of an organizational change in support of community policing. We will return to this sub-

ject later in this chapter in the section on organizational change.

Measuring change in community policing

As the preceding discussion suggests, agencies differ not only in the organizational structures they use to deliver community policing but also in the substance of what they deliver under that label. As Moore (1994: 289–290) has noted, the ambiguity of the label is a virtue for encouraging innovation because it leaves a domain of uncertainty or "wiggle room" within which a department can test new approaches with confidence it will not be accused of deviating from "true" community policing. Further, the ambiguity is a necessity if one agrees with Manning (1998) that "reducing social distance between the police and the policed" is a fundamental objective of community policing. The determinants of social distance, and therefore the most appropriate ways to reduce it, vary from one neighborhood to another even within a single geographic jurisdiction.

Though a virtue or necessity for some purposes, ambiguity presents problems for measuring change over time in the nature of policing. To base change measures on agencies' statements that they are "doing community policing" risks combining one agency's apples with another agency's oranges, especially if both agencies are in fact following locally developed community policing strategies to the letter. But basing change measures on some arbitrary standard carries risks, too. The standard may become a sort of litmus test that is inappropriate for many agencies. A rigid standard may discourage innovation, and attempts to implement the standard where it is inappropriate may perversely *increase* the social distance that community policing is intended to decrease.

Fortunately, our goal in this chapter is less ambitious than a definition of community policing. We intend to assess the effectiveness of the COPS program in furthering the four objectives that the COPS Office announced early in its life: problem solving, partnership building, preven-

Table 6–3. Pre- and Post-1995 Implementation of Community Policing Tactics—Reported Relationship to COPS Grants for Large Local/County Funded Agencies Only

CP Component	Mean Number (Percentage) of Tactics Used in 1995	Mean Number of Pre-1995 Tactics Expanded	Mean Number of Tactics Adopted Post-1995	Mean Percentage of Tactics Expanded or Adopted With COPS Funds
Partnership building (n=11)	4.93 (45%)	3.29	2.15	49.45
Problem solving (n=11)	6.14 (56%)	4.46	3.47	72.09
Prevention programs (n=15)	6.70 (45%)	3.43	2.24	37.80
Organizational change (n=11)	3.86 (35%)	2.24	2.33	41.54

tion, and supportive organizational change. Our quantitative measuring device for each objective was a survey-based scale based on agencies' statements about the implementation status of selected tactics for pursuing the objective and about the role of COPS grants in the adoption or expansion of these tactics. Table 6–3 was the scale to summarize COPS grantees' pre-1995 use and post-1995 adoption of community policing tactics.

Our qualitative devices for measuring implementation were 30 programmatic site assessments that included interviews and observations of local programs. This chapter draws on both information sources to describe changes in local partnership building, problem solving, prevention, and organizational functioning since the COPS program began. Our qualitative device for assessing how grantees' chief executives used COPS grants and other resources in adopting or expanding innovative strategies and tactics was a series of 10 case studies (see chapter 7).

Partnerships

One principle of community policing that sets it apart from most past policing reforms is the emphasis on creating and sustaining working partnerships with communities and other entities within local jurisdictions. Any review of

community policing literature and the practices and experiences of most of the early pioneering police agencies dating back over the past 20 years exhibits this prominence. In 1983, Feins stressed the value of forming and sustaining collaborative working partnerships between the community and local police for crime prevention and control (Feins, 1983).

Today, partnerships are at the center of not just community policing but of many strategies to tackle crime, drug, and social problems. In recent years, partnerships have been the crux of multijurisdictional drug law enforcement efforts (Chaiken, Chaiken, and Karchmer, 1990); drug prevention programs (Center for Substance Abuse Prevention, 1994); the enforcement, community policing, prevention, and revitalization strategies of the federally funded Weed and Seed program (Roehl et al., 1996; Dunworth et al., 1999); the Comprehensive Communities program (Kelling et al., 1998); and myriad community-based anticrime and antidrug strategies. Researcher-practitioner partnerships are a key component of the newest wave of partnership-based crime reduction strategies, which include NIJ's Locally Initiated Research Partnerships between research and police organizations (McEwen, 1999), Boston's Cease Fire project (Kennedy, 1997), and the five-site Strategic Approaches to Community Safety Initiative.

These initiatives have produced valuable information on the dynamics and evolution of partnerships but limited information on how to measure their strength or impact.

The U.S. Department of Justice has demonstrated a strong commitment to encourage local jurisdictions to form meaningful and sustainable partnerships among police, communities, and other service providers that will facilitate shared responsibility for dealing with local problems of crime and violence. The COPS Office mission statement places partnerships squarely within its definition of community policing: "Community policing is a policing philosophy that promotes and supports organizational strategies to address the causes and reduce the fear of crime and social disorder through problem-solving tactics and community-police partnerships." The COPS Office has further exhibited and reinforced this commitment to partnerships in its nonhiring grant awards. More than 300 domestic violence grants have been awarded to support local partnerships among police, victims' advocates, and other organizations to deal with this critical problem. The Innovative Community Oriented Policing program grants require local police, community, and other partners to collaborate on the selection of particular problems and development of response strategies. In June 1997, the COPS Office awarded approximately 35 grants to establish Regional Community Policing Institutes (RCPIs) throughout the country. The RCPIs involve working partnerships among law enforcement agencies, community organizations, and a teaching institution in the design and delivery of comprehensive community policing training.

At the crux of the partnerships is the belief that the prevention and reduction of crime and disorder problems require the coordinated, concentrated effort of individuals and agencies affected by and concerned with the problems. Because crime has multiple causes, solutions must be equally multifaceted and cannot be reached by the police acting alone.

Among the COPS-funded law enforcement agencies, there are many variations in the nature and strength of partnerships. We first present survey data to examine how COPS grants are related to partnership-building activities, then use reports from the field to explore the nature of working partnerships in different law enforcement agencies.

COPS and community partnership building: Survey findings

In the Wave 3 survey conducted in the summer of 1998, we measured agencies' community partnership-building activities using a list of eight tactics.[5] These tactics had a moderate interitem reliability (KR alpha=0.76), providing reasonable assurance that our community partnership-building construct had internal consistency. To measure tactic-specific implementation status around the time the COPS program was launched, we computed the percentage of all large local/county agencies claiming pre-1995 implementation of each tactic. To measure the 1998 tactic-specific implementation status, we added the pre-1995 figure to the percentage of agencies responding that they started using the tactic between 1995 and 1998. Because the 1998 Wave 3 survey covered only local and county agencies serving jurisdictions of more than 50,000, our findings are limited to that agency category.

Spread of partnership-building tactics. To describe the extent of growth in the use of partnership-building tactics, table 6–4 reports the 1995 and 1998 means of agencies' reports of tactics implemented, as both a count and a percentage of all tactics listed. The table indicates use of the partnership-building activities in our list grew between 1995 and 1998. On average, our combined sample of COPS grantees and nongrantees reported pre-1995 implementation of nearly 58 percent (i.e., 4.6) of the partnership-building tactics. By the summer of 1998, agencies reported a moderate net increase, to 80 percent or 6.4. The change was statistically significant at the p-level of 0.001.

**Table 6–4. Pre-1995 and 1998 Partnership Building Tactics Implementation,
Large Local/County Agencies**

Tactic	Pre-1995 Percent	1998 Percent (rank)
Joint crime prevention	90.12	97.21 (1)
Regular community meetings	75.00	93.61 (2)
Joint projects with businesses	65.34	88.56 (4)
Projects with residents to remove signs of disorder	62.44	89.10 (3)
Survey of citizens	52.97	76.58 (5)
Cleanup projects	49.56	73.25 (6)
Citizen action/advisory boards	37.12	56.95 (8)
Citizen police academy	30.37	66.57 (7)
Mean implementation (percentage of tactics)	57.86	80.23
Mean implementation (number of tactics)	4.62	6.41[‡]

KR Alpha (0.76)

Note: Significance level of 1995–98 changes are as follows:

‡p-value <.01

The tactic-specific percentages in table 6–4 make clear that in 1998, agencies continued to favor the same tactics that were most popular before 1995. At both points in time, the five most common partnership-building tactics were joint crime prevention programs such as Neighborhood Watch, regular community meetings, joint projects with businesses, projects with residents to reduce disorder, and citizen surveys. The lower rankings were also nearly stable.

Pre-1995 grantee/nongrantee comparison. In the aggregate, column A of table 6–5 suggests that COPS grantees and nongrantees began the COPS era at nearly the same point in partnership building. Grantees reported using an average of 58.9 percent of the tactics as of 1995, slightly exceeding the 54.6 percent reported by nongrantees.

Tactic-by-tactic analyses suggest, however, that grantees were significantly more likely than

nongrantees to have activities in place that involve face-to-face small-group interactions with residents of their respective jurisdictions. The largest differences (all statistically significant) were grantees' greater pre-1995 implementation of cleanup projects (52.8 percent compared with 39.7 percent) and citizen action/advisory boards (40.4 percent compared with 27.1 percent). In contrast, nonfunded agencies were more likely to report having implemented joint projects with businesses (74.0 percent compared with 62.5 percent).

Comparative adoption of partnership-building tactics, 1995–98. Between 1995 and 1998, grantees adopted a mean of 1.9 additional tactics, compared with 1.5 by nongrantees (see table 6–5, column C). The overall difference between grantees' and nongrantees' rates of adoption was not statistically significant. However, grantees were significantly more likely than

Table 6–5. Partnership Building Tactics Implementation (Pre-1995, by 1998, and Net Percentage Change), Large Local/County Agencies						
	A		B		C	
	Percentage Using Pre-1995		Percentage Using by 1998		Net Percentage Change (1995–98)	
Tactic	Funded	Nonfunded	Funded	Nonfunded	Funded	Nonfunded
Joint crime prevention	90.03	90.39	97.57	96.13	7.53	5.74
Regular community meetings	75.62	73.14	94.95†	89.57	19.33	16.43
Joint projects with businesses	62.50	73.96†	90.13*	83.80	27.63‡	9.84
Projects with residents to remove signs of disorder	64.60	55.89	92.21‡	79.70	27.60	23.81
Survey of citizens	53.90	50.15	80.34‡	65.17	26.44*	15.02
Cleanup projects	52.80†	39.72	78.09‡	58.59	25.29	18.87
Citizen action/advisory boards	40.43†	27.07	59.93†	47.94	19.49	20.87
Citizen police academy	31.74	26.25	66.96	65.41	35.22	39.16
Mean implementation (percentage of tactics)	58.95	54.57	82.52	73.29	23.56	18.72
Mean implementation (number of tactics)	4.71	4.36	6.60	5.86	1.89	1.50

Note: Significance level of 1995–98 changes are as follows:

*p-value <.10

†p-value <.05

‡p-value <.01

nongrantees to begin joint projects with businesses (27.6 percent compared with 9.8 percent). Additionally, grantees were more likely than nongrantees to begin citizen surveys (26.4 percent compared with 15.0 percent).

Comparing 1998 implementation status (i.e., regardless of whether a tactic was adopted before or after 1995), grantees had implemented a mean of 6.6 tactics by 1998, compared with 5.9 for nongrantees (see table 6–5, column B). By 1998, grantees were significantly more likely than nongrantees to have implemented community meetings (95.0 percent compared with 89.6 percent), joint projects with residents to remove signs of disorder (92.2 percent compared with 79.7 percent), resident surveys (80.3 percent compared with 65.2 percent), cleanup projects (78.1 percent compared with 58.6 percent), and

citizen action/advisory boards (59.9 percent compared with 47.9 percent). Although grantees had lagged behind nongrantees in joint projects with businesses as of 1995, grantees were more likely than nongrantees to use this tactic by 1998 (90.1 percent compared with 83.8 percent).

COPS grant effects on post-1995 adoption of partnership-building tactics. We asked COPS grantees who reported adopting new partnership-building tactics between 1995 and 1998 how their COPS grants affected their innovations. As table 6–6 indicates, 65 percent to 75 percent of agencies that adopted each tactic described the funds as "instrumental" in starting or expanding its use, fewer than 10 percent reported the grants allowed the agency to sustain its use through a budget cut, and the remaining 15 percent to 35 percent reported the grants had no effect. There

were exceptions. Only 53 percent of the agencies that began citizen police academies during the period described COPS funds as instrumental. In contrast, 77 percent to 80 percent considered the funds instrumental in their launches of community meetings, cleanup projects, and citizen action or advisory boards. Some 18 percent of agencies said the funds enabled them to sustain joint crime prevention programs despite budget cuts. Finally, 40 percent of the agencies that began citizen police academies reported their COPS grants had no effect on the startup.

COPS grant effects on continuation of pre-1995 partnership-building tactics. COPS grantees were asked how the new funds affected their use of old partnership-building tactics that were already in place when the COPS program began. To describe the overall COPS grant effect, we computed the percentage of all pre-1995 tactics that were described as being expanded as a result of COPS funding. Overall, agencies reported the COPS program positively affected 70 percent of their old partnership-building tactics. For most tactics, 50 percent to 60 percent of agencies reported their COPS grants were "instrumental in starting or expanding" use of the tactic; another 5 percent to 10 percent stated the COPS funds helped them sustain use of the tactic despite budget cuts; and the remaining 25 percent to 45 percent reported COPS funds had no effect on their use of the tactic (see table 6–7).

Table 6–6. COPS Impact on "Newly" (Post-1995) Implemented Partnership Building Tactics, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Changed Priority
Joint crime prevention	16.3	65.6	18.1	—
Regular community meetings	21.2	76.9	1.9	—
Joint projects with businesses	21.7	73.3	3.9	1.0
Projects with residents to remove signs of disorder	15.3	74.2	10.6	—
Survey of citizens	31.0	64.6	3.6	0.8
Cleanup projects	18.4	79.8	1.8	—
Citizen action/advisory boards	19.9	80.1	—	—
Citizen police academy	39.8	52.8	7.4	—

Table 6–7. COPS Impact on "Old" (Pre-1995) Implemented Partnership Building Tactics, Large Local/County Agencies			
Tactic	No Effect	Started/ Expanded	Sustained
Joint crime prevention	33.8	55.1	11.1
Regular community meetings	27.1	60.5	12.4
Joint projects with businesses	33.5	57.5	9.0
Projects with residents to remove signs of disorder	19.9	69.7	10.4
Survey of citizens	41.9	54.4	3.6
Cleanup projects	33.7	56.9	9.3
Citizen action/advisory boards	41.9	50.9	7.2
Citizen police academy	66.9	27.4	5.7

A few tactics were exceptions to this general pattern. Approximately 70 percent of agencies stated their COPS grants were instrumental in starting or expanding their projects with residents to remove signs of disorder. Between 10 percent and 12 percent of grantees doing joint crime prevention projects with the community, disorder-reduction projects, or community meetings stated the COPS funds helped them sustain those activities through budget cuts. In contrast, 42 percent to 67 percent stated the COPS funds had no effect on their continuation of citizen surveys, action/advisory boards, or police academies. For their most common old tactics, the percentages that reported a positive COPS impact (i.e., starting, expanding, or sustaining) were 80 percent for joint disorder-reduction projects, 73 percent for regular community meetings, and 66 percent for joint crime prevention projects, both with residents and with businesses.

Partnerships: Reports from the field

Partnerships in community policing initiatives may be placed on a continuum with two distinct endpoints:

1. Partnerships that involve true *collaboration* in all phases of the work among police, community residents and organizations, local service providers, and other criminal justice system agencies.

2. Partnerships that include the mere *involvement* of such parties.

The fundamental difference between these two categories concerns the roles of the key players. In a collaborative effort, all participants work as partners in setting priorities, defining problems, developing and implementing responses, and measuring effects and performance. In a true collaboration, all partners, not just the police, drive the effort. Partnerships that merely involve the participation of others working with the police tend to be police driven, more traditional in nature, and narrow in scope. These partnerships are characterized by the police retaining the "expert" role, the community relegated to pas-

sive participants or serving as the "eyes and ears" of police, and local agencies providing their services where directed. We believe the philosophy of partnerships in community policing refers to partnerships that are true collaborations. Partnerships that simply involve nonpolice agencies and citizens in problem solving or other police work, drawn from the pages of traditional crime prevention and police-community relations programs, are a starting point for community policing, not an end point.[6]

Community crime prevention and community policing have always included processes in which law enforcement agencies provide information to citizens through newsletters (and now Web sites), door-to-door contacts by officers, presentations at community meetings, and so forth. In contrast to community meetings and formal councils in which citizens and law enforcement representatives exchange views, set priorities, and develop problem-solving strategies jointly, these communication vehicles are one way and citizens are passive recipients. While they are important, have benefits, and signal the police department's desire to reach out to the community, they, too, are not partnerships but initial steps toward citizen-police collaboration.

Success in building partnerships depends on recognition that the community is not a monolithic entity. The community consists of individuals, agencies, and organizations from A to Z—from Alcoholics Anonymous groups, businesses, and community-based organizations to xenophobic residents, youth groups, and zoning officials— each with interests that coincide or compete with those of other potential partners at different times. Police agencies may form partnerships with the various members of their communities, as a whole or group by group, which vary in their intensity and duration depending on problems to be addressed.

Partnership types in the sites visited. In the 30 sites visited, partnerships came in all shapes, sizes, and ages. Partnerships evolve over time and may move from involvement to collaboration with

or without an external incentive such as COPS funding. In the funded sites, some partnerships are new and have no history of working together; some of these were convened in response to the Federal grant solicitations discussed at the beginning of this section. Others have grown out of years of police-community collaborations.

Two types of partnerships have grown to be commonplace in law enforcement in the past decade or so, independent of efforts to implement community policing. Task forces, or enforcement partnerships, are one type and are formed among police officers, probation and parole officers, prosecutors, Federal agents, and other criminal justice system actors to bring additional law enforcement resources to bear on a particular crime problem (often drugs, gangs, or youth violence). The second traditional type of partnership may be called programmatic or tactical partnerships, in which police and nonpolice groups or individuals are engaged in joint service delivery such as D.A.R.E.®, Neighborhood Watch, Citizens on Patrol, and other specialized crime prevention programs (i.e., that focus on youth crime, domestic violence, street gangs, and drugs).

Two types of partnerships closely related to community policing principles were found in the COPS sites we visited. The first is *problem-solving partnerships* formed with other service providers and the community that enable the police to work in concert with others to identify, analyze, and solve problems, often using collective resources (staff, equipment, etc.). Local city and county agencies are arguably the most common partners in problem-solving activities, particularly tactics involving civil abatement processes, cleanups and revitalization, and environmental changes. Typical local partners include the departments responsible for code enforcement, housing, zoning, public works, social services, and parks and recreation. Problem-solving partnerships may also include elected officials, school officials, business representatives, and private organizations. They may or

may not include community representatives who provide input as to *how* resources should be utilized and toward which problems they should be directed.

Examples of problem-solving partnerships abound in the COPS-funded sites. Some are quite formal, such as the Oakland Police Department's Beat Health Unit, in which the police and inspectors from code enforcement, sewers and sidewalks, and vector control (the agency that controls "rodent and roach" problems) work together to abate crime, drug, and disorder problems. Other problem-solving partnerships change members and tactics, depending on the problem at hand. For example, a problem-solving partnership may be neighborhood based and focused on a specific hot spot or may be formed to address a citywide crime problem.

One trend of note is physically locating the problem-solving partners under one roof. In Miami, "mini city halls" are located in each of the 12 neighborhoods served by Neighborhood Enhancement Teams (NETs). In addition to the community policing officers and civilian staff, the mini city halls are staffed by zoning inspectors, sanitation inspectors, and other city and community workers. In Huntington Beach, a code enforcement officer is permanently assigned to a neighborhood substation. In two sites, community policing and social services are combined in a "one-stop shopping center." In Cobb County, Georgia, a neighborhood-based Community Service Center houses law enforcement, youth programs, counseling services, and English as a Second Language classes. In Nashville, centers in enterprise zones contain community police officers, social services (Family and Children's Services, welfare representatives, and job training programs), and small businesses (hair braiding, nail salon, and thrift store).

The second common type of partnership seen involving the COPS grantees is *community partnerships* formed among the police and residents of neighborhoods and representatives from

community and business groups. They have multiple purposes and may, at times, be equivalent to problem-solving partnerships at the neighborhood level. Community partnerships, at their best, involve community influence in how the police "do business" in areas such as developing and revising internal policies, setting performance and hiring criteria, and reviewing officer accountability.

Community partnerships in the sites visited include those at the neighborhood level and those that represent the full jurisdiction (city or county). At the neighborhood level, the partnership may be informal, with community police officers regularly attending meetings of neighborhood organizations to exchange information, identify and prioritize problems, develop solutions, and so forth. These neighborhood-level community partnerships may also be more formal, such as Oakland's Neighborhood Crime Prevention Councils, New Bedford's (Massachusetts) Neighborhood Councils, San Bernardino County's (California) Station Advisory Boards, Los Angeles' Citizen-Police Advisory Boards, and Fort Worth's advisory committees in Neighborhood Policing Offices.

Many law enforcement agencies have created advisory committees (made up of community representatives) that typically report to the chief law enforcement executive, concern themselves with public safety matters that cover the entire jurisdiction, and address agencywide issues. These include Austin's Chief's Forum, Pocatello's Citizens Advisory Board, Mascoutah's Police Advisory Committee, and Oakland's Community Policing Advisory Board.

The key word in most of these community partnerships is the word "advisory." Although police departments are opening up to community input and influence, most police executives remain reluctant to give the community real authority and responsibilities. The underlying reasons for this are many and complex. Legal issues, such as accountability requirements on the chief as

outlined in local laws or administrative regulations, must be considered. Some resistance probably reflects beliefs that trained and experienced police officers know best about certain issues, coupled with an abiding sense of responsibility to ensure that police resources are used efficiently, ethically, and legally. It is not uncommon for citizens upset about a crime problem to demand a police response that is, in a word, illegal. Community partnership falling short of true collaboration is evident even in Oak Park, where the police and community engage in an innovative collaborative process to identify a crime problem and then sign a contract describing the responsibilities and activities of both parties. Yet the typical citizen commitments are traditional—to form neighborhood watch groups, call 911 to report suspicious activity, and make crime prevention a way of life, for example.

As shown in the subsequent sections, there is ample evidence that the police field has accepted the viability of partnership-based problem solving and prevention strategies as relevant and useful to its mission of crime fighting. Initial evidence from various COPS sites suggests a lesser degree of comfort when it comes to developing and appreciating community partnerships. The police have always been inclined to establish partnerships or alliances that enable them to tackle a job with shared resources. Involving other agencies in specific aspects of problem solving has not been a difficult leap for police departments to make. Establishing community partnerships, however, is more difficult because they must involve sharing some level of power with the community.

Each of the partnership types cited above may vary on the *true collaboration-mere involvement* continuum. Programmatic partnerships, for example, involving Neighborhood Watch may keep the community at arm's length; they may be driven by police expertise, requiring communities to be nothing more than an extension of the police or their "eyes and ears." Or the Neighborhood Watch group may be a true collaborator, working intimately with the police to analyze

problems and develop and implement joint problem-solving efforts. Neither model is inherently better than the other, and this debate in no way is intended to demean the efforts based on simple involvement. Under the community policing philosophy, however, close police and community collaboration is paramount.

One measure of success in developing partnerships may be the extent to which partnership building has devolved from formal partner groups to commonplace, one-to-one police-citizen partnerships. For example, between the first and second site visits to the San Diego School Police, the concept and practice of partnerships moved beyond formal partnership agreements between the police and organizations to routine projects involving individual officers, parents, and staff.

Organizational support for collaborative community partnerships. The majority of the sites visited have made substantial organizational changes that support partnership building, although they were rarely motivated by that specific objective. These changes include revising and promulgating mission and value statements, developing long-term strategic plans, training officers and community members, and changing procedures to improve beat integrity.

Mission and value statements developed by police organizations are intended to communicate their core beliefs and principles that will drive the delivery of services to their communities. In the Fresno County Sheriff's Department, one value statement reads in part to "work collaboratively with neighborhoods to understand the true nature of crime and develop cooperative strategies." In Buffalo, the mission statement includes a commitment to help facilitate input into the police decisionmaking process, and in Austin, the mission statement includes the language "to protect and serve through community partnerships."

The challenge, of course, is to create a tangible connection between the words of such statements and the actual way the organization behaves within its community. It is possible for mission and value statements to be mere words on paper inserted into frames and hung on walls in offices throughout the organization. Under these circumstances, many people in the organization may not know of these statements, and mechanisms are not in place to ensure accountability for units and individuals to perform consistently with them. In a few other organizations, even a 3-day site visit was long enough to hear a casual reference to the mission statement as a reason for some decision—evidence that officers are aware of it.

Some police organizations have developed strategic plans that present in some detail the vision of the chief executive and/or political leadership of the jurisdiction for the future style and substance of policing. These plans typically cover 3 to 5 years, and they describe not only what kind of policing goals are to be achieved but also how the organization plans to get there. They offer clear evidence as to the nature of the police department's commitment to partnerships both as a process (i.e., Did partners or stakeholders have a role in the preparation of the plan?) and outcome (i.e., To what extent do partners or stakeholders play an active role in the implementation of the plan's goals?). In a number of sites visited, the move toward a community policing philosophy includes the development of an appropriate strategic plan. Brief discussions of three sites with strong commitments to community partnerships as evidenced by their words and actions illustrate the latter course of events.

The San Diego Police Department hired an outside consultant to help develop the department's "Vision, Values, and Mission Statements" (VVM). The former police chief, Jerry Sanders, believed the VVM statements could play a crucial and visible role in effecting organizational change to support community policing. VVM statements are posted conspicuously in all departmental facilities, and all officers are given them on pocket-sized laminated cards.

The former chief also believed the development of meaningful VVM statements was an ongoing process required constant revisiting. Therefore, the department later hired a second consultant to examine the relevance of its first statement. That consultant's recommendation, based on interviews with representatives at all levels of the organization and with involved community members, was the existing statement was still relevant to current operating strategies.

In Austin, the department made a significant commitment to alter policing in the city to focus its efforts on building "self-reliant neighborhoods." This commitment was evident in the department's mission and value statements and its strategic plan, which was revised in 1993 and entitled: "Achieving Self-Reliant Neighborhoods through Community Policing." During the tenure of the former chief in Austin, from the preparation of the first plan in 1991 to the recent end of her administration, there was extensive planning, self-assessment, and development of action goals and objectives that were supportive of and consistent with the stated intent of the "policing vision." Representatives from the community and other governmental and private sector organizations were involved in the process. The hub of this particular strategic wheel was the neighborhoods of the city. The entire police organization underwent major internal changes to more effectively build and sustain the capacity of the neighborhoods to deal with crime and violence.

Next, consider the Oakland experience. Unlike Austin, where the driving force behind the change was the chief, in Oakland the shift to community policing and community partnership was mandated by the city council. The Public Safety Committee of that council spent a considerable amount of time examining the community policing experiences of other jurisdictions, including Portland (Oregon), San Diego, and New York City. The council appointed two successive community policing task forces consisting primarily of community representatives; the second task force developed the community policing

strategic plan for the city. A new chief was hired, and he and the city manager were directed by the council to fully implement community policing in the police department. The council passed a resolution which specified elements of Oakland's community policing model including beat reconfiguration, community policing training, dedicated community police officers, and the creation of Neighborhood Crime Prevention Councils (the base for the police-community partnerships) and a community policing advisory board.

Beyond strategic plans and mission statements, there are many organizational changes that directly support the establishment and maintenance of community partnerships as "evidence" of a department's commitment to this core principle of community policing. At one end of this spectrum of changes are Austin and Oakland, both of which have made substantial internal changes that mirror their commitment to fully implement community policing in their jurisdictions. Internal systems, policies, and practices have undergone varying degrees of transformation in recent years as part of this process. Community residents there are prominently involved at all levels of these organizations, and the "expert" crime fighting and problem-solving teams consist of police, citizens, and other service providers in the cities. The language of their efforts clearly acknowledge that ensuring a safer city with a higher quality of life must be the *collective* responsibility of all partners.

At the other end of this spectrum are a few departments that have made little to no change in how the organization is structured, how it defines its mission, and how it delivers its services. In law enforcement agencies such as the sheriff's departments in Maricopa County, Arizona, and Sarpy County, Nebraska, there was no evidence at the time of our visits of any systemic shift in philosophy or practice to problem-solving collaborations. At that time, partnerships were limited to packaged programs such as D.A.R.E. and Neighborhood Watch. More recently, the Sarpy County

Sheriff's Office reported having made a number of organizational changes—substations, permanent assignments of deputies to patrol districts, a community survey used as input for planning—that lay the groundwork for partnership building.

In the middle lie the majority of the departments visited. The changes instituted are many and diverse. In Huntington Beach, an anticrime coalition was organized, and it participated with the chief in the development of the police mission and 5-year implementation plan for the city. Area task forces involving police officers, community and business representatives, and other service providers work as problem-solving teams. In Fort Worth, the chief has reorganized the department into 12 neighborhood policing districts. The commanders of these districts are expected to work with their communities on problem identification and solving initiatives.

Another indicator of support for collaborative partnerships is training, the extent to which community policing and partnership principles have been incorporated into training for all police personnel. A few departments train community residents to assume their roles in community policing, such as the Community Policing 101 course offered to hundreds of citizens in Oakland.

The bottom line in this discussion of community partnerships comes down to power sharing. The rhetoric of community policing clearly suggests the police have acknowledged the need to share power with their "clients"—communities. But the implementation of concrete steps to facilitate this sharing is a critical area of scrutiny. San Diego, one of the prominent "pioneering departments" in the community policing movement, has only recently taken major steps to bring community residents into its decisionmaking processes. Partnerships dominated by police expertise do not recognize the expertise and legitimacy of communities to act on their own behalf. In the final analysis, the presence or absence of meaningful and effective partnerships among police, communities, and other key stakeholders

in jurisdictions bears a direct relationship to the presence or absence of community policing.

Temporary problem-solving partnerships focused on specific neighborhood crime and disorder problems are abundant, found in the vast majority of the 30 sites visited. Programmatic partnerships, such as D.A.R.E. and Neighborhood Watch, are nearly as commonplace.

Their effectiveness in the sites we visited in solving and preventing long-term problems is unknown. At best, findings on this question from large-scale evaluations of such programs are mixed. Their effectiveness in reaching partnership goals—broadening information sources when assessing problems, coordinating activities, defining and adopting joint agendas—is also largely unknown at the local level. We believe we observed very wide variations on this score across the sites we studied, but adequate measures are yet to be developed.

Community partnerships in which residents share power and decisionmaking responsibilities with police were rare at the time we visited the 30 sites. Again, the effectiveness of such sharing in solving or preventing problems is largely untested at the local level. Yet the simple facts of their existence and processes demonstrate an advanced stage of participatory community policing.

Problem Solving: Background

Problem solving is the most well known and accepted component of community policing. Problem solving has evolved from the much broader concept of problem-oriented policing, developed by Herman Goldstein and introduced to the police field first in his article titled *Improving the Police: A Problem-Oriented Approach* (1979) and expanded upon in a later book, *Problem-Oriented Policing* (1990). As the field's awareness of problem-oriented policing occurred simultaneously with the advent of community policing, much early debate focused on which should be the dominant form of policing (Capowich and Roehl, 1994). Today, problem

solving—the centerpiece of problem-oriented policing (although Goldstein advocated solving widespread substantive problems such as commercial robberies downtown rather than location-specific problems)—is widely considered an essential element of community policing (Cordner, 1998). (As discussed in chapter 2, community policing has suffered from accusations of not being "real" police work and representing positions that are "soft on crime." Problem-oriented policing suffered a similar backlash when its fluffy acronym "problem-oriented policing" became widely used.)

Many law enforcement agencies find problem solving a practical and palatable first step in their transition to community policing. While some problem solving, such as boarding up abandoned property, continues to be criticized as not real police work, problem solving can also be sold to the troops as "working smarter" to end the need to respond endlessly to the same location. As shown below, however, perhaps in efforts to avoid the soft-on-crime criticism, traditional enforcement tactics such as undercover buys, surveillance, saturation patrols, and arrest are increasingly being included in the arsenal of problem-solving tactics.

These assertions find support in all components of the national evaluation. As shown in the survey data that follow, COPS-funded law enforcement agencies reported implementing more problem-solving tactics than the other two identifiable elements of community policing, partnerships and prevention. And in the summary of site observations in later sections, the dominance of problem solving as the centerpiece of community policing as practiced by COPS grantees becomes apparent. Yet as explained further below, it is frequently the rhetoric of problem solving that dominates, not Goldstein's concept.

Development of problem solving

In articulating the need for problem-oriented policing, Goldstein (1979) began by criticizing the police for having a "means over ends" focus,

being obsessed with tactical, equipment, and deployment issues without substantial regard for what those things actually accomplished. Drawing upon themes he sounded in his earlier work, *Policing A Democratic Society* (1977), Goldstein argued that the traditional "law enforcement" emphasis of the police is but one facet of police work and but one tool available to curb crime and disorder.

Goldstein noted that the traditional crime categories of the Uniform Crime Reports—the only national "scorecard" of police effectiveness despite widespread recognition of its limitations—in fact consists of lumpish aggregate categories that mask widely different types of problems under a single legal heading. Arson, for example, is defined legally as the unlawful burning of the property of another, but within that single category are found multiple reasons for setting fires: revenge, pyromania, intimidation, insurance fraud, children playing with matches, attempts to conceal other crimes, and so on. Each requires a fundamentally different response from the police, as the investigation and prevention techniques that are effective against one form of arson may be utterly ineffective against others.

Goldstein's third criticism of the police "means over ends syndrome" related to the tendency of police officers to focus on individual events and overlook patterns that link calls and establish patterns. Although police investigators have often done pattern analysis with a limited range of crimes (determining an M.O. or modus operandi (method of operation) is one form of pattern analysis, as are the pin maps of yore), they have failed to look for links between lesser forms of offending and public disorder. The original conceptualization of problem-oriented policing proposed that the entire range of police operations be organized not around responding to individual events but identifying problems and working to eradicate the underlying causes of those problems.

Working with the Madison, Wisconsin, Police Department, Goldstein and Charles B. Susmilch

conducted some preliminary investigations into the possibilities inherent in a problem-oriented approach. They examined the full range of impacts of a certain problem and the full range of social and community resources available and needed to craft a more permanent solution to the problem. The Madison project was largely an exploration of resources, conducted by the scholarly investigators with input from the police. The researchers chose the sexual offender in the community as a salient problem; the police officers elected the drinking driver, somewhat perplexing the scholars who considered it a fairly pedestrian concern (Goldstein and Susmilch, 1981, 1982a). Though exploring large-scale problems, the authors also acknowledged that a problem-oriented approach could be applied to smaller, localized problems (i.e., the focus of most problem-solving efforts) as well.

Although the Baltimore County COPE (Citizen Oriented Police Enforcement) unit was the first to adopt Goldstein's approach (Cordner, 1985), the first full test of problem-oriented policing was conducted in Newport News, Virginia, during the tenure of Chief Darrel Stephens. "Problems" in that venue were largely defined by traditional crime analysis and senior command staff, although some were identified by police officers (most notably the prostitution-related robberies in the downtown area). The Newport News experiment was conducted with the participation of the Police Executive Research Forum (PERF) and published in a volume titled *Problem Solving* (Eck and Spelman, 1987). The Newport News projects were partly crime-specific (prostitute robberies, thefts from vehicles in the shipyard parking lots, assaults in the Glenn Gardens community, burglaries in the Briarfield Apartments) and partly matters of disorder and community fear (dirt bikes in Newmarket Creek, hooliganism in the Village District, hangers-on at the 7-Eleven).

At the same time, in Minneapolis, the Crime Control Institute conducted a randomized, controlled field experiment in problem solving which employed computerized analysis of calls for police service at individual addresses as its problem identification method (Sherman, 1986). Repeat Call Analysis Policing (RECAP) applied problem-solving techniques to 250 addresses of the 500 most prolific consumers of police service in the entire city. Where Newport News problems were high profile, sufficiently nettlesome to either the police or the citizenry to be visible, RECAP culled less dramatic problems. Included in the RECAP caseload were disorderly apartments, tippling houses, troublesome bars, and repeated domestic conflicts, which do not carry the high visibility of robberies or burglaries.

It was the Newport News project that developed the standard operational definition of "problems" as "[a] group of incidents occurring in a community, that are similar in one or more ways, and that are of concern to the police and the public" (Eck and Spelman, 1987:42). Newport News also introduced the acronym SARA for problem solving's four components: Scanning, Analysis, Response, and Assessment. SARA has made problem solving the operational face of community policing because, unlike the nebulous "philosophy," which can be talked about but is extremely difficult to train for in the traditional sense of training, SARA gives line officers something they can *do*. It lends itself to classroom overheads and dynamic examples for the classroom and speaks directly to the police culture's orientation to action.

SARA need not contribute to the development of community partnerships. It is entirely possible for police officers to conduct SARA-type problem solving without ever involving the community in problem identification, priority setting, or analysis. Until fairly recently the San Diego Police Department, a nationally recognized leader in police problem solving, defined its commitment to problem-oriented policing over community policing because it avoided the "touchy feely" connotations that make community policing anathema to some police officers committed to the "professional" model, and it allowed the

department to retain direction over its own operations (see also Ryan, 1994). More recently, however, SDPD has combined COPS with local funds to replicate its neighborhood policing teams, which place more emphasis on community collaboration. In other departments, notably Buffalo, problem-oriented policing was emphasized in the community policing training because it did not carry the stigma of "social work." And in Huntington Beach, neither term is in favor; special efforts mounted under what we would recognize as problem-solving efforts are referred to as directed enforcement to avoid both community policing and problem-oriented policing associations.

Problem-solving models other than SARA are beginning to emerge. The Maryland State Police are adapting the CAPRA model developed by the Royal Canadian Mounted Police. CAPRA incorporates **C**lient identification before **A**cquiring/Analyzing information, developing **P**artnerships, and conducting a **R**esponse and **A**ssessment (Himelfarb, 1998). CAPRA is being incorporated into some of the RCPIs funded by the COPS Office and may well comprise the next wave of integrating problem solving into community policing. Indeed, the partnership aspect of CAPRA is at the root of collaborative problem solving, which focuses on problem solving and information-driven multiagency action. Collaborative problem solving underlies Boston's Cease Fire project, which has slashed juvenile homicides (Kennedy, 1997) and is currently being field tested in the National Institute of Justice's Strategic Approaches to Community Safety Initiative. Local researchers are integral members of these problem-solving partnerships.

SARA, however, remains the problem-solving model most familiar to most police officers. It is intended to work as follows:

- **Scanning** is conducted primarily by patrol officers familiar with the conditions, activities, and players on their beats. Though problems may also be brought to police attention through standard crime analysis, a simple

review of aggregated calls for service, or by community members, the line patrol officer is assumed to have the best understanding of both the events and what connects them, including personal connections which might be invisible to other forms of analysis.

- **Analysis** should involve a thorough examination of the incidents and the background factors that lead to the repeat calls. When done in the spirit originally envisioned by Goldstein, Sherman, Spelman, and Eck, the analysis phase will take officers beyond a quick analysis of the characteristics of a problem to an indepth investigation of causal factors, potential alternative responses, community and governmental resources outside the police department, and possible measures to prevent recurrence. In practice, this is one of the weaker facets of unguided police problem solving: many scholars and observers of the police have noted the tendency of police officers to move quickly from scanning to conventional response.

- **Response** should spring from analysis because a careful analysis of causal factors and facilitating conditions should direct the actions taken. Fundamental to the original notion of problem solving was the largely tacit assumption that the causal factors and the solution to the problem may well lie outside the boundaries of traditional police response. Frequently, however, in the sites visited, responses characterized as problem solving consisted only of traditional police activities such as arrest, high visibility patrol, and the aggressive order maintenance activity now popularized as zero tolerance.

- **Assessment** is the often neglected step of problem solving, a reexamination of the original set of conditions and factors that gave rise to the problem to see what changes have been wrought by the response action, whether any unanticipated problems arose as a result of it, and whether the problem had indeed been abated. Though most assessment phases

declare the problem-solving response to have been successful, many are short-term looks at an area in the immediate aftermath of fairly intensive police action (in effect, a crackdown). Since the patterns of activity following crackdowns are fairly well documented (Sherman, 1990), assessment should be done in stages, looking for both displacement and resurgence. In many police agencies, however, once the police have declared a problem "abated," resources are directed elsewhere to new areas of need. The short-term impacts of police action generally are positive, but the longer-term effects are generally not studied. In many sites, assessment—or monitoring of the problem—is left in the hands of the community; if the community ceases to complain about the problem (or call 911), the problem is considered solved.

Since the Newport News and Minneapolis RE-CAP projects introduced problem solving as a police operational technique, some form of problem solving has been adopted by numerous police agencies. Below, we draw on the national survey and site visits to report how COPS grantee and other departments define problem solving in terms of their operations.

Problem solving: Survey findings

We measured an agency's problem-solving activities using a list of 11 tactics.[7] These tactics had a moderately better interitem reliability (KR alpha=0.87) than the items used to measure community partnership-building activities (KR alpha=0.76). To measure tactic-specific implementation status around the time the COPS program was launched, we computed the percentage of all large local/county agencies claiming pre-1995 implementation of each tactic. To measure the 1998 tactic-specific implementation status, we added the pre-1995 figure to the percentage of agencies responding that they started using the tactic between 1995 and 1998.

Spread of problem-solving tactics. To describe the extent of growth in the use of problem-solving tactics, table 6–8 reports the 1995 and 1998 means of agencies' reports of tactics implemented, as both a count and a percentage of all tactics listed. The table indicates use of the problem-solving activities in our list grew between 1995 and 1998 among large local and county policing agencies, even more so than the previously discussed growth for partnership-building activities. On average, our combined sample of COPS grantees and nongrantees reported pre-1995 implementation of 55 percent (i.e., 6.1) of the problem-solving tactics. By the summer of 1998, agencies reported a net increase to 86 percent or 9.4. The change was statistically significant at the p-level of 0.001.

The tactic-specific percentages in table 6–8 show that in 1998, designating crime patterns for nontraditional response swapped places with using agency data to measure response effects to become the second most commonly reported problem-solving tactic. Despite shifting in the popularity of these two tactics, the most common problem-solving tactics at both times were analysis of problems with the community, systematic monitoring of the problem, and using residents' comments to identify recurring patterns. The lower rankings were stable.

Pre-1995 grantee/nongrantee comparison. COPS grantees and nongrantees began the COPS era at nearly the same point in terms of the percentage and number of pre-1995 implemented problem-solving tactics (see table 6–9, column A). Grantees reported having an average of 55.8 percent of the tactics in use as of 1995, just slightly exceeding the 54.0 percent reported by nongrantees. Tactic-by-tactic analyses suggest that grantees and nongrantees implemented each tactic at about the same level.

Table 6–8. Pre-1995 and 1998 Problem-Solving Tactics Implementation, Large Local/County Agencies		
Tactic	**Pre-1995 Percentage**	**1998 Percentage (rank)**
Analyze problems with community	64.88	96.38 (1)
Use agency data to measure response effect	62.78	88.54 (6)
Systematic monitoring of the problem	62.49	91.24 (3)
Use residents' input to measure response effect	59.99	90.49 (4)
Officer analyzes residents' comments to identify recurring patterns	58.44	89.02 (5)
Designate patterns for nontraditional response	58.29	93.34 (2)
Officer analyzes crime data to identify recurring patterns	56.74	87.40 (7)
Consider neighborhood values	55.85	84.31 (8)
Written documentation of problems/projects	55.24	83.24 (9)
Analyze crime patterns with GIS	37.47	70.40 (10)
Analyze problems with probation/parole officers	37.01	66.51 (11)
Mean implementation (percentage of tactics)	55.38	85.53
Mean implementation (number of tactics)	6.09	9.40‡

KR alpha (0.87)
Note: Significance level of 1995–98 changes are as follows:
‡p-value <.01

Comparative adoption of problem-solving tactics, 1995–98. Between 1995 and 1998, grantees adopted a mean of 3.5 additional tactics, compared with 2.7 for nongrantees (see table 6–9, column C). The overall difference between grantees' and nongrantees' rates of adoption was statistically significant at the 0.10 level. Specifically, grantees' adoption rates exceeded the rates for nongrantees on 3 of 11 tactics. Compared with nongrantees, grantees were significantly more likely to begin analyzing residents' comments to identify recurring patterns (33.9 percent compared with 20.5 percent) and considering neighborhood values (31.1 percent compared with 20.5 percent). Additionally, grantees were more likely than nongrantees to

begin analyzing problems with probation/parole officers (31.7 percent compared with 22.7 percent).

Comparing 1998 implementation status (i.e., regardless of whether a tactic was adopted before or after 1995), grantees had implemented a mean of 9.7 tactics by 1998, compared with 8.7 for nongrantees (see table 6–9, column B). By 1998, grantees were significantly more likely than nongrantees to have implemented all but two of the problem-solving tactics (i.e., systematic monitoring of the problem and analyzing crime data to identify recurring patterns).

COPS grant effects on post-1995 adoption of problem-solving tactics. We asked COPS

Table 6–9. Problem-Solving Tactics Implementation (Pre-1995, by 1998, and Net Percentage Change), Large Local/County Agencies						
	A		B		C	
	Percentage Using Pre-1995		Percentage Using by 1998		Net Percentage Change (1995–98)	
Tactic	Funded	Nonfunded	Funded	Nonfunded	Funded	Nonfunded
Analyze problems with community	64.60	65.73	97.36*	93.41	32.76	27.67
Use agency data to measure response effect	64.16	58.59	90.83‡	81.58	26.67	22.99
Systematic monitoring of the problem	62.15	63.51	92.14	88.49	29.99	24.97
Use residents' input to measure response effect	60.80	57.53	92.23†	85.21	31.42	27.67
Officer analyzes residents' comments to identify recurring patterns	59.01	56.71	92.91‡	77.24	33.90‡	20.53
Designate patterns for nontraditional response	59.19	55.55	95.76‡	86.01	36.56	30.46
Officer analyzes crime data to identify recurring patterns	55.86	59.41	88.51	84.04	32.65	24.63
Consider neighborhood values	56.85	52.85	87.92‡	73.36	31.07†	20.51
Written documentation of problems/projects	55.41	54.73	85.23*	77.22	29.81	22.49
Analyze crime patterns with GIS	38.73	33.67	73.59‡	60.73	34.85	27.05
Analyze problems with probation/parole officers	37.39	35.86	69.12†	58.59	31.73*	22.73
Mean implementation (percentage of tactics)	55.83	54.01	87.78	78.72	31.95	24.70
Mean implementation (number of tactics)	6.14	5.94	9.65‡	8.65	3.51*	2.71

Note: Significance level of 1995–98 changes are as follows:

*p-value <.10

†p-value <.05

‡p-value <.01

grantees who reported adopting new problem-solving tactics between 1995 and 1998 how their COPS grants affected their innovations. Overall, COPS grantees attributed 75 percent of their post-1995 adoptions of problem-solving tactics to their COPS grants. For the most part, 65 percent to 75 percent of agencies that adopted each tactic described the funds as "instrumental" in starting or expanding its use; fewer than 6 percent reported the grants allowed the agency to sustain its use

through a budget cut; and the remaining 20 percent to 30 percent reported the grants had no effect (see table 6–10). There were a couple of exceptions. Only 62 percent of the agencies that began analyzing problems with parole/probation officers and 60 percent of the agencies that began analyzing crime patterns with GIS during this period described COPS funds as instrumental. In contrast, 75 percent to 80 percent considered the funds instrumental in starting the following

activities: designating patterns for nontraditional response, analyzing problems with the community, using residents' input to measure response effect, and considering neighborhood values.

COPS grant effects on continuation of pre-1995 problem-solving tactics. Overall, grantee agencies reported that the COPS program positively affected 82 percent of old problem-solving tactics. For most tactics, 50 percent to 70 percent of agencies reported their COPS grants were "instrumental in starting or expanding" use of the tactic; less than 10 percent stated the COPS funds helped them sustain use of the tactic despite budget cuts; and the remaining 25 percent to 40 percent reported that COPS funds had no effect on their use of the tactic (see table 6–11).

A few tactics were exceptions to this general pattern. About 72 percent of agencies stated their COPS grants were instrumental in their starting or expanding the designation of patterns for nontraditional response. Approximately 9 percent of grantees that systematically monitored problems or analyzed problems with the community stated the COPS funds helped them sustain those activi-

ties through budget cuts. In contrast, 47 percent to 53 percent stated the COPS funds had no effect on their continuation of analysis of crime patterns with GIS or analysis of problems with parole/probation officers. For their most common old tactics, the percentages that reported a positive COPS impact (i.e., starting, expanding, or sustaining) were 78 percent for analysis of problems with the community, 74 percent for systematic monitoring of the problem, and 58 percent for using agency data to measure the response effect.

Problem solving: Reports from the field

As the survey results suggested, we found a commitment to the term problem solving in the majority of the sites visited. However, the level and form varied substantially from agency to agency. Among the smaller agencies, several neither used the technique formally nor were even conversant with the terminology. In this section, we review the types of approaches called problem solving in the sites visited, the organizational supports for problem solving, and the level of community participation.

Table 6–10. COPS Impact on "Newly" (Post-1995) Implemented Problem-Solving Tactics, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Analyze problems with community	20.9	76.5	2.6	—
Use agency data to measure response effect	29.2	68.4	2.4	—
Systematic monitoring of the problem	22.8	74.2	3.0	—
Use residents' input to measure response effect	23.2	75.9	0.9	—
Officer analyzes residents' comments to identify recurring patterns	23.4	71.5	5.1	—
Designate patterns for nontraditional response	16.2	80.1	3.6	—
Officer analyzes crime data to identify recurring patterns	25.4	70.3	4.3	—
Consider neighborhood values	19.4	75.6	5.0	—
Written documentation of problems/projects	21.7	74.2	2.6	1.4
Analyze crime patterns with GIS	36.1	59.8	4.2	—
Analyze problems with probation/parole officers	33.4	62.0	4.6	—

Table 6–11. COPS Impact on "Old" (Pre-1995) Implemented Problem-Solving Tactics, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Analyze problems with community	21.6	69.7	8.7	—
Use agency data to measure response effect	41.8	49.9	7.9	0.4
Systematic monitoring of the problem	26.0	64.6	9.3	—
Use residents' input to measure response effect	34.8	59.6	5.7	—
Officer analyzes residents' comments to identify recurring patterns	25.0	70.6	4.4	—
Designate patterns for nontraditional response	20.5	71.6	7.8	—
Officer analyzes crime data to identify recurring patterns	39.0	54.6	6.3	—
Consider neighborhood values	30.8	62.0	7.2	—
Written documentation of problems/projects	37.7	56.1	6.2	—
Analyze crime patterns with GIS	53.1	41.7	5.2	—
Analyze problems with probation/parole officers	47.0	47.3	5.7	—

Types of problem-solving approaches. In the 30 sites, we identified 5 separate manifestations of problem solving by local definition. Only the first type of problem solving listed, however, closely resembles the traditional concept of problem solving promulgated by Goldstein, PERF, and others. We also found individual departments demonstrating more than one version of problem solving. The five manifestations of problem solving described to our site teams by COPS grantees are:

1. Problem solving that fits the established operational definition represented by the SARA model and supported by documentation and incorporation into training and strategic planning functions. At least 15 of the sites visited demonstrated advanced use of traditional problem solving. Included are departments such as San Diego, which has long been a leader in problem-oriented policing; Fort Worth and Miami, where neighborhood police officers concentrate on beat-specific problem solving and prevention efforts; and Los Angeles, where senior lead officers dedicated to

beats placed a strong emphasis on problem solving following the SARA model at the time of our first visit.

We found many sites considered enforcement one of their primary problem-solving tools, even the most common one. The "response" step of SARA may well include traditional enforcement tactics, including surveillance, undercover work, buy-busts, and arrest. Yet the elemental principle of problem solving, focusing on resolving the underlying causes of problems, is predicated on the belief that enforcement tactics have been or will be unsuccessful in resolving the problem in the long term. Arrest was repeatedly cited during site visits as a common tool pulled from the problem-solving toolbox. Traditional law enforcement folded into the problem-solving paradigm is exemplified by the Buffalo Police Department, where the three elements of problem solving are described as strict enforcement, high visibility, and increased communication, and in North Charleston, South Carolina, where problem solving is conducted

by police teams with no community participation and team responses are characterized as "tactical" (i.e., enforcement-oriented).

2. Problem solving as purely a matter of local definition, which does not comport with any of the professionally agreed upon definitions. Cobb County's inclusion of off-duty work and a new county radio system is one example of this. In another jurisdiction the problem-solving response to a repeat burglary problem in a specific neighborhood was to drive around looking for the suspects' car.

3. Problem solving as primarily an area-based crime attack strategy under the rubric of zero tolerance or some other local definition: Austin's Crime NET, Fresno's CRASH and Goldstar components; Huntington Beach's directed enforcement actions and task forces; Milwaukee's knock-and-talk and zero tolerance policing; Newark's crime enforcement zones; the joint actions of North Charleston's SPEED Team; and to a lesser degree, Racine's special assignment shift all fit this definition. Although Oak Park has formal police-community contracts for neighborhood problems, the primary police activity is that of additional police presence.

4. Problem solving that is all but invisible to the observer seeking documentation or hard evidence but appears to be incorporated into the approach of generalist or split force officers: Flint, Fort Worth, New Bedford, Maricopa County and, reportedly, the enterprise zone community policing initiatives in Nashville fit this model.

5. Problem solving as long-range prevention activities, interspersed with small tactical efforts that meet the standard definitions: Sandy City, New Bedford's school-based activities, and Cobb County's COPE seem to fit this model.

In a few departments, problem solving is either nonexistent or was in the rudimentary stages when the site teams visited. Small agencies like the 7-member Las Vegas Paiute Tribal Police, the 11-officer Mascoutah Police Department, the San Diego School District Police, and the Sarpy County Sheriff's Department were all in this mode at the time of site visits, but major departments such as Metropolitan Nashville are also included. Despite some individual efforts and neighborhood initiatives, problem solving was described as "being insinuated into" the Buffalo department.

Our teams occasionally observed two or more types in a single agency because problem solving evolved between site visits, multiple types coexisted simultaneously, or both. At the time of our visit to the Des Moines (Iowa) Police Department, its Neighborhood Area Resource Coordinator (NARC) unit blended undercover drug market operations with rudimentary problem solving; simultaneously, a lone officer and the River Bend Community Association added to its extraordinary track record of successes achieved with problem solving fitting the established "Type 1" definition.

The Las Vegas Metropolitan Police Department was at the early stages of preventive problem solving (type 5) during our first site visit, with prevention activities being planned under a multiagency Partnership Against Violence and its Effects (PAVE) and effective if informal problem-oriented policing projects being done by a new utility squad, whose sergeant had renamed it the Problem-Solving Unit. By the second visit, PAVE was long forgotten. However, the agency had clearly evolved to type 1, with problem-solving units in all districts, SARA formalized in departmental orders, an inservice training program in problem solving, and problem-solving training for officers and residents from all districts being conducted by the COPS-funded Western Community Policing Center.

Street and residential drug dealing remain the most common targets of type 1 problem-solving efforts; signs of social disorder (i.e., loitering teens, gangs, public drinkers, and prostitution) and physical disorder (trash, blight, graffiti, and so forth) are probably next. In low crime areas,

the problems include such "mundane" crimes as thefts from garages and motor vehicles.

Organizational support for problem solving. We observed substantial variation in the nature and extent of grantees' support for their officers' problem-solving efforts through changes in organizational structure, training, supervision, documentation of problem solving, and community participation.

Organizational structure. The first set of distinctions among the grantees relates to how the agency assigns officers to problem-solving tasks. The deployment models for problem solving mirror those for community policing generally, as described earlier. The split-force model for problem solving was most common in the 30 visited sites, followed closely by the generalist model. The specialized unit was least common, present in half a dozen sites.

In the split-force model, a select group of individual officers is trained in the problem-solving techniques, then assigned to individual beats throughout the city or county. Frequently, these individuals are also the community policing officers for the department, under whatever title that agency uses. Patrol officers assigned to the same beats may or may not also participate in problem-solving activities.

Usually detached from the 911 call queue or given specific exemptions from regular patrol duties, these problem-solving officers serve as the primary resource (and often the only practitioner) of problem solving in that beat or district. Although they often undertake problem-oriented policing projects alone or are the sole police participant in community-initiated actions, they also work in conjunction with other police units, city or county agencies, and business and community representatives.

Under the split-force model, problem-solving specialists sometimes work together to conduct an intensified enforcement action in one of their areas when other local resources are insufficient.

This situation occurs in Oakland, where, in response to community priority-setting identifying drug dealing as the major local problem, five or six officers assigned to separate beats band together to launch a traditional drug enforcement action in one beat. During the intensified action, the officers are supposed to "keep in touch" with what happens on their regular beat; after the special action is completed, the officers return to their individual beat assignments. Examples of the split-force model of problem solving are:

- Flint's 36 neighborhood policing officers comprise a completely separate precinct under the command of a lieutenant, but each officer has responsibility for a specific beat; NPOs rarely work in concert except with an NPO of an adjacent beat.

- Fort Worth has committed 89 neighborhood policing officers to individual beats.

- Lakeland has 27 neighborhood liaison officers supervised by 4 sergeants under the coordination of a lieutenant. The NLOs are assigned to 1 of 15 neighborhood-based substations, which have been established in the past 8 years, with individual officers working with the community to identify a location and a means of support for the police substation.

- The Miami Police Neighborhood Enhancement Teams (NET units) typically comprise 2 or 3 officers working together under a lieutenant in each of the 12 NET neighborhoods.

- New Bedford's Neighborhood Policing Unit grew from 5 officers and 2 supervisors to 22 officers working beats in and around public housing units, occasionally working in concert on local problems.

- The 10 officers of North Charleston work 10 different beats but once a week will work together as a unit on a particular problem.

- Oakland's community police officers are each assigned to 1 of 57 beats, with a Neighborhood Crime Prevention Council formed to work with them in each beat. Nineteen civilian

neighborhood service coordinators are assigned to 3 beats each to organize the councils and assist the community police officers.

- In Sandy City, community police officers coordinate problem-solving efforts, block watches, and citizen patrols for one of four sectors of the city. Each is also assigned to D.A.R.E. teaching responsibilities during the school year and concentrates his or her community contacts and problem solving in the neighborhoods surrounding middle and high schools.

- The resident beat officers of Oak Park live in their beats (with a $250 monthly rent subsidy provided by the department); patrol by car, foot, and bike; attend neighborhood meetings large and small; and actively work with residents to identify problems and find solutions.

- Smallest in number are the two neighborhood liaison officers who each serve as the problem-solving specialist for half of Huntington Beach.

- Although Newark's community policing units are small crime zone enforcement units conducting zero tolerance operations in drug-infested areas, our site team also observed neighborhood liaison officers operating on a part-time basis. Their liaison duties tend to be adjunct to more traditional assignments, but their role as problem-solving coordinators appeared to be similar to that of formally designated positions elsewhere.

The generalist approach provides problem-oriented policing training to all personnel, or at least all patrol-based personnel, and expects, encourages, or demands that all members engage in problem solving as part of their regular duties. Generalist problem solving varies according to the investment made in it. At the lowest level, the agency may provide no training beyond the mandatory police academy module, and its expectations may exist only on paper, for public consumption, with no substantive impact on day-to-day practice. At the upper end, agencies incorporate problem solving into work plans and

evaluation and supplement it with both top-flight training and structural opportunity (dedicated time) to engage in it.

Of the agencies we visited, we observed generalist approaches in Buffalo, Cobb County, the Oregon State Police, San Bernardino County, and San Diego. The San Diego School Police and the Mascoutah Police Department were in the early stages of beginning problem solving and should probably be considered generalists at the time of our visits. The Austin police technically have a specialized unit approach, in that three Crime NET units of eight officers each work on problems where there are needs; they are also quietly creating a generalist force, as they rotate patrol personnel through the Crime NET assignments every 90 days to expose more officers to problem solving.

The relation between expectations and street-level operations were less clear in two of our sites. In Milwaukee, all officers receive training in the SARA model of problem solving, but the zero tolerance operational style used throughout most of the city appears to incorporate little problem solving beyond high-volume "knock and talk" team entries into residences named as drug houses by anonymous callers. In contrast, the leadership of the Maricopa County Sheriff's Department eschews any adherence to community policing or problem-solving labels, but deputies' day-to-day operational approach reflected commonly accepted principles of both.

Los Angeles presents a special hybrid case similar to Austin's. Until early 1999, problem solving was formally delegated to the senior lead officers assigned to 168 beats (and thus formally constituting a split force model). Under Chief Parks, however, the senior leads were assigned back to patrol as field training officers, and sergeants were to be main contacts for problem solving with all officers involved in the process. Thus, the LAPD is evolving into a generalist model.

In a specialized unit approach, a small group of officers under a unified command conduct problem solving where the need arises, either in a specific district or throughout the jurisdiction. Examples included the six-officer Problem-Solving Unit in Las Vegas, which was expanded to multiple districts between our first and second visits; the two-officer NARC Team in Des Moines; the Huntington Beach Mobile Task Force; community policing teams in the Metropolitan Nashville's Enterprise Zones; and the Beat Health Unit in Oakland. The specialized task assignment "fourth shift" in Racine also fit this model, although it is also the sole example of a temporal model. The SPEED Team in North Charleston also functions as a specialized unit periodically.

Training. Agency commitment to problem solving, seen indirectly in some of the site visit reports, indicates varying gradations of investment. There are three primary dimensions of commitment: the amount of training provided, level of supervision, and the degree to which problem solving is incorporated into an agency's infrastructure through documentation and use as an evaluative tool.

The sites were not always consistent across all three dimensions. Austin relies upon 8 hours of basic academy instruction in problem solving, supplemented only by video and inservice roll call training, which ordinarily might be interpreted as a fairly basic level of commitment. However, Austin also created a community services division, headed by a deputy chief, to track and coordinate community policing and problem solving. Fort Worth, which has an extensive commitment to community-level problem solving, promotes only a grassroots learn-by-doing approach and steadfastly avoids formal training in SARA, partly as a reaction to extensive State-mandated training requirements. San Diego, which has earned a national reputation in problem-oriented policing, only added SARA to its field training checklist in 1997.

At the lowest level of training investment are departments whose only commitment lies in the small modules provided at the police academy during recruit training and those with documents which vaguely "encourage" officers to engage in problem solving, with no further followup or application. Documentation also tends to be scarce in these venues—though site teams also found scant records of problem-solving efforts even in more robust programs.

In many sites, it was not possible to distinguish basic training in problem-oriented policing and SARA that might have been part of a recruit curriculum from more intensive efforts that were mounted as part of a concerted effort to foster the technique as an operational tool. And in some locations, the continuity of training was unclear. For example, an officer in the Milwaukee Police Department said it "started community policing by bringing in 'power speakers,' including Herman Goldstein" 8 years ago but also acknowledged that 70 percent of the department now has less than 6 years of police experience. The initial impact of the power speakers has been sustained and transmitted by a sergeant to subsequent cohorts in one demonstration neighborhood, but for new officers who begin their tours elsewhere, it has since been replaced by a more generic form of problem-oriented policing training.

Supervision. The level of supervision of problem-solving teams or efforts ranged from no formal supervision at all, to a sergeant or lieutenant overseeing small units or coordinating diffused specialists, all the way to the Austin Police Department, which created a deputy chief of staff position to coordinate community policing and problem solving. Not surprisingly, formal supervision was strongly correlated with the existence of an identifiable unit within the organizational structure and much less so with the generalist models. In most cases, the supervision was that of the community policing component, to which problem solving was assigned as a formal duty

or informal expectation. The Oregon State Police, and Austin, Flint, Lakeland, Miami, New Bedford, Oakland, and Racine among the local departments, all assigned command supervision to lieutenants or higher ranking officers. Austin's Deputy Chief of Staff was the highest ranking administrator; the Oregon State Police, Oakland, and Fresno provided for control by district captains, although those are likely titular duties apt to be delegated on a day-to-day basis.

Some departments have undergone shifts in their command and supervisory structures. In New Bedford, the Neighborhood Policing Unit (NPU) was started under a captain and a sergeant, then commanded by a lieutenant and a sergeant; the NPU is currently under the command of the original captain again, while the NBPD is in the process of decentralizing command of the NPU officers out to the districts. A captain had headed Oakland's Crime Prevention Division, but its functions have now been decentralized to the three area captains.

A lieutenant commands Flint's North Precinct, which is the entire 33-officer Neighborhood Policing Unit, with line support from four sergeants. A lieutenant and four sergeants also direct Lakeland's 27 neighborhood liaison officers. Lieutenants command the 12 NET teams in Miami, and a lieutenant and sergeant coordinate the 7 officers of Racine's special assignment shift.

In Fresno, the districts' detective sergeants supervise the daily activities of the OSS teams; only when there is a concerted enforcement effort requiring the CRASH or GoldStar teams does responsibility transfer up to the area commander. A sergeant is the community policing coordinator for Huntington Beach's two problem solvers and reviews the patrol requests for directed enforcement actions, whether or not they involve one of the special task forces. A sergeant supervises and coordinates North Charleston's 10 SPEED officers, and 2 sergeants are responsible for the 17 community policing officers in Sandy City.

Problem-solving documentation. Where the site teams did not find a strong structural mandate for problem solving, we infer that whatever is done under the name of problem solving is either not formally reviewed or is incorporated under the general supervisory responsibilities of the line sergeants and district lieutenants. In agencies that have no formal problem-solving mandate, the efforts of individual officers are probably invisible to the primary supervision and evaluation structures.

Greater commitment is demonstrated in those departments that create a formal mechanism for recording problem-solving endeavors. Within this category, however, there is variation: some departments have incorporated recording forms and encourage their use but have not incorporated the plans into the agency's records, evaluation, or promotional systems. Other departments use problem solving as a formal portion of their evaluation process and annual reports. In Miami and Los Angeles, either the agency or individual commanders require monthly problem-solving plans from their officers. The Oregon State Police were also in the process of requiring "business plans" from all members of the organization, though the implementation phase had not yet reached all of the field ranks at the time of our second visit.

Because Cobb County, Des Moines, the Las Vegas Paiute Tribal Police, Maricopa County Sheriff's Office, Milwaukee, Newark, and North Charleston had no formal expectations for problem solving, documentation was either nonexistent or incorporated into the agencies' regular crime and activity reporting mechanisms. Buffalo, Flint, Fort Worth, Lakeland, Mascoutah, Miami, Metropolitan Nashville, New Bedford, Pocatello, Racine, Las Vegas, and the San Diego School System all claimed to encourage or expect problem solving and documentation, and several of these departments showed site visitors multiple successful examples of creative problem-solving projects. However, in most locations, both activities appeared to rest as

much upon individual initiative as on departmental mandate. Both Flint and Fort Worth were exceptions to this general observation: although no formal documentation was required, both departments directed their neighborhood officers to work in a problem-solving mode. Miami and Milwaukee had each done and documented extensive local problem solving in some districts, but projects in other districts were generally undocumented, and the department had no agencywide mechanism for systematic evaluation of the efforts.

Formal documentation was required by San Diego, Fresno, Huntington Beach (it was most evident in the patrol officers' written requests for directed enforcement), Los Angeles, Oak Park's community contracts, the business plans expected of the Oregon State Police, San Bernardino, Austin, and Sandy City. Fresno was the most advanced in terms of formal scanning; Austin made the most extensive use of problem-solving documentation, archiving case reports for citywide reference, and incorporating successful local cases into its training regimen. Los Angeles also compiles a database for reference and training. San Diego is probably the most advanced in its overall program of documentation, incorporation into training, and assessment.

Fresno employs a formal "crime pattern" definition for problem identification and has a mandated response for third-crime occurrences. Huntington Beach compiles directed enforcement requests from patrol officers who use the traditional SARA scanning approach to problem identification. Oak Park documents community contracts, including the obligations of all parties (police officers, community residents, and partner organizations) in the problem-solving plans. Oakland's SMART team compiles monthly reports, and San Bernardino maintains "premises histories" in its CAD system while problem projects are active.

Community participation. Although many segments of the community and other agency partners are involved in problem solving, true collaboration was evident in only a handful of sites. Problem

solving appeared to be a police-determined activity in most of the jurisdictions, and in several jurisdictions it was explicitly preferred. The police tend to be the agency that (1) learns of the problem, either through community reporting or police statistics or awareness, and (2) bears the responsibility for its resolution—but in concert with community and other agency partners. In Fort Worth and Pocatello, the community appears to be equal partners with the police in problem-solving initiatives, and Oak Park's contracts for problem-solving initiatives formalize community participation to a degree not found in many locales.

The Deli Task Force in Buffalo, which identified patterns of loosely organized crime in several small food shops, is run with interns, in the face of rank-and-file opposition to such activities; the impetus appears to have come from nonsworn individuals brought in from outside the agency. Regular members of the department seemed contemptuous of the task forces, although the site team also observed individual efforts scattered throughout the department. Cobb County's unique definitions of problem solving stem from private sector interests. Five of the 10 examples cited in Cobb County as problem-solving efforts were either off-duty details at malls and amusement parks or a collaboration among managers of low income apartment complexes. Two more examples involve either the school department's initiatives or those of social service agencies.

In many locations, what we could discern of the community portion was heavily invested in particular individuals. The River Bend community in Des Moines appears to lead the problem-solving efforts: Des Moines is fairly new to community policing, and the River Bend collaboration rests less upon departmental initiative than upon the personal working relationship between a community activist and a police lieutenant who are related through marriage. New Bedford's entire community policing effort is the result of a partnership with the local public housing agency, whose director and security director are active players in police activities in

and around public housing projects. In specific districts in several agencies we visited, problem-solving successes seemed to have required extraordinary efforts by individual civilians, often a community activist, property manager, or small-business owner.

Summary note on organizational change related to problem solving. In the chapter that follows (chapter 7), six factors favorable for change in relation to problem solving are cited. In the sites visited, as discussed above, we found evidence, to varying degrees, of all six factors. Certainly the concept of problem solving is well accepted, and at least a partial shift from directed patrol toward problem solving is evident in the majority of departments we visited. The process of recognizing problem solving is apparent in the number of departments (perhaps a third) that formally document problem-solving efforts. Building systematic databases to enable all officers to benefit from the problem-solving efforts of others is rarely found, but—as in Los Angeles—departments recognize the value of assessing the impact of the process and sharing information with others. Certainly problem-solving tactics are applied to problems of all sizes and severity, from neighborhood noise nuisances to open-air drug markets to street assaults, and problem-solving partnerships to tackle problems abound.

Prevention

The roots of modern day prevention in law enforcement agencies may be traced to the community crime prevention efforts of the 1970s and 1980s, many of which were funded by the Law Enforcement Assistance Administration and evaluated by the National Institute of Law Enforcement and Criminal Justice (Rosenbaum, 1986). These strategies—neighborhood and block watches (Cirel et al., 1977), citizen patrols (Yin, Vogel, and Chaiken, 1977), surveillance and reporting of suspicious behavior to police (Bickman, Lavrakas, and Green, 1977), and environmental design changes, commonly referred to as crime prevention through environmental design or CPTED (Fowler et al., 1979; Fowler

and Mangione, 1982; Crowe, 1991)—evolved into the community-based antidrug efforts of the 1990s (Roehl et al., 1995). The central tactics of these early efforts can be readily seen in the prevention practices of today.

Another strong theoretical rationale for one specific community crime prevention strategy is the "broken windows" or "incivilities" hypothesis raised by Wilson and Kelling (1982). Broken windows theory underpins the community policing emphasis on quality of life issues; emerging zero tolerance strategies are often erroneously attributed to broken windows theory as well (Kelling, 1999).

Prevention has, in many ways, been the gateway to community policing, as many of the earliest collaborative interactions with the public have been for the purpose of prevention. Police have traditionally worked with local children both formally and informally through groups such as the Boys and Girls Clubs, Police Athletic Leagues, and agency-specific activities such as fairs, summer camps, etc. Law enforcement agencies have long had crime prevention officers and "Officer Friendlys" who provide traditional services such as lectures and brochures on individual safety, security checks on homes and businesses, property marking with engraving pens, and children's photo ID programs.

We found that the prevention side of community policing, as defined by the COPS grantees visited, is highly programmatic. When asked about their prevention efforts under community policing, police representatives nearly always cited discrete programs (e.g., D.A.R.E. and neighborhood watch) and strategies (e.g., preventive patrol and alternatives for youths). They did not articulate any philosophy of prevention, the logical end product of true collaboration and problem solving focused on underlying causes.

In spite of the emphasis in recent years on prevention and seeding (defined in the Weed and Seed program as prevention, intervention, and neighborhood revitalization), prevention in the

minds of the vast majority of COPS grantees visited refers to specific crime prevention programs, not a more global, diffuse model of reducing, and ultimately preventing, crime through problem resolution and active collaboration. Even in the COPS sites exhibiting the most advanced and complete forms of community policing at the time of our visits, such as Austin, Fort Worth, and Oakland, prevention was viewed as an adjunct series of discrete programs, not a component of a broad-gauge, integrated strategy for preventing, reducing, and repairing crime and disorder problems. More recently, in contrast, Washington D.C.'s Metropolitan Police Department (which was not visited as part of this study but is the focus of a separate Urban Institute study) has begun moving toward its "Policing for Prevention" vision, which integrates the following components: focused enforcement, problem-solving partnerships with residents and other District agencies, and long-term, systemic prevention involving public and private service providers.

In measuring COPS effects on preventive activities by law enforcement agencies, then, we distinguished among three stages of prevention:

1. **Primary:** Broadly available programs, intended to prevent members of the general population from becoming offenders or victims and places from becoming hot spots.

2. **Secondary:** Programs aimed at identified high-risk behaviors or places, intended to prevent crime and disorder problems from worsening.

3. **Tertiary:** Programs that react to crimes already occurred, intended to repair the harm from those crimes.

Prevention: Survey findings

We measured an agency's prevention program activities using a list of 11 tactics.[8] These tactics had a moderate interitem reliability (KR alpha=0.77) nearly identical to the alpha for community partnership building activities (KR alpha=0.76). To

measure tactic-specific implementation status around the time the COPS program was launched, we computed the percentage of all large local/county agencies claiming pre-1995 implementation of each tactic. To measure the 1998 tactic-specific implementation status, we added the pre-1995 figure to the percentage of agencies responding that they started using the tactic between 1995 and 1998.

Spread of prevention program tactics. To describe the extent of growth in the use of prevention program tactics, table 6–12 reports the 1995 and 1998 means of agencies' reports of tactics implemented, as both a count and a percentage of all tactics listed. The table indicates use of the prevention program activities in our list grew between 1995 and 1998 among large local and county policing agencies. On average, our combined sample of COPS grantees and nongrantees reported pre-1995 implementation of 58 percent (i.e., 6.4) of the prevention program tactics. By the summer of 1998, agencies reported a moderate net increase, to 77 percent or 8.5. The change was statistically significant at the p-level of 0.001.

The tactic-specific percentages in table 6–12 make clear that in 1998 agencies continued to favor the same tactics within each subset of prevention programs. At both points in time, the most common primary prevention programs were drug education programs in schools and police/youth programs; the most common secondary prevention programs were code enforcement to combat disorder and confidential hotlines for reporting drugs and guns; and the most common tertiary prevention programs were victim assistance and battered women's programs.

Pre-1995 grantee/nongrantee comparison. COPS grantees and nongrantees began the COPS era at nearly the same point in terms of the percentage and number of prevention tactics in use before 1995 (see table 6–13, column A). Grantees and nongrantees reported having an average of 58 percent of the tactics in use as of 1995.

Table 6–12. Pre-1995 and 1998 Prevention Program Tactics Implementation, Large Local/County Agencies		
Tactic	**Pre-1995 Percentage**	**1998 Percentage (rank)**
Primary prevention: Officers assigned to drug education programs in schools	91.44	95.84 (1)
Police/youth programs	69.97	91.56 (3)
Varying styles of preventive patrol	64.39	92.49 (2)
Late night recreation programs	17.67	25.72 (4)
Secondary prevention: Agency encourages use of code enforcement to combat disorder	68.70	91.03 (1)
Confidential hotline for reporting drugs and guns	67.74	78.64 (2)
Mediation to resolve disputes and conflicts	48.69	68.95 (4)
Cooperative programs with schools to reduce truancy	47.22	73.97 (3)
Tertiary prevention: Law enforcement agency participation in victim assistance programs	61.29	82.77 (1)
Battered women's programs	57.19	81.48 (2)
Graffiti eradication programs	43.92	69.15 (3)
Mean implementation (percentage of tactics)	58.02	77.42
Mean implementation (number of tactics)	6.38	8.51‡

KR Alpha (0.77)

Note: Significance level of 1995–98 changes are as follows:

‡p-value <.01

Tactic-by-tactic analyses suggest that grantees were significantly more likely than nongrantees to conduct varying styles of preventive patrol (e.g., bike or foot) (66.5 percent compared with 57.8 percent). In contrast, nonfunded agencies were more likely to report having implemented victim assistance programs (70.9 percent compared with 58.1 percent).

Comparative adoption of prevention tactics, 1995–98. Between 1995 and 1998, grantees adopted a mean of 2.3 additional tactics, compared with 1.8 new tactics adopted by nongrantees (see table 6–13, column C). The overall difference between grantees' and nongrantees' rates of adoption was not statisti-

cally significant. However, grantees' adoption rates did significantly exceed nongrantees' rates for late night recreation programs (9.9 percent compared with 2.5 percent) and victim assistance programs (24.6 percent compared with 12.1 percent).

By 1998, grantees had implemented a mean of 8.6 tactics, compared with 8.2 for nongrantees (see table 6–13, column B). By 1998, grantees were significantly more likely than nongrantees to have implemented varying styles of preventive patrols (usually bike or foot, 95.4 percent compared with 83.8 percent) and late night recreation (28.5 percent compared with 17.2 percent); code enforcement to combat disorder

Table 6–13. Prevention Program Tactics Implementation (Pre-1995, by 1998, and Net Percentage Change), Large Local/County Agencies						
	A Percentage Using Pre-1995		**B** Percentage Using by 1998		**C** Net Percentage Change (1995–98)	
Tactic	**Funded**	**Nonfunded**	**Funded**	**Nonfunded**	**Funded**	**Nonfunded**
Primary prevention: Officers assigned to drug education programs in schools	90.43	94.49	95.01	98.35	4.58	3.86
Police/youth programs	70.94	67.05	91.59	91.45	20.65	24.39
Varying styles of preventive patrol	66.57*	57.79	95.35‡	83.80	28.78	26.01
Late night recreation programs	18.63	14.76	28.53†	17.22	9.89†	2.46
Secondary prevention: Agency encourages use of code enforcement to combat disorder	68.51	69.28	92.33*	87.11	23.81	17.83
Confidential hotline for reporting drugs and guns	66.23	72.34	77.28	82.77	11.04	10.42
Mediation to resolve disputes and conflicts	48.86	48.16	70.74	63.53	21.88	15.37
Cooperative programs with schools to reduce truancy	46.83	48.40	74.43	72.58	27.59	24.17
Tertiary prevention: Law enforcement agency participation in victim assistance programs	58.11	70.92†	82.70	82.98	24.59‡	12.06
Battered women's programs	58.36	53.67	83.69†	74.76	25.33	21.09
Graffiti eradication programs	44.33	42.66	71.01	63.51	26.67	20.85
Mean implementation (percentage of tactics)	57.98	58.14	78.42	74.37	20.44	16.23
Mean implementation (number of tactics)	6.37	6.39	8.62†	8.18	2.25	1.79

Note: Significance level of 1995–98 changes are as follows:

*p-value <.10

†p-value <.05

‡p-value <.01

(92.3 percent compared with 87.1 percent); and tertiary prevention programs focusing on the needs of battered women (83.7 percent compared with 74.8 percent).

COPS grant effects on post-1995 adoption of prevention program tactics. We asked COPS grantees that reported adopting new problem-solving tactics between 1995 and 1998 how their COPS grants affected their adoption. Overall, COPS grantees attributed 59 percent of their post-1995 adoptions of prevention program tactics to their COPS grants. For the most part, 60 percent to 80 percent of agencies that adopted

each tactic described the funds as "instrumental" in starting or expanding its use; less than 6 percent reported the grants allowed the agency to sustain its use through a budget cut; and the remaining 15 percent to 40 percent reported the grants had no effect (see table 6–14 for details).

There were exceptions. Only 45 percent of the agencies that began victim assistance programs and 57 percent of the agencies that began confidential hotlines for reporting guns and drugs, mediation to resolve disputes and conflicts, or cooperative programs with schools to reduce truancy during this period described COPS funds as

Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Primary prevention: Officers assigned to drug education programs in schools	19.0	70.7	10.3	—
Police/youth programs	14.8	80.2	5.0	—
Varying styles of preventive patrol	14.0	81.5	4.4	—
Late night recreation programs	27.6	66.8	5.6	—
Secondary prevention: Agency encourages use of code enforcement to combat disorder	23.6	71.0	5.4	—
Confidential hotline for reporting drugs and guns	43.4	56.6		—
Mediation to resolve disputes and conflicts	36.3	57.4	6.3	—
Cooperative programs with schools to reduce truancy	39.3	56.8	3.9	—
Tertiary prevention: Law enforcement agency participation in victim assistance programs	48.3	44.7	7.1	—
Battered women's programs	31.6	62.9	5.5	—
Graffiti eradication programs	30.5	62.7	5.8	1.0

Table 6–14. COPS Impact on "Newly" (Post-1995) Implemented Prevention Program Tactics, Large Local/County Agencies

instrumental. In contrast, roughly 80 percent considered the funds instrumental in starting police/youth programs or the use of varying styles of preventive patrols. Some 10 percent of agencies said the funds enabled them to sustain drug education programs in schools despite budget cuts. In contrast, more than 40 percent of the agencies that began confidential hotlines for reporting drugs and guns or victim assistance programs reported that their COPS grants had no effect on that startup.

COPS grant effects on continuation of pre-1995 prevention tactics. Overall, grantees reported that 82 percent of old prevention program tactics were positively affected by their COPS grants. For most tactics, 30 percent to 45 percent of agencies reported their COPS grants were "instrumental in starting or expanding" use of the tactic; another 5 percent to 10 percent stated the COPS funds helped them sustain use of the tactic despite budget cuts; and the remaining 35 percent to 60 percent reported COPS funds had no effect on their use of the tactic (see table 6–15).

A few tactics were exceptions to this general pattern. About 74 percent of agencies stated their COPS grants were instrumental in starting or expanding the use of varying styles of preventive patrols. Approximately 15 percent of grantees implementing police/youth programs stated the COPS funds helped them sustain those activities through budget cuts. In contrast, more than 60 percent stated the COPS funds had no effect on their continuation of confidential hotlines to combat disorder or victim assistance programs. For their most common old tactics, the percentages that reported a positive COPS impact (i.e., starting, expanding, or sustaining) were 66 percent for code enforcement to combat disorder, 60 percent for police/youth programs, 45 percent for drug education programs in schools, 39 percent for battered women's programs, and 42 percent for victim assistance programs.

Prevention: Reports from the field

Prevention predates community policing by decades. Most of the departments we visited support traditional community crime prevention strategies (e.g., Neighborhood Watch, citizen

Table 6–15. COPS Impact on "Old" (Pre-1995) Implemented Prevention Program Tactics, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Primary prevention: Officers assigned to drug education programs in schools	54.8	35.4	9.9	—
Police/youth programs	40.4	44.1	15.4	—
Varying styles of preventive patrol	15.9	73.7	10.4	—
Late night recreation programs	50.1	35.3	12.8	1.8
Secondary prevention: Agency encourages use of code enforcement to combat disorder	34.5	55.2	10.4	—
Confidential hotline for reporting drugs and guns	69.9	22.0	8.1	—
Mediation to resolve disputes and conflicts	50.6	37.4	12.0	—
Cooperative programs with schools to reduce truancy	50.1	42.9	7.0	—
Tertiary prevention: Law enforcement agency participation in victim assistance programs	64.0	30.7	4.7	0.6
Battered women's programs	57.5	38.9	3.6	—
Graffiti eradication programs	57.0	36.1	6.9	—

patrols, and the like) and standardized national programs (e.g., D.A.R.E., GREAT, and PAL). In many agencies, prevention—though highly valued—is not automatically included under the community policing umbrella.

The COPS sites have taken different approaches to integrating their existing prevention functions into their new community policing initiatives. In some departments, prevention efforts go hand-in-hand with community policing. In Sandy City, the crime prevention function has been transferred to the community policing unit, which is responsible for community policing, community investigations, D.A.R.E., crime prevention, public relations, and media relations.

In others, the prevention office continues as a separate unit, less centrally involved with the agencies' community policing functions. A common arrangement is that found in North Charleston, where a central prevention office handles programs with the public, including work with youths and special events. The prevention office serves to support the agency's community policing officers, organize the community, and

provide support for officer-initiated activities. In Pocatello, a civilian working in the prevention office has organized a huge proportion of the town's residents into active neighborhood watch groups—the bedrock of this and many other community policing programs. Austin also has a Community Services Unit, which works closely with all neighborhood centers, provides speakers for neighborhood association meetings, organizes neighborhood watches, and sponsors an Explorer Scout unit.

In most departments, prevention is an explicit goal of the organization but is rarely the first priority. Prevention takes a primary role in only one agency visited—Cobb County—which bases its community policing program around the concept of prevention. Sandy City includes prevention among the three stated goals of the agency: problem-oriented policing, Principles of Quality Leadership, and crime prevention.

Specific prevention tactics in the sites visited. Our site visit protocols do not enable us to quantify how much of which types of prevention each visited department is engaged in, but examples

of the various types of prevention efforts we encountered are presented below. Chapter 4 indicates that 38 percent to 46 percent of agencies report that their COPS-funded officers do *not* spend time on prevention activities, yet this figure does not reflect the percentage of departments engaged in many prevention activities.

Varying styles of preventive patrol. Preventing crime by patrolling problem areas is not a new concept (See Sherman, 1987), but new strategies aim to do it more effectively. Agencies use overlapping "power shifts" to ensure that enough officers are available for patrol during peak activity times. They use information from the community about crime problems and direct officers to address these problems by increasing patrol surveillance of these areas. Cobb County, for example, uses preventive patrol for a low income apartment complex, the closest thing they have to a hot spot, and reports success in a program to patrol a mall parking lot at Christmas.

To improve the effectiveness of preventive patrol, many police agencies that we visited had broadened the form of transportation used. On site visits we saw officers on foot, horses, inline skates, old bicycles from property rooms, expensive all-terrain bicycles, and all makes and models of planes, helicopters, boats, and automobiles. Two of the more interesting patrol vehicles were found in Sandy City, where community police officers patrol a park in a dry creekbed ("the gully") on all-terrain vehicles called quadrunners, and in Pocatello, where officers use snowmobiles. These alternate methods of transportation are used to access places that are difficult to reach by automobile and often make it easier for police and citizens to interact during patrol.

Foot patrol is organized around the concept of providing face-to-face opportunities for officers and civilians to get to know each other. The Flint neighborhood foot patrol program experiment was conducted from 1978 until the mid-1980s and was extremely popular with the citizens. This return to foot beats was popularized and rapidly spread throughout the United States.

Ironically, Flint quietly ended the program in 1986 or 1987 when the remaining foot patrol officers were redeployed to patrol cars to handle the increased number of calls associated with the arrival of crack cocaine.

Racine has used foot patrol as a strategic way to gather intelligence on community problems. During the summer of 1995 the Street Sweep initiative was started. In this program the chief and the officers walked in troubled neighborhoods, talking to citizens about crime problems and noting environmental conditions such as dilapidated housing, which sometimes were targeted for renovation.

Bicycle patrol commonly has four purposes: (1) high visibility in the community, (2) increased communication with citizens, (3) tactical advantages (such as stealth patrolling or allowing officers to patrol parking lots unseen), and (4) reaching areas not easily accessible to automobiles, such as beach boardwalks or parks. Bike patrol is believed to make officers more approachable because they are out of the squad cars, and it is easier, both physically and psychologically, for the public to approach an officer on a bike.

Citizen patrol. Not only officers do directed patrol. Sandy City has trained more than 400 citizens, with 365 currently involved, for their mobile patrol program. Two people patrol specific areas in 2-hour shifts, primarily during the hours of 10 p.m. to 4 a.m., Thursday through Sunday. They use personal cars with metallic signs on both sides and use their personal cell phones to call police dispatchers. The focus is thefts from cars and garages, and the volunteers call homeowners if garage doors are left open and remind them to take in bikes. Over the past year and a half the volunteers have made 9,000 calls.

Neighborhood Watch programs. Neighborhood Watch programs are perhaps the most common prevention efforts found in the sites. They involve the basic creation of a neighborhood organization and citizen-based tactics of property marking, surveillance, and reporting information

to the police. Many neighborhood and block watch groups have become more activist over the years, partly in response to the growth of neighborhood drug problems. Their surveillance and reporting has become more sophisticated, and residents increasingly become involved in problem-solving activities designed to resolve problems close to home.

Youth programs. For the most part, the primary prevention activities directed toward youths were fairly standard across sites. Drug education programs were largely patterned after D.A.R.E. Most police/youth programs involved explicit agency sponsorship of athletic teams, with regular involvement by a corps of committed officers and participation by at least several dozen youths; a few such teams had achieved enough visible success to become focal points for community pride and financial support.

The visited sites have an extensive list of youth programs such as Explorer Scouts, D.A.R.E., GREAT, PAL, Boys and Girls Clubs, bicycle rodeos, and Shop with a Cop. Some agencies have developed comprehensive programs in which many aspects of juvenile life are addressed by programs and services. The objective of these programs is often twofold—to prevent juvenile crime and youth victimization.

Several of the agencies visited have developed or participated in youth programs which concentrate on many aspects of the lives of youths, providing places for supervised recreation, mentoring and tutoring, alternative activities, and special training. These programs are generally operated in cooperation with other local organizations, such as Boys and Girls Clubs, bringing multiple resources to assist the youths. An example is Nashville's Enterprise Zone, which was built with funding from multiple sources. Through this program, children and families in a low-income community receive services from the Department of Human Services, including case workers from Family and Children's Services, welfare representatives, and

job training program leaders, in addition to the community policing team.

The Las Vegas Paiute Tribal Police operate ICARE (Indian Children at Risk Education), which expands the basic D.A.R.E. concept to reflect the acting chief's convictions that it takes more than "Just say 'No'" to stop drug use and that Indian children will be more responsive to programs that emphasize their culture. ICARE educates the children on the essence of tribal existence, such as knowledge of the Paiute culture, dress, and food. Officer Shin-Av, a character based on a tribal myth, plays the roles that McGruff plays elsewhere. ICARE also emphasizes career opportunities; awareness of all types of drugs, including alcohol and cigarette smoking; cultural sensitivity; and what children should do when other students come to school with guns. The tribal council provides an annual ICARE budget of $3,000, which has been used to support field trips and to create buttons, bumper stickers, and T-shirts.

The Racine Police Department has been involved in an unusual prevention and community policing project. Along with other community agencies, the department raised $80,000 through public and private organizations to build a ranch-style, three bedroom house that serves as the Wadewitz Community Policing Office. This house will be used as a neighborhood satellite office for 5 to 10 years. After that, the house will be sold to a low to moderate income family. The house contains a conference room for neighborhood meetings and a computer training room equipped with donated computers. In another of Racine's community policing substations, the Racine-based Children and Family Resource Center offers parenting skills training to teen mothers.

In Buffalo, one district station is located in a facility that will also house a community center with a gymnasium and other facilities. The Westminster Police Department (a member of the Huntington Beach Consortium) targets at-risk

youths with Operation Revitalization, a partnership among the police, schools, community, youths, and social service providers. Operation Revitalization offers school resource officers, drug-free and violence-free zones at affected schools, a student police academy, an educators' academy, and youth and community councils.

The San Bernardino Sheriff's Department sponsors a youth program in which at-risk youths in grades six to eight attend group sessions to explore new ways to deal with old problems. They include topics such as conflict resolution, anger management, coping skills, family and peer relations, academic success strategies, and peer mediation. The program includes a 1-day field trip, a 2-day wilderness camp, a mentor-style tutoring program, parenting classes, and after-school and weekend activities sponsored by the community based officers.

Youth recreation programs. Police agencies have long provided recreational opportunities intended to channel the energy of youths into safe and supervised activities. The police involvement in youth recreational activities may also serve as a bridge between youths and law enforcement and provide role models for the youths. Six agencies mentioned having a Police Athletic League (PAL) or a Sheriff's Athletic League (SAL), and five agencies reported a law enforcement Explorer Scout program (North Charleston, Oak Park, San Bernardino Sheriff, Fresno County Sheriff, and Newark).

Only one visited site (Austin) currently reports having late night recreational programs, such as midnight basketball, one of the hotly contested examples of prevention in the originally proposed 1994 crime bill. Other agencies visited used to have such programs but had to shut them down because of neighbors' complaints about related noise and other disorders late at night.

Antigang programs. Gang problems are currently seen as a major problem by law enforcement. One popular response to this problem is the Gang Resistance Education and Training

(GREAT) program. It is offered in at least three of the sites visited (Cobb County, Lakeland, and Sarpy County). The interest in gang prevention is high in Lakeland, where a gang prevention meeting drew more than 300 attendees. Another antigang program is found in Fresno County, where the sheriff's department has a CRASH Team (Combined Resources Against Street Hoodlums), which identifies gang members for prosecution and intervenes with known and suspected gang members. Its prevention activities include involving the youths in boxing programs and exposing youths to CRASH Team members who serve as counselors in camps, participate in youth events, and educate students and teachers, parents, and citizens. There is also a multiagency team, CRUSH, which has an educational antigang curriculum.

Curfew/truancy programs. Curfew programs are widely used and are very popular. A 1995 U.S. Conference of Mayors survey of 1,000 cities with populations of more than 30,000 found that 70 percent, or 270 of the 387 cities responding, have a curfew ordinance in place, and an additional 6 percent were considering adopting curfew legislation.[9] Curfews are generally thought to perform two functions: to prevent juvenile crime and to prevent youth victimization. A literature review done by Ruefle and Reynolds (1995) found little or no recent empirical evidence indicating that curfew initiatives have an effect on juvenile crime. However, some agencies have reported some positive effects of curfews.

Five of the sites visited reported having curfew programs, although others may have these programs but did not mention them. Officers in the Buffalo police curfew program found they had no place to take children when the parents were not home. After arrangements were made with the county Department of Family Services to staff a shelter for the curfew violators, police began more vigorous enforcement actions.

The San Diego Police Department and School Police collaborate in truancy prevention projects. Lakeland has a truancy prevention program,

which is run in conjunction with the schools, juvenile court, and children and families agency. Miami reports that soon after the number of truancy pickups around schools increased, robberies targeting elderly pedestrians declined. Sarpy County also addresses truancy, and the Fresno County Sheriff's office sends officers to sit on the School Attendance Review Boards.

Prevention/education efforts. The most commonly cited prevention tactic on our checklist was antidrug programs in the schools, the prime example being D.A.R.E. In our Wave 3 survey, 91 percent of municipal or county police agencies serving populations of more than 50,000 reported starting drug education programs in schools before 1995. Agencies may be drawn to D.A.R.E. because the program package is easy for an agency to use. One of the documented benefits of the D.A.R.E. program is it garners more understanding and respect for the police from youths.

Fourteen of the program sites explicitly stated they have or had a D.A.R.E. program, although one dropped it. In Buffalo, a D.A.R.E. officer was elected to the city council. Sarpy County's one COPS-funded officer was the D.A.R.E. teacher. In Sandy City, the responsibilities of community police and D.A.R.E. officers have been combined. The officers teach D.A.R.E. 2 days a week during the school year and provide community police services to the community served by "their" schools during the remainder of their duty time.

Another way that agencies address juvenile crime is by deploying officers to schools, including officers funded by the COPS hiring programs.[10] The Lakeland Police Department has four school resource officers (SROs) who split their time between prevention and investigation activities. One SRO is assigned to the high school, two to the two middle schools, and one to the elementary schools. The SROs represent a partnership between police department and the school district, and each partner pays for half the cost of the SROs. Related efforts are with the juvenile court,

Office of Children and Families, D.A.R.E., GREAT, and a truancy reduction program.

Education on ways to avoid being victimized has been one of the mainstays of prevention programs. One innovative way of doing this is found in the Nashville Police Department's program, which provides crime prevention information via the Internet, including a test of personal risk of crime and an audio file of self-defense techniques for women. Other education and notification programs include Oak Park's citizen phone tree to alert neighboring businesses of crime, Miami's new program to alert neighbors adjoining burglary victims within 24 hours, and Fort Worth's Reverse 911 which, once operational, can be used to give prevention tips.

Sexual assault prevention. In San Diego, the sexual assault unit is strongly committed to community policing, with an active volunteer speaker's bureau, including both male and female speakers, who often work in teams. Their goals are to raise the visibility of acquaintance rape, to encourage responsibility by both parties, and to deal with "mixed signals" from both male and female perspectives. Extensive slide presentations and speakers' training packages have been developed. News media helped to recruit speakers and to publicize the bureau's existence and message.

Landlord training. One of the most pragmatic prevention programs is landlord training. Some agencies work with low income and public housing managers to screen applicants for past history of criminal activity, vandalism, and/or failure to pay rent. In Milwaukee and elsewhere, blacklists of undesirable tenants are shared among landlords. Certainly one result is displacement; a more positive outcome is the potential problem tenant becomes aware of increased penalties for these behaviors and pledges to cease these behaviors in the future.

San Bernardino and Oakland provide training for landlords in screening tenants, crime prevention through environmental design, and crime- and drug-free property management techniques.

In San Bernardino's pilot test period, calls for service decreased between 25 percent and 84 percent in participating low income apartment complexes, and occupancy increased 10 percent to 12 percent. Cobb County has a specialized prevention unit that works with apartment managers.

Code enforcement. Many of the sites visited engaged in some form of code enforcement as a means of crime prevention. Probably the two most common objectives were (1) to coerce absentee owners of residential properties to evict tenants who were selling drugs or to clean up the property, and (2) to coerce owners of liquor serving or selling businesses to take responsibility for their customers' disorderly behavior in the immediate vicinity. Oakland's Beat Health program, which relies on multiple civil abatement processes, is probably the best example of a code enforcement program (Green, 1996). The code enforcement efforts we observed differed widely in terms of the extent of due process required; the community participation that was legally needed, requested by the police agency, and offered by the affected neighbors; the degree of cooperation obtained from other government agencies, including inspectors and prosecutors; and the effectiveness of the efforts in terms of removing problems.

Drug and gun hotlines. In areas where fear of retaliation is high, some agencies have found confidential hotlines useful for receiving anonymous tips of illicit drug marketing or gun-carrying; the tips provide officers probable cause for taking action without requiring tipsters to testify in court or even identify themselves. The effects of such hotlines seems to depend on several features:

1. The venue and aegis—operation by a neighborhood church or trusted community-based organization may encourage residents to offer tips.

2. Responses to tips—responses to anonymous tips included officer drive-bys, stationing a visible or concealed officer within sight of the alleged violation, stops and interrogations of individuals, and voluntary searches of properties by large tactical squads dispatched to the premises of the alleged violations.

Conflict mediation. Police officers become involved in different types of mediation efforts, including:

1. Informal attempts to mediate disputes among neighbors, family members, or others in the course of responding to calls. In Oak Park, for example, residential officers mediate disputes among tenants.

2. Participation in mediating gang conflicts.

3. Participation in or referral of cases to formal mediation processes that may follow a restorative justice model. In Oakland, a conciliation service provides training to community police officers to guide them in referring disputants to their services and to teach them communication and conflict resolution skills.

Environmental design efforts and CPTED. In many of the sites visited, problem solving and prevention efforts often involve simple environmental efforts (cleanups and sealups, for example) as well as more sophisticated changes based on CPTED principles. Lakeland police, for example, included physical design changes in a comprehensive strategy to address crime and disorder problems in the Washington Park Homes public housing complex, installing barriers to prevent traffic flow related to open-air drug markets. In the Parke Street neighborhood, the strategy included target hardening and physical improvements, including the installation of no parking signs in drug marketing areas, improved street lighting, and cleaning up tree trimmings in areas used for drug dealing to increase visibility. HUD funds three crime prevention specialists and, although principally focused on public housing areas, they are also available to neighborhood associations.

Work with probation and parole. In the past, law enforcement agencies have rarely had information

on individuals in their jurisdictions who are under parole or probation. Because some previous offenders have a high probability of becoming recidivists and because supervision of parolees and probationers is often minimal due to heavy caseloads, law enforcement agencies find ways to identify and keep tabs on these individuals. For example, the Los Angeles Police Department anticipates having a computer database available to mobile computer users, giving information on whether a suspect is on probation and, if so, what the terms are (e.g., curfews, geographic location).

The San Bernardino Sheriff's Department has a CAD program that sends teletype messages to probation and parole officers notifying them of police contact with probationers and parolees. Lakeland has also started initial efforts to work with probation. They work with the prosecutor's office on a SHOCAP (Serious Habitual Offenders Comprehensive Action Program) effort. The Fresno County Sheriff's Department works with the juvenile probation department to heighten supervision. A team of probation officers and deputies knock on probationers' doors and conduct searches in an effort to find those who are out of compliance with the conditions of their release. They target probationers known to be violent or gang members. In several sites, probation and parole officers serve on inspection teams involved in civil abatement, in part to bring their powers of warrantless searches to the process.

Domestic violence programs. The COPS Office sponsors a domestic violence program to provide funding to law enforcement agencies outside of the hiring and technology grants. We did not study COPS-funded domestic violence programs in any detail during site visits but did identify several noteworthy efforts. In Huntington Beach, COPS-funded department personnel assist in community outreach, public speaking, maintenance of a domestic violence database, and report writing. Des Moines provides cellular phones for victims of domestic violence. The phone is programmed to dial 911 and potential victims are assured a prompt response by the

police. One limitation is that the phone gives the dispatcher only the victim's home address, not her or his current location. Newark and Milwaukee have similar domestic violence programs.

In San Diego, the Domestic Violence Unit's director sees it as "a homicide prevention unit" that reflects the principles of community policing. The unit was established on the recommendation of the Domestic Violence Council (an organization of some 200 businesses). It refers child witnesses of domestic violence to treatment and residential centers in the community, victims to shelters when appropriate, and batterers to batterers' groups. The unit's sergeant is frequently invited to speak to community groups. The unit encourages and uses volunteers, has a hotline for reporting incidents of domestic violence, and participates in public information campaigns (including pins, stickers, and billboards) funded by the Domestic Violence Council.

Victim assistance programs. Four of the visited sites drew the team's attention to their victim assistance programs. North Charleston has a victims' advocate program started in 1993. In Oak Park, the residential beat officers check back with victims of crime. Oakland police chaplains can be called to the scene to assist in crisis counseling, and San Bernardino has a Clergy Council.

Organizational Changes in Support of Community Policing

Shifting from reactive response to proactive problem solving, developing partnerships with the community and nonlaw enforcement agencies, and expanding prevention initiatives generate pressures for organizational changes of police agencies. As one urban police department says in opening its community policing training sessions, "Good community policing isn't new to the best officers. But the organizational support you'll start getting for it is."

Organizational change is difficult in any organization, and the conventional wisdom of the past

is law enforcement agencies are particularly resistant to change. A common assumption accepted by many police practitioners and observers is departments will "most likely require 10 or more years for full implementation" (Roberg, 1994). Yet in many of the COPS-funded agencies we examined, at least temporary organizational changes in support of community policing occurred with rather astonishing speed.

In some departments, turnover at the chief's level and other top command positions has spurred rapid changes in direction, philosophy, and structure. In others, departmental leaders have worked to restate the organization's mission, followed by changes in policy and operation designed to achieve new goals. This is not to say that change has been easy or that all officers have readily accepted and followed the new philosophy. Skolnick and Bayley (1986) may be right in concluding that innovation may require "urging retirement on members of the old guard." Indeed, when one lieutenant was asked about a site visitor's sense that his department's enthusiasm for community policing seemed high in the field but nonexistent around headquarters, he responded, "I've been with the department for 12 years. I get [community policing], and everyone who came in with my class or later gets it. By the time we're in charge, we'll be doing community policing from top to bottom. And [since officers are eligible for retirement after 20 years] an 8-year transition isn't that long compared to other departments." Nevertheless, most law enforcement agencies we visited deserve credit for their capacity to change when new, seemingly sensible ways of doing business are presented.

Traditionally, organizational change requires several components—setting and clearly communicating new goals and objectives, changing policies and procedures accordingly, providing training and support to employees to enable them to implement the new procedures, and rewarding employees for making appropriate changes. To implement community policing,

these traditional organizational changes are reflected in specific innovations within police agencies, including:

1. Revising mission, vision, and/or values statements.

2. Developing a strategic plan for the implementation of community policing.

3. Changing policies and procedures to enhance beat integrity and stability, increase community contact, and enhance officers' sense of ownership of their patrol areas, through:

    a. Aligning administrative, patrol, and community beat boundaries to coincide with the level of problems and natural neighborhood boundaries.

    b. Assigning officers to beats permanently or for a significant period of time.

    c. Switching from a time (watch/shift) imperative to a territorial (beat) imperative, making supervisors and officers responsible for problems in the area on a 24-hour basis, not just during their watch.

    d. Flattening the organization to reduce the levels of command and giving officers discretion to handle problems as they see fit.

    e. Providing time for officers to do problem solving and engage in proactive community contact by freeing some officers from answering radio calls or increasing the amount of time officers have.

    f. Involving units other than patrol and designated community police officers in community policing activities.

4. Providing training of all personnel in the principles and practices of community policing.

5. Changing performance criteria to reflect community policing principles.

In the section that follows, we present summary information on the extent to which COPS-funded agencies have made organizational changes in

support of community policing. Other organizational changes that facilitate the formation of partnerships and implementation of problem solving have been previously discussed.

Organizational changes: Survey findings

We measured an agency's organizational practices and changes using a list of 10 items.[11] Conceptually, these items were selected to measure agencies' use of organizational practices more or less commonly introduced in support of community policing. These practices had a moderate interitem reliability (KR alpha=0.77). To measure implementation status around the time the COPS program was launched, we computed the percentage of all large local/county agencies claiming pre-1995 implementation of each practice. To measure the 1998 tactic-specific implementation status, we added the pre-1995 figure to the percentage of agencies responding that they introduced the change between 1995 and 1998, then subtracted the percentage reporting they had dropped a pre-1995 practice since 1995.

Spread of supportive organizational changes. To describe the extent of growth in the use of supportive organizational features, table 6–16 reports the 1995 and 1998 means of agencies' reports of practices implemented, as both a count and a percentage of all practices listed. The table indicates use of these organizational practices grew between 1995 and 1998 among large local and county policing agencies. On average, our combined sample of COPS grantees and nongrantees reported pre-1995 implementation of 4.2 of the 10 changes. By the summer of 1998, agencies reported a moderate net increase to 6.7. The change was statistically significant at the p-level of 0.001.

Table 6–16. Pre-1995 and 1998 Supportive Organizational Changes, Large Local/County Agencies		
Tactic	**Pre-1995 Percentage**	**1998 Percentage (rank)**
Joint crime/violence reduction task force involving multiple government agencies	58.72	81.50 (2)
Alternative response methods for calls	56.07	79.40 (3)
Beat or patrol boundaries that coincide with neighborhood/ community boundaries	55.20	77.07 (4)
Revised mission, vision, or values statements	44.94	82.58 (1)
Dispatch rules structured to maximize officers' time preventing crimes on their beats	43.94	64.54 (7)
Team approach instead of chain of command for prevention, problem solving, and law enforcement	41.10	72.22 (5)
Provide community a voice in nominating and prioritizing problems	37.00	66.71 (6)
Expanded beat officers' discretion	30.61	58.94 (8)
Beat or patrol boundaries that coincide with other agencies' boundaries	29.27	36.71 (10)
Revised employee evaluation measures	19.74	54.52 (9)
Mean implementation (percentage of tactics)	41.66	67.42
Mean implementation (number of tactics)	4.17	6.74‡

KR Alpha (0.77)

Note: Significance level of 1995–98 changes are as follows:

‡p-value <.01

As table 6–16 shows, all 10 organizational changes became more common between 1995 and 1998, but one in particular proliferated more rapidly than the others. The share of agencies reporting they had revised their mission, vision, or values statements grew from 44.9 to 82.6, so that its rank rose from fourth most common to first. Although structuring dispatch rules to maximize officers' time in their beats also became more common between 1995 and 1998, it spread at a slower rate than others, so that its rank dropped from fifth to seventh. Revision of

employee evaluation measures grew most rapidly (from 19.7 percent of agencies to 54.5), while moving beat boundaries to match other agencies' administrative boundaries grew most slowly, from 29.3 to 36.7 percent of agencies.

Pre-1995 grantee/nongrantee comparison.
Overall, COPS grantees and nongrantees began the COPS era at nearly the same point in terms of the percentage and number of organizational changes implemented by 1995 (see table 6–17, column A). Grantees reported following an aver-

Table 6–17. Supportive Organizational Change Implementation (Pre-1995, by 1998, and Net Percentage Change), Large Local/County Agencies						
	A		B		C	
	Percentage Using Pre-1995		Percentage Using by 1998		Net Percentage Change (1995–98)	
Tactic	Funded	Nonfunded	Funded	Nonfunded	Funded	Nonfunded
Joint crime/violence reduction task force involving multiple government agencies	58.22	60.23	82.45	78.64	24.23	18.41
Alternative response methods for calls	57.25	52.50	82.20†	70.92	24.94	18.41
Beat or patrol boundaries that coincide with neighborhood/community boundaries	56.35	51.70	78.20	73.64	21.84	21.93
Revised mission, vision, or values statements	44.61	45.94	84.07	78.08	39.45	32.14
Dispatch rules structured to maximize officers' time preventing crimes on their beats	43.82	44.30	67.31†	56.15	23.48‡	11.84
Team approach instead of chain of command for prevention, problem solving, and law enforcement	43.92†	32.57	75.90‡	61.07	31.97	28.49
Provide community a voice in nominating and prioritizing problems	39.27*	30.11	70.01†	56.73	30.73	26.61
Expanded beat officers' discretion	31.78	27.07	63.31‡	45.70	31.53†	18.63
Beat or patrol boundaries that coincide with other agencies' boundaries	29.45	28.73	36.97	35.90	7.52	7.16
Revised employee evaluation measures	20.03	18.87	59.67‡	38.90	39.63‡	20.03
Mean implementation (percentage of tactics)	42.47	39.20	70.01	59.57	27.53	20.36
Mean implementation (number of tactics)	4.24	3.92	7.00‡	5.95	2.76*	2.03

Note: Significance level of 1995–98 changes are as follows:

*p-value <.10

†p-value <.05

‡p-value <.01

age of 42.5 percent of the practices as of 1995, slightly exceeding the 39.2 percent reported by nongrantees.

Tactic-by-tactic analyses suggest, however, that grantees were significantly more likely than nongrantees to report implementing a team policing approach (43.9 percent compared with 32.6 percent) and to provide the community a voice in prioritizing problems (39.3 percent compared with 30.1 percent).

Comparative adoption of supportive organizational changes, 1995–98. Between 1995 and 1998, grantees adopted a mean of 2.8 additional organizational changes, compared with 2.0 changes adopted by nongrantees (see table 6–17, column C). The overall difference between grantees' and nongrantees' rates of adoption was statistically significant at the .10 level. Specifically, grantees' adoption rates exceeded nongrantees' for introducing new employee evaluation measures (39.6 percent compared with 20.0 percent), new decisionmaking authority for beat officers (31.5 percent compared with 18.6 percent), and restructured dispatch rules to enhance beat integrity (23.5 percent compared with 11.8 percent).

Comparing 1998 implementation status (i.e., regardless of whether a tactic was adopted before or after 1995), grantees had implemented a mean of 7.0 changes by 1998, compared with 6.0 for nongrantees (see table 6–17, column B). By 1998, grantees were significantly more likely than nongrantees to have implemented management-related changes to support community policing efforts. Grantees were more likely than nongrantees to have implemented a team approach instead of a chain-of-command structure (75.9 percent compared with 61.1 percent), given beat officers new decisionmaking authority (63.3 percent compared with 45.7 percent) and revised employee evaluation measures (59.7 percent compared with 38.9 percent). Additionally, grantees were more likely than nongrantees to have implemented alternative response methods (82.2 percent compared with 70.9 percent) and new dispatch rules (67.3

percent compared with 56.2 percent). Finally, grantees were more likely than nongrantees to have implemented strategies to provide the community a voice in nominating and prioritizing problems (70.0 percent compared with 56.7 percent).

COPS grant effects on post-1995 adoption of supportive organizational change. We asked COPS grantees that reported making organizational changes between 1995 and 1998 what roles their grants played. Overall, COPS grantees attributed 70 percent of their post-1995 organizational innovations to their COPS grants. For the most part, 65 percent to 80 percent of agencies that made each change described the funds as instrumental in starting or expanding the new practice; fewer than 5 percent reported the grants allowed the agency to sustain a change through a budget cut; and the remaining 15 percent to 30 percent reported the grants had no effect. There were a couple of exceptions. Less than 60 percent of the agencies that participated in joint crime/violence reduction task forces during this period described COPS funds as instrumental. In contrast, more than 80 percent considered the funds instrumental in implementing a team approach, changing beat boundaries to coincide with neighborhood boundaries, and giving beat officers new decisionmaking authority. In addition, more than 35 percent of the agencies that began joint crime/violence task forces, revised their mission statements, or revised their employee evaluation measures reported that their COPS grants had no effect on these changes (see table 6–18, page 52, for details).

COPS grant effects on continuation of pre-1995 supportive organizational change. Overall, agencies reported the COPS program positively affected 84 percent of old organizational practices. For most practices, 40 percent to 65 percent of agencies reported their COPS grants were "instrumental in starting or expanding" their use; less than 10 percent stated the COPS funds helped them sustain them despite budget cuts; and the remaining 30 percent to 55 percent

Table 6–18. COPS Impact on "Newly" (Post-1995) Implemented Supportive Organizational Changes, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Joint crime/violence reduction task force involving multiple government agencies	40.2	55.6	4.2	—
Alternative response methods for calls	28.3	66.6	4.0	1.1
Beat or patrol boundaries that coincide with neighborhood/community boundaries	16.4	82.0	1.6	—
Revised mission, vision, or values statements	38.2	58.9	2.8	—
Dispatch rules structured to maximize officers' time preventing crimes on their beats	29.3	69.2	1.6	—
Team approach instead of chain of command for prevention, problem solving, and law enforcement	17.0	83.3	0.0	—
Provide community a voice in nominating and prioritizing problems	13.5	79.6	4.3	2.5
Expanded beat officers' discretion	17.3	81.1	1.6	—
Beat or patrol boundaries that coincide with other agencies' boundaries	22.1	73.5	4.3	—
Revised employee evaluation measures	36.6	61.0	2.4	—

reported COPS funds had no effect on their practices (see table 6–19, page 53).

A few practices were exceptions to this general pattern. About 68 percent of agencies stated their COPS grants were instrumental in starting or expanding the use of new strategies to provide the community a voice in prioritizing problems or expanded beat officers' discretion. More than 55 percent stated the COPS funds had no effect on their continuation of alternative response methods for calls or creating beat boundaries that coincide with other agencies' administrative boundaries. For their most common old practices, the percentages that reported a positive COPS impact (i.e., starting, expanding, or sustaining) were 53 percent for creating beat boundaries that coincide with neighborhood boundaries, 52 percent for revised mission statements, 49 percent for joint crime/violence reduction task forces, and 43 percent for alternative response methods.

Organizational change: Views from the field

Both the programmatic site assessments and the organizational case studies discussed in chapter 7

suggest a wide variation in the implementation of organizational change. In interviews with chief executives, we asked about the changes made in support of community policing and whether they had been made before or after COPS grants awards. The types of changes made are discussed below, in order of their prevalence in the agencies visited (it should be noted that the prevalence counts are probably underestimated because the interviews did not systematically capture each type of organizational change).

In the chapter that follows, conditions favorable to implementing community policing are drawn from the experiences of 10 departments on which Harvard's Kennedy School of Government prepared case studies. We see many similar threads in the experiences of the 30 sites our practitioner/researcher teams visited as well. The key importance of the leadership role of the chief executive officer of the law enforcement agency has already been discussed, along with the level and nature of supervision from other command staff. In cities such as Oakland, a favorable political environment (specifically

Table 6–19. COPS Impact on "Old" (Pre-1995) Supportive Organizational Changes, Large Local/County Agencies				
Tactic	No Effect	Started/ Expanded	Sustained	Eliminated/ Change Priority
Joint crime/violence reduction task force involving multiple government agencies	50. 7	40.3	9.0	—
Alternative response methods for calls	57.0	38.3	4.7	—
Beat or patrol boundaries that coincide with neighborhood/ community boundaries	47.0	46.5	6.6	—
Revised mission, vision, or values statements	47.8	47.0	5.2	—
Dispatch rules structured to maximize officers' time preventing crimes on their beats	37.3	53.3	8.7	0.7
Team approach instead of chain of command for prevention, problem solving, and law enforcement	28.3	62.5	9.1	—
Provide community a voice in nominating and prioritizing problems	21.8	68.7	9.6	—
Expanded beat officers' discretion	24.1	67.6	8.3	—
Beat or patrol boundaries that coincide with other agencies' boundaries	55.7	35.0	9.3	—
Revised employee evaluation measures	54.5	40.3	5.2	—

strong support from the mayor and city council) has furthered implementation; in others, such as Milwaukee, local politicians have initiated major changes in the direction of community policing. In several cities, notably Los Angeles, the impetus for community policing came from crises or strained relations with minority communities.

Below, we see that a third to nearly half of the departments (and this is surely an undercount) have made major changes in the organization supportive of community policing. The most common organizational change in support of community policing was the provision of training, mentioned by 45 percent of the agencies visited. The type and extent of training varied substantially from agency to agency, ranging from a few hours as part of annual inservice training to a week or more. Problem-solving tactics were the most common form of training received by officers; as expected, designated community policing officers were more likely to receive the extensive training than patrol officers. Several departments reported providing training for supervisors and command staff first,

followed by training for all sworn personnel, in part because of the length of time required to train all officers in large departments. The training includes attending POST-provided training, bringing in POST trainers or other consultants, using current personnel as trainers, and sending officers to national conferences, such as the problem-oriented policing conference held annually in San Diego.

Several agencies reported unusual training programs. In Oakland, a private agency, Oakland Sharing the Vision, is funded to train citizens in community policing and problem-solving strategies. A 3-hour course dubbed "Community Policing 101" has been developed and will be delivered to 400–500 citizens in 15 to 20 training sessions over an 18-month period. It has also been videotaped in five languages to be shown on a local television station. The curriculum is intended to promote understanding and prepare residents for their shared roles and responsibilities in community policing and crime prevention. The Austin Police Department has developed multiple modes of training—

classroom, roll call, and video. The department has developed a *Problem Solving Manual and Resource Guide* for training which articulates new roles for officers and persons of all ranks. The small department in Mascoutah has availed itself of many opportunities; in 1996, the 11-person workplace reportedly participated in 50 training programs conducted by the State and private consultants. The Oak Park department has provided extensive training in cultural diversity and human relations to all of its members; in 1992, 13 courses, conferences, inservice meetings, and instructional visits were held on topics such as gay and lesbian awareness, elder rights, cross-cultural communications, and dealing with upset citizens. Our second visit to the Las Vegas Metropolitan Police Department coincided with a 2-day training session conducted by a team from the Western Community Policing Institute. District-level teams, each consisting of officers and residents, were led through spirited, specific, and constructive discussions of how officers and residents view each other's capacities and limitations, their own capacities and limitations, and problems in the district. After crime and disorder problems were prioritized, each team developed a plan of attack with specific, measurable assignments for all members.

Approximately 35 percent of the agencies visited have realigned beat boundaries to conform to natural neighborhood boundaries or service areas and deploy patrol and/or dedicated community police officers to these geographic areas (i.e., "geo-deployment"). Generally, the beat boundaries are defined by multiple methods, including the existence of physical boundaries (freeways, rivers, etc.), identified neighborhoods, and the number of calls for service. The Oakland Police Department, for example, increased the number of beats from 35 to 57, aiming to serve naturally occurring neighborhoods of between 5,000 and 7,000 residents. A community police officer is assigned to each beat; patrol officers will cover a beat or two, depending on need. A number of law enforcement agencies have also lengthened the amount of time an officer is assigned to a given beat to increase the opportunity to get to know, and be known by, citizens. Long-term assignments in police parlance, however, tend to be about 2 years.

In contrast, the San Diego Police Department was in the process of collapsing each district from four or more beats, each patrolled by one officer, into two service areas, each patrolled by a team; simultaneously, patrol resources were expanded by breaking up special units and deploying COPS-funded officers. While senior command anticipated that the restructuring would cause some reduction in general familiarity between officers and residents, the new structure was expected to expand the flexibility to free up an officer from response duty to work on a specific problem-oriented policing project or attend a community meeting, for example, while the rest of the team covered patrol duties (see Maxfield et al., 1998, for additional details).

Approximately 35 percent of the agencies visited also reported changing performance criteria in support of community policing, although several reported the changes were informal. When the changes were reported as informal, this typically referred to supervisors taking into account the amount of problem solving and community contact conducted by individual officers. Where the changes were formal, personnel evaluation forms were revised and the changes formally communicated to the rank-and-file. A fairly dramatic change in performance criteria was implemented by the North Charleston police chief, who instituted a public "scoreboard" in each precinct, displaying, by month, each officer's sick days, annual leave, military leave, calls dispatched, calls assisted, and self-generated activities (i.e., security checks, problem-solving activities, etc.). The scoreboard, needless to say, has been a hotly contested measure of officer performance.

Approximately 30 percent of the agencies reported revising mission and/or values statements. In most departments, it appears these revisions were made by a committee composed

of command and rank-and-file officers. In the Mascoutah Police Department, all officers were involved.

Approximately 30 percent also reported developing long-range plans, typically covering the next 5 years, to implement community policing. In Oakland, the strategic plan was developed by a group of police and community representatives. In Austin, a plan for community policing was developed in 1991, then revised and updated in 1993 and 1996.

In a half dozen agencies, steps were taken to decentralize policy making and give officers more discretion to tackle problems as they saw fit. In Buffalo, community police officers report directly to captains rather than the lieutenants who act as frontline supervisors (the Buffalo Police Department has no sergeant rank).

These policy changes are often related to organizational changes in support of geographic command, also seen in a half dozen agencies. In Miami, for example, 12 lieutenants in charge of 12 Neighborhood Enhancement Teams were expected to act as "neighborhood-level police chiefs" within the NET areas. They had responsibility for all sergeants, neighborhood resource officers, and patrol officers, and for community contact, coordination with other city departments, initiating problem solving, etc. Field lieutenants underneath their command had watch responsibilities—they were responsible for officers working each of the three major shifts.

Other departments have implemented geographic command, often summarizing this form of organizational structure as creating "local neighborhood police chiefs." Fort Worth began its community policing efforts in 1986, implementing territorial rather than temporal policing. Today, lieutenants have full authority over 12 neighborhood police districts, and 89 neighborhood police officers are dedicated to problem solving with a beat. Geographic commands are sometimes related to accountability models, with

New York's COMPSTAT model being the most well known. Under these models, authority and accountability go hand-in-hand, and command staff are held accountable for what happens in their geographic area, regardless of the time of day or day of the week.

Other organizational changes were reported by a small number of departments. These included making beat assignments permanent, involving other police units (particularly patrol) in community policing, and creating citizen advisory groups.

As agencies deepened their organizational commitments to community policing, they commonly encountered certain obstacles. Resistance to the community policing philosophy and strategies from internal and external sources was by far the most common problem reported by police agencies. All departments admit at least a few officers, and possibly command staff, have not bought into the concept; others admit it is more than a few. In some agencies, the rank-and-file union has resisted community policing not so much because of concerns about the strategies themselves or officer safety but because it fought hard for and wants to keep such things as 10- or 12-hour shifts and beat assignments and transfer policies based on seniority—things that may be changed to accommodate the different needs of community policing tactics.

The oft-stated view that community policing is not "real" police work is a double-edged sword. Specialized units and dedicated officers are seen as elite assignments in which officers work 9 to 5 weekdays, have flexibility, and exercise discretion over their time—yet are also seen as doing the "soft stuff." In some departments, jealousy has grown over community police officers' perceived advantages: beepers, cell phones, casual uniforms, etc. Perhaps the biggest complaint from patrol officers, however, comes when community police officers are freed from answering 911 calls, and the call load is high. In all departments, community police officers respond to emergencies, of course; in several (notably

Sandy City), compromises have been made to have community police officers handle radio calls during at least part of their shifts.

Even though specialized community policing units carry some well-known risks (see, e.g., Sadd and Grinc, 1993), many believe that when they are successful at least for a time, special units are a helpful waystation on the path to organizationwide community policing. Special units serve to steep officers in problem solving and community policing, training them while indoctrinating them in the principles. The best of these officers (such as the senior lead officers in the LAPD) may then return to patrol as field training officers and proselytizers. Special units may also show the value of community policing (in solving and preventing crimes, in improving community relations, etc.) to observers and skeptics within and outside the department. In Sandy City, for example, a problem-solving team investigating reports that people were living in U-Lock-It storage units made the largest drug bust in the city's history after finding four freezers full of cash and marijuana; unusual electrical usage was one indicator of the problem uncovered during the assessment phase of the SARA model.

Yet the successes of such units may create a climate of doused expectations when the chief tries to extend the principles that worked in the successful unit to the entire department. Former members may feel disappointed because they no longer have all the resources they had in the special unit. Others may feel the weight of new community policing responsibilities added to their old duties to respond to calls. At the stage of conversion from special-unit to generalist community policing, special morale-building work may be needed, even (or perhaps especially) with high performers.

Resistance from command staff, supervisors, detectives, and other special unit personnel varies. The attitudes of first-line supervisors are critical because they permeate the rank-and-file.

Detectives are said by many agencies to be the last departmental personnel to be brought into community policing. In a few departments, such as San Diego, detectives are assigned to cases from specific geographic areas, rather than the more traditional assignment by type of crime.

Another source of resistance to community policing may be seen in the reluctance of other city departments to get involved in problem solving and other activities. In some cities—Oakland, for example—their involvement is one of the cornerstones of civil abatement tactics. Police-driven problem-solving projects may place burdens on other departments' resources (criminal justice agencies such as juvenile officers, probation and parole, and prosecutors, for example, and social service agencies offering prevention and intervention services), and turf and control issues abound.

Few sites visited have formal evaluations underway to assess the progress and impact of their community policing efforts beyond using calls for service to gauge the success of problem-solving projects. And rarely do sites introduce new community policing tactics under conditions that approximate randomized experiments or even defensible quasi-experimental designs. A few do, however, have the benefit of periodic community surveys conducted by in-house researchers, city agencies, or outside evaluators.

When asked how they measure success, chiefs mostly point to support from the business community, citizens (although many still have volatile relationships with minority groups), and city councils and county boards, evidenced in their approval of funds for local matches and retaining officers. Cooperation and coordination from city departments in problem solving are another mark of success.

COPS and Community Policing: Conclusions

Has the COPS program advanced the adoption of community policing in the United States? The

answer is "yes," but it must be quickly qualified. "Adoption of community policing" has very different meanings in different jurisdictions, and COPS funds seem more likely to have fueled movements that were already accelerating than to have caused the acceleration.

Four of our data collection methods bear on this question, each with its own strengths and weaknesses. Our telephone surveys provide a national picture of trends in the adoption of 47 policing tactics commonly described as examples of community policing, for municipal and county police agencies serving populations of more than 50,000.[12] However, the survey measures only agencies' official statements about what community policing tactics they adopted and whether COPS funds played a role. Our 30 onsite programmatic assessments provide our teams' assessments of what "ground truth" lies behind such statements in different settings and what comprehensive strategy, if any, guides the local adoption of a particular package of community policing tactics. However, they offer no basis for estimating how prevalent any given situation is.

Our supplemental study of COPS grantees' use of multiple funding streams (see chapter 3) provides indications of the great extent to which agencies interpreted grant requirements to support local visions and used Local Law Enforcement Block Grant funds to augment COPS support of community policing. However, those findings suffer the limitations of a telephone survey and may not generalize beyond the very largest jurisdictions receiving COPS grants. Finally, the 10 case studies carried out by a team from Harvard's Kennedy School of Government and analyzed in the following chapter document examples of how local chiefs used COPS funds to advance their community policing agendas. Like our programmatic site assessments, however, they offer no basis for generalizing to the Nation as a whole.

Among medium and large municipal and county police, COPS grantees and nongrantees reported they began the COPS era in 1995 at about the same stage of community policing implementation, with a few exceptions. Grantees were somewhat more likely than others to report they were interacting with citizens in neighborhood cleanups and citizen action/advisory boards, while nongrantees were more likely to be working with businesses and operating victim assistance programs.

Between 1995 and 1998, the use of a number of tactics commonly labeled as community policing swept the country among grantees and nongrantees. Among those that reportedly spread the fastest were citizen police academies; cooperative truancy programs with schools; structured problem solving along the lines of SARA; and patrolling by foot, bike, or other transportation modes that offered officers more potential than patrol cars for interacting with citizens. Grantees and nongrantees alike reported revising their employee evaluation measures and their mission, vision, and values statements to codify their versions of community policing. Packaged prevention programs such as Neighborhood Watch and drug resistance education in schools, which in 1995 were already among the most widespread tactics commonly described as community policing, became almost universal by 1998.

We have no measure of the extent to which the COPS program played various roles that may have indirectly encouraged nongrantees to adopt these tactics. Possible mechanisms included training and technical assistance programs and materials, publicizing grantees' community policing successes, and acting as a catalyst that encouraged grantees to demand more community policing training from regional and State academies. However, the advancement of community policing among nongrantees offers some weak evidence that the COPS program provided the fuel but not the launch pad for an ongoing nationwide community policing movement.

With a few exceptions, COPS grantees' reported use of community policing tactics grew more rapidly than did nongrantees.' However, the

difference in reported adoption rates was statistically significant for relatively few: joint crime prevention projects with businesses, citizen surveys, techniques for bringing the community more fully into problem solving, bringing probation officers into problem-solving initiatives, late night recreation programs, and victim assistance programs. Grantees were significantly more likely than nongrantees to report adopting late night recreation programs and victim assistance programs. Finally, grantees were significantly more likely than nongrantees to report instituting three organizational changes in support of community policing: new dispatch rules to increase officers' time in their beats, new rules to increase beat officers' discretion, and revised employee evaluation measures.

None of the 47 tactics in our list was significantly more likely to be adopted by nongrantees than grantees, and for most of the innovations listed in the paragraph above, 60 percent to 75 percent of the grantees that started or expanded them described their COPS grants as instrumental in doing so.

In this information age the community policing vocabulary is well known. Federal funding rewards departments that profess the successful implementation of community policing principles. In that context, survey findings that agencies' use of community policing tactics grew between 1995 and 1998 could merely reflect socially desirable responses, at least for COPS grantees. Our site visits were intended to learn the "ground truth" behind the survey reports and to shed light on the different meanings that law enforcement agencies assign to strategies and tactics that are commonly labeled community policing. In our limited time on site, one might expect it to be difficult to separate the rhetoric of community policing from the reality of what law enforcement agencies actually do. Indeed, it often was. Therefore, the enormous variation we detected across sites in the operational meanings of key community policing concepts is especially telling.

Certainly it appeared on site that the majority of agencies visited are engaged in problem solving, although its form and visibility vary widely from agency to agency. Increasingly, traditional enforcement and investigative activities are being called problem solving under the community policing umbrella when these activities are directed toward problems the community has identified as concerns. Problem-solving projects dominated by enforcement actions, however, rarely advance the objectives of community policing, in that they are unlikely to either fix underlying causes or attract the community support needed to maintain solutions. Enforcement solutions to stubborn problems are likely to be short term at best, although when successful, they sometimes encourage residents to reenter public spaces and begin developing more permanent solutions.

Another visible sign of enforcement-based problem solving is the recent and growing trend toward zero tolerance policing, a term also lacking consensual definition. In the sites visited, zero tolerance policies take different forms. Some, such as Operation Goldstar operated by the Fresno County Sheriff's Department and Huntington Beach Police Department's annual 4th of July response, are manifested as zero tolerance efforts of short duration (e.g., operated for a few days each quarter or once a year) with a narrow focus (e.g., street drug dealing or public drinking on the 4th of July) and within a circumscribed area (e.g., high trafficking area or downtown). What might have been called a crackdown 5 years ago is now implemented under zero tolerance or order maintenance policies and included as part of community policing. Zero tolerance policies have been included by some under community policing, since they often focus on quality-of-life crimes and incivilities and primarily because "the community wants it." Zero tolerance policies may help achieve some goals of community policing within a framework that uses community input in setting priorities and delegates discretion to officers working under mission statements that value the dignity of citizens, even suspected offenders. However, there

are dangers that without adequate mechanisms for the diverse communities within most jurisdictions to register their demand for or rejection of zero tolerance tactics, those tactics may directly undercut the objective of partnership building by alienating potential community partners.

Problem-solving partnerships for coordinating the appropriate application of a variety of resources are commonplace in many of the agencies visited. Yet all too often, partnerships are in name only, or simply standard, temporary working arrangements. Partnerships with other law enforcement units and agencies merely to launch short-term crackdowns are not in the spirit of problem solving *or* partnerships. Nor are partnerships in which citizens and business representatives are merely "involved," serving primarily as extra "eyes and ears" as before. True community partnerships, involving sharing power and decisionmaking, are rare at this time, found in only a few of the flagship departments. Other jurisdictions have begun to lay foundations for true partnerships, however, and as problem-solving partnerships mature and evolve, the trust needed for power sharing and joint decisionmaking may emerge.

Prevention efforts abounded in the sites we observed, primarily manifested as traditional prevention programs now subsumed under the community policing label. Neighborhood Watch, D.A.R.E., and a wide variety of youth programs remain the mainstays of prevention efforts. Beyond the standardized programs, examples were rare of systemic prevention efforts based on the resolution of the underlying causes of crime. There are shining stars among the COPS grantees, which provide examples of what most observers would classify as "the best of community policing." There are far more agencies striving to change their organizations to pursue community policing objectives and who are somewhere along the long and tortuous road. A few want nothing to do with it.

Our national survey and site visit results indicate that COPS funding has accelerated the pace and broadened the area covered by the umbrella term "community policing." As is evident throughout this chapter, effects of this massive support for community policing have both positive and negative aspects. Certainly COPS funding has enabled a great number of law enforcement agencies to move ahead in their implementation of community policing as locally defined. Funding conditioned expressly on community policing implementation, coupled with peer pressure to embrace this model of policing, has also led a substantial number of law enforcement agencies to stretch the definition of community policing— to include under its umbrella traditional quick-fix enforcement actions, draconian zero tolerance policies, long-established crime prevention programs, and citizen advisory councils that are clearly *only* advisory.

Our supplemental study of multiple funding streams in large grantee agencies hinted at the power of local decisions to determine the course of the community policing movement. Of the 100 largest grantee agencies in our national sample, 88 reported using their Local Law Enforcement Block Grant funds to augment COPS and local support of community policing, despite the absence of any requirement to do so. However, 82 of the 100 agreed or strongly agreed that their "agency has a clear vision and is able to interpret grant requirements to support that view."

Given the power of local decisionmakers, the COPS program will almost certainly wind up affecting the nature of policing in three ways. In some jurisdictions the forces fueled by COPS grants will achieve the community policing objectives articulated by the COPS Office. In others, local forces will transform the objectives into something unrecognizable to the forebears and creators of the program. In still others the forces will fizzle out, for reasons that have to do with leadership, implementation strategies, turnover at top levels, organizational processes within grantee agencies, and communities' capacities and willingness to join the enterprise. These influences are the subject of the following chapter.

Notes

1. Four of 30 agencies to be visited served as pilot tests and were visited in the first half of 1996; the remaining 26 agencies were visited in 1997. Fifteen of the sites were visited a second time in late 1997 or early 1998.

2. Data collection instruments, survey design, and completion rates are explained in the methodological appendix.

3. The Wave 3 response rate was poor for nongrantees. A Wave 4 survey fielded in June–July 2000 reinterviewed agencies of all types and sizes that were interviewed during Wave 1. In a future report, the new data will be used to update the survey findings reported in this chapter.

4. Forthcoming.

5. Item wording appears in appendix 6–B.

6. In the context of service integration, Bruner (1991) has expressed the distinction in terms of three levels: *communication,* in which information is shared but no joint activity occurs; *coordination,* in which joint activity occurs but participants maintain their own sets of goals, expectations, and responsibilities; and *collaboration,* which requires the creation of joint goals to guide participants' actions.

7. See appendix 6–B for item wording.

8. See appendix 6–B for item list.

9. "Cities with Curfews Trying to Meet Constitutional Test," *Washington Post*, Dec. 26, 1995.

10. After our site visits were largely completed, the COPS In Schools began awarding grants exclusively for school resource officers, and the use of school resources officers expanded sharply as a result.

11. See appendix 6–B for specific items.

12. A report later in 2000 will present findings based on our ongoing Wave 4 survey, which includes agencies of all types and population categories.

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Appendix 6–A. Policing Tactics Checklist

(DO NOT RETURN—HOLD FOR PHONE INTERVIEW)

This checklist relates to the specific policing tactics listed on the next three pages. Please do not send it back to us. Our interviewers will begin telephoning agencies in a few weeks to ask about each tactic. When the interviewer calls, please have the checklist handy so that the interview will flow as quickly as possible.

The interviewers will **first** ask if agencies are using or planning to use any of the following tactics. Of course, agencies use a wide variety of tactics, and we understand that many of these items may not be appropriate for your agency—especially if yours is small. When they ask about each tactic, please respond with the number below that describes its status in your agency:

1. We have not done this since 1995 and have no plans to start.

2. We began doing this before 1995, and we have continued or expanded it since then.

3. We began doing this before 1995, but we've dropped it since then.

4. We began doing this after 1995, and we plan to continue or expand it.

5. We tried this for a while after 1995, but we dropped it.

6. This tactic is not applicable in our jurisdiction.

Second, for each tactic that your agency uses, please tell the interviewer how your COPS grant(s) affected its use:

7. No effect.

8. Was instrumental in starting or expanding the tactic.

9. Allowed you to continue it in spite of budget cuts.

10. Caused you to cut this tactic by shifting your priorities somewhere else.

Item	Program Status*	COPS Funding**
Building Partnerships With Community		
Regular community meetings to discuss crime		
Surveys of citizens to determine general community needs and satisfaction with your agency		
Citizen action/advisory councils in precincts or districts		
Citizen/police academy		
Cleanup/fixup projects with community residents		
Joint projects with community residents to reduce disorder, such as loitering, public drinking, etc.		
Joint community crime prevention program (e.g., Neighborhood Watch)		
Joint projects with local businesses to reduce disorder or petty crime		
Other efforts to build partnerships with community (specify) _____		
Solving Crime and Disorder Problems		
Analyzing crime patterns using a computerized geographic information system		
Officers analyze and use crime data to identify recurring patterns of crime and disorder on their beats		
Officers analyze and use community residents' comments to identify recurring patterns of crime and disorder on their beats		
Designating certain recurring patterns as "problems" or "projects" requiring nontraditional responses		
Analyzing problems or projects with business or property owners, school principals, or property managers or occupants		
Analyzing problems or projects with probation/parole officers or others who monitor offenders		
Considering neighborhood values in creating solutions or planning projects		
Using agency data to measure the effects of responses to problems		
Using citizens' input to measure the effects of responses to problems		
Documenting problems, projects, analyses, responses, failures, and successes in writing		
Making sure that solved problems stay solved		

_____

RESPONSE CATEGORIES

*PROGRAM STATUS

1. We have not done this since 1995 and have no plans to start.
2. We began doing this before 1995, and we have continued or expanded it since then.
3. We began doing this before 1995, but we've dropped it since then.
4. We began doing this after 1995, and we plan to continue or expand it.
5. We tried this for a while after 1995, but we dropped it.
6. This tactic is not applicable in our jurisdiction.

**IMPACT OF COPS FUNDING:

7. No effect.
8. Was instrumental in starting or expanding the tactic.
9. Allowed you to continue it in spite of budget cuts.
10. Caused you to cut this tactic by shifting your priorities somewhere else.

Item	Program Status*	COPS Funding**
Prevention Programs		
Officers Assigned to:		
Varying styles of preventive patrol (e.g., bikes, walk and talk)		
Police/youth programs (e.g., PAL program, school liaison program, mentoring program)		
Drug education programs in schools		
Late night recreation programs (e.g., midnight basketball)		
Other programs to prevent youths from becoming offenders (specify): _____		
Agency Encourages Use of:		
Alcohol, housing, or other code enforcement to combat crime and disorder		
Mediation to resolve disputes and conflicts		
Confidential hotlines for reporting illegal drugs or guns		
Cooperative programs with schools to reduce truancy		
Other prevention programs for high-risk places or situations (specify): _____		
Law Enforcement Agency Participation in:		
Graffiti eradication programs		
Victim assistance program		
Battered women's programs		
Other programs to repair harm from crime (specify): _____		
Organizational Changes		
Revised mission, vision, or values statements to emphasize community voice, officer discretion, or both		
Beat or patrol boundaries that coincide with neighborhood/community boundaries		
Beat or patrol boundaries that coincide with other city agencies' administrative boundaries		
Dispatch rules structured to maximize officers' time *preventing crimes on their beats*		
Team approach instead of chain of command for prevention, problem solving, and law enforcement		

RESPONSE CATEGORIES

*PROGRAM STATUS

1. We have not done this since 1995 and have no plans to start.
2. We began doing this before 1995, and we have continued or expanded it since then.
3. We began doing this before 1995, but we've dropped it since then.
4. We began doing this after 1995, and we plan to continue or expand it.
5. We tried this for a while after 1995, but we dropped it.
6. This tactic is not applicable in our jurisdiction.

**IMPACT OF COPS FUNDING:

7. No effect.
8. Was instrumental in starting or expanding the tactic.
9. Allowed you to continue it in spite of budget cuts.
10. Caused you to cut this tactic by shifting your priorities somewhere else.

Item	Program Status*	COPS Funding**
Giving beat officers new decisionmaking authority (specify): _____		
Revised employee evaluation measures for officers doing community policing		
Provide community a voice in nominating and prioritizing problems for community police officers to work on (specify): _____		
Alternative response methods for calls (e.g., telephone reports, mail-in reports, scheduled appointments for selected calls)		
Joint crime/violence reduction task force involving multiple government agency heads		
Other organizational support for community policing (specify): _____		

_____

RESPONSE CATEGORIES:

*PROGRAM STATUS:

1. We have not done this since 1995 and have no plans to start.
2. We began doing this before 1995, and we have continued or expanded it since then.
3. We began doing this before 1995, but we've dropped it since then.
4. We began doing this after 1995, and we plan to continue or expand it.
5. We tried this for a while after 1995, but we dropped it.
6. This tactic is not applicable in our jurisdiction.

**IMPACT OF COPS FUNDING:

7. No effect.
8. Was instrumental in starting or expanding the tactic.
9. Allowed you to continue it in spite of budget cuts.
10. Caused you to cut this tactic by shifting your priorities somewhere else.

Appendix 6–B. Estimation Models for Assessing Tactic-Specific Differences Between COPS-Funded and Nonfunded Agencies

The analysis begins by testing whether preexisting (pre-COPS) differences existed between COPS-funded and nonfunded agencies on the implementation of specific community policing tactics. We also tested whether there were differences on tactic implementation by the end of the program's third year (summer 1998). The estimation model can be expressed as:

Model 1.

$$Y_{it} = b_{0t} + b_1 F_i + u_{it}$$

Where Y_{it} is implementation of a specified community policing tactic for the ith law enforcement agency at t time point; F_i is a binary variable that represents whether the ith law enforcement agency is a COPS-funded agency; and u_{it} is a random error term at t time point. The bs are parameters to be estimated, with b_1 providing an estimate of the differences between COPS-funded and nonfunded agencies on Y_{it}. As such, model 1 provides a reasonable estimate of the difference between COPS-funded and nonfunded agencies at discrete time points.

To assess whether there was significant post-COPS (summer 1998) growth in preexisting tactic-specific differences between COPS-funded and nonfunded agencies, we used a "difference-in-difference" model approach. We compared the difference in the implementation of specific tactics between COPS-funded and nonfunded agencies by summer 1998 to the difference that we measured before 1995 (pre-COPS). The regression model to estimate the difference-indifference over time can be expressed as:

Model 2.

$$Y_{it} = b_0 + b_1 F_i + b_2 P_{it} + b_3 P_{it} F_i + u_{it}$$

Where Y_{it} is the ith law enforcement agency's implementation of a specific community policing tactic; F_i is a binary variable that represents whether the ith law enforcement agency is a COPS-funded agency; and P_{it} is a binary variable that represents the ith case as a post-COPS case. The bs are parameters to be estimated, with b_2+b_3 providing an estimate of the change over time for COPS-funded agencies; b_2 providing an estimate of the change over time for nonfunded agencies; and b_3 providing an estimate of the change in the difference between COPS-funded and nonfunded agencies over time (the difference-in-difference estimate). Typically, the difference-in-difference estimate provides a first approximation of the intervention effect, with preexisting group differences removed.

The standard errors computed for difference-in-difference models were adjusted to account for sample design effects and the correlation of observations on the same facilities at two points in time. Significance tests were based on z-statistics.

7. COPS Grants, Leadership, and Transitions to Community Policing

Mark Moore, David Thacher, Catherine Coles, Peter Sheingold, and Frank Hartmann

As explained in chapter 2, the COPS program had two fundamental objectives. The first, and probably more visible one, was to increase the *scale* of policing in America: "to put 100,000 additional cops on the streets." But the Federal program was also designed to reorient American policing by changing its *predominant strategy and operations* from emphasizing reactive law enforcement to emphasizing proactive community problem solving. To the extent that the expenditure of Federal dollars and use of Federal prestige and authority were justified by the aim of producing this change in American policing, COPS' success in achieving that result is necessarily an important part of the program's evaluation.

One way to measure the impact of the COPS program on the field of policing is through surveys of a representative sample of police departments, as reported in chapter 6. These surveys offer reliable national-level evidence on the extent to which authorized officials report that their agencies changed their practices over the last several years. Programmatic assessments in 30 grantee agencies supplemented the survey findings with qualitative findings about the reported changes; collectively, they demonstrated the broad range of meanings that adoption of a given community policing tactic has across agencies.

Community policing is, of course, more than a collection of tactics. Ideally, as discussed in chapters 2 and 6, adopting community policing changes an agency in fundamental ways—in part by intention, but also in reaction to forces that the programmatic changes set in motion. Therefore, to complement the national survey and program-

matic site assessments, the evaluation design called for a separate effort to be carried out by the Kennedy School of Government's Program in Criminal Justice Policy and Management. That effort focused intensive scrutiny on 10 police departments chosen because they seemed to have had varying degrees of success in making the transition to community policing.[1] The close scrutiny, in turn, led to "case studies," each of which described how a particular police department attempted to change its overall strategy during the period in which it applied for, received, and then implemented one or more COPS grants. The case studies, which are available as separate documents in this project, were designed to complement the survey data in four important ways.

- First, because the cases were prepared through extensive onsite interviews and the examination of records, they offered a kind of "ground truth" regarding what lay behind the survey responses.

- Second, the cases enrich our understanding of the survey results by adding concrete, particular images of what it might mean for a department to "increase its commitment to proactive, problem-solving initiatives" or to "increase its reliance on working partnerships with communities."

- Third, the cases present a contextualized, narrative account of the changes that occurred in police departments. This feature allows us to consider the question of what role the COPS grants played in independently producing changes in the overall strategy of a department.

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- Fourth, insofar as the cases allow us to get inside the minds of those who were managing the police departments, they allow us to see how the COPS grants were used by the managers to help them achieve their objectives.

These features of the case studies imply that a cross-site analysis of the cases could make two important contributions to the overall evaluation effort. The first is to provide additional detailed, but anecdotal, evidence on the extent to which the COPS program was successful in helping to change the field of policing. The second is to offer some important clues about how change-minded police managers could make the best use of the COPS grants to leverage a shift in the overall strategy of their organization.

The Methodology of the Study

At one level, the conceptual framework for the cross-site analysis is simple and straightforward: We are interested in determining whether, to what extent, and how COPS grants changed the overall strategy and operational methods of those police departments that received the grants, and the ways in which managers made use of these grants to accomplish these goals.

Defining the dependent variable: "Change in strategy and operations"

Given this objective, the dependent variable in our study is simply "the magnitude of change in the strategy and operations of the police department being observed over a particular period." Following John Eck and Daniel Stern,[2] we define the important changes in strategy in terms of (1) increased use of "problem solving" as an organizational process, and (2) increased efforts to "create and maintain partnerships with community residents" on the other. We were also interested in the degree to which the changes we observed had become institutionalized, in the sense that the new strategy had been understood and embraced by department personnel, and that administrative systems within the organization had been modified to support the new operational processes.

Defining the explanatory variables: The COPS grant

An important independent variable in our analysis (particularly important to the use of the cross-site analysis for the evaluation of the COPS program) is the COPS grant itself. We are interested in whether the COPS grant (understood not only as the grant itself, but also as the process of deciding to apply and important interactions with the COPS Office itself) had an important impact on the rate of organizational change.

Defining the explanatory variables: Contextual factors

A significant difficulty in the evaluation, however, is that the COPS grants are not the only variables shaping the behavior of local police departments. Police departments are always powerfully influenced by contextual factors as well as by the grant itself. We looked at three contextual factors in particular:

- The *political* environment: (i.e., the extent to which citizens, interest groups, media, elected representatives on city councils, and mayors and city managers were demanding, supportive of, tolerant of, or hostile to changes in the strategy of policing).

- The *task* environment (i.e., the extent to which conditions in the city, such as levels of crime, fear, disorder, affected the work of the police).

- The organization's *history* (i.e., the extent to which the organization's past history created some momentum for change in the direction of community policing, or some inertia that had to be overcome if the organization was to change, or had created a moment of crisis in which the organization felt it had to change).

One can liken these contextual factors to a river in which the COPS grant is dropped, like a pebble. The currents of the river can be stronger or weaker. They can be running in the same direction or working at cross-purposes. They can be pushing in the direction of changes desired by

the COPS program or in different directions. Depending on these conditions, the COPS grant will produce a larger or smaller ripple. If the stream is placid, and moving in the right general direction, the COPS grant may have a very large, independent effect. In contrast, if the stream is moving rapidly ahead, or being roiled in crosscurrents, the COPS grant will have little impact.

Defining the explanatory variables: The role of management

An additional factor of particular interest to us, and which has been accommodated in our analytic scheme, is the idea that there are purposeful individuals in positions of authority who may use the COPS to leverage broader changes in organizational strategy. For purposes of analysis, it is important to understand that viewing the COPS grants as an instrument that can be used by purposeful managers transforms the status of the COPS grants in the analytic framework. Instead of viewing the COPS grants as *independent* variables exerting a separate effect on organizations, they are viewed as *dependent* variables, grasped by purposeful managers, and exploited for the managers' goals.

This does not mean no effects could be attributed to the COPS grant itself. The COPS grants may still be viewed as having an important effect. Indeed, their real effect may well be greater if they were actively used by strategic managers than if they simply landed within an organization and did whatever they did. It does suggest, however, that to the extent that we find some important changes that can be attributed to the COPS grants independent of contextual factors, some portion of that must be attributed to the ways in which leaders and managers *used* the grants as well as to the grants themselves. This fact is of particular interest to us because one of the things we are trying to learn through the case studies is how skillful change managers used the occasion of the COPS grants to leverage a wider change in their police department.

Figure 7–1 sets out a schematic diagram that presents the basics of the analytic scheme that have been discussed so far. It says that the observed level of organizational change is a function of (1) the context of the organization, (2) the COPS grant, and (3) the managerial interventions that are being made through and alongside the COPS grant. It also indicates that each of the explanatory variables can be influencing one another as well as the dependent variable.

In much of the rest of this report, we will be refining and adding detail to the basic variables in this model, trying to measure the variables in particular organizations in our study, and developing inferences about which of the independent variables seem particularly important in determining the magnitude of the organizational change. In these respects, we are carrying out the usual analytic processes of social science.

Problems of observation and inference

It is important to understand, however, that in many respects the analysis is not and cannot be a straightforward process of data analysis and inference. Part of the difficulty comes in trying to develop operational definitions of what we mean by variables such as the "change in the strategy and operations of a police department" or the "context of the organization," or "managerial purposes and interventions." Another difficulty comes in accurately measuring whether a variable was or was not present in a particular case, and if present, to what degree, or in what quantity. A third difficulty comes in making causal inferences about the extent to which the magnitude of an organizational change can be reliably attributed to a particular variable.

Perhaps the greatest difficulty, however, comes from the fact that we are by no means sure that the causal system we are examining is one that is well modeled by a simple linear, additive system. That system would be drawn like figure 7–1, but with arrows pointing only in one direction. We think the arrows go in both directions in this causal system. Moreover, we think that there

Figure 7–1. Analytic Framework

Explanatory Variables   **Dependent Variables**

Context of Organization
- Political Environment
- Task Environment
- Organizational History

COPS Grant

Managerial Interventions
- Mission/Strategic Planning
- Redesigning Organizational Structure
- Reengineering Technical Core
- Building Supportive Technical Infrastructure
- Building the Information Infrastructure
- Human Resources
- Changing the Organizational Structure

Change in Organizational Strategy and Operations

(from Time T=0 to T=N)

- Changes in Use of "Problem Solving"
- Changes in Use of "Community Partnerships"
- Degree of Institutionalization

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might well be odd discontinuities in the process. For example, it may well be that the size of the COPS grants' impact on an organization could be highly variable depending on the organization's context—that the very same COPS grant could be highly catalytic and powerful in one organization and its context, and inert in another.

If the causal system were like this—with causation running in several directions, with many critical mass effects, and so on—then it becomes very difficult, and probably wrong conceptually, even to talk about, let alone measure, the separate, independent effects of the COPS grant (or for that matter any other particular factor, such as the use of special units or the locus of change). The size of the effect depends on the grant and the state of the particular system in which the grant is dropped rather than on the grant itself.

We think that this is, in fact, true. We worked hard at trying to separate the particular effects of

the COPS grants on the observed level of organizational change, but we think that the size of this effect does, in fact, depend crucially on the state of the system as a whole. For that reason, it is never possible to identify the independent contribution of a particular factor to organizational change. Furthermore, given the many ways in which various factors interact with one another to affect organizational change, it would take far more cases than we have at our disposal to tease out the precise effects associated with different configurations of factors. That is particularly so once we consider the myriad interventions involved in managerial action.

The existence of these problems is one reason why the cases are good data to use in investigating what impact the COPS grants had. They present a contextualized and narrative account of the state of the whole system and thus allow us to see the effect of the COPS grants in an interactive, dynamic system.[3]

Measuring the Change Toward Community Policing

The crucial dependent, evaluative variable in our study is the level of achievement and degree of change a department makes in implementing the philosophy of community policing. Of course, a police department can change along many different dimensions. It can get larger or smaller. Its morale can go up or down. It can become more or less focused on serious crime and dangerous offenders. It can become more or less aggressive in its patrol operations. Its administrative systems and technological infrastructure can become more or less sophisticated and well adapted to its operations. It can become more or less corrupt and brutal. Arguably, any or all of these dimensions of change could be of interest to someone for some purposes.

Defining the change toward community policing

For our purposes, however, we focus on a particular kind of change: the extent to which police departments that received COPS grants shifted their overall strategy and operations toward community policing. To answer that question, one must have an operational definition of what it means to "move toward community policing": what concrete, observable characteristics of police departments constitute a more or less significant change in the direction of community policing.

Following John Eck and Daniel Stern, we define community policing as an effort to enhance two functions that were always present in police departments but which are given new emphasis and importance by the philosophy of community policing. One of those functions is increased reliance on problem solving as an operational method within the police department. The other is an increased effort at establishing working partnerships with other government agencies and, most importantly, with various kinds of community groups. [4] The COPS Office itself also emphasizes these two functions as crucial elements of community policing.

Movements of police departments' operations along these two large dimensions that define the strategy of community policing captures one important way of measuring the change in a police department. In addition, however, we are interested in the questions of how long the changes will be sustained—whether momentum generated by the change in the time period in which we made the observations will be sustained or flag.

To measure the extent of change on these dependent variables, we developed operational measures that could be observed directly in the police departments we were examining. This necessarily involved taking abstract concepts like problem solving, community relationships, or institutionalization and making them more concrete by specifying the particular things we can observe in police departments that make us think the activities are occurring at an increased level compared with the time before the COPS grant arrived. This is tantamount to describing precisely what is meant by the general concept of "community policing" as an overall strategy of policing. Needless to say, this has been a contentious issue in the field. It is contentious partly because individuals who have either supported or criticized the idea of community policing have big stakes in being able to characterize what they mean by the idea; the supporters want to make sure that the idea is a significant and valuable departure from what has been true of policing in the past, and so define community policing as something significantly new and valuable; the critics want to act as though the idea represents nothing new, or activities that are at best a small add-on and at worst a waste of police time and effort, and so define community policing in somewhat trivial terms.

It is also contentious because some have argued that the idea is more powerful not only rhetorically but also operationally if the concept is left a bit abstract. The reason is that the abstract concept can challenge existing practices in a broad way, and through that broad challenge, leave lots of room for innovation and develop-

ment. In contrast, if "community policing" were codified in a particular set of practices—if it were, in effect, bottled as a particular "model program"—then much of the innovation initially stimulated by the broad concept would simply stop. Instead of exploring the broad range of possible ideas associated with community policing, the field would simply focus on the program model.

Still, to determine whether an organization has moved toward a strategy of community problem solving, there is no choice but to specify discrete operational measures. We do so later in this chapter for each dependent variable of interest to us: the extent of problem solving, the efforts made to strengthen community relations, and the degree of institutionalization of the change. The measures have not been statistically validated but do reflect the extensive experience of the case study team in the development and design of the concept of community policing, efforts to construct definitions of community policing for the field as a whole, and projects to help departments make the transition to this new strategy. Our measures are not much different than those developed by other authors writing about this subject (see chapter 2); perhaps more importantly in the evaluation context, they are reasonably consistent with the efforts of the COPS Office itself to define community policing. In any case, we present below the characteristics we used to define movements toward the strategy of community problem solving.

Operational measures of community policing: Problem solving. In looking for evidence of changes in a department's reliance on problem solving as an operational method of policing, we considered the following items:

1. The extent to which a department's concept of problem solving had shifted from the relatively superficial ideas of "directed patrol" and "special operations" (designed primarily to deal with a crime problem by concentrating patrol operations on particular places and

times) to the more complex idea of problem solving (which includes problems involving disorder and fear as well as those involving crime, and which requires the police to search for interventions in addition to threatening or actually arresting offenders).

2. The extent to which administrative systems in the organization were created to "recognize" problem-solving efforts, and thus transformed the activity from something that *happened informally at the individual officer level* to something that *happened formally at multiple levels* in the organization. One version of this change was the creation of particular structurally defined units committed to problem solving. However, another more significant advance was the *creation of administrative systems capable of authorizing and recognizing problem-solving initiatives at whatever scale and wherever they occurred in the organization.*

3. *How broadly the authorization to initiate and engage in problem-solving efforts was distributed* across the organization. We assumed that the more widely the activity was authorized, the more of it occurred, and the more that problem solving was likely to be embedded in the culture of the organization.

4. The capability of the organization to define and act on *problems of varying sizes.* Some problems are relatively small in terms of their importance to a community, the time and effort it would take to solve, the claims they make on specialized resources within the department, and the amount of help required from other government agencies and the community. Other problems are much larger.

5. Whether the departments were set up to *assess the impact of particular problem-solving efforts or to learn from them.* Those that were capable of doing so were considered further along in their commitment to problem solving than those that did not devote much attention to assessing impact or learning from their own operations.

6. *The extent to which the organization was capable of enlisting other government agencies and the community both in defining and solving community problems.* Those departments that were skilled in enlisting other organizations to help them solve problems they had defined, and (more importantly) open to and willing to work on problems nominated by community groups and other government agencies, were considered "more advanced" than others.

In a crude sense, these characteristics became the scale along which we measured progress toward "increased quantity and quality of problem solving."

Operational measures of community policing: Community partnerships. In looking for evidence of increased efforts at creating and sustaining community partnerships, we considered the following indicators:

1. The extent to which the police department *took advantage of and extended previous efforts to mobilize citizens to help the police achieve their objectives.* This included the extent to which the police developed a network of neighborhood watch groups. In addition, we were interested in the newer efforts to recruit and maintain a corps of volunteers to help them staff their operations.

2. The extent to which the police department articulated and operationalized a philosophy of service and responsiveness to individual citizens and citizen groups with whom they interacted as clients. Related to this was the question of whether they relied on surveys of citizens as an important measure of performance.

3. The extent to which the police department structured itself to ensure easy access and continuing connections to citizens through its core patrol operations. This included the questions of (a) whether the department had defined precincts, sectors, and beats to correspond to natural neighborhood boundaries; (b) whether the department relied on modes of patrol (such as foot, bicycle, or mounted) that encouraged face-to-face contact with citizens; (c) whether staffing allocation schemes and dispatching rules fostered a continuing relationship of an officer with a particular geographic area; (d) whether officers were explicitly authorized and encouraged to attend community functions of various kinds; (e) whether the department had established decentralized physical locations (e.g., storefronts or mobile vans) that offered convenient access to citizens; and (f) whether the department established specific liaison officers from among operational patrols to be responsible for work with particular groups of citizens (whether neighborhoods or people with particular interests such as women or minorities, or the downtown business community).

4. The extent to which the police *formed more effective partnerships with other governmental agencies,* including other elements of the criminal justice system, and other elements of municipal governance.

5. The extent to which the police department *embraced accountability* and made their organization and its operations more visible to individual citizens and organized groups. This includes the development of *citizen academies that allow citizens* to learn how the police department operates, *advisory groups and citizens' forums* at different levels in the department to discuss policies and operational priorities, and much *more open and proactive policies and practices toward the media.* Of particular importance here is the extent to which the police department becomes and remains open to citizens' nominations of important problems to be solved and operational priorities.

6. Efforts to *establish close working partnerships between the police and representatives of minority groups.* Part of this concerns the extent to which the police engaged in active efforts to **recruit a diverse police force** but goes beyond that to ask the question of whether the police could actually establish effective

working partnerships with poor, minority communities. This seemed particularly important because it is in these quarters that police legitimacy is often the shakiest. It is also in these quarters that the work of building effective partnerships is often the most difficult, since it involves crossing ethnic and class barriers and setting aside a history of antagonism.

As in the case of problem solving, these different features of a police department's capacity to establish working partnerships with citizens define a ladder of achievement. The more activity and capability we see in these different realms, the further along a police department has gone toward the implementation of a strategy of community policing.

Sustainability of the changes observed. In trying to measure the degree to which the changes we observed were likely to be sustained in the future, we considered the following indicators:

1. The extent to which the commitment to change remains rooted in the leadership of the department, and in the expectations of those in a department's political environment who oversee the department's operations. We reason that if the commitment to community policing is anchored in the expectations of citizens, their representatives, and those who lead the police departments—or if it is anchored in a funding source that continues to supply funds for reforms—then the likelihood of the changes continuing over time increases.

2. The extent to which the changes were organizationwide rather than specific to a particular structural unit. It seemed likely that the changes wrought would be more likely to survive and be influential if many in the organization were caught up in the change process than if the change was isolated within a particular structural unit.

3. The extent to which the changes were rooted in the physical and operational infrastructure of the department—e.g., the extent to which

the changes were embodied in new physical plant, in new information technologies, and in new operational procedures. The tighter the connection between the changes and these underlying infrastructures, the more durable and influential the changes were likely to be.

4. The extent to which the changes were embodied in revised administrative systems that guide the organization's operations. Particularly important here are the personnel systems that police rely on to recruit, select, train, evaluate, compensate, promote, and discipline officers. Also important are the systems the department uses to allocate resources, monitor operations, and measure the overall effectiveness of a department.

5. The extent to which the changes came to redefine the cultural understandings and commitments of the department—the extent to which employees at all levels of the organization bought in to the idea of community policing and understood and believed in its principles. Of particular interest was a kind of "generational" effect that was produced by a change in the proportion of people in a department who had grown up under the new system rather than the old system of policing.

Again, these characteristics form a scale of achievement. If many of the things we were looking for were present, we considered the changes to have been effectively "institutionalized." If none of them were present, we viewed whatever changes we had seen as quite vulnerable.

Findings from the cases: Significant levels of achievement and changes in organizational strategy

Using these definitions and criteria, table 7–1 presents our preliminary assessments of the levels of community policing, and the magnitude of the changes we observed, in the 10 cases we examined. In examining this table, two points are worth keeping in mind. First, it is very hard to change the fundamental strategy of an organization. This is true even in the private sector, with

the concentration of authority that executives enjoy, with the powerful methods they have of measuring their performance, and with the power to hire and fire employees and shift resources when change is required. It is even more true in the public sector where authority is less concentrated, where measurements of performance are more uncertain, and where the powers to direct and control personnel and transfer resources are much more limited. Therefore, even small changes toward a new strategy are often events worth praising. Second, eight of the departments in our sample were chosen because they were high achievers. We chose two whose accomplishments seemed closer to the mean. However, like the children in Lake Wobegon, all of the departments we examined were equal to or above average. Consequently, when we use words like "low level, low rate of change" we are making these judgments against a high standard.

Given these important caveats, table 7–1 suggests the following conclusions:

- First, by the time of our visits in 1997 and 1998, 8 of the 10 departments had gone a long way toward the successful implementation of a philosophy of community, problem-solving policing.

- Second, in six of the eight departments that had gone a long distance in implementing community policing, we thought there was a high or medium-high degree of institutionalization. In two others, we thought the changes were less well established.

Of course, these favorable results should not be surprising. Eight of the 10 departments were selected precisely because we believed they were among the organizations that had gone farthest in implementing the strategy of community policing. Therefore, these results tell us nothing about how common this level of success is in the Nation at large. Still, it was heartening to find that some police departments had, in fact, advanced the frontiers of community policing.

Moreover, some of these departments achieved a remarkably high level of success in advancing toward community policing in a relatively short period, starting from a relatively disadvantaged position. Many of the highest achieving departments in 1997 occupied this position because they started early in the direction of community policing, and that experience provided a platform they could use to advance farther. (This characterizes Colorado Springs, Portland, St. Paul, and Spokane.) A few departments, however, (notably Lowell) started only recently toward community policing, and nonetheless made rapid progress and seem to have institutionalized some of the important changes. Therefore, we see not only significant levels of accomplishment in our cases but also some dramatic and rapid changes.

It is also significant, we think, that for the departments that moved later from lower bases of performance, the COPS grants played a crucially important role in initiating and catalyzing change. This was particularly true in Lowell. Again, this tells us nothing about how often this effect occurred nationally. However, there are data showing the existence of an effect in at least some departments.

This is all the good news. It is also worth noting some less encouraging news as well. Although many departments seemed to move pretty far in the direction of increasing the *quantity and quality of problem-solving efforts,* they did less well in developing their *capacity for establishing and maintaining community partnerships.* By our assessment, five departments achieved high levels of performance in establishing community partnerships. In addition, five made big or medium to big changes in this dimension of performance. There are some standouts in this domain: Portland's strong links to a network of community associations, and St. Paul's well-established connections to minority communities, establish benchmarks for the rest of the field. However, many departments did not get as far toward effective community partnerships as they did toward problem solving.

	Table 7–1. Levels of Community Policing (Circa 1997), Changes in Community Policing (1990–97), Preliminary Assessments		
City	Quantity and Quality of Problem Solving	Capacity to Develop Working Partnerships	Degree of Institutionalization
Albany, New York	Low Level/Low Changes Relatively little evidence of problem solving.	Med Level/Med Changes Greatly improved partnerships in many neighborhoods and some city agencies around "quality-of-life" issues; poor relations in minority neighborhoods.	Low Cultural commitment to "quality-of-life enforcement" among many officers and in city government, but administrative systems are weak and most change is restricted to special units.
Colorado Springs	High Level/Big Changes Successfully implemented a sophisticated problem-solving model that most offices implement.	Med-High Level/Big Changes Strong strides: not as sustained as problem solving.	High Strong consistent leadership. Community organizational principles embedded in organizational systems. Generational change.
Fremont, California	High Level/Med-Big Changes C.O.P.P.S. brought basic problem-solving ability farther along. Based on SARA, involve outside collaboration and community input, and strong commitment to evaluation.	Med Level/Medium Changes Had excellent general reputation, but little interaction with groups. Now, some progress with community, huge strides with agencies.	Medium Continually innovative organization; specific focus on COPS; may stay constant, may change.
Knoxville	High Level/Big Changes Old KPD did directed patrols. By 1996, the DP system had expanded. Most officers doing one per week. Use of "problem-solving kits" for larger and more complex problems.	High Level/Big Changes From "neighborhood watch" to extensive community partnerships. District Roundtables, participation in Crime Control Plan. Some difficulties with minority community.	High Administrative systems geared to community policing.
Lowell, Massachusetts	High Level/Big Changes Through 1992, little proactive efforts. By 1997, at least 43% of officers fully committed to problem solving at many levels.	High Level/Big Changes Nonemergency contact with community has grown dramatically.	High Locked in to change.
Portland, Oregon	High Level/Med-Big Changes Long had ability to solve problems; community policing brought this ability to the "cutting edge."	High Level/Med-Big Changes Had moderately strong ties with many recognized groups, but no efforts to reach unorganized groups. By the mid-1990s, had top-notch community partnerships at both the neighborhood and citywide levels.	High Locked in to change.

Table 7–1. Levels of Community Policing (Circa 1997), Changes in Community Policing (1990–97), Preliminary Assessments (continued)

City	Quantity and Quality of Problem Solving	Capacity to Develop Working Partnerships	Degree of Institutionalization
Riverside, California	Med Level/Med Changes Very strong problem-solving capacity in 10-officer POP team, little in patrol force.	Med-Low Level/Med-Low Changes Remarkable new partnerships in one Latino neighborhood; much cultural resistance by officers elsewhere.	Med-Low Strong administrative systems but cultural resistance is high and political support conflicted.
St. Paul	High Level/Med-Small Changes St. Paul moved into problem solving two decades ago. Problem solving permeates all aspects of operation.	Med Level/Med Changes Contact with citizens is not occasional—it is ongoing and part of service delivery. Has been that way since late 1970s.	High Long history of commitment.
Savannah	Med-High Level/Large Changes POP strategies implemented in 1990s. Offices at all levels involved. Shift from many small projects to fewer larger, high-quality projects.	Med Level/Med Changes New perception as a "good partner." Grassroots connections. Strong partnerships with criminal justice agencies. Some difficulty in minority community.	Med New culture may be evolving, but has not taken hold.
Spokane	High Level/Big Changes Strong strides toward incorporating problem solving in daily operations; many notable successes.	High Level/Big Changes From distant to close working relations, especially through extensive efforts with volunteers.	Medium-High Strong commitment that should survive.

Particularly troubling is the fact that success in establishing working partnerships with minority communities was spotty at best. The only clear success stories here were the work that the St. Paul Police Department did with the Hmong. In addition, Lowell and Portland have made solid gains in working with their minority communities. Spokane made a major effort to strengthen its relationships with its minority communities, but it is not clear whether that has produced an important change in the attitudes of the minority community. Apparently, establishing effective partnerships with community groups remains more challenging to police departments than the development of a proactive capacity for problem solving, and it remains particularly challenging to establish effective working relationships with poor minority groups—just as it has always been.

Accounting for High Levels of Achievement and Rapid Change: The Role of the Context and Environment

One explanation for the high levels of achievement of the departments we have reviewed is that the particular context in which they were operating made it necessary or inevitable that they would achieve high levels of success. In this view, neither the COPS grant itself nor the particular managerial efforts undertaken to produce a change in the strategy of policing could claim to have contributed much to their success.

Table 7–2 presents our preliminary assessments of whether the context of each department was favorable, neutral, or unfavorable to the implementation of community problem-solving policing. A series of analyses of the impact of each

of these features of the context on the degree of organizational change revealed *that the different parts of the context cannot account by themselves for the observed levels of organizational change.* This suggests there is some role for leadership to play in determining how far a department can go in implementing community policing. We will explore how leadership was able to overcome some of the problems in the contexts later in this section. Before doing so, however, it is useful to offer some tentative observations about the relative importance of different aspects of the context from a more nuanced and detailed examination of the cases than a table alone can capture.

First, it seems clear that *a favorable or neutral political environment helps.* None of the cases we observed found themselves in an environment that was completely hostile to community policing. Several, however, found themselves in situations where political interest seemed either ambivalent or indifferent. This created an opportunity for a reform-minded chief to forge ahead if he wanted to do so, and that is what they did (Fremont, Spokane).

Second, *community policing also gets a boost when there is a strong local tradition of neighborhoods, joined with a tradition of neighborhood governance* (Portland, St. Paul). Portland's strong communities date back to 1974 Model Cities efforts that established the Office of Neighborhood Associations. It is weaker when it is hard to find these coherent communities, or when city government as a whole is not organized in these ways (Savannah, Fremont). Knoxville had a "torrent of community organizing" at about the same time as they were introducing community policing, and that seems to have aided their efforts to implement community problem-solving policing.

Third, *the supply of financial resources that translated into manpower in the force seemed to be very important.* Several departments had important initiatives stopped by budget cuts that hit in the early and mid-1980s. However, these cuts

seemed to pave the way for dramatic changes when cuts were restored in subsequent years, and then supplemented with Federal support. The most favorable budget trajectory was one in which cuts were followed by increases at the time that the new initiatives were being launched. (On this subject, it is important to note that resources available to a department were importantly influenced by managerial action and leadership. In two cities, chiefs did political work associated with passing bond issues. In virtually all, they built strong political bases that would ensure a flow of tax resources. In many cities, they supplemented these funding streams with grants.)

Fourth, in several cases, *some of the strongest pressures and most important cultural events that triggered change came from significant problems in handling minority groups.* These could have been chronic problems that flared up predictably with police operations (Spokane, Savannah). However, in other cases, the problem came from the arrival of new groups that needed to be integrated into the community (St. Paul).

Fifth, it seems *that there are some kinds of problems that community policing is well adapted to handle.* This includes problems with housing projects, or with drugs and disorder. When these problems are present, or when they develop as important problems in a community, community policing gets a boost (Lowell, Portland, Savannah).

Sixth, *community policing is aided by a track record of applying for grants, receiving grants, and having a history of innovativeness.* Many, though not all, of the most successful departments we observed participated in past waves of innovation that have swept over policing, while the two least successful agencies had not had this experience. These waves of innovations included many specific programs: those focused on enhancing patrol and investigative effectiveness (e.g., ICAP, rescheduling of patrol force); those focused on more proactive prevention (Youth Programs, CPTED); and those focused on building community relations (Neighborhood

Watch, Team Policing). Some of these innovations—those that focused narrowly on improving the capacity of the police to apprehend offenders through patrol and investigation—could conceivably have acted as a trap that anchored police in traditional methods. However, as it turned out, experience with past waves of reform instead acted as a platform for advances in community policing.

As reform picked up speed, organizational managers built successfully on the most progressive aspects of their innovative past, such as proactivity, the use of information, and the interest in prevention. Particularly important was having had some experience with team policing. Fremont and St. Paul drew on this experience in their own organizational past to help develop community policing reforms, and other agencies were able to import it in various ways: Colorado Springs hired chiefs who had been police officials in Los Angeles and brought their experience with team policing with them; and Portland drew on the experience of the County Sheriff's Department in team policing. It is as though a general experience with innovating, and more particular experience with particular kinds of innovation, prepared the department for making rapid progress in implementing community policing.

Seventh, the cases suggest that *successful implementation and institutionalization of community policing is aided by a generational effect.* People who remember team policing or department turnover while a manager tries to implement community policing seem to have an important effect on the level one can achieve and the extent to which the changes become internalized (Portland, Knoxville, St. Paul).

Eighth, for many departments we observed, *it was crucial that the chief and some key members of his staff be connected to regional or national networks of police executives who were talking about new philosophies of policing* (all cases). Sometimes departments received the benefit of

national experience by importing chiefs who had been exposed to the ideas in other departments (Colorado Springs, Fremont, Spokane, Riverside, and Albany). Other times, the exposure came from deliberate efforts by local chiefs to learn about and expose their staffs to the new professional currents. (All eight cases achieved high levels of community policing, as well as Riverside.)

Ninth, it seems the pace of change (if not the level of achievement) can be linked to the particular time in which a department initiated its reform efforts. Those departments that began their changes long ago tended to move more slowly to significant levels of achievement (St. Paul, Colorado Springs, Knoxville, Portland, Spokane). Those that started later often made very rapid progress simply by relying on the experience of those who had come before (Lowell, Fremont, Savannah). In some cases, the "late adopters" may have leaped ahead in terms of not only the rate of change but also the absolute level of accomplishment (Lowell).

Accounting for High Levels of Achievement: The Role of Leadership

The final variable we consider important in accounting for observed levels of achievement and rates of change is leadership: the decisions made and actions taken by those with formal or informal authority over an organization. In some ways, leadership is the most important factor for us to examine. This is true for two reasons. First, it is this variable that is particularly well measured through the use of case studies, since we can talk to the managers and find out what they were thinking, and we can observe some of their more important actions and initiatives over a period of time. Second, if we can learn what the most skilled managers did to exploit the opportunity represented by a particular context and a COPS grant, we might be able to improve the overall performance of the COPS program by teaching managers to make better use of the opportunities.

Table 7–2. Initial Context of Organization (Circa 1990)			
City	**External Political Environment**	**External Task Environment**	**Organizational History**
Albany	<u>Mostly Supportive Throughout</u> Pressure for community policing in principle but some dispute over particular reforms.	<u>Neutral-Favorable</u> Moderate, persistent crime problems but no sense of crisis.	<u>Unfavorable</u> Some experience with community outreach in 1970s, but little experience with other innovations.
Colorado Springs	<u>Moderately Supportive Throughout</u> City manager passion for "improved" policing; supportive of "community" policing, but not insistent.	<u>Neutral</u> No particular crime problems/no particular community problems.	<u>Favorable</u> Innovative history of organization.
Fremont	<u>Indifferent→Becoming Supportive Later</u> Initially indifferent to community policing; becomes strongly supportive later.	<u>Neutral</u> No particular crime or community relations problems.	<u>Favorable</u> Innovative history.
Knoxville	<u>Indifferent→Supportive</u> Mayors indifferent, then supportive of "organizational focus."	<u>Neutral</u> No particular crime or community relations problem.	<u>Unfavorable</u> Stagnant organization.
Lowell	<u>Supportive</u> City manager very supportive of neighborhood-oriented change.	<u>Favorable</u> Escalating crime problem; open-air drug markets.	<u>Unfavorable</u> Competent but not innovative history; closed.
Portland	<u>Supportive</u> Since 1984, moderate political pressure for change.	<u>Favorable</u> Rise of gangs and drugs; consistent problems with minority community.	<u>Favorable</u> Long history of innovation.
Riverside	<u>Decaying Support</u> Strong pressure for reform at outset evaporates as internal turmoil spills over to city politics.	<u>Neutral-Favorable</u> Moderate crime problem gains increasing attention, but no sense of crisis.	<u>Unfavorable</u> Skilled force, but weak connections to professional community, some internal turmoil, and poor administrative systems.
St. Paul	<u>Supportive Throughout</u> Expect community and problem-solving policing.	<u>Favorable</u> Demand for change arose within community, with tension present between police and African-American and Hispanic communities.	<u>Favorable</u> Long history with team policing.
Savannah	<u>Supportive</u> Demands for change from mayor and city manager.	<u>Favorable</u> Crises in both crime rates and community relations.	<u>Unfavorable</u> Limited experience with problem solving and team policing.
Spokane	<u>Indifferent→Supportive</u> Manager wants good police department; supportive of changes initiated.	<u>Neutral-Favorable</u> No urgent crime problem but some community relations problems with African-American community.	<u>Unfavorable</u> Traditional department, slightly demoralized at outset.

In assessing the impact of leadership, the first job is to identify the locus of leadership: who, or what team, took the initiative to make significant changes in the department. The second, more elaborate job is to determine (to the extent that our data permit) which managerial interventions seem to be necessary or particularly powerful in producing high levels or rapid paces of change.

The impetus for change and the locus of leadership

Leadership begins with some individual or team taking the responsibility for initiating a change process. Usually, this is also occasioned by some event or shared understanding about why change is necessary: the "driver" of the change effort. Some important possibilities include a fiscal crisis that forces a change in the way that a department can operate; a political crisis involving the loss of significant support for the police department and its leaders in the city at large, in particular parts of the community, or among the officers themselves; or some emergent problems that the police department finds difficult to handle. In some cases, the impetus for change could come simply from a professional aspiration for excellence.

Our review of the 10 cases reveals evidence for all of these different forces for change. Virtually all of the cases show that the departments had faced fiscal crises earlier in the 1980s, but in the period in which rapid change occurred, the departments had usually received a flow of fresh resources. Concerns about the quality of community relationships were an important driver of change in 5 of the 10 departments. Concerns about crime control effectiveness were the important drivers in only 2 of the 10 cases. One of these cases, however, achieved a very rapid rate of change from a standing start (Lowell). This is one case in which concerns for crime control animated an important shift toward community policing. Surprisingly, however, one of the most important drivers of change was professional aspiration. In 4 of the 10 cases, there was little else in the external environment—no current fiscal crisis, no epidemic of crime, no flashpoint in police-community relations—to account for the initial decision to embark on community policing. Two of these agencies (Colorado Springs and Knoxville) went on to achieve high rates of change and institutionalization.

Of course, many of these forces for change were just as visible in the agencies that made less progress toward community policing as they were in the highest achievers: It goes without saying that having crises in the environment, or having professional aspirations, does not guarantee that an agency will successfully make the transition to community policing. What is interesting is that among the high achievers (and for that matter among all 10 agencies that tried to make the transition to community policing), a variety of forces made up the initial impetus to change. No one force dominated, and in a large share of cases, the decision to embark on community policing involved the professional aspirations of the agency, its managers, and sometimes its political leadership (who, as in the case of Knoxville, wanted to restore pride in the innovativeness of its police department) more than it involved any specific shock in environment, such as a high crime rate or a community relations scandal.

Given a reason to change, one must look next at who takes it upon themselves to make the change. The leadership could come from outside the department or inside. The responsibility for change could be picked up within a police department by an individual or by a team. The responsibility for driving the change could stay in the same hands over a long period of time, or it could be deliberately handed off from one person to another, or it could simply be picked up by another person if one person or one team tires.

A review of our 10 cases showed that in no department did the initiative for change remain entirely outside the department or stay entirely inside the department. There always seemed to be some partnership between outsiders and

insiders. This is a natural result of the shared responsibility for running police departments. A kind of team had to develop between those outside and those within the department. By far, the most common pattern was for the initiative for change to start *outside* the department (usually in the city's political leadership) and then find some expression *inside* the department. This pattern, however, produced both relatively high and relatively low rates of change. The pattern that begins with strong internal advocates and reaches out to external support occurred less frequently, and produced only medium rates and institutionalization of change.

Managerial interventions

Once a team exists, in order for it to affect the way a law enforcement agency actually operates, it has to take action. The team members must undertake concrete reforms of a police department's administrative systems in order to advance community policing along the three dimensions we have identified. We examined eight different kinds of managerial interventions, searching for the kinds of interventions that seemed particularly important and helpful in making organizational changes.

Political management. Among the most important managerial challenges facing those who would manage change in a police department are the actions they can take to influence the political environment in which they find themselves. Of course, one could take the view that, from the perspective of a chief, or a leadership team that included the chief, these features of the political environment have to be viewed as fixed and unmovable. But that is not actually true. When the leadership team includes the mayor or city manager, the political environment can obviously be influenced by the chief. However, even when the mayor or city manager is not central to the leadership team, the political environment can be reached and influenced by police leaders.

The most dramatic examples of the role of external political management in supporting the

change efforts come from the cases of Colorado Springs and Spokane. In both of these departments, the chiefs with their leadership teams essentially built the political support necessary to pass bond issues that increased the flow of resources to their departments.

More generally, the managers in our "high change" cases seemed to be unusually interested in and adept at politics. Several took higher office at some stage in the change process. Several others ran for office while continuing to run their departments. Several focused on building connections with the business community (St. Paul, Lowell). Others benefited from the existence of a dense network of community groups to which they became responsive (Portland). Still others showed a great deal of imagination in finding community support by organizing it on different bases when geographically oriented citizen groups concerned about crime did not appear (Fremont).

The net result of all of these political management efforts was to change the image of the police department, and to build a wide network of support. That network of support began with the mayor and city manager, but then also embraced the Federal Government, the media, and various community groups. This ensured continuing support for the process of change. In effect, the political management efforts "capitalized" the change effort both by providing resources and creating the room to innovate.

Defining mission, strategic planning. Another common managerial intervention was to go through more or less elaborate, and more or less participatory, efforts to define the mission and values of the organization and to develop a strategic plan. One might think that this would be the first step in initiating a reform effort. Interestingly, however, the strategic planning effort often came *after* the organization had taken some unplanned community policing initiatives (such as Portland's Overlook Neighborhood effort, Lowell's flagship precinct in Centralville,

and the Help-P Unit and Team Policing Pilot Project in St. Paul).[5]

Still, at some stage, and usually fairly early on, all of these departments self-consciously sat down to plan the remainder of their change efforts. The sessions varied with respect to things like the extent of participation, the explicitness of the plans they produced, and the assignments of accountability that they made. (They varied also, of course, with respect to what direction they proposed.) However, every agency went through some version of the effort. The most effective efforts had three characteristics: They carried authority to guide and coordinate future reforms, they were broadly participatory, and they paid attention to a need to build planning capacity.

First, not all departments created plans that were equally elaborate or equally powerful, and underdeveloped plans proved troublesome. Portland wrote perhaps the most elaborate plan in the group, and in doing so, locked itself into a detailed plan for reform. Drawing on massive input both inside and outside the Bureau, it laid out several broad goals and hundreds of specific tasks. The finished document was then used as the basis for a whole new structure of resource distribution and accountability. By contrast, Albany's plan was fairly minimalistic, and the department did not follow through on many elements of it precisely because the steps were not clear, and accountability was not fixed. That failure proved damaging to the overall reform effort.

With respect to participation, most agencies made extensive efforts to generate participation from all ranks, hoping that the planning sessions would accomplish the important cultural effect of getting the officers to understand and buy in to the process of reform. Occasionally, however, planning had the opposite effect by excluding a key group. Riverside is a case in point where the department excluded sergeants from initial planning sessions, and many RPD members report

that this was one reason (though not the only one) that group never came on board.

Finally, if a sophisticated (but not stultifying) plan is important, and planning must be broadly inclusive, then it becomes important for agencies to develop the capacity to engage in this complicated activity. In many of these agencies, that task proved challenging. For example, in Knoxville, one department member reports that the first strategic planning session was difficult: "None of us had ever really done anything like that before, and we all were asked to come up with goals and objectives. Well quite frankly, most of them didn't have a clue what a goal and an objective was."

To develop the needed capabilities, some agencies turned to outside consultants for assistance. Importantly, they did not use COPS grants to fund these activities, and indeed the bulk of COPS money could not be used for these purposes. The exceptions were the relatively small DEMO and CCP grant programs. Of the eight high-change agencies, only Knoxville drew on COPS funding (specifically, a DEMO grant rolled over from BJA) to fund such activity, hiring a consultant to help guide a midterm community planning effort. So, while this was an important managerial intervention, and one where funding did play some role, it was not one that was widely supported by COPS grants.

Organizational restructuring. Organizational restructuring played a central part in most of these community policing efforts. Sometimes the reorganization focused on the creation of special units, other times on changes within the existing units.

Every department except Knoxville created special units for problem solving and fighting disorder, and most created other special units focused on specific communities (such as schools) or specific crime problems (such as domestic violence). Many of these units contributed to community policing by developing experience with new skills and ideas, institutionalizing the pre-

carious values of community policing by giving them a protected space in which to grow.[6] COPS funding was often central to their development, since the alternative was robbing the patrol force at large to staff them. Doing that made an already difficult reform even more difficult, since it inspired jealousy and complaints that workload had been displaced.

Nevertheless, if creating new special units with grant funding appeared to be all but necessary for the most dramatic reform efforts, it was not sufficient for them. Departments such as Albany and Riverside had some success with special units but could not leverage their gains to catalyze change in the department as a whole. We will return to this problem below.

In addition to special units, reorganizations of existing units—especially patrol and investigations—also played a role in most of these efforts. Particularly visible were efforts to decentralize patrol operations and create quasi-permanent assignments for both officers and their supervisors. However, interestingly, many of these departments *already* had something like "beat integrity" for their patrol officers. The important new changes affected sergeants and middle managers, who had formerly supervised officers throughout their cities but now took on geographical assignments.

In any case, the content of these efforts (for example, the size of beats or districts) does not go very far in distinguishing the most successful cases from the others, so geographical decentralization does not seem to be the magic bullet for community policing that some have seen it as. Moreover, grant funding played little role in them. They required more in the way of imagination than funding, and the great bulk of COPS funding simply could not be used for the sorts of "soft" expenses (like consultants) that *could* be useful to them.

Reengineering the technical core. Three reforms to the technical core of department operations also played a central role in most of the

change efforts described in these cases: those that affect the burden of 911 calls officers must handle, provide structure for problem solving, and influence the ways in which officers use their discretion. Where departments neglected these reforms, as in Albany and Lowell, the agency either made some other reform designed to compensate for them (as with Lowell's massive precinct system), or else important aims of community policing simply were not realized (as with Albany's failure to develop any significant problem-solving capacity). The other agencies advanced their community policing efforts by finding new ways to free up patrol officer time for problem solving, to recognize and give structure to that work, and to recognize and encourage officer discretion.

COPS funding played little role in most of these reforms, which again demanded more imagination than funding. The main exception was in interventions that sought to affect the burden of 911 calls officers needed to handle, to free up time for problem solving and other community policing activities. Surprisingly, only two of the agencies studied used COPS hiring to a significant extent for the explicit purpose of freeing up time for community policing activities. The other departments either minimized hiring grants altogether, targeted grant-funded hires in special units (as described above), or used grant funding principally to meet traditional needs rather than explicitly to free up extra time in the patrol force for community policing. Even if they did intend the new hires to have more significant impacts, these agencies did not take steps to identify the free time that these hires created, nor to ensure that it would be used for community policing activities like problem solving.

Those departments that pursued nontargeted hiring grants did not flaunt the COPS grants' community policing requirement. They reasonably claimed that their entire patrol forces were committed to community policing in general (and "interacting with the community" in particular), so they felt that *any* hiring satisfied the grant requirement. And indeed it did. The questions here

are whether COPS money—in addition to putting more officers on the street—necessarily catalyzes changes in organizational strategy, and under what conditions it does so to the greatest extent. The answer is clearly that not all uses of COPS money do lead to overall shifts in organizational strategy, and in particular that there is little reason that the nontargeted hiring grants had this effect in these cases.

In short, the nexus between general (as opposed to targeted) hiring and organizational change is not tight: It seems to be neither necessary nor sufficient to producing organizational change. First, it is not necessary because even if workload is a problem in community policing, other reforms are available to address it, such as call diversion and changes to deployment or scheduling; in fact, widely available money for hiring may simply relieve pressure to focus on those sorts of reforms in favor of hiring. Second, it is not sufficient because there are many ways to use the free time workload reduction creates.

Developing a physical infrastructure. Many departments also sought to give a boost to their community policing efforts by developing a physical infrastructure that both symbolized and supported these goals, such as the creation of new neighborhood police stations, or storefronts. Other departments bought various kinds of equipment (like new guns and vests for officers) to enhance morale in the department while it was undergoing change.

Given the expense of these efforts and the unavailability of general fund money for them, one might expect grant money to play a large role. And indeed, places like Fremont and Lowell did use grant money to help pay for some of their new facilities.

However, Title I COPS money could not be used for these expenses. In any case, some agencies—like Fremont and Knoxville—are finding that they can create a sense of organizational accountability to neighborhoods without embedding it in physical structures. Others have found

that while new physical infrastructure and equipment have some potential to improve morale and build support, it is not a silver bullet. Therefore, the lack of COPS funding for this intervention probably did not hinder the progress of any of these agencies.

Information infrastructure. Improvements to a department's automated information infrastructure can sometimes support community policing (when, for example, it provides officers with cell phones that allow citizens and citizen groups to reach them directly). However, it can just as easily be tangential to it. For example, when tension is brewing in a department over the substance of community policing, attempts to automate paperwork may not be the best use of managerial attention, authority, and funding. This may have been the case in Riverside's automation project. The difference lies in strategic use of this type of intervention to address the central problems of reform.

Several departments did target their information infrastructure reforms to community policing, especially the development of analytic capacity for problem solving by patrol officers. Upon embarking on community policing reform, these agencies found that their information systems had basic problems that made it almost impossible to undertake important analyses, and they embarked on massive efforts to revamp their information systems. Even more advanced departments, like Portland, felt that significant work remained to be done in bringing sophisticated analytic capability to the patrol officer level. Work in developing information systems never seems to be done, and agencies at every level of sophistication had active wish lists that they plausibly claimed to be important for community policing. MORE money fed directly into many of these reforms.

The quality and utility of the information infrastructure depends not only on the existence of information, but also on people who can and want to use the information for purposes of analysis and evaluation. In terms of building the

human capacity for analysis, the preferred response turns out to be civilianization and, therefore, hiring; COPS MORE hiring grants played important roles in this area for at least two departments.

In developing both the information infrastructure and the people to use it, the central managerial problem is money. Although in these cases, the cities' general funds seemed to be more munificent for information systems than for buildings, grant money still played an important role for many of them. The efforts the COPS money funded did not *always* feed substantially into community policing reform, as in the case of Riverside's automation efforts. However, the majority of these cases used MORE money directly to advance important elements of community policing—especially the development of analytic capacity necessary for both problem solving and monitoring reform. Whether that is true of police agencies in general is a question better answered elsewhere in this report. However, in the most successful agencies described in these 10 cases, MORE funding usually fed directly into important community policing reforms, and their experiences offer examples of how that can be accomplished.

Human resources. Three aspects of the human resource system—hiring and recruitment, promotions and evaluation, and training—play central roles in supporting community policing reform. The agencies that neglected some of them, like Riverside, Albany, and (for a time) Spokane, found their efforts held back significantly. A number of the more successful agencies were able to leverage COPS funding to advance this important category of reforms—especially in the case of DEMO and regional community policing institute grants, which enabled departments to fund new training efforts directly.

The much larger pool of COPS money for hiring also played a role, albeit through a more indirect route. It created a spike in national police hiring, and in that way it opened a window of opportunity for important changes to personnel systems.

This pattern played out most dramatically in Lowell, where the massive influx of new COPS hires throughout the State created a critical opportunity for new training capacity. That opportunity enabled the LPD to open up a new recruit academy that it was able to redesign almost from scratch (previously all but the largest Massachusetts agencies had been required to use State-run training academies). Moreover, many of these agencies report that massive COPS hiring, together with extensive retirements of officers brought on by Federal grants or for other reasons in the early 1970s, gave them uncommon leeway to self-consciously shape the makeup of their forces through changed hiring and recruitment practices.

Transforming the culture. Along with and underlying all these systemic interventions, most of the change agents in these cases paid attention to what is commonly called organizational culture: A department's perceptions about itself and the world in which it is operating, about what are important and meaningful tasks, and about what constitutes excellent performance. This overall cultural change involved establishing new values and norms of performance—in effect, a new understanding of the ends and means of policing, and a belief in their desirability and efficacy. The COPS program probably made a major contribution to this effect simply by including language in the 1994 crime bill and earlier legislation that put its weight and prestige behind the concept of community policing.[7] In various ways, many of the managers in these cases took advantage of that fact to leverage their own efforts at cultural change. For example, a progressive captain in Lowell was able to experiment with community policing despite the fact that his chief positively opposed it, in part because he was able to point to grant requirements that required him to do it (the chief had assigned the captain to find grant money because the city's own economy was faltering at the time). In this case, Federal policy gave community policing an air of inevitability even to a hardened opponent, and it contributed to the legitimacy of the captain's effort.

The cultural change efforts in these agencies were also helped by all the other interventions laid out above: by efforts to create a political environment that either demanded or was open to the new strategy of policing; by the strategic planning processes that engaged officers in discussions of why the change was important and what it required of them; in the efforts to reengineer the technical core that changed the working conditions that officers encountered and the relationships that became important to them in doing their work; in demonstrations of the efficacy of community policing through new special projects; and in all of the new efforts made at recruiting and training officers. Thus, COPS funding contributed to cultural change to the extent that it contributed to all those other reforms, as we have already described.

Conclusions

Given these 10 stories, what can be concluded about the impact of the COPS grants on the field of policing, and more particularly on how the grants can be used by police managers in changing police departments?

First, COPS grants did make important contributions to the goal of producing organizational change. We do not know from our cases how common the important changes were across all departments that received COPS grants, but we have some clear examples of significant change. In some cases, COPS grants allowed departments that were pretty far down the path toward the implementation of community policing to get even further along, and these cases show us and the rest of the field what advanced forms of community policing look like. In other cases, COPS grants allowed some departments with limited experience in community policing to make rapid progress—in some cases to leapfrog the field.

Second, although a favorable environment and organizational history seem to improve the odds that community policing will succeed, they do not explain success completely: Effective man-

agement—including strategic use of COPS money—can overcome serious obstacles to community policing. Consequently, although it is true that the impact of the COPS grants on organizational change varies as a function of where the grants are used (i.e., whether or not they land in favorable environments), it also depends on how management uses them.

Third, successful community policing efforts focused on several key interventions that go beyond the usual program of decentralization and training. These interventions include building political support for change, creating a coherent leadership team, planning the course of reform, redesigning organizational structure and the organization's technical core, building a supportive physical infrastructure, building a supportive information infrastructure, altering human resource systems, and instilling new cultural ideals. Difficulties with community policing can usually be traced to the failure to attend to one of these managerial tasks, or inability to handle the distinctive challenges each one raises. This fact is important for the COPS programs, because their impact on organizational change lies in their ability to help managers solve these distinctive challenges.

Fourth, for some of these key interventions, the distinctive challenges centered on getting resources for hiring and technology, and COPS played an important role in them—especially creating special units as part of organizational restructuring, improving the information infrastructure, and, to a lesser extent, freeing up time for community policing (part of redesigning the technical core) through general-purpose hiring. Used strategically, COPS funding helped many agencies make these important reforms. Thus although there have been concerns expressed that grants focused only on hiring more officers would not be helpful in shifting the style of policing, it seems clear from these cases that such grants can be useful in helping departments make the shift to community policing.

Fifth, other key interventions raised challenges that COPS could not entirely solve. Elements of reform like planning, cultural change, and administrative decentralization required more imagination than funding; and expensive interventions like physical decentralization, training, and new equipment did not qualify for most Title I money. Smaller COPS grants like DEMO and the regional community policing institute grants did usefully advance some of these reforms, but most departments accomplished them with other resources.

Sixth, COPS still played an indirect role in some of those reforms—especially by creating a spike in national police hiring that opened a window of opportunity for making important changes to personnel systems. For example, COPS hiring put enough pressure on the State training system in Massachusetts that one department was able to gain the support needed to open a new, nontraditional recruit academy. Many other departments rethought recruitment and hiring practices as they found themselves hiring many new officers (in part because of COPS, but in part because of abnormally high turnover, as hires from LEAP and other sources in the early 1970s began to retire in recent years).

Finally, in all of these impacts, COPS interacted with local forces to produce important changes. As a rule, COPS grants did not necessarily require or specifically support the key managerial interventions. But they did enable them. And enabling change turns out to be particularly valuable when the field as a whole is already inclined in a particular direction.

Notes

1. Eight of these departments seemed to be "high achievers" that would hopefully reveal much about what the most successful change efforts might look like. The other two had clearly taken community policing seriously, but their progress seemed to be somewhat slower, and more typical of police agencies around the country: They were chosen to provide fit comparisons to the eight high achievers, so that we could learn something about the factors that distinguished extraordinary achievement from the more usual pace of progress. The appendix to this chapter describes in more detail how these 10 departments were selected, as well as how the case studies were developed.

2. John E. Eck and Daniel Stern. "Revisiting Community Policing: A New Typology," paper presented to the National Institute of Justice, 1992.

3. On the analysis of causation *within* cases, and an argument about the limits of comparative analysis, see Lawrence Mohr, *The Causes of Human Behavior*, Ann Arbor: University of Michigan Press, 1996.

4. John E. Eck and Daniel Stern. "Revisiting Community Policing: A New Typology," paper presented to the National Institute of Justice, 1992.

5. Students of organizational change have long recognized the uses of this approach. For example, Phillip Selznick wrote in 1957 that the formulation of a clear and useful mission "demand[s] a period of actual experience during which the capabilities of the organization and the pressures of its environment may be tested. If this is so, then *prior* definition of mission . . . is not an indispensible step in organizational planning and, indeed, may result in undue rigidities if prematurely attempted." See *Leadership in Administration: A Sociological Interpretation*, New York: Harper and Row, 1957: 67.

6. Philip Selznick again gives the best general treatment of this strategy for instituting change, and the term "precarious values" comes from him. See *Leadership in Administration: A Sociological Interpretation*, 126 *ff*.

7. Aaron Wildavsky argues that all policymaking is about "creating culture." See *Speaking Truth to Power: The Art and Craft of Policy Analysis*, New Brunswick, New Jersey: Transaction Books: 41.

Appendix 7–A. Empirical Methods

It is worthwhile to say a few words here about the case studies that underlie this analysis. Two methodological issues are particularly important for a proper appreciation of the scope and limits of this analysis: How we selected the 10 cases discussed here, and how we developed our portraits of each of them.

Site Selection

The case studies aim to understand at a more detailed level than the surveys can what factors enable COPS-funded police departments to change into community-oriented police departments. Out of the thousands of COPS-funded departments across the country, our challenge was to select 10 that would provide the most evidence for answering that basic question.[1]

At the outset, however, there were a few practical constraints. Because part of our mandate for the evaluation was to help get at the "ground truth" behind the survey of COPS-funded agencies (described elsewhere in this report), we only considered the approximately 1,600 COPS-funded departments that were surveyed. Because we judged that a single case writer could not do a good job investigating how an entire organization changed if that organization were very large, we zeroed in on medium-sized municipal departments (those serving cities of 100,000 to 500,000 population). And because we thought that changes beginning *too* recently would likely not be far enough along to be interesting, we decided to focus on departments where change had started some time ago. However, because we were dependent on interviewee recollections, and judged that interviewees might have trouble recalling change in the distant past, we wanted departments that had changed relatively recently. Consequently, we limited our attention to orga-

nizations that had changed in the recent but not-too-recent past (those where change commenced between 1992 and 1994).[2] These three criteria define the population from which we chose our sample of 10.

Site selection for comparative analysis

The study was designed as a comparative analysis, one that, in the words of Theda Skocpol, "tries to establish valid associations of potential causes with the given phenomenon one is trying to explain."[3] Specifically, we want to demonstrate that a certain style of leadership—including certain ways of using Federal funding—is necessary if a police department means to effect organizational change.[4]

The comparative method is at its strongest when it relies on two complementary sorts of comparisons. First, Skocpol explains, "one can try to establish that several cases having in common the phenomenon one is trying to explain also have in common a set of causal factors, although they vary in other ways that might seem causally relevant." To facilitate this comparison, we chose eight departments that seemed to have changed a great deal, but that varied in many other ways—often in ways that might seem to make change impossible.[5] In our analysis, we have tried to show that competent leadership is a common factor that underlies change in these otherwise diverse departments, and we have tried to explicate what it consists of.

Skocpol explains the second type of comparison as follows: "One can contrast the cases in which the phenomenon to be explained and the hypothesized causes are present to other cases in which the phenomenon and the causes are both absent, but which are otherwise as similar as possible to

the positive cases." Taken literally, this description calls for a comparison of success versus failure; but it is also possible simply to compare various degrees of success, which is the strategy we have chosen.[6] Our eight high-achievement cases are, in fact, among the most progressive police agencies in the Nation. As realistic foils for these eight, we sought to identify two departments that would be representative of community policing in most midsized American police departments. These departments provide fit comparisons to the eight high achievers. Regardless, the two comparative cases are decidedly *not* the "usual suspects" for studies of community policing, and case studies of them can hopefully help expand the field's view of what community policing involves.

Looking for variety in community policing

So far, we have talked as if "change" was a unidirectional thing: Everyone is moving in the same direction, if not at the same speed. However, police departments change in different ways. The most notable typology is the one some have drawn between problem-oriented policing and community policing.[7] On one hand, there are departments that emphasize problem solving without necessarily involving the community in the definition and solution of problems. On the other, there are departments that emphasize community involvement without necessarily focusing on problem solving. (As stated this distinction implies a third logically possible type: the mixed department that does both.) Whatever the actual variety of community policing is, we can summarize it abstractly: Organizational change toward community policing can be described as a vector of a certain *magnitude* (how much change occurs) and *direction* (what type of community policing the department is trying to implement).

In any case, lessons about changing a department in the direction of one form of community policing may not apply directly to departments that aim in a different direction. Some forms may be easy to implement, others hard. Some

forms may require special resources or environments, and so on. Consequently, in order to make the cases useful to a variety of departments moving in a variety of directions, we tried to select departments that represent the full range of community policing. In other words, we overlaid another criterion over those described in the previous section. Within our three categories of sites (positive cases with benign environments, positive cases with hostile environments, and representative cases), we tried to vary the *direction* of change (or intended change).

Applying the criteria

The discussion to this point has assumed that we could know in advance what sort of changes occurred and why, which of course is not true. But two sources of information helped us approximate such prior knowledge: (1) the Urban Institute's survey of some 1,600 COPS-funded police departments (which was undertaken as part of the evaluation effort, and asked a number of questions about what the department is doing as well as the history of its changes); and (2) a number of experts in policing who are familiar with the national scene.[8] Though neither of these sources of information is perfect, some of their weaknesses are complementary.

The survey was used to create a crude and simple index that sought to capture how completely a department had implemented community policing. Specifically, the index reported how many of the following four key reforms had been accomplished: designating certain recurring patterns as problems; using a team approach for problem solving; maintaining beat integrity in dispatching officers; and providing some inservice training on community policing. We used this index for two purposes. First, we chose our two "representative" departments by taking a random sample of all agencies that had implemented either two or three of these reforms.[9] Second, we generated a list of high achievers by selecting those departments that had implemented all four reforms.

The second list was supplemented with nominations from our experts—unlisted departments which *they* believed had undergone the most change in recent years. The resulting catalog contained dozens of potential candidates. To whittle it down to the eight sites we needed, we looked to three goals.

First, as explained above, we wanted to select high-change departments with maximum variance on potentially important causal factors, so that we would be able to apply Mill's method of agreement. To this end, we used additional information from the survey to classify the high-change candidates into three categories based on the nature of their "environments" (the three categories were unpromising external environment, unpromising internal environment, and benign environment).[10] By selecting sites from all three of these categories, we tried to ensure variation with respect to potential causes of change.

Second, we wanted to maximize our probability of selecting truly outstanding departments. To do this, we supplemented the survey information with our experts' advice, asking them what *they* knew about those candidates that they themselves had not nominated. We then selected the two to three candidates we needed from each category by choosing the departments that we knew the most about. We had the most confidence in departments about which the experts and the survey agreed. However, we also felt confident about departments if an expert was particularly enthusiastic about it, or if multiple experts nominated it. (In order to select some departments outside the national networks, we chose one department that our survey screen identified but that the experts reported that they had heard little or nothing about.)

Third, as described above, we wanted to capture maximum variety in the types of community policing. To realize this goal, we used the survey to gauge community policing "style" in our preliminary list of eight candidates (mostly by guessing at the relative emphasis each depart-

ment seemed to place on problem solving *versus* community participation). If all the departments in a particular category reflected the same "style" of community policing, we threw one out and substituted another that reflected a different style (returning to the original list to do so).

Now that the departments have been visited, these "guesses" about their experiences are no longer the best sources of information we have about them—our analysis must rest on the case studies themselves. It is important, however, to keep in mind what these cases do and do not represent. They are *not* a random sample of all police agencies, so they do not accurately portray the typical experience of community policing today. In some ways, the two "representative" departments *do* get at that mythical mean, in that we randomly selected them from departments whose progress appeared to be about the norm. However, the eight "high achievers" are just that—departments chosen precisely because they have distinguished themselves in some way (and furthermore because they did so against varying backgrounds). The analytic task is to determine what these eight cases have in common, and what distinguishes them from the other two (and by implication, from the bulk of the field).

Developing the Case Studies

What we can expect from our research is further constrained by the methods we used to produce each case study. For each department, we tried to understand how the organization changed and why. Thus, the cases try to characterize any changes the departments went through and a variety of factors that may have led to those changes. The categories we used in each of these areas developed to some extent as we went along, but many were settled early on—after our pilot case (of Lowell, Massachusetts), considerable background reading in community policing and organization theory, and much discussion in the research team. They are described in the text where we fill out the details of our conceptual framework.

The concepts we have used are complex—things like "the technical core of an organization," "administrative systems," or even "leadership." They cannot, as a result, be completely captured through standardized instruments or quantitative summaries. Instead, we have turned to case study research based on indepth interviews, direct observation, and primary documents to create a detailed portrait of how certain events transpired and what effects they had.[11] Though we believe that this approach is appropriate, given the conceptual framework we are using and the complexity of the phenomena we are studying, it is appropriate to mention its limitations.

In particular, by relying heavily on indepth interviews with participants, we risk missing the same things that they themselves missed, and being caught up in their enthusiasm. Where possible, we have tried to guard against these potential problems by pressing our respondents to be concrete, verifying their impressions with archival data, and fully considering the range of opinions that differently situated informants provide us (no generalization in the cases is based on the opinion of a single interviewee). Finally, to reduce the even greater possibility that we misunderstood our informants, we have insisted that they comment on our drafts at various stages.

Despite these strategies, qualitative case study research is inherently limited in the firmness of the causal connections it describes. We will, of course, try to make *some* statements about the power of the COPS grants, contextual factors, and various management strategies to influence change, and our comparative research was designed to give us some ability to do this. First, we can avail ourselves of Mill's method of agreement: There is some reason to believe that combinations of strategies and factors present across all eight of the overachievers are loosely associated with change, or at least that combinations of strategies and factors *not* present in very many of them are inessential (in that some departments were able to succeed without them).

Second, we can avail ourselves of Mill's method of difference: The combinations of strategies and factors that seem to distinguish the overachievers from the more representative departments have some tentative claim to the status of key causal factors. All else being equal, departments that have or use them seem to do better than those that do not.

Nevertheless, given the basic vulnerability of small-n comparative research, it is worth stressing that an equally important and more firmly based contribution we hope to make involves not causation but explication. Through detailed portraits of these 10 intriguing cases, it is possible to enrich our understanding of what things like "effective management," "contextual constraints," and even the COPS grants themselves consist of. In this way, the analysis helps to *stimulate* our imaginations as well as *discipline* them.

Notes

1. Our initial plans called for 12 cases rather than 10, but we were forced to abandon our final 2 sites for reasons of timing and funding. Consequently, the site selection description that follows is slightly inaccurate: In fact we chose 12 cases (9 high achievers and 3 representative cases), and we simply did not get to the final 2 (1 high achiever and 1 representative case). For clarity of exposition, this section focuses only on the 10 selected cases that we actually carried out.

2. This timing criterion is somewhat problematic: First of all, we mostly used survey information to gauge the onset of change, and in several cases this information turned out to be misleading—thus we wound up with several departments where change got started before 1992. Second, the 1994 cutoff date all but ensured that COPS itself (which began in 1994) would not "cause" change in the sense of exerting the first push down the road of community policing. This latter problem is serious but, we felt, unavoidable. We had no good way to identify more recent reformers; and in any case, we felt that it simply would not be productive to guess at the extent and causes of change in young efforts that might well die off before taking root. To mitigate it, we hope the reader will indulge us in speculation about

the effects that other Federal grants had on our agencies when their reforms were young—effects that COPS may well have duplicated in newer change efforts that we excluded from our sample. In any case, we believe that the major role of a Federal funding program is not that of the initial catalyst but that of a booster to locally driven efforts; thus, it is wrong to dwell too much on the possibilities for Federal funding to set change in motion.

3. For simplicity, this discussion will rely on Theda Skocpol's description of the comparative method (which is based on the ideas of John Stuart Mill) in her *States and Social Revolutions,* Cambridge: Cambridge University Press, 1979: 33–43; all the quotations are on p. 36. But the logic is mostly compatible with other treatments of the case study method, *e.g.* Robert K. Yin's description of multiple-case research in his *Case Study Research: Design and Methods,* Beverly Hills: Sage, 1984: 47–53. The major caution against it comes from Charles Ragin, who rightly argues that causal complexity (*e.g.,* the interactions among causes to produce an outcome) undermines a literal application of Mill's methods: Rather than comparing cases with respect to *individual* variables, they must be compared with respect to *combinations* of variables (and it is possible to benefit from this insight without necessarily using Ragin's own formalization of the comparative method). Indeed, a major thrust of our argument above hinges on the interaction of distinct "causes." See Charles Ragin, *The Comparative Method,* Berkeley: University of California Press, 1987.

4. The phrase "means to," though somewhat ambiguous, is important: We only intend to study departments in which some influential group sincerely intends to change the organization. The study does not, therefore, ask the academic question "what makes organizations change?"—a question in which individual intention need play no role at all. Instead we ask the practical question, central to public administration, "how and under what conditions can a leader who wants to change an organization succeed?"

5. For some, *external* environments seemed ambivalent to change or even hostile to it, in that they exhibited low "social capital," weak ties to national policing networks, or simply lukewarm support from city government, community organizations, and other local partners in surveys. Other departments

seemed to face an unpromising *internal* environment, beginning their attempts to change with conservative cultures and structures (something we gauged from survey responses about the degree of internal resistance, and also from regional location: For example, West Coast departments, which started late, tend to be more "progressive" than their counterparts in some other parts of the country). Others did not seem to face any of these problems to any great degree. By choosing three cases in each category, we have tried to select eight high-change cases with maximum variance on potentially important causal factors. We then use Mill's method of agreement to identify the common factor all share.

6. As Charles Tilly puts it, the basic imperative involves "finding variation"; see his *Big Structures, Large Processes, Huge Comparisons,* New York: Russell Sage, 1984.

7. *Cf.* Eck and Stern, "Revisiting Community Policing."

8. Specifically, we wish to thank William Geller, Herman Goldstein, George Kelling, David Kennedy, and Rana Sampson for their generous help selecting sites.

9. The mean number of reforms implemented among departments in our population was three, so as a whole, our candidates had implemented slightly fewer reforms than average. We chose to undershoot the mean in order to ensure that our comparisons would have enough variation to exploit effectively.

10. The survey contained several questions about external and internal support that made this classification fairly straightforward. But we also used expert knowledge—or rather, *lack* of knowledge—to identify cases with unpromising external environments. Specifically, if the experts knew nothing about a department, we took this as evidence that it had weak ties to the national policing network—which is an important force for change through the support and guidance it offers police agencies as they reform. We do not mean to argue that the five experts we spoke with are themselves the only source of change in the police profession: We are simply arguing that if none of these five people have heard much about a department, it is likely that other "experts" would not have had contact with them either (the experts

do, after all, talk to each other); thus the agency is likely to be somewhat peripheral to the national network. In any case, we selected two departments identified by the survey as "overachievers" but that the experts reported that they had heard little or nothing about. At best, such departments present an interesting puzzle: How could a place with such apparently minimal connections to national circles change as much as the survey suggests it did? At the very least, this strategy offers one more way to avoid rounding up the usual suspects. In the end, one of these two departments was among our casualties of timing, so we only studied one department chosen because of its apparently weak ties to national policing networks.

11. In each site, we carried out from two to three dozen interviews and focus groups with relevant individuals, including various police employees (focusing on groups like officers, managers, civilians, union representatives, and those who resisted community policing) as well as important outside groups (including employees of outside agencies, elected officials, and community representatives). We also tried to observe patrol activities, management meetings, interdepartmental meetings, and community meetings at each site (and in no case did we fail in more than one of these categories). Finally, we made the same document request of each department, asking for grant applications, annual reports, strategic plans, budgets, personnel sheets, and general orders and other policies or bulletins relevant to community policing. Many departments were still willing to cooperate after this barrage of requests, and provided us with considerably more idiosyncratic but eminently useful documentation. In any case, the site visits were guided by a rough protocol that left room for serendipity. The overriding aim was to understand what had changed in a department and why.

Methodological Appendix

The empirical basis for many findings reported in chapters 3–6 is a series of three telephone surveys of law enforcement agencies. The designs of these surveys are complex and reflect adaptation to events in the life of the COPS program and to new questions raised by those events.

Our original study plan called for a straightforward two-wave survey, with the second wave completed 14 months after the grant award. The purposes were: (1) to measure differences between COPS grantees and nongrantees at the time of application; (2) to measure changes over time in grantee agencies; and (3) to compare changes over time between grantees and nongrantees. For reasons described in chapters 2 and 4, it quickly became clear that the 14-month data collection schedule was too short to measure meaningful change over time in even the first cohort of COPS grantees. Under that plan, for example, the sample would have been selected during the Federal Government shutdown in February 1996; at that time only a handful of Universal Hiring Program grants had been awarded, and less than half of the COPS MORE 1995 grant awards had been announced. All survey work would have been completed in December 1996, about the time that the first cohort of COPS grantees finished deploying their officers funded under FAST and AHEAD and well before all 1995 MORE awardees had even accepted their grants.

Given uncertainties about the possibility of supplemental extensions of the original grant, a decision was made early on to delay survey data collection rather than risk completing it with an incomplete 1995 sample and before there was

any possibility of observing the changes intended under the COPS program. Therefore, the Wave 1 survey was delayed until October 1996. Its objectives were to compare 1995 grantees with nongrantees, describe hiring and deployment processes among hiring grantees, and measure grantee/nongrantee differences in the rates of adoption of community policing tactics during the first year of COPS funding. We selected a representative sample of all law enforcement agencies in the United States, stratified to maximize statistical power for pursuing those objectives.

As planning for the Wave 2 survey progressed during 1996, three events shaped the design: (1) recognition that few agencies received their first COPS grants in 1996, so that our Wave 1 nongrantee sample was still adequate for comparison with grantees; (2) discovery in other phases of the project that MORE grantees were experiencing implementation problems with mobile computers, which accounted for most of the projected FTEs from COPS MORE; and (3) receipt of supplemental funds for a third survey of a subsample of the Wave 1 respondents. For these reasons, the Wave 2 survey interviewed a new sample of agencies that received their first hiring grant in 1996 and reinterviewed only the Wave 1 MORE respondents that had been funded for mobile computers. The purposes were to expand the sample of grantees for measuring adoption of community policing tactics over time and to investigate the implementation process for mobile computers.

Because resources for the Wave 3 survey were intended to support reinterviewing only about

half the previous (Wave 1 and Wave 2) respondents, we faced a choice between randomly selecting that subsample with equal probabilities across all sampling strata, or focusing resources on strata of particular interest. After running several power analyses, we chose to limit the Wave 3 survey to two subgroups of municipal and county police agencies, which had received more than three-fourths of all COPS funds: MORE grantees of all sizes, to measure implementation progress and redeployment; and grantee and nongrantee agencies serving jurisdictions larger than 50,000, which account for most of the Nation's crime problem. The Wave 3 survey data were collected in June-July 1998 and used heavily in preparing this report, and most analyses are limited to those categories of agencies.

The exception is in chapter 5, where we present preliminary estimates of the total number of officers and full-time equivalents funded by the COPS program. Because of the great current public interest in that question, we chose to include the preliminary estimates in this report, clearly labeling and raising cautions about a small number of factors that we applied to all types of agencies even though they are based on the samples of municipal and county police agencies described above. These estimates are to be updated late in 2000, based on the Wave 4 reinterviews of all respondents to the previous surveys.

During 1997, we applied for and received funding for Wave 4 of the survey. There were five motivations for Wave 4: (1) interest in updating the chapter 5 projections based on a sample that represented agencies of all types; (2) COPS Office interest in measuring agencies' typical hiring and retention practices, regardless of the COPS program; (3) interest in measuring agencies' plans for retaining the COPS-funded officer positions after grant expiration at a point in time after the required retention period had been announced and after significant numbers of grants had expired; (4) interest in measuring progress after the Wave 3 survey in implementing

MORE-funded technology; and (5) interest in comparing grantees' and nongrantees' adoption of community policing tactics since the Wave 1 survey in 1996. The Wave 4 survey is in the field as this report is being prepared for publication and will be used to address these five questions in future publications.

The foregoing paragraphs are written as if the population of COPS-eligible law enforcement agencies were known at the outset of this study. It was not. The task of defining that population broke down into four steps: (1) Locating all law enforcement agencies in the United States; (2) excluding from the sample frame all agencies that were clearly ineligible; (3) coping with the fact that for several agency categories including sheriffs' offices, the COPS Office determined eligibility on a case-by-case basis, so that eligibility status was not easily knowable before an application was submitted; and (4) including certain categories of "pseudo-agencies" that were administratively eligible for COPS grants but do not fit most intuitive notions of what a law enforcement agency is. Examples include consortia of agencies formed for grant application purposes and "agencies" with no officers that contract with other agencies for law enforcement services.

As we began work in 1995, the most authoritative source was the Justice Agency List (JAL), maintained by the Census Bureau for the Bureau of Justice Statistics (BJS), that contained approximately 17,000 agencies. We augmented the JAL with a list of additional agencies gleaned from the automated address list of law enforcement agency terminals authorized to communicate with the FBI's National Crime Information Center (NCIC). Therefore, in the course of our work, we identified three larger populations that were useful at different stages. First, we found 19,175 agencies recognized by BJS that we considered "potentially eligible" for COPS grants. Second, our sample frame of 20,894 entities was obtained by expanding the list of 19,175 with "likely eligible" nongrantees and pseudo-agency grantees listed in COPS Office records. Third,

we created a National Law Enforcement Agency List (NLEAL) of 22,923 agencies that contains additional agencies with uncertain COPS eligibility status. We shared early versions of the NLEAL with the Bureau of Justice Statistics, to assist in its update of the Justice Agency List for the 1997 Law Enforcement Management and Administrative Statistics (LEMAS) survey; the final version is being deposited in the National Archive of Criminal Justice Data at the University of Michigan. Details regarding construction of these populations appear in a later section of this appendix.

Survey Objectives

In preparing for Wave 1 of data collection, our goal was to select a nationally representative sample of law enforcement agencies, stratified to provide sufficient statistical power for the following purposes: comparing characteristics of COPS grantees and nongrantees; performing separate analyses of agencies serving jurisdictions of less than 50,000 population ("small" agencies) and larger than that threshold ("medium" agencies between 50,000 and 150,000 and "large" agencies with jurisdictions of more than 150,000);[1] and conducting separate analyses of the hiring and COPS MORE programs. As we designed the sample in early 1996, we were aware that approximately half of all eligible agencies had already been awarded at least one 1995 COPS grant. Reasoning that most of the interested agencies were likely to have applied in the first year of the program, we allocated our planned total of 1,800 completed initial interviews as follows: 999 COPS grantees as of April 1996, when the COPS Office created our first database; 336 nongrantees as of that date; and 465 reserved for a Wave 2 sample to be defined in 1997.

To assist in survey administration, we selected a sample that would meet the target number of completed interviews with a completion rate of only 65 percent, even though we had set a target completion rate of 80 percent. Specifically, we drew a stratified random sample of 2,098 agen-

cies (stratified by funding status and population category). The sample included 561 agencies that had not received COPS funding and 1,537 agencies that had been funded under one of the four programs we were evaluating—i.e., FAST, AHEAD, Universal Hiring Program (UHP), or MORE. These agencies were contacted for initial telephone interviews (Wave 1) in October 1996. Followup interviews with subsamples were completed in September 1997 (Wave 2) and May 1998 (Wave 3). To obtain official responses, interviews were conducted with either the agency chief executive or a designated alternate authorized to speak on behalf of the agency.

The Wave 1 sample was used to collect data that would enable us to describe the application process and experiences of funded and nonfunded agencies, to assess the status of sworn and civilian hiring and technology implementation, and to compare funded and nonfunded agencies in terms of policing practices at the start of COPS (1995) and in terms of post-1995 changes.

More specifically, the instrument requested the following information from all agencies interviewed:

- Agency characteristics: type and size (sworn/ civilian), annual budget, tenure of current chief, and so forth.

- Jurisdiction population, crime trends, and so forth.

- Implementation status of "community policing" as locally understood, including approximate date introduced, types of support received from community, etc.

- Implementation status of 47 community policing practices, as of 1995 and as of data collection.

Additional topics surveyed for nongrantee agencies included reasons for not applying for or withdrawing from a COPS grant and conditions under which the agency might apply for a COPS grant in the future.

Grantee respondents were asked about the following additional topics:

- Key players involved in the application process (e.g., lower-ranking agency staff, the mayor's office, community leaders/residents).

- Non-COPS sources of funding to support local community policing.

- Status of officer and civilian hiring and deployment for Year 1 hiring grants.

- Customer satisfaction with the application process.

The Wave 2 sample had two components. The first component was "new UHPs": a group of agencies funded by the COPS Office for the first time in 1996 and for whom the first grant was awarded under the Universal Hiring Program (UHP). Because of our interest in both the first year holdouts and the newly created UHP, we took the opportunity to use the sample to collect information comparable to the Wave 1 grantee information. The second component of the sample is the entire set of Wave 1 MORE respondents that reported using their grants to purchase mobile computing technology. Given the potential impact of redeployed officers resulting from technology procurement, we decided to use this sample to closely track technology implementation. Specifically, we collected information regarding each stage of the procurement process through having the product fully implemented or in the hands of end users, planned uses of the computers, and implementation problems encountered and solved, and unexpected costs.

The Wave 3 survey reinterviewed municipal or county agencies that completed interviews in Wave 1 or Wave 2. For nongrantees and agencies with hiring awards, only medium and large agencies were reinterviewed; MORE grantees of all sizes were reinterviewed.[2] The population represented by this subsample accounted for a disproportionate share of all COPS funding and more than 75 percent of MORE funding awarded through 1997. We used the sample to

collect information on the progress (since Wave 1) of hiring officers, procuring technology, and redeploying officers through technology implementation. Because many of the hiring grants were approaching expiration, we also collected information on expected postgrant retention of COPS-funded officers. Finally, as appropriate, we collected information about decisions to withdraw from COPS-funded programs.

The Sample Frame and the National Law Enforcement Agency List

We created two lists of law enforcement agencies in the course of this project. The first, our agency sample frame, was created in April 1996 when we first obtained the current grants management database from the COPS Office. The sample frame lists all 20,894 organizations that were "probably eligible" for Federal funding of police officers at some point between June 1993 (2 months before announcement of the Police Hiring Supplement program) and April 1996, when the COPS Office resumed full operation following a shutdown by the Federal Government. The second, the National Law Enforcement Agency List (NLEAL), was created in July 1998 as a supplemental product of this study and lists 22,923 agencies. We believe it contains the most comprehensive list of law enforcement agencies in existence at some point between June 1993 and June 1997. This longer list was informed by the new Justice Agency List, which the Bureau of Justice Statistics had recently updated for the 1997 Law Enforcement Management and Administrative Statistics (LEMAS) survey. For each agency, the NLEAL contains several indicators of potential eligibility for COPS grants.

The variation in counts reflects the wide range of "eligible agencies." Early grant application kits listed State, local (including county), tribal, and public law enforcement agencies. Jurisdictions serving special populations (e.g., transit, university, public housing, schools, and natural resources) were eligible. Jurisdictions wishing to establish or reinstate law enforcement agencies

were eligible, as were consortia of agencies. Consistent with its community policing orientation, the COPS Office reviewed applications to ensure that law enforcement take place in the community. Therefore, sheriffs' offices that enforced laws only within jails were not eligible, as were regulatory agencies that enforced only laws applying to alcoholic beverage vendors, licensed professions, or specialized activities.

The list of COPS grantees includes several categories of organizations that BJS does not recognize as agencies. These include: contract agencies (which have few if any officers, contract with other agencies for law enforcement services, and may use their COPS grant to support an officer dedicated to their jurisdiction); and consortia of agencies formed to apply for a COPS grant, usually to support technological devices that serve all members of the consortium. Further, tribal and private university police departments that BJS excludes from LEMAS were eligible for COPS grants. Finally, like the FBI's UCR database, COPS Office records were organized by agency origin (ORI); therefore, the office created synthetic ORIs, prefixed by "ZZ," for applicants that the staff did not recognize from the other databases. The "ZZ agencies" include the contract agencies and consortia, startup agencies created at about the time the COPS program was announced, and erroneous duplicates of agencies that were difficult to match in the other lists. All these categories of agencies tend to make the sample frame and NLEAL larger than other lists.

Nongrantees were identified from the UCR and NCIC files. As with the grantees, defining agencies and assessing eligibility were less than straightforward. We made special efforts to drop ORIs that were "nested" within other agencies, such as State police barracks that report separately to UCR, bureaus of larger agencies with their own NCIC addresses, and agencies with jurisdiction over subareas of other agencies (e.g., a unit of a campus police agency that patrols only a building that houses classified research projects). Finally, because the COPS

Office determined eligibility of sheriffs' offices and special-jurisdiction agencies on a case-by-case basis, discretion was needed to impute the eligibility status of nonapplicants in those categories. For example, a park police agency that enforced all laws on designated parklands would normally be eligible, while an agency that enforced only fish and game laws would be ineligible, even if it had jurisdiction throughout an entire State. For such agencies, where we could not be certain of eligibility in advance, the NLEAL record includes multiple "possibly eligible" indicators constructed under narrow and broad interpretations of available information.

The following sections explain how we constructed the sample frame in light of these complications.

Creating the sampling frame

To produce the sampling frame, we constructed a grantee component consisting of agencies that had received funding during 1995, and a nongrantee component consisting of agencies that appeared potentially eligible but remained unfunded through 1995. The two components were merged to create the sampling frame we used to draw the national sample of law enforcement agencies.

Grantee component of the sampling frame. The grantee component of the sampling frame was created from databases received from the COPS Office in April 1996. Specifically, the COPS Office provided databases for the FAST, AHEAD, UHP, and MORE programs that included among other things the applicant's agency ORI and the status for each submitted application. We counted an application as funded if the status variable indicated that the application was accepted by the COPS Office for funding by December 31, 1995. Because an agency could have applications accepted in multiple programs, the databases were flattened so that each agency represented a single record. Table MA–1 shows the distribution of awards through 1995 by program, before flattening the

Table MA–1. Agencies in Grantee Component of Sampling Frame	
COPS Office Program	**Number of Funded Applications**
FAST/AHEAD	6,391
MORE	1,564
UHP	1,345
Total	**9,300***

*This total represents the total number of grants awarded. There are 8,046 unique agencies that received awards.

database. An agency was added to the grantee component of the sample frame if at least one of its applications was counted as funded. This component contained 8,046 agencies.

Nongrantee component of the sampling frame. The eligible nongrantee component of the sample frame was completed in the following steps:

- Compile a master list of 43,255 candidates for inclusion as eligible nongrantees.

- Remove 14,266 agencies that could be classified as "clearly ineligible" using automated algorithms, leaving 28,989 potentially eligible agencies on the reduced master list.

- Match the reduced master list against the grantee list, repair erroneous ORIs, delete 1,112 records with duplicate ORIs, and remove 6,983 records of agencies that we classified as "probably ineligible" based on a combination of visual inspection and computer matches.

- From the 20,894 remaining agencies, remove the 8,046 grantees, leaving 12,848 agencies in the "eligible nongrantee" component of the sample frame.

Table MA–2 summarizes the contributions of the two source lists to the reduced master list and the sampling frame. The following subsections explain the process of elimination.

Excluding ineligible nongrantee agencies: First iteration. To reduce the master list to a sample frame, we needed to filter out agencies that were ineligible for COPS grants. During the first iteration of filtering, we applied five screening criteria in the following order:

- Agencies with "SP" or "99" in the sixth and seventh bytes of their ORI codes: These are substations or county offices of the State police or highway patrol. These "nested" substations are not eligible to apply for COPS grants, even though they may report crimes to the UCR and they generally do have NCIC

Table MA–2. Distribution of Agencies in the Master List and Sampling Frame, by Non-COPS Data Source					
Source	**Total Number of Agencies**	**Contribution to the Master List**	**Duplicate ORI Codes**	**Ineligibles**	**Contribution to the Sampling Frame**
NCIC and UCR	—	14,162	—	(562)	13,600
NCIC only	98,583	10,794	(1,112)	(4,284)*	5,398
UCR only	18,195	4,033	—	(2,137)	1,896
Total	**116,778**	**28,989**	**(1,112)**	**(6,983)**	**20,894**

*There may be 10 agencies that were double counted.

terminals. Only State police headquarters offices are permitted to apply for COPS grants.

- Agencies with letters in the sixth byte of their ORI codes: According to NCIC documentation, the sixth byte of a law enforcement agency's ORI code should be a number. Preliminary inspection of ORI codes revealed that many agencies with a letter in this position of their ORI codes were regulatory agencies with administrative enforcement authority, such as departments of welfare, fraud investigation units, etc. Some of these agencies, however, were determined to be eligible law enforcement agencies. Therefore, the sixth byte criterion was not sufficient to classify agencies as eligible or ineligible; followup checks were done during the second iteration of filtering.

- Zero population State agencies: In the UCR database, zero population agencies are those without resident population or those whose population can be determined by summing the population of the county units within a State.[3] Among this group of agencies were State police agencies, which are eligible for COPS funding and were kept in the sample frame. Other State agencies with zero resident population are transit police, harbor police, park police, and so forth, which seemed unlikely to have general law enforcement functions and were therefore excluded from the sample frame.

- For the agencies that were in the NCIC-only category, county/parish and local agencies were reviewed for eligibility to remove local and county administrative agencies and "nested" substations of eligible local and county agencies. In addition, this step filtered out some previously unrecognized State police substations and suboffices of State administrative agencies. Because there was no other method to distinguish potential ineligibles from eligibles in the NCIC-only list, all of these nested State agencies were also reviewed and eliminated at this point.

- Sheriffs' agencies: County sheriffs' functions vary State to State. In most States, sheriffs' agencies maintain day-to-day operations and law enforcement within county jails. In some, sheriffs' offices also provide general law enforcement functions throughout the rest of the county. The COPS Office accepted applications only from the latter category; sheriffs' agencies without general law enforcement responsibilities in communities outside jails were ineligible. Lacking information on the functions of sheriffs' offices that had not applied for grants, we took a conservative approach and counted all sheriffs' offices in a given State as "ineligible" if no sheriffs' office within the State had been funded. We believe that this conservative approach probably led to an undercount of eligible sheriffs' offices. Actual eligibility determinations were, of course, made by the COPS Office when applications were received; therefore some agencies that we had excluded may well have later received COPS grants.

Using the above criteria, we deleted a total of 14,266 ineligible nonfunded agencies on the first iteration of filtering.

Excluding ineligible nongrantee agencies: Second iteration. Table MA–3 shows the number of ineligibles by source identified during the first iteration. The totals from the second iteration are also shown in table MA–3 and are the results of a more refined inspection process that relied on the above criteria and additional criteria developed subsequently in consultation with policing experts.

The second iteration involved visual inspection and computer matching. Visual inspection was used to examine the NCIC and UCR and UCR-only lists; computer matching was used only with the NCIC-only list. Two reviewers independently examined the lists and classified agencies into one of three categories: (a) eligible, (b) ineligible, or (c) unable to determine. The reviewers' codes were compared, and the cases in which they disagreed or were unable to determine

Table MA–3. Number of Ineligibles From Each Source		
Source	First Iteration (Potential Ineligible)	Second Iteration (Identified Ineligible)
NCIC and UCR	1,305	562
NCIC only	10,794	4,284
UCR only	2,167	2,137
Total	**14,266**	**6,983**

eligibility were identified. These cases were reviewed by the coprincipal investigator with practical policing experience. His decision determined the final classification for an agency.

For the NCIC-only list, a reviewer classified the agencies as above. Following the classification phase, the reviewer conducted character string searches using words or phrases commonly found in the names of ineligible agencies. For example, "wildlife" agencies and "constable precincts" were generally ineligible. Therefore, these strings were used as a search criteria, and all the records not originally flagged as ineligible were searched to find additional agencies that had these strings in their names. The search procedures generated an additional 182 agencies, which were visually reviewed to make the final eligibility determination.

The final step: Compiling the list of eligible agencies (grantee and nongrantee). The list of eligibles was merged with the flattened sampling frame of grantees. Agencies appearing in both lists were removed from the nongrantee sampling frame. The final compilation included 20,894 eligible agencies (12,848 nongrantee and 8,046 grantee agencies). These agencies comprise our sampling frame.

Sample Strata and Designed Sampling Fractions

The survey samples were drawn from the list of 20,894 eligible law enforcement agencies—the sampling frame (see table MA–4). Our objective was to draw a sample that represented the Nation's COPS-eligible law enforcement agencies and that had sufficient statistical power to compare grantees and nongrantees, describe two population groups separately, and support separate analyses of hiring grantees and MORE grantees. In addition, as the sample was being designed, the COPS Office announced that the UHP was to replace the FAST and AHEAD hiring programs in the future. Also, of the 12,848 eligible nongrantees, we lacked population data for 4,208. Using power analyses it became clear that there was a need to oversample agencies in the larger population category, especially nongrantees, UHP grantees, and MORE grantees. Therefore, we stratified the sampling frame by COPS Office grantee/nongrantee status, grant programs of awards, and population category. As a result, we had three program strata, which represented the four COPS programs and the nongrantee stratum,[4] and two population strata, which divided agencies with jurisdiction population above and below the 50,000 population

Table MA–4. Sampling Frame by Funding/Program Status and Population Category					
Population Group	Not Funded	Accelerated (FAST/AHEAD)	UHP	Total MORE	Funded
Less than 50,000	8,373	5,845	1,186	1,136	8,167
50,000 or more	267	546	159	349	1,054
Missing	4,208	—	—	79	—
Total	**12,848**	**6,391**	**1,345**	**1,564**	**9,300***

*This total represent awarded grants to 8,046 agencies

level, and missing population. For sample selection purposes, we treated the missing population agencies as a separate stratum; however, because inspection indicated that a large majority served jurisdictions of less than 50,000, they were analyzed in that population category.

To accomplish our goal of selecting a representative sample of law enforcement agencies, we sampled 2,098 agencies across funding status and population category (see table MA–5). The size of the sample (within each stratum and overall) was based on power analysis using conventional levels for the probabilities of type 1 and type 2 errors, .05 and .20 respectively; we also assumed an 80 percent response rate in the survey. As a result, we sampled roughly 280 agencies in each cell, except for large nongrantees and UHP grantees, which were sampled with certainty. Even though we oversampled grantees, the nongrantee stratum is sufficient for comparative analyses with grantee agencies; similarly, although we oversampled agencies serving jurisdictions of more than 50,000, the population of smaller agencies is so large that they, too, can be analyzed separately.

Table MA–6 shows the designed sampling fractions for Wave 1 based on our target sample. These fractions highlight the disproportional distribution of the sample with respect to the funding status and population category strata. Further discussion of the sampling fractions for the three waves of survey implementation and the implication for survey weights is provided below.

Survey Completion Rates

The National Opinion Research Center (NORC) was subcontracted to administer the Wave 1 survey with the target of achieving an 80 percent completion rate. We submitted to NORC our sample of 561 nongrantee agencies and 1,537 grantee agencies. NORC began the interview process by treating the nongrantee component and the grantee components as four independent strata, one for nongrantees and three for grantees respectively. For each funding status/program category, NORC randomly assigned sample units of 100 agencies to a replicate, without regard to population category. Interviewers were instructed to work within a single replicate until each agency had been contacted. Once all agencies within a replicate were contacted, interviewers move on to the next replicate. Any replicate touched did not expire until every agency within the replicate had been contacted.

Because NORC randomly assigned agencies within a stratum to a 100-unit replicate, each agency within a given stratum had an equal

Table MA–5. Sampled Agencies by Funding/Program Status and Population Category					
Population Group	Not Funded	FAST/AHEAD	UHP	MORE	Total
Less than 50,000	107	279	280	282	948
50,000 or more	267	272	159	271	969
Missing	187	—	—	—	187
Total	**561**	**551**	**439**	**553**	**2,104**

Table MA–6. Designed Sampling Fraction by Funding/Program Status and Population Category				
Population Group	Not Funded	FAST/AHEAD	UHP	MORE
Less than 50,000	0.013	0.048	0.236	0.248
50,000 or more	1.000	0.498	1.000	0.777
Missing	0.044	—	—	—
Total	**0.044**	**0.086**	**0.326**	**0.354**

probability of selection; and each agency within a cell had the same weight. (See following section for further discussion on weighting.)

Wave 1 survey

Table MA–7 shows the response rates by funding status and population category strata. Not surprisingly, response was higher for the grantee strata than for the nongrantee strata because most members of the nongrantee strata had decided not to apply to the program, had applications rejected, or had withdrawn from the program.[5] In contrast, the response rates for grantee agencies hovered around 80 percent.

Wave 2 survey

The Wave 2 sampling frame included two groups of agencies (see table MA–8). The first group consisted of "new UHP" agencies not funded during the first year of the COPS program, whose first COPS funding was a UHP grant awarded after April 1996. These are agencies that received their first COPS Office funding after April 1996. The second "MORE (MC)" group consisted of all MORE grantees in the Wave 1 sample that reported on their grant applications that their MORE grants would be used to purchase mobile computers.[6]

The following tables show sample size (table MA–9) and response rates (table MA–10) for

Table MA–7. Wave 1 Response Rates (Percent), by Funding/Program Status and Population Category					
Population Group	Not Funded	FAST/AHEAD	UHP 95	MORE 95	Total
Less than 50,000	61	84	78	75	77
50,000 or more	67	78	99	84	80
Missing	61	—	—	—	61
Total	**64**	**81**	**85**	**79**	**77**

Table MA–8. First-Time UHP and MORE Mobile Computer Grantees, by Population Category			
Population Group	VUHP	MORE (MC)	TOTAL
Less than 50,000	719	95	814
50,000 or more	32	90	122
Total	**751**	**185**	**936**

Table MA–9. Wave 2 Sampled Agencies, by Program and Population Category			
Population Group	New UHP	MORE (MC)	Total
Less than 50,000	298	95	393
50,000 or more	32	90	122
Total	**330**	**185**	**515**

Table MA–10. Wave 2 Response Rates (Percent), by Grant Program and Population Category			
Population Group	New UHP	MORE (MC)	Total
Less than 50,000	76	99	85
50,000 or more	94	99	94
Total	**78**	**99**	**85**

the new UHP and MORE (MC) strata. We selected certainty samples of the MORE (MC) category and the new UHP large-population cell. The sample size for the new UHP small-population cell was based on power analysis using conventional level for the probabilities of type 1 and type 2 errors, 0.05 and 0.20 respectively. The overall response rate was 85 percent.

Wave 3 survey

The Wave 3 sample frame included 1,724 agencies previously interviewed in Wave 1 and/or Wave 2; however, the supplemental funding that we obtained for Wave 3 was intended to support only 750 completed interviews. Because municipal and county police agencies serving jurisdictions of more than 50,000 received a disproportionate share of COPS dollars and account for a disproportionate share of crime and because projected MORE-supported productivity increases accounted for such a large share of total officers and full-time equivalents, we focused Wave 3 on those two groups. In the hiring program and nongrantee categories, we sampled *all* municipal and county agencies serving jurisdictions of more than 50,000 that had responded in Wave 1 or Wave 2. In the MORE category, we sampled all previous municipal and county respondents, regardless of population category. As shown in table MA–11, the resulting sample size was 766 agencies.

Response rates were higher in Wave 3 than in Wave 1, exceeding 90 percent for all grantee strata (see table MA–12). This may reflect greater experience with our survey protocol, greater interest in the issues being addressed among large municipal and county police agencies, or some other factor. The response rate in the nongrantee cell also increased to 86 percent. We believe this reflects the sizable share of agencies that received COPS grants after being selected as nongrantees based on their status as of May 1996.

Weights and Sampling Errors: Accounting for Multiple Selection Probabilities

The complexity of weighting our samples arises from the fact that the samples are stratified by grant program[7] and population category. Additionally, we drew a sample within each grant program stratum to provide each agency within the stratum an equal probability of being selected and each agency within a population category cell an equal weight. This approach is not problematic for agencies funded under only a single grant program. However, an agency that received funding for multiple grant programs will have a selection probability and sample weight for each program, and the probabilities will differ across programs.

Table MA–11. Wave 3 Sampled Municipal and County Police Agencies, by Funding/Program Status and Population Category					
Population Group	Not Funded	FAST/AHEAD	UHP	MORE	Total
Less than 50,000	—	—	—	183	183
50,000 or more	143	169	98	173	583
Total	**143**	**169**	**98**	**356**	**766**

Table MA–12. Wave 3 Response Rates (Percent), by Funding/Program Status and Population Category					
Population Group	Not Funded	FAST/AHEAD	UHP	MORE	Total
Less than 50,000	—	—	—	100	100
50,000 or more	86	92	98	88	90
Total	**86**	**92**	**98**	**94**	**93**

The weight(s) assigned to each agency in our sample account(s) for differential probabilities of selection into the sample, adjusting for nonresponse and aligning the weighted distribution of agencies in the sample with the distribution of agencies in the U.S. population. In the simplest case, each agency in the same grant program and population category has the same weight. If j is the index for grant program and k is the index for population category, then the weight, W_{jk} for a particular grant program and population category is

$$W_{jk} = \frac{U_{jk}}{S_{jk}}$$

where U_{jk} is the number of agencies in the population and S_{jk} is the number of agencies with completed interviews in the sample. The weight is roughly inversely proportional to the probability of selection into the sample (adjusted for nonresponse). This weighting scheme would be adequate if all agencies belonged to precisely one stratum defined in terms of k and j. However, this weighting scheme is inappropriate for analyses that include agencies in more than one grant program stratum j. Because many agencies received an award in more than one program category, our sample selection and weighting scheme must take into account the multiple probabilities of selection associated with each grant program.

To address this problem, multiprogram agency weights were constructed as the arithmetic average probability of being selected into the sample. For multiprogram agency i,

$$W_{ik} = \frac{\sum_{j} W_{jk}}{G_i}$$

where G is the number of grant programs from which agency i received an award. The weight is a simple average of its weights for each program.

These weights were used for statistical analyses. Scaled weights, normalized to sum to 1.0, were used to provide corrected standard errors of estimates.

Notes

1. At the time of sample design, the COPS Office was operating two hiring programs: COPS FAST for jurisdictions smaller than 50,000 and COPS AHEAD for larger jurisdictions. The two programs were created to comply with the Title I requirement of simplified application procedures for the small jurisdictions, and we wished to be able to compare the two grantee categories. Title I also required that jurisdictions of less than 150,000 and jurisdictions over that limit each receive half of all awards. Because the 150,000 line did not seem relevant to grantees' behavior, we decided not to use it to stratify the sample.

2. As explained more fully in the discussion of sampling, all Wave 1 survey strata are defined in terms of status in May 1996. Grantee strata names refer to the program lists—FAST, AHEAD, UHP, or MORE—from which sample members were selected, and the selection probabilities (i.e., sampling weights) for grantees with awards from multiple programs were adjusted to compensate for the multiple probabilities of selection. Therefore, for example, agencies in the FAST cell were asked about their UHP and/or MORE grants, and agencies in the nongrantee cells were asked about grants, if any, that they received after sample selection.

3. The UCR population data are reported in a manner that permits the UCR to aggregate population to the county level without double counting the population of a city within a county and that county. Population is first distributed among the city and subcounty units within a county. The residual is allocated to the county. A county's total population is the sum of the population of the units in the county. Similarly, state agencies are given zero population also to avoid double counting. State population is the sum of the population of the counties (aggregated from the subcounty units) in the State.

4. The FAST and AHEAD programs are part of the same program stratum because they split on the population stratum. In fact, FAST and AHEAD are both accelerated hiring programs for small and large agencies respectively.

5. Based on survey responses, about 1.8 percent of agencies in the nongrantee strata were ineligible. Therefore, in each cell, response rates as a percent of eligible nongrantees are about 1 percentage point higher than those reported in table MA–7.

6. In a separate data collection effort, limited information including technology types and civilian positions was coded from the hardcopy MORE grant applications of all agencies selected for the MORE sample.

7. Agencies in our sample could have been selected for only one grant type though the agency may have had other grant types. For example, an agency with a FAST and MORE grant could have been selected in the FAST stratum, MORE stratum, or both. Each stratum was drawn independently of the other, and selection in one did not preclude selection in the other.

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About the National Institute of Justice

The National Institute of Justice (NIJ), a component of the Office of Justice Programs, is the research agency of the U.S. Department of Justice. Created by the Omnibus Crime Control and Safe Streets Act of 1968, as amended, NIJ is authorized to support research, evaluation, and demonstration programs; development of technology; and both national and international information dissemination. Specific mandates of the Act direct NIJ to:

- Sponsor special projects and research and development programs that will improve and strengthen the criminal justice system and reduce or prevent crime.

- Conduct national demonstration projects that employ innovative or promising approaches for improving criminal justice.

- Develop new technologies to fight crime and improve criminal justice.

- Evaluate the effectiveness of criminal justice programs and identify programs that promise to be successful if continued or repeated.

- Recommend actions that can be taken by Federal, State, and local governments as well as by private organizations to improve criminal justice.

- Carry out research on criminal behavior.

- Develop new methods of crime prevention and reduction of crime and delinquency.

In recent years, NIJ has greatly expanded its initiatives, the result of the Violent Crime Control and Law Enforcement Act of 1994 (the Crime Act), partnerships with other Federal agencies and private foundations, advances in technology, and a new international focus. Examples of these new initiatives:

- Exploring key issues in community policing, violence against women, violence within the family, sentencing reforms, and specialized courts such as drug courts.

- Developing dual-use technologies to support national defense and local law enforcement needs.

- Establishing four regional National Law Enforcement and Corrections Technology Centers and a Border Research and Technology Center.

- Strengthening NIJ's links with the international community through participation in the United Nations network of criminological institutes, the U.N. Criminal Justice Information Network, and the NIJ International Center.

- Improving the online capability of NIJ's criminal justice information clearinghouse.

- Establishing the ADAM (Arrestee Drug Abuse Monitoring) program—formerly the Drug Use Forecasting (DUF) program—to increase the number of drug-testing sites and study drug-related crime.

The Institute Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the Department of Justice, and the needs of the criminal justice field. The Institute actively solicits the views of criminal justice professionals and researchers in the continuing search for answers that inform public policymaking in crime and justice.

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