

- ▶ COPS Office funding results in higher police arrest productivity and a reduction in crime across four index crime categories. The effect is significant in communities of less than 100,000 (Zhao, Zhang, and Thurman 2011).
- ▶ Each additional dollar devoted to the COPS Office program generates somewhere between \$4 to \$8.50 in savings to society (Donohue and Ludwig 2007).
- ▶ The COPS Office’s innovative grants, with an average spending amount of \$620,000, have been shown to produce a victim cost-savings of \$1,341,874 (Muhlhausen 2006).
- ▶ For each additional dollar of miscellaneous COPS Office grants per capita, the expected value of violent crime has been shown to decline by almost 16.2 incidents per 100,000 people (Muhlhausen 2001).
- ▶ Each dollar of hiring grants per resident has been shown to contribute to a corresponding decline of 5.26 violent crimes and 21.63 property crimes per 100,000 residents (Zhao and Thurman 2001).

Perhaps most significantly, the Government Accountability Office (GAO) concluded in its report on the COPS Office that “as a demonstration of whether a federal program can affect crime through hiring officers and changing policing practices, the evidence indicates that COPS contributed to declines in crime above the levels of declines that would have been expected without it.” In addition, two studies using a well-regarded technique (regression discontinuity) that approximates a randomized controlled test find that COPS Office grants are associated with increases in the number of officers in agencies and produce significant declines in violent and property crimes without producing corresponding increases in arrest rates. Although policing practice has changed since the COPS Office was established in 1994, during which the underlying assumptions of what police do in terms of crime prevention and response have remained the same, research during this time has consistently shown that police do have an impact on crime. What changes there have been—especially in terms of how community policing increases police emphasis on preventative and social engagement activities and moves beyond the implied deterrence of directed patrol—should only increase the impact police have on crime, not lessen it. Consequently, all of the research produced since the founding of the COPS Office on the effectiveness of federal funding for local law enforcement remains relevant to discussions of such funding in the 21st century.

Bibliography

Entries are presented in reverse chronological order, with the most recent publications first.

Gottfredson, Denise C., Scott Crosse, Zhiquin Tang, Erin L. Bauer, Michele A. Harmon, Carol A. Hagen, and Angela D. Greene. 2020. “Effects of School Resource Officers on School Crime and Responses to School Crime.” *Criminal Public Policy* 19(1): 905–940.

Summary: This study examined the effects of an increase in school resource officer (SRO) staffing on schools in a sample of 33 public schools that enhanced SRO staffing through the U.S. Department of Justice’s Community Oriented Policing Services Hiring Program and a matched sample of 72 schools that did not increase SRO staffing at the same time. In a longitudinal analysis of monthly school-level administrative data for the 2011–2012 to 2016–2017 school years, the authors compared the treatment and comparison schools on disciplinary offenses and actions. The study found that increased SROs increased the number of drug- and weapon-related offenses and exclusionary disciplinary actions for treatment schools relative to comparison schools. These effects were more frequently found for students without special needs.

Key findings:

- ▶ When schools increased SRO staffing, weapon- and drug-related offenses increased immediately, and these effects persisted for 20 months after the increase in SROs.
- ▶ The number of exclusionary disciplinary actions taken against students also increased immediately after the rise in SRO staffing, and this increase persisted for 11 months. The findings were significant for students without special needs but not for students with special needs.
- ▶ On average, SROs in these schools spent about half their time (48 percent) in law enforcement and order maintenance activities. They spent 30 percent of their time on counseling and mentoring, another 20 percent of their time in teaching activities, and 2 percent of their time in other activities.
- ▶ For the subset of students with special needs, as SRO time spent on law enforcement increased, counts of less severe offenses decreased.

Weisburst, Emily. 2019. “Safety in Police Numbers: Evidence of Police Effectiveness from Federal COPS Grant Applications.” *American Law and Economics Review* 21(1): 81–109.

Summary: In this study, the author uses variation in Office of Community Oriented Policing Services (COPS Office) hiring grant awards and grant applications to measure the impact of police force expansions on crime between 2000 and 2014. The study measures the impact of police on crime using an instrumental variables design, instrumenting for police presence using COPS Office grant acceptances conditional on application decisions. Because of large fluctuations in total funding for COPS Office programs, there is substantial variation in the number of possible grants that can be awarded in each year. The program variation creates quasi-randomness in the probability of a grant acceptance in a given year within a given city and is the foundation of the author’s identification strategy. The results also provide suggestive evidence that law enforcement leaders are forward-looking.

Key findings:

- ▶ The average hiring award from 2000 to 2014 was approximately \$825,000—or \$225,000 per 10,000 residents—designating funding for an average of 5.8 police officers or two officers per 10,000 residents.
- ▶ Applying upper and lower bound estimates of the literature on the social cost of crime, the study finds that the average welfare benefit of this hiring increase ranges from \$13,185 to \$559,128 per district.
- ▶ Using data from nearly 7,000 U.S. municipalities, the author finds that a 10 percent increase in police employment rates reduces violent crime rates by 13 percent and property crime rates by 7 percent.
- ▶ The author observes that the decision to apply for federal hiring funds does not appear to be motivated by a spike in crime but instead is correlated with subsequent increases in crimes rates. One possible explanation for this pattern is that law enforcement leaders may incorporate expected changes in crime in their strategic decisions.

Weisburst, Emily. 2019. “Patrolling Public Schools: The Impact of Funding for School Police on Student Discipline and Long-Term Education Outcomes.” *Journal of Policy Analysis and Management* 38(2): 338–365.

Summary: The widespread use of police officers in public schools is a relatively recent development. While there is growing public debate about the consequences of police presence in schools, there is scant evidence of the impact of police on student discipline and academic outcomes. This paper provides the first estimate of the impact of funding for school police on student discipline and educational attainment using quasi-experimental methods. Using variation in federal Office of Community Oriented Policing Services (COPS Office) Cops in Schools (CIS) grants between 1999 and 2008, the study measures the effect of receiving an increase in funding on students conditional on school district decisions to apply for this funding. This strategy addresses biases related to both the nonrandom assignment of police to particular school districts and the nonrandom timing of investments in police within school districts. Using detailed data on more than 2.5 million public school students in the state of Texas in the 7th to 12th grades, the study finds that grants for school police increase disciplinary actions for middle school students but do not change the rates of disciplinary actions for high school students. In the long term, exposure to federal funding for school police is associated with small but significant declines in high school graduation rates and college enrollment.

Key findings:

- ▶ Awarded grants designated funding for three SROs per school district on average, with total funds of \$324,000 per school district (weighted by student years). Eighty percent of students attended school districts that applied for a grant during the sample period, and 70 percent of students attended school districts that received a grant during the sample period.
- ▶ The study finds that CIS grants for police in public schools in Texas increase middle school discipline rates by 6 percent.
- ▶ The rise in middle school discipline is driven by sanctions for low-level offenses or school code of conduct violations rather than serious offenses. In addition, the study provides evidence that out-of-school suspensions are the most common sanction for these low-level offenses.

- ▶ CIS grants did not change rates of disciplinary action for high school students.
- ▶ The study finds a 5 percent increase in discipline for low-income White students and a 7 percent increase in discipline for low-income Black and Hispanic students. For students who are not low-income, Black students experience a 10 percent increase in discipline, followed by a 6 percent increase for Hispanic students and a 4 percent increase for White students.
- ▶ The study finds that exposure to one three-year CIS grant is associated with a 2.5 percent decrease in high school graduation rates and a 4 percent decrease in college enrollment rates.
- ▶ The findings imply that one life can be saved from homicide by hiring 10 additional police officers.
- ▶ Arrest rates do not appear to increase with police force expansions, suggesting a deterrence mechanism underlying the crime reductions rather than incapacitation.
- ▶ Using conservative effect sizes, the estimated social benefit of an additional officer-year (one officer added for one year) was \$352,000 while costing \$169,000. With nearly 9,500 officer years added by the ARRA funding round, the estimated total net benefit was \$1.6 billion, which suggests that the program easily passes a cost-benefit test.

Mello, Steven. 2019. “More COPS, Less Crime.”
Journal of Public Economics 172(1): 174–200.

Summary: This study exploits a unique natural experiment to estimate the causal effects of police on crime. The study uses a panel of 4,327 cities who applied for COPS Office hiring program funding from 2004 to 2014. The author leverages quasi-random variation in grant receipt by comparing the change through time in police and crimes for cities above and below the threshold in a difference-in-differences framework. The methods are well regarded and approximate a randomized controlled trial. Relative to low-scoring cities, those above the cutoff experience increases in police of about 3.2 percent and declines in victimization cost-weighted crime of about 3.5 percent. In addition, crime reductions associated with additional police were more pronounced in areas most affected by the Great Recession. The results highlight that fiscal support to local governments for crime prevention may offer large returns, especially during bad macroeconomic times.

Key findings:

- ▶ The average grant funded 1.7 officers per 10,000 residents (6 percent increase in current force size).
- ▶ The estimates suggest that an additional COPS Office-funded officer is associated with 4.3 fewer violent crimes and 15.4 fewer property crimes per 10,000 residents the year following their hiring.
- ▶ COPS Office-funded police force increases generate statistically significant declines in murders, rapes, and robberies. An additional officer prevents 0.11 murders, 0.53 rapes, and 1.98 robberies. While robbery accounts for just 15 percent of all violent crimes, it accounts for nearly half of the estimated impact of police on violent crime.

Cook, Phillip, Max Kapustin, Jens Ludwig, and Douglas Miller. 2017. *The Effects of COPS Office Funding on Sworn Force Levels, Crime, and Arrests: Evidence from a Regression Discontinuity Design.* Washington DC: Office of Community Oriented Policing Services.

Summary: This study estimates the effects of 2009 COPS Office Hiring Recovery Program (CHRP) grant funding on changes in police force strength, arrest rates and crime rates. The authors replicate the COPS Office funding processes for the \$1 billion in grants awarded to local law enforcement agencies as a part of the 2009 Recovery Act. The analysis uses a natural experiment that resulted from how this funding was awarded. The study compares those agencies with application scores just above the cutoff, and that were far more likely to be successful with their funding requests as a result, to a similar sample of agencies with scores just below the cutoff. This well regarded statistical technique, called a regression discontinuity design, creates two closely comparable groups and it approximates a randomized controlled study.

The authors used Uniform Crime Report (UCR) data for crime and arrests measures and used both UCR data and U.S. Census Annual Survey of Government Data to measure police force strength. The authors describe the extensive efforts they undertook to properly clean all of the data and account for outliers. The authors compared the results from each year 2009, 2010, 2011, and 2012 (post-treatment years) to the baseline year of 2007 to 2008 (pre-treatment years). They also conducted separate analyses for all agencies applying for COPS funding (7,202 agencies) and agencies that serve populations of 0 to 50,000 residents (4,954 agencies) to examine potential differences resulting from population size. Finally, they examined agencies where a COPS Office award would

have potentially increased the total force strength of the agency by more than 5 percent to see if those agencies with a more significant desired investment of officers experienced a different impact.

Key findings:

- ▶ Agencies that received COPS Office funding increased their sworn force strength in 2009 by 1.9 percent from 2007–2008 levels when compared to agencies who were unsuccessful in their funding. For agencies with populations from 0 to 50,000, this increase was 2.4 percent.
- ▶ By 2010, the first full calendar year after COPS funding was issued, the decline in total UCR crime rates from 2007–2008 levels of CHRP-funded agencies compared to nonfunded agencies is 4.5 percent. In 2011, the estimates increase to a 5.5 percent decline and then in 2012 to a 5.1 percent decline, although the 2012 finding is not significant at the .05 level (p-value of .079).
- ▶ Violent crime rates in COPS Office–funded CHRP agencies declined 9.2 percent in 2010 relative to 2007–8 compared to nonfunded agencies.
- ▶ Among property crimes, none of the estimates are significant at the 10 percent level or lower; however, among smaller agencies (serving between 0 and 50,000 residents), the effect on property crime rates appears to be both larger and more precisely estimated (7.6 percent decline in 2012 relative to 2007–8, p-value of .038).
- ▶ Arrest rates in 2010 relative to 2007–8 are 6.2 percent smaller for CHRP funded agencies compared to non-funded agencies. COPS funding was associated with a decline in arrests. As with crime rates, the effects on violent arrest rates tend to be larger than those on property arrest rates.
- ▶ COPS Office funding increased officers per capita in 2009 relative to 2007–8 by almost 2 percent for agencies near the funding threshold and led to declines in reported UCR Part 1 crimes of approximately 5 percent in subsequent years, albeit estimated with varying degrees of precision. A similar estimated decline in arrests was found in 2010, suggesting that deterrence, rather than incapacitation, may on net be the mechanism driving these results.
- ▶ Though not sufficiently strong to conclude that there are increasing returns to police spending, the results presented here provide suggestive evidence that additional police resources represent a cost-effective approach to reduce crime.

Maguire, Edward R., Craig D. Uchida, and Kimberly D. Hassell. 2015. “Problem-Oriented Policing in Colorado Springs: A Content Analysis of 753 Cases.” *Crime and Delinquency* 61(1): 71–95.

Summary: The authors examine the success of problem-oriented policing in Colorado Springs, Colorado, one of the first major American cities to fully implement and organizationally embrace this method. The authors examined 753 cases of problem-oriented policing events in Colorado Springs. The results of this examination found that the SARA (scanning, analysis, response, and assessment) method of problem-oriented policing was successful in reducing crime and, more importantly, in increasing officer awareness of community issues and distributing community policing training. An initial COPS Office grant of nearly \$1 million, along with the office’s guidance, advice, and human resources, enabled the Colorado Springs Police Department to implement these strategies.” Given the intense resource and human capital needs of fully implementing problem-oriented policing in a department, COPS Office grants are beneficial in allowing smaller departments to fully implement this philosophy.

Key findings:

- ▶ Problem-oriented policing is an idea promoted by the COPS Office that emphasizes proactivity rather than reactivity in law enforcement.
- ▶ Problem-oriented policing has been the subject of intense scrutiny among researchers and has been described as an effective approach to improve public safety.
- ▶ Colorado Springs Police Department has implemented problem-oriented policing successfully and has become a benchmark program for many international law enforcement agencies. Much of the city’s success can be attributed to a nearly \$1 million grant given by the COPS Office in 1997.
- ▶ Core problem-oriented policing ideas, including the necessity of targeting specific underlying conditions that give rise to problems, are critical to the effectiveness of community policing.
- ▶ COPS Office and other federal grants make it easier for law enforcement agencies, especially smaller ones, to focus attention on proactive problem-solving activities.

- ▶ COPS Office grants provide, most critically, the ability for agencies to train officers and diffuse problem-oriented policing and community policing ideas throughout an agency, reducing the reactive nature of hierarchical policing structures.
- ▶ Implementation of the SARA method through COPS Office grants has successfully reduced crime.

Burruss, George W., and Matthew J. Gibblin. 2014. “Modelling Isomorphism on Policing Innovation: The Role of Institutional Pressures in Adopting Community-Oriented Policing.” *Crime and Delinquency* 60(3): 331–335.

Summary: This study builds on previous studies of isomorphism and institutional pressure in promoting community-oriented policing methods nationwide. The findings reaffirm the idea that federal grants, namely COPS Office grants, can achieve an effective level of institutional pressure through the diffusion of resources, methods, and training. The authors look at how agencies emulate one another and professionalize their officers by training them in community policing. Interaction among entities in the law enforcement field develops a community standard. COPS Office grants and the publicizing of the community policing philosophy institutionalize this standard in the expectations held by politicians, citizens, and other police agencies. The authors call these expectations “institutional pressures.” Information on the adoption of community policing was collected via a sample submitted by the administrators and chiefs of 1,637 agencies. The survey found that police agencies are likely to adopt community policing when the law enforcement community at large espouses the philosophy. Consequently, large federal efforts to influence the adoption of community policing, such as COPS Office grants, are influential beyond the confines of grantee agencies, as nongraantee agencies in the vicinity come under institutional pressure to follow suit.

Key findings:

- ▶ Ideological centrism is critical for the spread of community-oriented policing ideas.
- ▶ “Institutional pressure,” or the ability of large institutions to impose ideas on smaller ones, is of extreme importance in community policing proliferation.
- ▶ Community policing follows the structure of isomorphism, meaning that it gains a following based on the adoption and diffusion of its tenets among departments.

- ▶ Resources such as training manuals, films, and seminars are critical components of distributing community-oriented policing ideas.
- ▶ COPS Office grants and other federal efforts are effective initial pushes that begin chains of institutional pressure and allow smaller departments to implement community-oriented policing.

Zhao, Jihong, Yang Zhang, and Quint Thurman. 2011. “Can Additional Resources Lead to Higher Levels of Productivity (Arrests) in Police Agencies?” *Criminal Justice Review* 36(2): 165–182.

Summary: This study attempts to demonstrate a relationship between police productivity (arrests) and the resources provided by COPS Office hiring grants. The authors conclude that COPS Office grants provide a direct stimulus to manpower and overall police productivity. In smaller departments, this increase in productivity is also found to reduce overall crime and improve the quality of life in those communities. In cities of more than 100,000 people, the effect on crime is less conclusive, but arrests are positively correlated with COPS Office hiring grants in four separate categories of arrest.

Key findings:

- ▶ COPS Office hiring grants are “significantly associated” with increasing productive police action, including arrests and labor-intensive activities.
- ▶ Extra manpower provided by COPS Office hiring and Making Officer Redeployment Effective (MORE) grants provides the key to reducing crime and improving quality of life in smaller communities.
- ▶ COPS Office hiring grants accounted for a significant increase in productive arrests in communities that received them. This was observable in large and small populations.
- ▶ Hiring grants had a more significant effect on increasing police productivity than MORE grants when controlling for socioeconomic variables and crime.
- ▶ The findings in this study correspond to those published in a previous study by Zhao, Scheider and Thurman (2002) that also found that COPS Office hiring grants provide reductions in crime in smaller police agencies.

Heaton, Paul. 2010. *Hidden in Plain Sight: What Cost of Crime Research Can Tell Us About Investing in Police*. Santa Monica, CA: Rand Corporation.

Summary: Recent budget crises have heightened the need for better information on the value of public investment in controlling crime. Policymakers need to be able to use objective measures to identify policies that yield the greatest benefits given finite resources. One of the most common crime control investments made by local and state governments is spending on police personnel. While academic researchers have made substantial advances in estimating the cost of crime and the effectiveness of police in recent years, this research is underused by the policymaking community. This paper summarizes the existing research on the effectiveness of police in preventing crime and serves as a bridge to helping policymakers understand what the current social-science literature can tell them about the value of investments in police. In addition to other work on police hiring, it looks at research on the effects of community-oriented policing investments by Evans and Owens (2007); the U.S. Government Accountability Office (2005); Zhao, Scheider, and Thurman (2002); and Worrall and Kovandzic (2007).

Key findings:

- ▶ Cost-benefit analysis is a powerful tool for objectively evaluating the merits of crime control programs. In addition, applying this framework to real-world hiring and firing scenarios shows that investment in police personnel generates net social benefits, as well as reductions in crime that are likely to be savings in addition to the hiring costs.
- ▶ A number of studies using different methods have found that COPS Office grants reduced crime. The one recent study that did not (Worrall and Kovandzic 2007) used a narrow set of cities and chose to measure COPS Office grants using dollars per local resident, making it unable to address the impact of the grants on the size of the sworn force, which is what other research has shown has an effect on reducing crime.
- ▶ “Although effect estimates vary from study to study, the general message is that. . . increases in police staffing levels do generate measureable decreases in crime.”

Morabito, Melissa S. 2010. “Understanding Community Policing as an Innovation: Patterns of Adoption.” *Crime and Delinquency* 56(4): 564–587.

Summary: This study addresses the structural and environmental differences among agencies and how those differences affect the proliferation of community policing implementation. Morabito conducts a multivariable analysis of the hierarchical structure in 474 police jurisdictions to determine the ease of adoption of community policing. The study demonstrates that community policing practices are more easily diffused in larger agencies and ones where there is a greater deal of organizational commitment. Larger agencies have an easier time implementing “radical” changes like community policing, because their power is more organized and centralized and their human capital more abundant. However, the federal grants made available by the COPS Office can make it easier for smaller agencies to increase their organizational commitment and human capital so that they may also practice community policing.

Key findings:

- ▶ Based on a study by Trojanowicz and Bucqueroux, community policing was slower to diffuse in the decades predating the foundation of the COPS Office.
- ▶ Community policing ideas diffuse more quickly in environments with centralized power and general “from-the-top” guidance. COPS Office grants give grantees access to resources and federal credibility that make the transition easier.
- ▶ Smaller agencies have a harder time implementing community policing, and thus benefit most directly from federal funding.
- ▶ Federal guidance on community policing implementation has diffused a proactive, rather than reactive, policing environment in agencies.
- ▶ Federal grants from the COPS Office can be the motivating factor for agencies, especially smaller ones, to invest in this strategy.
- ▶ An agency’s organizational commitment to pursuing community policing practices, or the factors of training and time it dedicates, affects their implementation. The COPS Office emphasizes the importance of such training, increasing the rate at which these practices are adopted.

Chappell, Allison T., and Sarah A. Gibson. 2009. “Community Policing and Homeland Security Policing: Friend or Foe?” *Criminal Justice Policy Review* 20(3): 326–343.

Summary: This research addresses the idea that community policing has helped improve methods of terrorism prevention. According to a survey of 213 police chiefs in and around Virginia, the community policing strategies disseminated through grants and ideas from the COPS Office and other federal entities has made it easier for police to identify potential sources of terrorism threats. This is especially noticeable in large agencies that benefit highly from federal grants and that, without community-oriented policing training, may not work with the community as closely as smaller agencies.

Key findings:

- ▶ A survey of 213 Virginia police chiefs found that there is a collaborative relationship between community-oriented policing ideas and improved homeland security.
- ▶ COPS Office grants provide funding for police to disseminate community policing ideas, which researchers argue facilitate intelligence gathering and prevent terrorist activity by fostering relationships between police and the community.
- ▶ Chiefs with a four-year degree are more likely to emphasize the merits of community policing efficacy. This stresses the significant role that education plays in the implementation of community policing concepts to address homeland security concerns.
- ▶ Police executives that have received COPS Office grants and embraced the community-oriented policing philosophy are more likely to retain these ideas long-term—a testament to the diffusion of community policing ideas in areas affected by federal grants.
- ▶ Smaller agencies were less likely to emphasize the connection between COPS Office grants and homeland security.
- ▶ Larger, more bureaucratic departments rely more heavily on federal funding and are harmed by fluctuations in year-to-year funding. COPS Office grants go further in larger departments, whereas smaller ones act with a higher degree of independence.

Lilley, David, and Rachel Boba. 2008. “A Comparison of Outcomes Associated with Two Key Law-Enforcement Grant Programs.” *Criminal Justice Policy Review* 19(4): 438–465.

Summary: This study intends to explain the differences in results between COPS Office hiring grants and Local Law Enforcement Block Grants (LLEBG), which were previously assumed to be similar if not identical in function. Previous conceptions of the grants assumed that LLEBG efforts would be used in conjunction and in a support role to COPS Office grants, but the research shows that is not entirely true. Lilley and Boba find a redundancy in the functions of both grants in that they are similarly focused. LLEBGs provide similar results on crime reduction as COPS Office grants, even when used independently of COPS Office grants. Two key differences exist. One is that COPS Office hiring grants add additional manpower to departments, unlike LLEBGs. This increases police arrest productivity. The second difference is the focus LLEBGs have on reducing arrests in minor categories, such as drug use and minor disorder.

Key findings:

- ▶ COPS Office hiring grants have a direct effect on increasing the number of police officers and drug arrests, as well as a reduction in overall crime in the areas they serve.
- ▶ LLEBGs are on par with COPS Office hiring grants in reducing crime and increasing certain arrests.
- ▶ COPS Office hiring grants are strongly associated with an increase in officer training and numbers of officers within jurisdictions.
- ▶ COPS Office hiring grants result in a higher number of new officer hires than LLEBGs.
- ▶ The increases in drug-related arrests that resulted in COPS Office grantee departments can be explained as a result of having more officers.
- ▶ LLEBGs have been more focused than COPS Office grants on drug and minor disorder arrests, which explains the reduction in arrests in these categories that occurs in LLEBG jurisdictions.

Donohue, John, and Jens Ludwig. 2007. *More COPS. Policy Brief 158. Washington, DC: The Brookings Institution.*

Summary: The COPS Office has been effective in putting more police officers on the street. The best available evidence suggests that more police lead to less crime. One of the best of these studies is by University of Chicago economist Steven Levitt, who examines what happens in cities that increase police spending for reasons unrelated to what else is occurring with local crime trends (for example, because of stronger public service unions). Levitt's estimates suggest that each 10 percent increase in the size of the police force reduces violent crime by 4 percent and property crimes by 5 percent. The 2 percent jump in the number of police generated by the COPS Office should reduce violent crimes by about 0.8 percent and property crimes by about 1 percent. The costs of crime to American society are so large—perhaps as much as \$2 trillion per year—even small percentage reductions in crime can reap very large benefits. The authors' calculations suggest that a \$1.4 billion investment in COPS Office funding is likely to generate a benefit to society valued from \$6 billion to \$12 billion.

Key findings:

- ▶ “COPS appears to be one of the most cost-effective options available for fighting crime.” The authors estimate that “each additional dollar devoted to the COPS program may generate somewhere in excess of \$4 to \$8.50 in benefits to society.”
- ▶ A distinct advantage to having this funding come from the Federal Government rather than through local or state sources is that the Federal Government alone has the power to run budget deficits, thereby avoiding the undesirable consequence of a decrease in funding for police when state and local revenues decline.

Evans, William N., and Emily Owens. 2007. “COPS and Crime.” *Journal of Public Economics* 91(1–2): 181–201.

Summary: By mid-2001, the COPS Office program had awarded an estimated \$5 billion in hiring grants, paying for nearly 70,000 new police officers. This paper uses annual data from 2,074 cities with populations in excess of 10,000 to show that for each officer paid for by grant funds, the size of the force expands by 0.70 officers. This finding allowed the authors to use the size of COPS Office grants as an instrument for the size of the police force in crime outcome analysis. Their

models indicate that police added to the force by the COPS Office generate statistically significant reductions in auto thefts, burglaries, robberies, and aggravated assaults and that the COPS Office technology program investment generates reductions in these same crime categories as well as in larcenies.

Key findings:

- ▶ COPS Office grants tend to “stick where they hit” and increase the size of the police force as intended.
- ▶ Analysis found statistically precise negative drops in crime in the years following receipt of a COPS Office hiring grant in four of seven index crimes (auto theft, burglary, robbery, and aggravated assault).
- ▶ COPS Office grants that allowed agencies to invest capital in new policing technology generated small but statistically precise drops in the same four index crimes as well as larcenies.
- ▶ The costs incurred by the COPS Office and local governments in implementing CHP grants “are far outweighed by the monetary benefit of the resulting reductions in crime.”

Helms, Ronald and Ricky Gutierrez. 2007. “Federal Subsidies and Evidence of Progressive Change.” *Police Quarterly* 10(1): 87–107.

Summary: The authors qualitatively assess the impact of federal funding in the 1990s on the percentage change in police employment and on an index of progressive policing practices. Gathering a sample of data from 177 municipal agencies with more than 100 full-time officers, as well as from the Law Enforcement Management and Administrative Statistics (LEMAS), they examine change in the use of community policing activities such as the active use of problem solving, the creation of partnerships with community stakeholders, and the presence of a formal community policing plan. The study also examines whether targeted federal funds were correlated with municipal police manpower enhancements.

Key findings:

- ▶ Federal funding is strongly correlated to manpower enhancements, while crime rates, population growth or decline, median income, and racial diversity are not. “Federal dollars were spent to purchase what legislators targeted these dollars for—namely, more police officers on the streets of American cities.”

- Police agencies that received the largest innovation awards were significantly more likely to report engaging in community policing practices than those receiving little to no innovation dollars.
- The authors conclude that where federal expenditures for law enforcement manpower are made available in sufficiently high quantities, organizational change occurs.

Worrall, John, and Tomislav Kovandzic. 2007. "COPS Grants and Crime Revisited." *Criminology* 45(1): 159–190.

Summary: Merging the six years of panel data used by Zhao, Scheider, and Thurman (2003) with 11 years of panel data from a sample of just 189 large cities, and controlling for pre-existing effects on crime of policing spending, this study concludes that the COPS Office spending on hiring has little to no effect on crime rates.

Key findings:

- “It is quite possible, and indeed likely, that targeted policing programs, including some of those funded by the Office of Community Oriented Policing Services, reduce crime. In fact, that is exactly what the National Research Council reported in a recent review of effective policing strategies.”
- In the 189 large cities used in this analysis, the average city fiscal expenditures were \$69 million, and the average COPS Office hiring grant only \$400,000. At half of one percent of the typical agency budget, any effect on crime of a COPS Office hiring grant would be unexpected.
- The use of only 189 large cities (as opposed to the more than 6,000 communities used by Zhao, Scheider, and Thurman) is a limitation of the study that may have influenced the results, as in smaller communities the COPS Office funding for officer salaries would make up a significantly larger percentage of the overall law enforcement budget.

Donohue, John, and Jens Ludwig. 2006. “Why We Should Increase Funding for the COPS Program.” Unpublished Paper. Cambridge, MA: National Bureau of Economic Research.

Summary: In this brief paper, economists at Yale and Georgetown Universities examine the existing research pertaining to the COPS Office program and calculate that “each dollar devoted to COPS is likely to generate at least \$6 to \$12 in benefits to society . . . that adding \$1.4 billion in funding for the COPS program would thus avert between \$6 and \$12 billion in victimization costs to the American people, making COPS one of the most cost-effective ways to reduce crime. Indeed, these benefit-cost ratios are extremely high compared to other government programs, making COPS one of the most attractive federal expenditure programs available—not just for tackling crime, but for any governmental purpose.”

Mulhausen, David. 2006. *Impact Evaluation of COPS Grants in Large Cities*. Washington, DC: The Heritage Foundation.

Summary: Do COPS Office grants stimulate local police department spending in large cities? Do COPS Office grants deter crime in large cities? To determine the impact of COPS Office grants on city police expenditures, this study analyzes two models using panel data from 58 large cities. The first set of models estimates a police expenditure function with police expenditures as the dependent variable. The police expenditure function is specified with variables that are thought to predict police spending. The second set of models estimates the relationship between COPS Office grants and crime rates. In the crime models, the dependent variables are crime rates for murder, rape, robbery, assault, burglary, larceny-theft, and motor vehicle theft.

Key findings:

- For some crime rates, COPS Office grants do have a deterrent effect. The hiring grants are linked only to reductions in robberies, while these grants failed to have measurable effects on the other crime rates.
- Based on modeling estimates, the COPS Office innovative grants, with an average spending amount of \$620,000, produced a victim cost-savings of \$1,341,874.
- “Overall, the innovative grants are allocated the smallest share of COPS funding but appear to produce the greatest monetary benefits.”

U.S. Government Accountability Office. 2005. *COPS Grants Were a Modest Contributor to Declines in Crime in the 1990s*. Washington, DC: U.S. Government Accountability Office.

Summary: The U.S. Government Accountability Office (GAO) was asked to evaluate the effect of the COPS Office program on the decline in crime during the 1990s. The GAO developed and analyzed a database containing annual observations on crime, police officers, COPS Office funds, and other factors related to crime, covering years prior to and during the COPS Office program (from 1990 through 2001). The GAO analyzed survey data on policing practices that agencies reportedly implemented and reviewed studies of policing practices. The GAO assessed (1) how the COPS Office obligations were distributed and how much was spent; (2) the extent to which COPS Office expenditures contributed to increases in the number of police officers and declines in crime nationwide; and (3) the extent to which COPS Office grants during the 1990s were associated with policing practices that crime literature indicates could be effective.

Key findings:

- ▶ For the years 1994 through 2001, the GAO found that COPS Office hiring grant expenditures contributed to increases in sworn officer levels above the levels that would have been expected without these funds.
- ▶ GAO estimated that the COPS Office grant expenditures contributed to the reduction in crime in the 1990s independently of other factors that they were able to take into account in their analysis.
- ▶ “As a demonstration of whether a federal program can affect crime through hiring officers and changing policing practices, the evidence indicates that the COPS Office contributed to declines in crime above the levels of declines that would have been expected without it.”

U.S. Government Accountability Office. 2005. *Interim Report in the Effects of COPS Funds on the Decline in Crime During the 1990s*. Washington, DC: U.S. Government Accountability Office.

Summary: This preliminary report by the US Government Accountability Office (GAO) evaluates the effect of the COPS Office program on the decline in crime during the 1990s.

Key findings:

- ▶ The crimes reduced because of COPS Office grant expenditures amounted to about 8 percent of the total decline in index crimes and about 13 percent of the total decline in violent crimes from 1993 levels.
- ▶ During the years 1999 and 2000, when the COPS Office expenditures averaged about \$829 million per year (or about 1.5 percent of all local law enforcement expenditures) and crime continued to decline, the GAO calculated that the COPS Office-funded reductions in crimes accounted for about 5 percent of the total reduction in index crimes and about 10 percent of the total reduction in violent crimes from their 1993 levels.

Donohue, John. 2004. “Clinton and Bush’s Report Cards on Crime Reduction: The Data Show Bush Policies are Undermining Clinton Gains.” *The Economists’ Voice* 1(1).

Summary: At the 2004 Democratic Convention, former President Bill Clinton argued that he had put police on the street and taken guns off but that then President George W. Bush had done the opposite. Was Clinton truly more anticrime? In this study, the author compares the two administrations’ investments in the COPS Office funding and calculates the impact of that investment on crime using cost-effectiveness models developed by University of Chicago economist and John Bates Medal winner Steven Levitt.

Key findings:

- ▶ Econometric studies show that a 10 percent increase in police should generate a drop in crime in the range of four to five percent.
- ▶ By targeting the new police in higher crime areas, the Clinton COPS Office program can take credit for a greater total drop in crime of about six to eight percent.

Zhao, Jihong, and Quint Thurman. 2004. *Funding Community Policing to Reduce Crime: Have COPS Grants Made a Difference from 1994 to 2000?* Washington, DC: Office of Community Oriented Policing Services.

Summary: Adding additional years to the authors' previous study, this COPS Office–funded study found that “COPS hiring and innovative grant programs are related to significant reductions in local crime rates in cities with populations greater than 10,000 for both violent and non-violent offenses.” Further, “in cities with populations greater than 10,000 an increase in one dollar of hiring grants per resident contributed to a corresponding decline of 10.95 violent crimes and 27.88 property crimes per 100,000 residents.”

Zhao, Jihong, Matthew Scheider, and Quint Thurman. 2003. “A National Evaluation of the Effect of COPS Grants on Police Productivity (Arrests) 1995–1999.” *Police Quarterly* 6(4): 387–409.

Summary: In a study related to the authors' 2004 evaluation (above), this research empirically examines the contribution that funding provided by the COPS Office has had on police productivity in the United States from 1995 to 1999. Six years of panel data were assembled to assess the effect of COPS Office funding on police productivity (arrest) while controlling for other factors that could influence the relationship. The COPS Office funding data were combined with Uniform Crime Report data, 1990 U.S. Census data, and Bureau of Labor Statistics data. A total of 4,482 cities are included in the study sample, accounting for more than 110 million Americans living in the United States.

Key findings:

- ▶ Primary findings suggest that after controlling for other factors, COPS Office hiring initiatives have resulted in a significant increase in police arrests for violent, drug, and social disorder offenses for the entire population of COPS Office grantees.
- ▶ A \$1 increase per resident in the form of hiring grants was associated with a corresponding increase in police arrests for social disorder offenses of 22.16 arrests per 100,000 persons.
- ▶ Similarly, an increase of \$1 in the form of Making Officer Redeployment Effective grants contributed to 49.49 additional police arrests for social disorder offenses per 100,000 population in the sample.

Koper, Christopher, Gretchen Moore, and Jeffrey Roth. 2002. *Putting 100,000 Officers on the Street: A Survey-Based Assessment of the Federal COPS Program.* Washington, DC: The Urban Institute.

Summary: This report is an update to the earlier Urban Institute process evaluation of the COPS Office, titled *National Evaluation of the COPS Program: Title I of the 1994 Crime Act*. As part of a larger, multi-year study of the COPS Office, this 2002 report examines the progress of the COPS Office toward the goal of adding 100,000 officers to the nation's communities through grants for hiring officers and civilians and acquiring technology. By using results from a telephone survey conducted with a nationally representative sample of police agencies in the summer of 2000, the report estimates the COPS Office's impact. Two key issues are addressed in the report. First, how many officers has the COPS Office added to U.S. police agencies? Second, how much of this increase has been short-term and how much will continue on a permanent, or at least indefinite, basis after the expiration of COPS Office grants?

Key findings:

- ▶ Results suggest that grantees will keep most hiring and civilian positions after their grants expire and that productivity gains from technology grants, while variable, will be close—on average—to those forecast when the grants were awarded.
- ▶ The overall estimate is that the COPS Office would add 98,000 officers to the nation's communities on a temporary basis between 1994 and 2005, within a likely range of 93,400 to 102,700 officers.
- ▶ After post-grant attrition of officer and civilian positions, it was estimated that the permanent, or at least indefinite, impact of the COPS Office post-2005 would be 82,000 officers, within a likely range of 69,100 to 92,200 officers.
- ▶ New officers will account for 60–65 percent of the temporary COPS Office effect and 55–60 percent of the permanent COPS Office effect, while productivity increases (measured in officer equivalents) stemming from technology grants and, to a lesser extent, civilian grants will account for the remainder.

Zhao, Jihong, Matthew Scheider, and Quint Thurman. 2002. "Funding Community Policing to Reduce Crime: Have COPS Grants Made a Difference?" *Criminology and Public Policy* 2(1): 7–32.

Summary: Using six years of panel data, the authors examine the effects of the COPS Office grants awarded to 6,100 law enforcement agencies serving more than 145 million citizens. Their study focuses on estimates of impact on crime reduction (based on Uniform Crime Reporting data for violent and property crime) through time in jurisdictions receiving funding, using a model which controls for baseline levels of crime, socioeconomic characteristics, city size, population diversity, and population mobility. Interestingly, COPS Office funding was found to be much more effective in communities with at least 10,000 residents, implying that federal funding directly to local law enforcement agencies is an effective way to reduce crime in medium-sized and large cities.

Key findings:

- ▶ Analysis shows that COPS Office hiring and innovative grants have led to reductions in local crime rates for cities with populations greater than 10,000.
- ▶ Findings also indicate that in cities with populations greater than 10,000, an increase in \$1 of hiring grant funding per resident contributed to a corresponding decline of 5.26 violent crimes and 21.63 property crimes per 100,000 residents.
- ▶ An increase in \$1 of innovative grant funding per resident contributed to a decline of 12.93 violent crimes and 45.53 property crimes per 100,000 persons.

Muhlhausen, David B. 2001. *Do Community Oriented Policing Services Grants Affect Violent Crime Rates?* Center for Data Analysis Report No. CDA01—05. Washington, DC: Heritage Foundation.

Summary: This study addresses the question of whether the COPS Office program is an effective crime-fighting strategy by measuring the program's impact on violent crime rates. It does not analyze the effect of adding officers to the street; it analyzes only the relationship between COPS Office funding and violent crime rates at the county level. To analyze the relationship of COPS Office grants to violent

crime rates, Heritage Foundation researchers used data on each COPS Office grant, violent crime offenses and arrests at the county level, admissions to prison for violent crimes by county, county socioeconomic factors (employment, population characteristics, age distribution, and income per capita), and local government expenditures. Complete data for all five years were available for 752 counties. The average total population for these 752 counties during the period in question was about 143 million people, or approximately 53.8 percent of the average total U.S. population from 1994 to 1998.

Key findings:

- ▶ Analysis of the data shows that COPS Office grants for the hiring of additional police officers and grants for redeployment, known as Making Officer Redeployment Effective grants, do not have a statistically significant effect on reducing violent crime rates.
- ▶ The COPS Office's miscellaneous grants, including funds for addressing such specific problems as gangs, domestic violence, and illegal use of firearms by youth, have a statistically significant effect on reducing violent crime rates.
- ▶ For each additional \$1 of miscellaneous COPS Office grants per capita, the expected level of violent crime declined by almost 16.2 incidents per 100,000 people.
- ▶ Note that one limitation of the Heritage Foundation study is its use of city-level funding data and county-level crime data. Thus, it assumes that COPS Office grants to cities will have a significant effect on county violent crime rates. On average, for each of the 752 counties included in the report, the COPS Office provided funding to 62 percent of agencies within those counties.

Zhao, Jihong, and Quint Thurman. 2001. *A National Evaluation of the Effect of COPS Grants on Crime From 1994 to 1999*. Washington, DC: Office of Community Oriented Policing Services.

Summary: This research empirically examines the contribution that funding provided by the COPS Office has had on the decline in U.S. crime rates from 1995 to 1999. Furthermore, it analyzes if this effect is different for very small versus larger jurisdictions. Six years of panel data (1994 to 1999) were assembled to

assess the effect of COPS Office funding on crime rates while controlling for other factors that could influence the relationship. The COPS Office funding data were combined with Uniform Crime Report data, 1990 U.S. Census data, and Bureau of Labor Statistics data. A total of 6,100 cities are included in the study sample, accounting for more than 145 million people living in urban areas in the United States.

Key findings:

- ▶ After controlling for other factors, COPS Office hiring initiatives have resulted in significant reductions in local crime rates (for both violent and property crime) in cities with populations greater than 10,000.
- ▶ The COPS Office's innovative grant programs have had significant crime-reducing effects for the entire population of COPS Office grantees.
- ▶ In cities with populations greater than 10,000, an increase in \$1 of hiring grants per resident contributed to a corresponding decline of 5.26 violent crimes and 21.63 property crimes per 100,000 residents. In addition, for the entire sample, an increase in \$1 of innovative grant funding per resident has contributed to a decline of 12.26 violent crimes and 43.85 property crimes per 100,000 persons.
- ▶ Census data indicate that more than 90 percent of persons in the United States live in places with populations greater than 10,000. Thus, COPS Office hiring grant programs appear to have a significant crime-reducing effect on the vast majority of the U.S. population. In addition, the COPS Office's innovative grant programs appear to produce a strong reduction in crime for all COPS Office grantees included in the study.

Roth, Jeffrey A., and Joseph F. Ryan. 2000. *The COPS Program After 4 Years—National Evaluation (Summary)*. Washington, DC: National Institute of Justice.

An Urban Institute evaluation of the first four years of the COPS Office program finds that the COPS Office provided significant support for the adoption of community policing around the country. The study also shows that the COPS Office made progress toward many of its other major goals, including the distribution of grants to hire tens of thousands of additional police officers.

Roth, Jeffrey A., Joseph F. Ryan, Stephen J. Gaffigan, Christopher S. Koper, Mark H. Moore, Janice A. Roehl, Calvin C. Johnson, Gretchen E. Moore, Ruth M. White, Michael E. Buerger, Elizabeth A. Langston, and David Thatcher. 2000. *National Evaluation of the COPS Program: Title I of the 1994 Crime Act*. Washington, DC: National Institute of Justice.

Summary: This report is an independent process evaluation of the COPS Office program. Covering primarily the first four years of the COPS Office program but including some projections up to 2003, the evaluation, sponsored by the National Institute of Justice and conducted by the Urban Institute, is based on a series of nationwide telephone surveys, site visits, and case studies. The evaluation focuses primarily on COPS Office grants enabling law enforcement agencies to (1) hire police officers to engage in community policing activities and (2) redeploy existing officers to community policing by increasing officer productivity through the acquisition of technology or by freeing up officers for community policing by filling some officer-held positions with civilians. Key questions addressed in the report include the following: To what extent did the COPS Office program succeed in putting more officers on the street and, through its promotion of community policing, change the practice of policing in the United States? Did the distribution of COPS Office officers mirror the disparity in crime levels among jurisdictions? How satisfied were grantees with the COPS Office application and administration processes? Have grantees engaged in community policing by building partnerships, solving problems, and doing crime prevention?

