Can Police Improve Homicide Clearance Rates?

By Anthony A. Braga (Northeastern University) and Desiree Dusseault (Boston Police Department)

Introduction

The police play a central role in helping societies produce justice by holding offenders accountable for their crimes. Police department performance is typically measured through "clearance rates" for criminal offenses, which usually require that at least one individual is arrested for the offense, charged, and turned over to the court for prosecution.

A large share of the available scientific evidence on the value of follow-up investigation by detectives in clearing crimes generally suggests that most crimes are solved through the random circumstances of crime scenes rather than special follow-up investigation. This implies that investigative results, such as arrests, are beyond the control of the investigator. Some research, however, suggests that the work of criminal investigators, such as interviewing victims, cultivating informants and checking records, can increase the likelihood that crimes might be cleared through arrest.

After years of homicide clearance rates below the national average, confidence in the possibility that the work of investigators can improve clearance rates for crimes prompted the Boston Police Department (BPD) to design an intervention aimed at enhancing their post-homicide criminal investigation processes and

practices. The intervention included additional staffing, enhanced training, standardization of investigatory procedures, and the institution of regular peer-review sessions of on-going investigations. Though the statistical analysis of a rich dataset containing information about homicide cases investigated before and after the intervention, we find that the intervention significantly improved Boston homicide clearance rates, and that these improvements were distinct from existing homicide clearance trends in other Massachusetts and U.S. jurisdictions. These findings suggest that despite the long literature emphasizing random factors in police work, it may be valuable for police executives, policy analysts, and scholars to revisit experimenting with possible improvements to the central component of police work of criminal investigation.

This policy brief begins with a short review of the body of research evidence on the effectiveness of criminal investigators in solving crimes and the factors associated with homicide clearance rates. The development and key components of the BPD homicide clearance intervention are subsequently presented. The following sections detail the data and statistical models used in our impact evaluation, and

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discuss the results. The concluding section summarizes our findings and discusses policy implications.

Background

Research on the Effectiveness of Criminal Investigators

Within police departments, criminal investigators are smaller in number, have an elite status, and benefit from attributes of the job such as not wearing uniforms, earning higher salary or increasing overtime opportunities, and having considerable discretion of their use of time. These factors lead to an investigator culture that privileges their crime-fighting efforts as superior to patrol-based strategies and, at least partially, separates them from the rest of the department.

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The bulk of criminal investigation work, however, is not as exciting or as successful as it is portrayed in the media or by the police themselves. A landmark Rand Corporation study, generally recognized as the most influential of research studies in the 1970s and early 1980s that debunked the mythology of criminal investigators, directly observed detective operations in 25 police agencies and surveyed detective practices in an additional 156 police departments (Greenwood and Petersilia, 1975). The results of this study suggest that investigative results are beyond the control of the investigator. According to this *circumstance-result* hypothesis (Eck, 1992), random circumstances — such as the presence of a witness, whether the victim marked his or her stolen property and the presence of physical evidence — determine case outcomes.

In contrast, the *effort-result* hypothesis suggests that the work of criminal investigators, such as interviewing victims, cultivating informants and checking records, increases the likelihood that the crime might be solved. In 1979, the Police Executive Research Forum (PERF) examined logs completed by patrol officers and detectives, official reports, and observations of investigators at work to describe the investigative process in DeKalb County, Ga.; St. Petersburg, Fla.; and Wichita, Kan. (Eck, 1983). The PERF research suggested that both circumstance-result and effort-result hypotheses had some validity (Eck, 1992). Eck (1992: 31–32) argued that the investigative process implicitly works to divide cases into three groups:

> 1. Cases that *cannot be solved* with a reasonable amount of investigative effort.
>
> 2. Cases *solved by circumstances*, which only requires that the suspects be arrested, booked and interrogated, and a prosecutable case prepared.
>
> 3. Cases that *may be solved* if a reasonable level of investigative effort is applied to them, but will not be solved otherwise.

This suggests that robust case-screening procedures that identify cases that fall into group 3, and subsequent effective management of investigative efforts on those cases, could improve the functioning of investigative units and improve crime clearance rates.

Factors Associated with Homicide Clearances

Wellford and Cronin (1999) analyzed homicide cases in four large cities to identify the factors that affected the clearance of homicides during 1994 and 1995. They suggested that homicide clearances were influenced by factors that were beyond and within police control. Factors

beyond police control that made homicide cases more difficult to clear included whether the victim was black or Hispanic, the motives involved drug-related disputes, the victim was member of a gang, and the weapon used was a firearm. Factors that were within police control and exerted significant influence on whether homicide cases were cleared included the actions of the first officer on the scene, response time less than 30 minutes, the notification of the crime lab and medical examiner's office, the number of detectives assigned to the case, detective follow-up on information provided by witnesses, computer checks on involved individuals and any guns in the case, and interaction with the medical examiner or coroner involved in the case.

This research on the effectiveness of criminal investigators and factors associated with

homicide clearance suggest the possibility that clearance rates may be improved by (1) identifying cases that are good candidates for further investigation, and (2) focusing on the factors in the investigation that are within police control. BPD turned to this framework in 2012 with its homicide clearance intervention.

Boston Homicide Clearance Intervention

Between 2004 and 2011, the BPD Homicide Unit cleared, on average, about 44% of the homicides investigated. By comparison, some 63% of homicides investigated by U.S. law enforcement agencies were cleared during this same time period (see Figure 1). In 2011, former BPD Commissioner Edward Davis made a commitment to address the problem of persistently low homicide clearance rates. With the support of U.S. Bureau of Justice Assistance

Homicide Clearance Rates in Boston and the United States, 2004 - 2011
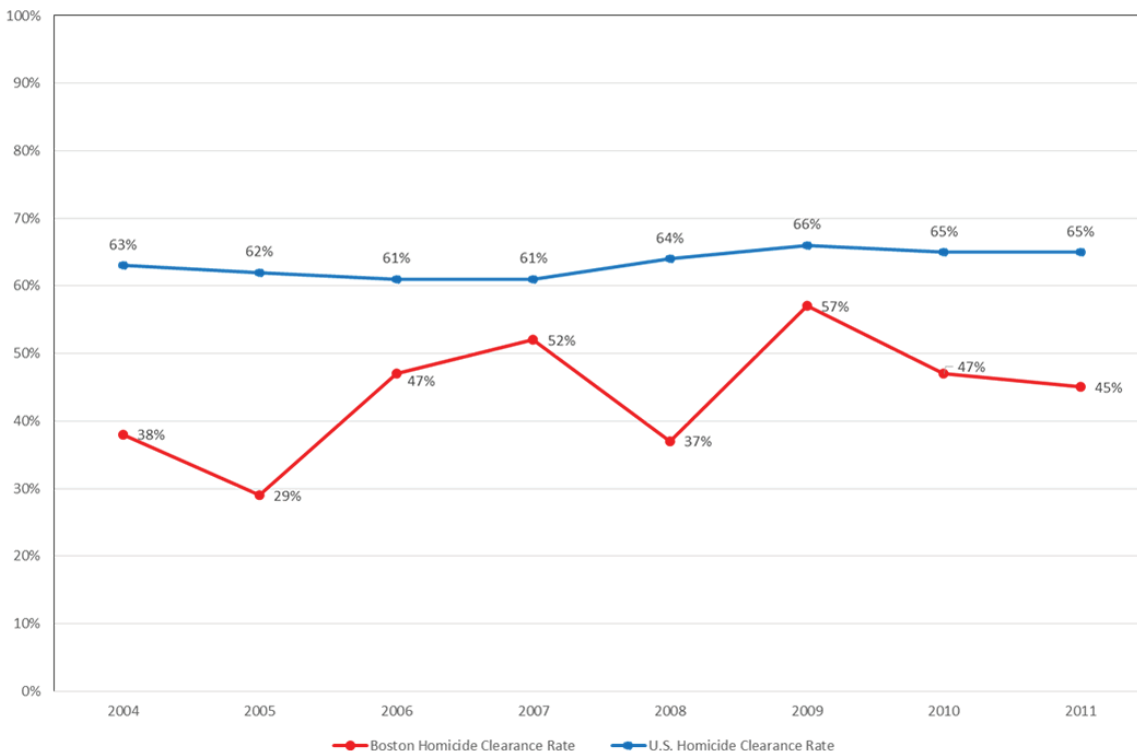
Source: Boston Police Department, Federal Bureau of Investigation (htpps://ucr.fbi.gov/)

(BJA) Smart Policing Initiative (SPI) funds, the BPD engaged in a problem-oriented policing enterprise to understand the underlying nature of their homicide clearance problem, develop appropriate responses to enhance their investigations of homicide victimizations, and evaluate the impact of the implemented intervention (Goldstein, 1990; Braga, 2008). This plan would, in fact, test the effort-result hypothesis of crime clearance rates in a real world situation.

Pre-Intervention BPD Policies and Practices

The problem analysis involved quantitative and qualitative analyses of current BPD homicide investigation policies and practices. The BPD engaged the authors of this paper to assist in the completion of a high-quality statistical analysis of 314 homicide victimizations between January 1, 2007 and December 31, 2011. Drawing on homicide case file information and interviews with homicide detectives, this analysis examined the influence of homicide case characteristics (e.g., circumstances, weapon used) and BPD investigative practices (e.g., response time, actions of first responders securing the scene, number of detectives assigned to a case, use of computerized databases in the investigation, forensic testing) on the likelihood that homicide cases were cleared. The BPD also convened a Homicide Advisory Committee staffed by homicide detectives, district detectives, Crime Scene Response Unit (CSRU) officers, Forensic Group analysts, intelligence analysts, homicide prosecutors, and others to identify best practices and gaps in their investigative processes, and drew upon best practices in other jurisdictions.

Designing and Implementing the Intervention

Based on these research and development activities, a series of recommendations were made to the BPD Commissioner. The BPD homicide clearance intervention

implementation started in January 2012 with the expansion of the homicide unit, adding one additional detective to each homicide squad. A civilian crime analyst was also hired to enhance the ability of the unit to search computerized databases in real-time and pursue analyses to generate investigative leads. The BPD also added a second Victim-Witness Resource officer and strengthened their connections to victim assistance organizations in an effort to improve relationships between detectives and homicide victims' families and witnesses. Homicide unit, CSRU, and Forensic Group staff received extensive additional training in cutting-edge investigative techniques over the course of the intervention implementation, including the development of an updated and improved annual 40-hour crime scene response.

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Additionally, a comprehensive set of standardized protocols to guide work activities across the different stages of homicide investigation were development and implemented. These protocols included, but were not limited to, the following areas: the formal designation of a crime scene entry log scribe, formalized witness identification and management techniques, the formal assignment of responding district detectives to homicide unit detectives for on-scene and post-scene briefing, increasing the deployment of Forensics Group technicians to homicide scenes, the collection and transfer of evidence to the Forensic Group for storage and testing, and working with homicide prosecutors to

prepare cases for consideration by grand juries.

The BPD homicide unit convened monthly peer review sessions for all open homicide investigations. The Bureau of Investigative Services (BIS) superintendent, homicide unit commander, and other homicide detectives not assigned to the case would offer constructive criticism and advice to investigating detectives. A similar process was put in place to manage the processing and testing of physical evidence by Forensics Group. Over the course of the intervention period, new forensic technology was also acquired and used by the BPD such as 3D shooting incident reconstruction technology to more accurately identify bullet trajectory flight paths at homicide scenes.

Data

The evaluation of the intervention used BPD incident data collected on 465 homicide victimizations occurring in Boston between January 1, 2007 and December 31, 2014. The BPD homicide incident data were supplemented by a careful review of investigative case files and in-depth interviews with homicide detectives who handled each investigation. We coded key aspects of each homicide investigation from the initial call-for-service to the management of the crime

Table 1: Characteristics of Boston Homicides, 2007 - 2014

N=465	Number	Percent
Sex		
Male	401	86.2
Female	64	13.8
Race		
Black	321	69.0
Hispanic	98	21.1
White	40	8.6
Asian/Other	6	1.3
Age (Mean = 28.3)		
17 and Younger	43	9.3
18 - 24	195	41.9
25 - 34	122	26.2
35 - 44	55	11.8
45 and Older	50	10.8
Weapon Used		
Firearm	357	76.8
Knife/Other	108	23.2
Circumstances		
Gang/Drug	305	65.6
Personal Dispute	95	20.4
Domestic	30	6.5
Robbery	19	4.1
Unknown/Other	16	3.4
Location		
Outdoor	319	68.6
Indoor	146	31.4

scene to the interviews of witnesses to results of forensic testing of physical evidence to the decision to arrest suspect(s) or submit the case to the grand jury, as well as information on the circumstances of each homicide. The key outcome variable used in this evaluation was binary: homicides were either cleared (= 1) or not cleared (= 0) as of March 1, 2016.

Table 1 presents key characteristics of Boston homicides that occurred between 2007 and 2014. During this time period, Boston homicide victims were overwhelming non-white (91.4%), male (86.2%), and young (mean age = 28.3 years old, 51.2% were 24 years old or younger). More than three-fourths of Boston homicide victims were killed by gunshot wounds. Nearly two-thirds of Boston homicide victims were killed in disputes involving gang-related and drug-related circumstances, and about 69% occurred outside.

We also obtained homicide clearance data reported by all other Massachusetts police departments from the Massachusetts Executive Office of Public Safety and Security. Other Massachusetts jurisdictions experienced 814 total homicide victimizations between January 1, 2007 and December 31, 2014. These data are useful for comparing any observable changes in Boston homicide clearance rates over time relative to existing homicide clearance rate trends in other Massachusetts jurisdictions. For the same purpose, we also collected homicide clearance data for the rest of the United States from the FBI's Uniform Crime reports.

Analysis and Results

Changes in Dedicated Resources and Selected Investigative Activities

Our evaluation begins with simple pre-post comparisons of key characteristics of BPD homicide investigations to determine whether the investigation activities changed between the pre-intervention and post-intervention time periods. Table 2 presents the resource dedication and investigative activities where there was a statistically significant change in the post period. For instance, during the intervention period, the number of homicide detectives investigating each homicide victimization increased significantly and the homicide crime scenes more frequently had a homicide supervisor present. The scenes had additional CSRU officers collecting evidence, more computer checks, and were more likely to have specialists from the Forensics Group deployed to enhance the collection of evidence such as Crime Lab DNA, latent prints, and ballistics.

The BPD homicide unit cleared 47.1% of homicide victimizations (148 of 314) during the 2007 through 2011 pre-intervention time period and 56.9% of homicide victimizations (86 of 151) during the 2012 through 2014 intervention time period.

There were also statistically-significant improvements in post-scene investigative activities, such as increasing the amount of evidence analyzed by the Crime Lab, increasing the number of witnesses interviewed after the initial crime scene, increasing the share of cases that involved the execution of at least one search warrant, and increasing the share of DNA testing.

Simple Pre-Intervention and Intervention Clearance Rate Outcome Comparisons

The BPD homicide unit cleared 47.1% of homicide victimizations (148 of 314) during the 2007 through 2011 time pre-intervention time period and 56.9% of homicide victimizations (86 of 151) during the 2012 through 2014

intervention time period. This 9.8% increase in homicide clearance rates represents a statistically significant improvement in the ability of the BPD to clear homicide cases between the pre-intervention and intervention time periods.

Next, we compared the yearly trends in standard homicide clearance rates for Boston, jurisdictions in the rest of Massachusetts,

and the U.S for the 2007 through 2014. Between the pre-intervention and intervention time periods, homicide clearance rates for homicide victimizations investigated by other law enforcement agencies in Massachusetts decreased by 14.9% from 60.0% (343 of 572 homicide victims) to 45.1% (109 of 242 homicide victims). Using a statistical test called differences-in-differences, which compares

Table 2: Comparison of Resources and Activities in Boston Homicide Investigations

	Pre-intervention	Intervention	
N=	314	151	
	Mean (SD)	Mean (SD)	t-test result
Response time (minutes)	21.3 (15.8)	20.1 (15.6)	-0.77
Homicide dectectives	3.6 (1.2)	4.5 (1.1)	7.77**
District dectectives	4.3 (2.2)	4.5 (1.9)	1.43
CRSU officers at scene	2.4 (0.5)	3.0 (0.7)	10.58**
CRSU time at scene (minutes)	151.2 (83.1)	158.5 (79.8)	0.91
Officers canvassing for witnesses	7.5 (4.6)	7.6 (3.4)	0.24
Witnesses interviewed from scene	8.9 (6.8)	9.6 (8.1)	0.98
Witnesses interviewed after scene	3.5 (3.7)	4.6 (5.5)	2.54*
Evidence collected	25.5 (21.9)	29.0 (19.3)	1.68+
Evidence analyzed by Crime Lab	2.5 (5.6)	5.1 (8.5)	3.93**
Evidence analyzed by Latent Print Unit	7.3 (14.9)	7.5 (16.0)	0.13
Evidence analyzed by Ballistics Unit	7.7 (12.3)	8.3 (10.8)	0.51
	Percent	Percent	z-score result
Homicide supervisor at scene	91.4	96.7	2.11*
Outside LE agency involvement	43.6	49.0	1.09
At least one search warrant executed	59.9	70.9	2.31*
Other officers provided information	48.7	55.0	1.27
Forensic Group units at scene	23.9	32.5	1.96*
Video evidence collected	48.7	52.3	0.73
Computer check - victim	97.5	98.0	0.33
Computer check - suspect(s)	95.2	96.0	0.39
Computer check - witnesses	93.3	97.4	1.83+
Computer check - vehicle(s)	73.5	74.8	0.30
Computer check - scene	70.2	79.3	2.07*
DNA testing	28.6	43.0	3.09**
Trace, pattern, other analyses	29.9	36.4	1.41
Latent print testing	57.2	65.6	1.73+
Ballistic testing	66.6	68.2	0.34

*p<=.05, **p<=.01

the changes in homicide clearance of Boston to Massachusetts over the 2007 – 2014 time period, we find that there is statistically-significant improvement in the within-Boston homicide clearance rate relative to the rest-of-Massachusetts clearance rate over the course of the pre-intervention and intervention time periods. What is more, yearly U.S. homicide clearance rates remained stable over the 2007 through 2014 time period. These comparative analyses suggest that the observed improvement in Boston homicide clearance rates was distinct from observed changes in clearance rates for other Massachusetts jurisdictions and the U.S. over the same time periods.

Logistic Regression Model Results

We next turn to a regression model that uses the dataset of Boston homicides over the 2007-2014 time period. Because our outcome is binary (1= homicide cleared, 0= homicide not cleared), we use a logistic regression. Logistic regressions estimate the probability of an event occurring – in our case, whether the homicide is cleared or not – given the other variables in the regression.

Homicide incidents occur in varying neighborhood contexts across Boston, with different levels of violence, resident feelings of fear and safety, and attitudes towards the police. Because these differences could influence the probability that an individual homicide case was cleared or not, we use statistical techniques that control for these differences in the neighborhoods. We also include controls for the age, sex, and race of the victim, the weapon used, whether the scene was indoor or outdoor, circumstances, and the season. This allows us to isolate the effect of the intervention on clearance rates.

The impact of the BPD homicide clearance intervention was estimated by including a dummy variable in the regression indicating

whether Boston homicide cases were investigated before (= 0 if 2007-2011) or after (= 1 if 2012-2014) the intervention. To ease interpretation, the regression coefficients are expressed as odds ratios. For example, for the intervention dummy variable, its odds ratio coefficient would be interpreted as the odds of a homicide case being cleared relative to the odds of a case not being cleared, given the intervention, holding the other variables constant.

The BPD homicide unit increased the yearly homicide clearance rate by nearly 10%, and these improvements in Boston's homicide clearance rate were robust to case characteristics and the community contexts in which the investigations occurred.

Table 3 presents the results of our regression models estimating the impact of the BPD homicide clearance intervention on the standard homicide clearance rate. The coefficient on intervention is both positive and significant, revealing that the BPD homicide clearance intervention improved the probability that Boston homicide cases were cleared over the course of the study time period. Holding all other variables in the regression constant, the BPD homicide intervention was associated with a statistically-significant 43.4% increase in the odds that a homicide case was cleared relative to the odds that it was not cleared.

Consistent with the existing literature on factors influencing homicide clearances, our regression models also confirmed that certain kinds of cases were less likely to be cleared by BPD homicide detectives, including black and Hispanic victims relative to white victims,

victims killed by gunshot wounds relative to victims killed by other means, victims killed as the result of gang-related and drug-related disputes relative to victims killed as the result of personal disputes, and victims recovered from outdoor crime scene locations relative to victims recovered from indoor crime scene locations. However, post-estimation predictions (not shown here, see full paper for details) suggest that the BPD homicide clearance intervention improved the odds that homicide cases with these challenging characteristics were cleared. For instance, the predicted clearance probability of a homicide case involving a 24-year-old black male killed outdoors with a firearm as a result of a gang-related dispute was .276 during the pre-intervention time period and .431 during the intervention time period, holding the other variables constant. The .155 increase in the clearance odds suggests the BPD intervention generated a noteworthy improvement in the odds that homicide offenders were held accountable in these difficult to solve cases.

Conclusion and Policy Implications

This impact evaluation suggests that criminal investigators can improve their ability to hold

Table 3: Hierarchical Logistic Regressions Estimating Impact of BPD Intervention on the Probability of Homicide Clearance

	Model 1 Odds Ratio (RSE)
Fixed Effects	
Intervention	1.434 (.179)*
Age	.974 (.011)*
Female	1.379 (.356)
Black	.142 (.672)**
Hispanic	.155 (.711)**
Asian/Other	.366 (1.366)
Firearm	.308 (.353)**
Gang/Drug	.328 (.311)**
Robbery	.450 (.600)
Domestic	1.164 (.719)
Unknown/Other	.167 (.635)**
Indoor	2.459 (.254)**
Workload	.517 (.499)
Quarter 2 (April- June)	.811 (.151)
Quarter 3 (July - September)	.749 (.102)*
Quarter 4 (October - December)	.591 (.237)
Constant	51.788 (.854)**
N cases	465

Notes: Robust standard errors (RSE) were clustered by BPD district. Non-domestic arguments and disputes serves as the reference category for the circumstance polychotomus dummy variable. White served as the reference category for the race dummy polychotomus dummy variable. Quarter 1 (January - March) served as the reference category for the season polychotomus dummy variable.

*p<=.05, **p<=.01

offenders accountable for their crimes, and suggests that the effort-result hypothesis of crime clearance rates has merit. The BPD homicide unit increased the yearly Boston homicide clearance rate by nearly 10%, and these improvements in Boston's homicide clearance rate were robust to case characteristics and the community contexts in which the investigations occurred. Equally important, the upward trajectory of the Boston yearly homicide clearance rate was different from yearly homicide clearance rate in other Massachusetts and U.S. jurisdictions.

Our impact evaluation was not able to specify exactly which BPD reforms were most important in generating the observed improvements in the homicide clearance rate. Our analyses suggest that the intervention increased the number of investigative personnel dedicated to homicide cases, computer checks on homicide places, collection and testing of physical evidence, witnesses interviewed after the scene, and other investigative activities. However, drawing on the broader literature on criminal investigations, we would caution against the development of a single investigative approach for detectives to execute in responding to all cases. The events that lead to a homicide victimization can be quite diverse. As such, criminal investigators should adopt a general but comprehensive approach to managing homicide investigations. In essence, investigators need to adopt a business model that leads to the construction of a robust "information chain" from witness statements and physical evidence that enhances their ability to hold offenders accountable.

The BPD achieved the observed homicide clearance gains by engaging a problem-oriented policing approach. With the aid of academic research partners, the BPD analyzed homicide case characteristics that influenced

clearances, identified gaps in their investigative and forensic practices and processes, and implemented a set of reforms that were tailored to the nature of their homicide clearance problem. Other jurisdictions interested in improving clearance rates for homicides or other crime types should replicate this process rather than simply adopt specific tactics from the BPD approach.

While the Boston experience suggests the police can improve homicide clearance rates, further field tests of problem-oriented approaches are clearly needed. Given the largely negative conclusions of several landmark studies, notably the Rand Corporation study, on the ability of detectives to solve crime, it is not surprising that contemporary crime policy analysts do not consider enhancements to criminal investigation as promising in increasing clearance rates. The Boston homicide clearance intervention suggests that this view is not accurate, and further thoughtful experiments with improvements in criminal investigation, along with rigorous statistical analysis, is needed. If police executives and policy makers are willing, they can work together with researchers and analysts to test improvements to homicide – and other crime – clearance rates, and continue to help society provide justice by holding more offenders accountable.

References

Braga, Anthony A. 2008. *Problem-Oriented Policing and Crime Prevention*. Second edition. Monsey, NY: Criminal Justice Press.

Eck, John E. 1983. *Solving Crimes: The Investigation of Burglary and Robbery*. Washington, DC: Police Executive Research Forum.

Eck, John E. 1992. "Criminal Investigation." In *What Works in Policing? Operations and Administration Examined*, edited by Gary W. Cordner and Donna C. Hale. Cincinnati, OH: Anderson Publishing Co.

Goldstein, Herman. 1990. *Problem-Oriented Policing*. Philadelphia, PA: Temple University Press.

Greenwood, Peter, and Joan Petersilia. 1975. *The Criminal Investigation Process—Volume I: Summary and Policy Implications*. Santa Monica, CA: Rand Corporation.

Walker, Samuel. 1992. *The Police in America*. New York: McGraw Hill.

Wellford, Charles and James Cronin. 1999. *An Analysis of Variables Affecting the Clearance of Homicides: A Multistate Study*. Washington, DC: Justice Research and Statistics Association.

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