THE POLICE ROLE IN PREVENTING HOMICIDE: CONSIDERING THE IMPACT OF PROBLEM-ORIENTED POLICING ON THE PREVALENCE OF MURDER

MICHAEL D. WHITE
JAMES J. FYFE
SUZANNE P. CAMPBELL
JOHN S. GOLDKAMP

Criminal justice practitioners and scholars have traditionally held that homicide is relatively immune from police suppression efforts. Recently, the widespread adoption of community and problem-oriented policing and concomitant decreases in violent crime have raised questions about what the police can reasonably be expected to accomplish. This article examines a joint effort by the Bureau of Justice Assistance and the city of Richmond, California, to apply the lessons of problem-oriented policing to homicide work. Analyses of Richmond homicides from 1985 to 1998 suggest that the nature and pattern of murders changed notably following adoption of the new policing philosophy, and interrupted time-series analysis with homicide data from 75 other California cities suggests the changes in Richmond were unique. Results indicate that homicide prevention is a critical police responsibility and that by employing problem-oriented strategies and garnering citizen involvement, police may be able to effectively reduce the prevalence of such violence.

Keywords: *problem-oriented policing; homicide; homicide prevention*

One of us was present in the late 1970s when then–New York City Police Commissioner Robert J. McGuire was asked by reporters to explain what he and his department had done to produce a drop in his city's homicides from one year to another. Although he admitted that he had been tempted to take credit for the murder decrease, McGuire told the reporters that he doubted that the police department had in any way affected the homicide rate. Murders, he said, seemed to have a life of their own, and to be relatively immune from police interventions. In the years since, this view has permeated thinking among both criminal justice practitioners and scholars, who typically

JOURNAL OF RESEARCH IN CRIME AND DELINQUENCY, Vol. 40 No. 2, May 2003 194-225
DOI: 10.1177/0022427803251126
© 2003 Sage Publications

have held that homicide rates are, by and large, a manifestation of social and economic variables over which the police have little control (e.g., Mercy and Hammond 1999).[1]

Recently, however, there has followed widespread adoption of community and problem-oriented policing philosophies and strategies. These have been followed by dramatic decreases in violent crime and homicide and have raised questions about what the police can reasonably be expected to accomplish, as well as about which officers have a responsibility to do something about homicide and about how they may do it. More specifically, recent developments have led practitioners and researchers to posit whether community involvement in policing and the adoption of problem-oriented philosophies and strategies can effectively reduce the prevalence of violence and homicide. This article examines the impact of the adoption of a problem-oriented policing philosophy on the nature and frequency of homicide in Richmond, California. The substantial rethinking of the police approach to combating violence among the Richmond Police Department leadership culminated in a joint effort by the Bureau of Justice Assistance (BJA) of the U.S. Department of Justice and the City of Richmond, California, to apply the lessons and methods of problem-oriented and community policing to homicide investigation and prevention. The Comprehensive Homicide Initiative is a mosaic of preexisting and new programs, practices, and policies, both within and outside the conventional notions of policing, which represents an eclectic and multidisciplinary approach to addressing homicide in Richmond. The homicide detectives served as the core leaders of the initiative, recasting much of what we think of as police homicide work to include a strong preventive component.

Much like Boston and New York City (see Baumer et al. 1998; Berrien and Winship 1999; Kelling and Coles 1996; Silverman 1999), changes in the Richmond Police Department's approach to violent crime, culminating in the implementation of the Comprehensive Homicide Initiative, coincided with important shifts in the nature and frequency of homicides. This article uses data from Richmond Police Department (RPD) homicide files from 1985 to 1998 to characterize changes in Richmond homicides over time. It then employs interrupted time-series analysis (ARIMA) to examine homicide data in Richmond and 75 other cities in California (all California cities with populations of 75,000 or more) and consider the trends in Richmond in the context of trends in other jurisdictions. By comparing the Richmond experience to other cities, the analyses illustrate whether the changes in Richmond are unique and distinctive, and whether the changes can reasonably be attributed to the multifaceted, multidisciplinary problem-oriented policing initiative employed by the city and police department.

RECENT TRENDS IN HOMICIDE AND THE TRADITIONAL POLICE RESPONSE

After fairly dramatic increases in violent crime and homicide during the 1960s and early 1970s, trends and patterns remained fairly stable for about 25 years (Lane 1997). The national homicide rate peaked in 1980 at 10.7 per 100,000 residents, and it has generally declined since then, although, beginning in the mid-1980s, many urban areas experienced dramatic increases in homicides. These have been attributed largely to the introduction of crack cocaine and to the violence associated with attempts to control its profitable market (e.g., Baumer et al. 1998).

Since the mid-1990s, dramatic decreases in violent crime and homicide have been reported at both the national and local level. The nation's homicide rate in 1998 dropped to 6.1 per 100,000 residents, the lowest point since 1967, and has continued slightly downward since then. New York City has experienced unprecedented decreases in homicides, from roughly 2,200 per year in the early 1990s to about 650 per year more recently. Boston also gained recent national attention for enjoying a two-year span without a single gun-related juvenile homicide.

A variety of explanations have been offered for the recent decrease in violent crime. Former Attorney General Janet Reno attributed the decrease to federally encouraged and directed programs that have added new police officers, enhanced cooperation among law enforcement agencies, stiffened gun control legislation and strategies, as well as to a combination of prevention, intervention, punishment, and supervision (Fields and Johnson 1999). Blumstein and Rosenfeld (1998) viewed efforts to remove guns from illegitimate hands as a contributor to the declining crime rate, along with a strong economy, the eradication and/or maturation of many drug markets, and the aging of baby boomers. According to Lane, during a telephone interview in October of 1999, the most salient explanation for the decrease in crime is the increase in legislation that imposes longer and mandatory prison sentences. Homicide conviction rates are at an all-time high (over 70 percent), which, he pointed out, has effectively incapacitated more homicide offenders than ever before.

Among the factors being considered as potential causes for the recent decrease in violence is the adoption of community and problem-oriented philosophies of policing. The move to community policing represents a substantial rethinking of how police should conduct their business and how they should involve the community in their efforts (Goldstein 1979). As Robert McGuire's comments suggest, conventional police wisdom recently has treated homicide as a crime relatively immune from police suppression

efforts. Absent the ability to change social and economic conditions and the psychology of groups most affected by lethal violence, this traditional reasoning concluded, there was little the police could do to combat homicide. As a consequence, police efforts to deal with homicide generally have consisted of enhancing strategies and techniques useful in after-the-fact, case-by-case investigation.

Moreover, within their departments, homicide investigators typically have operated almost as independent agents, responding on an ad hoc basis to the cases called to their attention but generally doing little to anticipate or prevent such problems. By experience and inclination, they are among the least likely police candidates for such outreach programs as community-oriented policing. Jack Webb's portrait of the cool, competent, and aloof Joe Friday, one of the police elite who had been granted exclusive rights to solve the homicide problem through case-by-case investigation, and who knew and quietly enjoyed his exalted status, has not been far from the truth in most police agencies.[2]

However, recent research suggests that newly developing police philosophies, strategies, and tactics play an important role in violence reduction. The New York City Police Department (NYPD) developed sophisticated computer analyses that identified local police problems in a timely manner, and then held local commanders and appropriate support units (e.g., narcotics and other specialized investigative units) accountable for responding to them. It encouraged officers to enforce laws against minor quality-of-life violations to rid the streets of aggressive panhandlers and so-called squeegee men, who were believed to scare off honest citizens and, thence, to create near deserted streets on which violent offenders flourished; to arrest subway fare beaters who were believed, with some accuracy, to account for a disproportionate percentage of more serious, violent, subway crime; and to crack down on truants in an attempt to reduce such daytime offenses as burglary and auto larceny. The elite Street Crime Unit was tripled in size and mandated to seek out illegally possessed firearms and other weapons. The NYPD also engaged in extensive civil enforcement activities, designed to punish landlords who rented space to criminal enterprises, and to seize automobiles and other property of drug offenders and violent criminals (Bratton 1998; Kelling and Coles 1996; Maple and Mitchell 1999; Silverman 1999).

Similarly, in Boston, interagency efforts led by the police have been effective in reducing youth homicide (Braga et al. 2001; Piehl, Kennedy, and Braga 2000). The Boston Gun Project, started in 1995, employed the basic problem-oriented policing philosophy of problem identification, analysis, response, evaluation, and adjustment of the response to develop a specific program targeting both individuals involved in illegal firearms trafficking

and those involved in gang violence (Piehl et al. 2000). Results showed that homicides involving youths decreased substantially following implementation of the targeted program (Braga et al. 2001; Piehl et al. 2000).

RICHMOND, CALIFORNIA, AND THE COMPREHENSIVE HOMICIDE INITIATIVE

In 1995, the International Association of Chiefs of Police (IACP) held a Murder Summit to analyze and make recommendations for the development of a comprehensive violence reduction strategy. In its Summit report, the IACP discusses murder in the larger context of violence generally, as the extreme on a violence continuum. The report also recognized the changing nature of violence and homicide as influenced by drugs, guns, and increases in stranger-on-stranger violence. The IACP's Murder Summit culminated in 39 recommendations highlighting the need for the development of community-wide strategies involving law enforcement, community and government, legislative, and education and training initiatives. The IACP recommendations are multidimensional and multidisciplinary, calling for greater cooperative problem-solving among agencies, organizations, and the community and recognizing short-term needs and longer term goals necessary to address the root causes of such violence (International Association of Chiefs of Police, 1995:iii).

The BJA of the U.S. Department of Justice funded a Comprehensive Homicide Initiative in the fall of 1995 to pilot application of violence reduction strategies that reflected the spirit of the IACP recommendations. The city of Richmond, California, was selected as a demonstration site that would build on the IACP recommendations and design multifaceted local strategies incorporating prevention, intervention, enforcement, and prosecution components with the police executives serving as the leaders of the process.

Richmond, California, is located across the bay from San Francisco. Its population of 94,000 is nearly half African American, just more than one-third White, and one-quarter Hispanic and Asian, and is far more diverse than the rest of either Contra Costa County or California. This is a familiar pattern in the ecology of American metropolitan areas, where Richmond's relationship to San Francisco has its analogues in Newark's relationship to New York, Gary's relationship to Chicago, and Camden's relationship to Philadelphia. Like these other jurisdictions, Richmond is a blue-collar adjunct to a larger and more prosperous center city and its suburbs.

Between 1985 and 1994, Richmond suffered many of the economic setbacks and increases in drug-related violence common to other urban areas,

including a dramatic increase in the number of homicides. Homicides had remained constant during 1985 to 1987 but increased dramatically during the end of the 1980s: By 1991, they had tripled in number from 20 in 1985 to 61 in 1991, making Richmond one of the most violent cities in the country, per capita (see Figure 1). This dramatic increase in homicides caused the RPD to rethink its strategy toward homicide and violent crime generally. In 1992, the RPD transferred officers from staff and specialized units to patrol, and in 1994, it initiated new cooperative agreements with federal and state law enforcement agencies, as well as neighboring police departments. By 1995, when Richmond was selected as the demonstration site for the Comprehensive Homicide Initiative, the department was fully involved in its own version of problem-oriented (and community-oriented) policing, based on a recognition that enforcement alone did not appear to appreciably reduce violence or to address and improve wider quality of life issues (Richmond Police Department 1996).

PLANNING A COMPREHENSIVE HOMICIDE INITIATIVE: STRATEGIES FROM AN INFORMATION BASE

The first step in the development of Richmond's Comprehensive Homicide Initiative plan involved analysis of increases in homicide and associated factors. To better capture changing trends, the analyses compared characteristics of homicides from the 1985 to 1989 period to the 1990 to 1994 period. Table 1 presents data on some of the most theoretically and operationally significant of these.

- *Outdoors*. The mean annual rate of persons killed or discovered dead outdoors more than doubled from the 1985 to 1989 period to the 1990 to 1994 period (from 15.8 to 36.4 per 100,000, an increase of 130 percent).
- *Guns*. From the 1985 to 1989 period to the 1990 to 1994 period, the gun homicide rate in Richmond increased from 24.1 to 46.0 (a 91 percent increase).
- *Minority communities*. The rates of African American victimization and offending increased significantly from the 1985 to 1989 period to the 1990 to 1994 period (by 88 percent and 70 percent). The rate of Hispanic victimization by homicide increased by more than fourfold, from 1.0 to 5.3 per 100,000.
- *Gang members*. The rate of gang member victimization climbed three-fold from the 1985 to 1989 period to the 1990 to 1994 period, to 12.2 per 100,000. The rate of known offenders with gang associations also approximately tripled, from 4.4 to 12.0 per 100,000, during this period.[3]

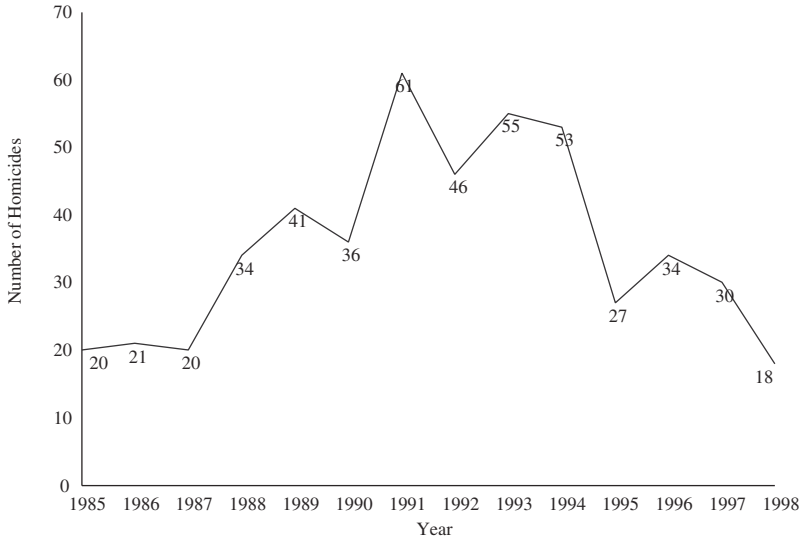


Figure 1: Annual Homicides in Richmond, California, 1985 to 1998 by Year

- *Criminal justice experience*. From the 1985 to 1989 period to the 1990 to 1994 period, the rate of homicides involving victims with prior criminal convictions jumped by a factor of seven (696 percent) to 25.5 per 100,000 and accounted for more than half (53 percent) of all homicides. The rate of homicide offending by persons with prior convictions also increased dramatically (by 119 percent).

In short, these data indicate that there was a dramatic increase in homicide from 1990 to 1994; homicides were most often located in the city's African American and Hispanic communities and involved guns, drugs, gangs, and people with prior involvement in crime and violence; and that outdoor locations (the streets) had become very dangerous, and drive-by shootings had become increasingly frequent. The small consolation for the RPD was that domestic violence deaths did not increase but decreased somewhat between the two time periods. The Richmond police interpreted these data as end products of processes, problems, or factors that should be addressed in its Comprehensive Homicide Initiative, and they sought to develop and deploy strategies specifically targeted at these key trends.

TABLE 1: Changes in Richmond Mean Annual Homicide Rates per 100,000 Population, 1985 to 1989 and 1990 to 1994

Offense Characteristic	*Mean Annual Rate, 1985 to 1989*	*Mean Annual Rate, 1990 to 1994*	*Rate Change*	*% Change*
Victim/offender related	4.7	4.4	–0.3	–7
Outdoors	15.8	36.4	+20.6	+130
Gun	24.1	46.0	+21.9	+91
Drive-by shooting	1.5	8.7	+7.2	+480
White victim	5.0	6.0	+1.0	+20
White offender	3.2	3.6	+0.4	+12
African American victim	21.5	40.4	+18.9	+88
African American offender	15.3	26.0	+10.7	+70
Hispanic victim	1.0	5.3	+4.3	+430
Hispanic offender	1.2	1.8	+0.6	+50
Female victim	6.2	8.4	+2.2	+35
Female offender	2.7	0.9	–1.8	–67
Gang victim	4.2	12.2	+8.0	+190
Gang offender	4.4	12.0	+7.6	+173
Victim criminal convictions	3.2	25.5	+22.3	+696
Offender criminal convictions	11.3	24.7	+13.4	+119

NOTE: To better capture changing trends and patterns in homicide over time, the pre-Comprehensive Homicide Initiative period is broken down into two smaller, five-year periods: 1985 to 1989 and 1990 to 1994. The mean annual rate of each offense characteristic provides the average for each time period and allows for appropriate comparisons over time. The mean annual rate is based on population figures from the FBI's Uniform Crime Reports data.

THE RICHMOND COMPREHENSIVE HOMICIDE INITIATIVE

After nearly one year of planning that included substantial community involvement, the RPD implemented their version of the Comprehensive Homicide Initiative (see White et al. 2000 for a detailed discussion of the planning and implementation of Richmond's initiative).[4] Richmond's Comprehensive Homicide Initiative is composed of a collection of enforcement and nonenforcement strategies that represent a broad-based portfolio of policing initiatives. The problem-oriented strategy involved a variety of community-based initiatives (with elements of a community policing philosophy), providing a new sharper focus for some existing programs, as well as defining new practices and programs (see Figure 2). As conceived by the Richmond police—with major participation and leadership from their own homicide detectives—the Comprehensive Homicide Initiative represents a

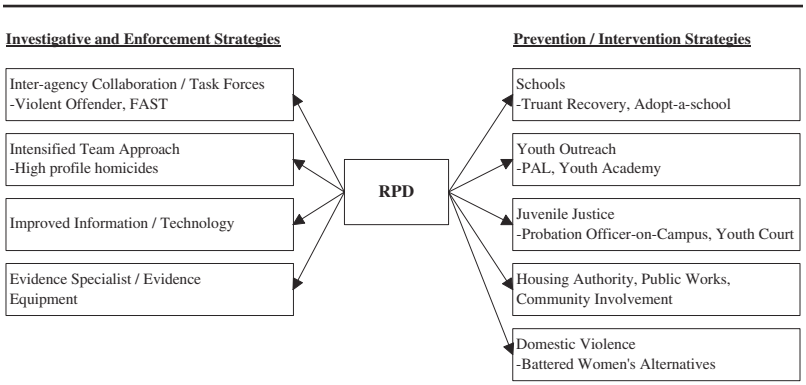


Figure 2: Elements of the Richmond, California, Comprehensive Homicide Initiative

departure from the traditional police definition of homicide as a unique offense in which the appropriate police role is largely limited to after-the-fact investigation. The underpinning of Richmond's initiative is the recognition that homicide prevention is a critical police responsibility that can best be accomplished by identifying the paths that frequently lead to homicide and closing them by early intervention.

Characterized as prevention/intervention strategies and investigative and enforcement strategies, the plan focused on specific problem areas highlighted in the earlier homicide analysis, including targeting outdoor-, gun-, drug-, and gang-related violence, as well as domestic violence, enhancement of investigative capabilities, and intervening in the lives of at-risk youth. Select components of the Richmond Comprehensive Homicide Initiative are described below.[5]

Targeting Gun-, Drug-, and Gang-Related Violence

RPD officials developed a number of strategies to specifically address the nexus between guns, drugs, gangs, and homicide, emphasizing in particular the outdoor locations where such violence had become commonplace. Strategies were carried out with varying degrees of success, and in some cases, additional analyses were carried out to more fully measure the degree of implementation and potential impact of selected programs.

- In a cooperative effort with other local, state, and federal law enforcement agencies, the RPD conducted a Violent Offender Task Force that sought to tar-

get violence-prone members of the drug culture. The task force operated for a five-week period (December 2, 1996 to January 3, 1997) during which it made 113 arrests (including 108 felonies), 33 drug seizures (valued at over $35,000), and seized six guns. Its strategies were traditional but intensive and consisted of surveillance, use of informants, obtaining and executing search warrants, and buy/bust operations.

  - An analysis of the 113 arrestees showed that 72 percent had prior convictions, 43 percent had three or more prior convictions, and the task force arrested more than half on drug charges (indicating that they had successfully hit their target population). Nearly 60 percent of arrestees were convicted on charges stemming from their task force arrest (an additional 22 percent still had charges pending at the 18-month mark). However, 60 percent of offenders were rearrested on new charges over an 18-month follow-up, many for drug charges, suggesting that the task force had not effectively interrupted their involvement in the drug market (see White et al. 2000).

- The Fugitive Apprehension Strike Team (FAST), a coordinated effort among local, state, and federal authorities, was developed to identify, locate, and apprehend violent fugitives in the Bay area. The program sought to reduce the incidence of violent crime by targeting violent fugitives and bringing them back to justice.
  - An analysis of 127 fugitives arrested by FAST from July through December 1998 showed that the program effectively tapped its target population, as nearly two-thirds of the fugitives had prior arrests for serious person offenses. Moreover, nearly one-quarter of the fugitives picked up during the study period were charged in old, previously not-cleared cases (see White et al. 2000).
- Tow Nights, a related violence prevention initiative by the RPD, was conceived to address problems of gang violence and related drive-by shootings in the community, many of which have been retaliatory in nature. This strategy is based on the assumption that gang activity, or at least involvement in retaliatory gang violence, is dependent on the automobile. Without the car, the opportunity for a quick attack and getaway is reduced. In a fashion similar to a DUI checkpoint, officers from the traffic and metro units of the RPD, as well as the California Highway Patrol (CHP), stop vehicles to determine registration and drivers' license status. Cars that are not properly registered (or if the driver has a suspended/no license) are impounded for up to 30 days.
  - The RPD conducted tow nights in March, May, October, and December of 1997. The number of cars towed varied substantially, 22, 30, 31, and 51, respectively. However, arrests were infrequent and few weapons were found, calling into question the strategy's effect on retaliatory gang violence.
- As part of their overall policing philosophy, the Richmond police developed a number of strategies to both improve their relationship with the community, and perhaps more importantly, to enhance community social controls to reduce drug dealing and its concomitant violence.

- The RPD sponsored two Community Violence Reduction Summits in 1996 and 1997 to attempt to enlist citizens as active participants in efforts to reduce homicides and other violent conduct.
- In July 1996, the RPD prepared and began distribution of *How to Eliminate Drug Dealing, Drug Sales, and Public Nuisances*, a guide to citizens in the fight against drug trafficking and drug houses in their neighborhoods. The guide discussed a range of issues including how to determine if a drug house is active in your neighborhood, how to document information on activity at the house, and what steps to take to get rid of the drug house.
- The RPD cooperated with the City Attorney and the Richmond Housing Authority to develop a model lease agreement to facilitate code enforcement, renovation of buildings, temporary relocation of residents, removal of abandoned autos, and a variety of other measures intended to address both the broken-windows syndrome in public housing and the crime-related behaviors sometimes associated with them. The model lease program requires tenants to avoid involvement with drugs and crime or face eviction.

Targeting Domestic Violence

Although the homicide analysis indicated that domestic homicides did not represent a large percentage of violent deaths in Richmond, and that they had not increased during the early 1990s, the RPD was concerned about the prevalence of domestic violence, its potential to escalate to extreme violence, and its long-term impact on children who witness it. As a result, the Comprehensive Homicide Initiative included a number of components that directly targeted domestic violence.

- In 1995, the RPD established a Domestic Violence Unit (DVU) involving four detectives who specialize in domestic violence and related issues.
- RPD developed a partnership with Battered Women's Alternatives (BWA). In 1997, BWA developed four components of domestic violence training for the RPD staff, including intensive training for domestic violence detectives, and segments for the police academy, lineup training, and advanced officer training. Also, BWA advocates worked daily with the domestic violence detectives reviewing cases, contacting victims for follow-up services, and following up preliminary investigations for both felony and misdemeanor cases.
- In 1996, BWA and RPD created the Domestic Violence Emergency Response Team (DVERT), a team of legal advocates, to provide support to police and victims of domestic violence. Once patrol officers make the call to activate DVERT, advocates come to the scene to explain the victims' responsibilities and to maximize the victims' well-being and cooperation with the police and their investigation.

Targeting At-Risk Youths

Richmond's initiative also places great emphasis on the critical role of the education system in keeping youth away from drugs, gangs, guns, and violence. Partnership with the school district focused on developing positive interactions between police and children, as well as identifying truant youth who are at risk of engaging in more delinquent behavior.

- The Adopt-a-School program, started in 1995, assigns officers to serve as liaisons between the RPD and the Richmond schools. The officer and the school principal discuss the needs of the school and the issues that directly affect students and staff, and the officer then tailors the program appropriately.
- RPD supported the development of a Police Activities League (PAL) Computer Center to provide job and skills training and assistance with homework to as many youths as possible. The center possessed 65 computer workstations, extensive computer diagnostic repair facilities, and a large recreational vehicle that traveled to local neighborhoods as a mobile computer learning center.
- The RPD and school district created the Truant Recovery Program, a collaborative and nonpunitive school/law enforcement effort that targets truant youth and returns them to school.
  - An analysis of 178 youth picked up by the program in the fall semester of 1997 showed that nearly half of truants had a prior contact with the Richmond police, and their performance in school prior to the pickup was poor. Following contact with the truancy program (over a minimum 18-month follow-up), contacts with police actually increased (possibly a result of their aging into the primary crime-committing age group), but several measures of school performance improved notably, including disciplinary incidents, sanctions, and attendance, indicating the potential for a positive programmatic impact (see White et al. 2001).

Enhancing Investigative Capabilities

Although the spirit of Richmond's initiative clearly reflected a problem-oriented, proactive philosophy of policing, the RPD also placed a premium on improving its ability to respond to and investigate homicides after the fact.

- RPD developed a protocol to employ an Intensified Team Approach when investigating gang homicides likely to result in retaliatory violence and homicides likely to draw extraordinary public attention.
  - RPD developed a bike flood program that, following a homicide, flexibly deploys 10 to 12 officers on bicycles to problem neighborhoods for periods of about four hours at a time. Following a gang-related homicide, officers are often deployed in areas where retaliation violence is expected.

  - RPD also developed a program to mobilize the entire detective bureau in a Bureau-Wide Investigative Team for brief, intensive information gathering immediately following high-profile homicides.
- RPD purchased evidence equipment including a physical developer, a superglue fuming tank, an alternate light source, fluorescent powders for fingerprinting, computer crime software, as well as a new Chevy Suburban that serves as the evidence van.
- RPD created a new evidence specialist position and assigned him to the Homicide Unit on a continuing basis.

Although Richmond's Comprehensive Homicide Initiative included a host of other strategies not described here (see Figure 2), the components described above represent the basic elements that were designed to specifically target the increasingly outdoor-, drug-, gun- and gang-related nature of homicide in Richmond.[6] These elements, many of which reflect the spirit of the traditional, professional model of policing, were carried out under the rubric of the problem-oriented policing philosophy. That is, rather than abandoning traditional law enforcement practices altogether, the RPD blended those strategies with specific prevention and intervention efforts that involved partnerships with the community, other city agencies, and local schools. Although more difficult to quantify, these collaborative elements focusing on prevention and intervention serve as a critically important foundation for the Comprehensive Homicide Initiative, reflect the spirit of the original IACP Murder Summit recommendations, and represent a quantum change from the more passive but time-honored police practice of waiting for homicides to occur before taking action.

DATA AND METHODS

This article considers the impact of the change in policing philosophy and practice in Richmond, California, with a three-pronged analysis. First, victim-, offender-, and incident-related characteristics of all homicides in Richmond from 1985 to 1998 were examined, broken down into three time periods (1985 to 1989, 1990 to 1994, and 1995 to 1998). Data were collected from RPD homicide investigation reports and supplemented by interviews with detectives from the homicide and gang units. Analyses focused on victim/offender relationships, location, gun and drug involvement, victim/offender prior criminal involvement, and victim/offender gang affiliation.

Second, interrupted time series analysis (ARIMA) was employed to test the impact of the new policing strategy in Richmond. Taylor (1994:278) stated that interrupted time series is a "strong quasi-experimental design"

that overcomes several threats to validity.[7] In the first stage of interrupted time-series analysis, called model-building, the method sought to identify a descriptive model that captures the implicit pattern in the frequency of homicides in Richmond, measured on a monthly basis. The second stage of ARIMA, called impact assessment, essentially sought to determine whether any changes in the Richmond model were associated with the independent variable, the adoption of a problem-oriented policing philosophy.[8]

Third, monthly homicide data from 1985 to 1998 were collected for all other California cities with a population of 75,000 or more (n = 75), and ARIMA was employed to compare the nature and frequency of homicides in other California jurisdictions with Richmond's experience. By applying the Richmond model to data from other cities, the analyses tested whether the pattern of homicides in Richmond from 1985 to 1998 was different or similar to other jurisdictions. Impact assessment was then conducted on the other cities using the identified intervention from the Richmond analysis to determine if a similar impact or shift in homicides occurred outside of Richmond.

It was anticipated that findings would provide evidence regarding the potential role of the problem-oriented policing philosophy and the Comprehensive Homicide Initiative in the changes in Richmond's homicides by demonstrating either that the Richmond experience is unique from other California cities or that its changes are part of larger, more general shifts in crime and violence in the state.

RESULTS

Descriptive Analysis of Richmond Homicides

Figure 3 presents data on changes in the rates per 100,000 resident population of homicides involving specific characteristics.[9] The data are grouped into three time periods that generally describe three discrete eras in Richmond's experience with homicide. The first, 1985 to 1989, was a period of relative stability; the second, 1990 to 1994, was marked by great increases, which led the RPD leadership to begin to rethink their overall policing strategy; the last, 1995 to 1998, was the period in which the Comprehensive Homicide Initiative and other systematic strategies were implemented.

Victim/offender relationships. Although far from the most significant contributor to Richmond's homicide statistics, rates for homicides involving victims and offenders related by blood or marriage declined significantly following implementation of the Comprehensive Homicide Initiative (55 percent,

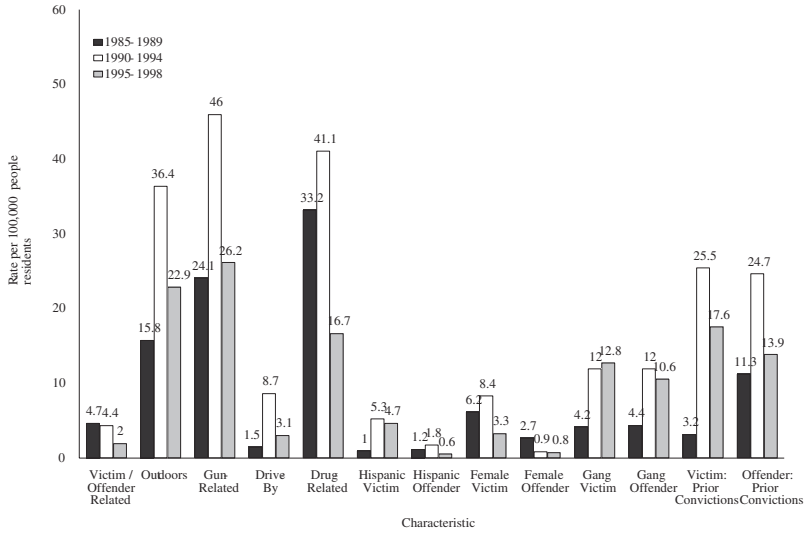


Figure 3: Selected Characteristics of Homicides in Richmond, California, 1985 to 1998 by Time and Type

from 4.4 per 100,000 to 2.0 per 100,000). Female homicide offending remained relatively constant (from 0.9 in 1990 to 1994, to 0.8 in 1995 to 1998) but female victimization, frequently the extreme outcome of domestic violence, decreased by nearly two-thirds (from 8.4 to 3.3).

Location. The rate of offenses in which victims were killed and/or found outdoors decreased precipitously between 1990 to 1994 and 1995 to 1998, from 36.4 per 100,000 to 22.9. Drive-by homicides also dropped notably (from 8.7 to 3.1, a 64 percent decrease).

Guns and drugs. The biggest numerical drops in Richmond's homicide rate between 1990 to 1994 and 1995 to 1998 involved gun killings and those that were drug related (according to the RPD Homicide detectives). Gun homicides decreased from 46.0 to 26.2 per 100,000 annually, bringing the rate of gun-related homicides down to its 1985 to 1989 levels. The rate of drug-related homicides drops dramatically, from 41.1 to 16.7 per 100,000, a decrease of nearly 60 percent that is also notably below the 1985 to 1989 levels.

Victim and offender characteristics. The homicide rate per 100,000 of victims with criminal convictions in their past decreased by 31 percent (from

25.5 to 17.6 per 100,000). However, the rate in 1995 to 1998 is still notably higher than the rate from 1985 to 1989. The rate of homicides committed by offenders with criminal convictions in their past dropped by nearly half (from 24.7 per 100,000 to 13.9), slightly higher than levels recorded in 1985 to 1989.

Homicide victimization and offending by known gang members remained relatively constant between 1990 to 1994 and 1995 to 1998. Interpretation of this finding is difficult, given the increasing sophistication of the RPD's efforts to identify gang members and associates, as well as problems in defining gang membership (see, e.g., Klein 1995; Maxson 1999).[10]

Clearly, many of the homicide characteristics described in Figure 3 are interrelated. For example, the victim/offender relationship characteristic certainly overlaps, or is related to the female victim characteristic, just as the gun-related and drive-by characteristics are related. Additional cluster analysis of homicides in the three periods would likely enhance the understanding of multivariate relationships and further explain the dynamics of shifts in homicide patterns in Richmond over the study period. However, this multivariate discussion goes beyond the scope of this descriptive analysis, which seeks merely to document more general changes in homicide and to inform (or set up) the more sophisticated interrupted time-series analysis.

In summary, key changes in Richmond homicides suggest important shifts in the overall homicide picture. The years 1990 to 1994 marked a particularly violent time in Richmond, in which homicides related to guns, gangs, and drugs transformed the already troubled city into one of the most violent places in the United States. A few disturbing trends from those earlier years continued during and after adoption of the problem-oriented policing philosophy and implementation of the Comprehensive Homicide Initiative, but more importantly, the number of homicides decreased notably, particularly in areas targeted by violence reduction strategies.[11] Patterns shown in Figure 3 demonstrate dramatic decreases after 1994 in Richmond's rates of homicides that are gun-, drug-, and domestic violence-related, as well as those involving participants experienced with the justice system:

- The rate of homicides occurring outdoors dropped by 37 percent.
- The rate of drive-by shootings dropped by 64 percent.
- The rate of homicides involving victims with prior convictions dropped by 31 percent.
- The rate of homicides committed by offenders with prior convictions dropped by 44 percent.
- The rate of homicides involving female victims dropped by 61 percent.
- The rate of homicides involving victims and offenders related by blood or marriage dropped by 55 percent.

- The rate of gun-related homicides dropped by 43 percent.
- The rate of drug-related homicides dropped by 59 percent.

Levels of Nonlethal Violence in Richmond

Reflecting the spirit of the original IACP recommendations, the Richmond initiative viewed homicide as the extreme on a continuum that includes other forms of violence. Although reducing the number of homicides in Richmond remained a primary goal, the RPD leadership anticipated a more general impact on other types of nonlethal violence as well. Table 2 shows the annual rate of reported violent crime (robbery, aggravated assault, and rape combined) per 100,000 residents in Richmond. Similar to the homicide trend, the violent crime rate increased steadily during the late 1980s, from 2,388 per 100,000 in 1985 to over 3,000 in 1988 to 1989, peaked in the early 1990s (3,087 in 1993), then dropped dramatically after 1993. In fact, the violent crime rate in 1994 and 1995 returned to levels witnessed in the mid-1980s (at about 2,200 per 100,000), but the rate continued to drop and reached a 15-year low in 1998 (1,358 per 100,000). Clearly, the reductions witnessed in homicides after the adoption of problem-oriented policing in Richmond in the early 1990s extend to nonfatal violence as well.

ARIMA with Richmond and Their Problem-Oriented Policing Initiative

The goal of time-series analysis is to account for or explain the values in the dependent variable, monthly levels of homicide in this case (Babbie 1992). The monthly number of homicides in Richmond, from 1985 to 1998, is shown in Figure 4. There are two components to interrupted time-series analysis. First, the analysis operationalizes the dependent variable (homicide) as a time series (Box, Jenkins, and Reinsel 1994; McCleary and Hay 1980; McDowall et al. 1980). Making inferences about the process underlying the time series is the overall goal of this first stage (Box et al. 1994; McCleary and Hay 1980; McDowall et al. 1980). A three-stage process that identifies the best-fitting model for the data accomplishes this goal.[12] The best-fitting model for homicides in Richmond, 1985 to 1998, is regularly and seasonally differenced, with moving average and seasonal moving average components $(0,1,1)(0,1,1)_{12}$.[13] In simpler terms, the presence of seasonality indicates recurring cyclical fluctuation in the dependent measure, while differencing serves to reduce variance among the observations (monthly totals of homicides). The moving average component describes the processes that affect each observation, suggesting that previous observations (i.e., homicide

TABLE 2: Annual Rates of Violent Crime (robbery, aggravated assault, and rape) in Richmond, California, 1985 to 1998

Year	*Violent Crime Rate per 100,000*[a]
1985	2,388
1986	2,539
1987	2,788
1988	3,018
1989	3,072
1990	2,970
1991	2,760
1992	3,031
1993	3,087
1994	2,215
1995	2,205
1996	1,859
1997	1,815
1998	1,358

a. Rates are calculated using annual data from the FBI's Uniform Crime Reports.

totals from previous months) help determine each month's homicide total (see Box et al. [1994] for a more detailed discussion of ARIMA modeling).

Although interrupted time-series analysis is a strong quasi-experimental research design, it is vulnerable to several important threats to validity, most notably history. That is, there may be other important factors at work in Richmond at or near the time of the intervention that influence the prevalence of homicide, and interrupted time-series analysis does not control for these other historical events (i.e., changes in the economy).[14] The authors acknowledge the importance of history as a threat to validity and warn that the analyses cannot produce definitive evidence of a causal relationship between the police initiative and homicide trends.

In exploring the possible impact of the policing initiative, the analysis considered different types of impacts, including onset—whether gradual or abrupt—and duration—whether temporary or permanent (meaning comparatively long-lasting with no obvious change in direction).[15] Since the Comprehensive Homicide Initiative was the culmination of changing police practices in Richmond, rather than the onset of a new philosophy, the search for an impact logically should begin prior to fall 1995. More specifically, we isolated the search for an impact to the beginning months of 1995, when William Lansdowne became the chief of the RPD. After a long career working under the community-oriented philosophy and policy of the San Jose Police Department, Chief Lansdowne came to Richmond and immediately set about

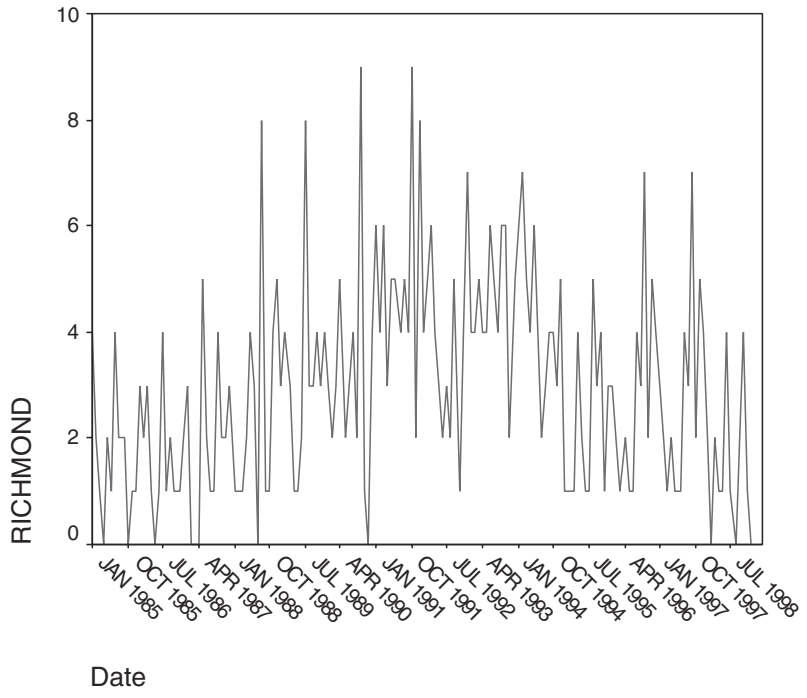


Figure 4: Monthly Total Number of Homicides in Richmond, California, 1985 to 1998

refocusing the community-policing philosophy to involve a more problem-oriented approach, and emphasizing the role of nonpolice institutions in antiviolence efforts.[16] Although the RPD had altered its methods in a number of ways prior to 1995, Chief Lansdowne's arrival signaled a department-wide philosophical shift and paved the way for Richmond's selection as the demonstration site for the Comprehensive Homicide Initiative.

Consequently, ARIMA identified a significant impact beginning in January 1995 and lasting through the end of the study period.[17] This finding indicates that homicides in Richmond decreased significantly in January 1995, by more than one homicide per month. As a result, the changes in RPD's strategy to responding to violence that began in 1992 and continued through implementation of the more formal Comprehensive Homicide Initiative appeared to bear fruit in the first month of 1995, suggesting that the impact was gradual in onset but long lasting in duration. Also, time-series findings support the earlier descriptive analysis of Richmond homicides, suggesting that both the nature and frequency of homicide changed in important ways at

a time when the RPD was substantially altering it approach to combating violence.

ARIMA with Other California Cities and the Richmond Impact

The Richmond time-series model $(0,1,1)(0,1,1)_{12}$ was applied to all California cities with populations of 75,000 or more ($n = 75$) to determine if the underlying pattern (i.e., time-series model) of Richmond homicides from 1985 to 1998 matched other jurisdictions, and more importantly, to determine if the impact found in Richmond is unique, universal, or somewhere in between. The authors chose to study all California cities of equal size or larger rather than selecting those that seemed most comparable because the former approach was both more objective and comprehensive. Certainly, the authors could have limited the analyses to only those cities of comparable size (ruling out Los Angeles, San Jose, and San Francisco, for example), those with similar homicide levels, or those that have recently adopted a problem-oriented or community-policing philosophy. However, this selection process would have been inherently subjective and could possibly have hidden important common themes among seemingly disparate cities. As a result, the authors opted for the more comprehensive approach that compared the Richmond findings to all 75 cities.

Table 3 shows that the Richmond time-series model was significant for 27 other cities. That is, 27 of the 75 cities tested had a similar pattern in homicides over the study period, 1985 to 1998 (i.e., cities had similar autocorrelation and seasonality structures, $[0,1,1][0,1,1]_{12}$). Twenty-nine cities had autocorrelation and seasonality structures that were different from Richmond. That is, the underlying pattern of monthly homicides in 29 cities was notably different from the Richmond pattern, and new models specific to each city had to be identified.

Also, interrupted time-series analysis could not be conducted on 19 cities because the majority of months in the study period (70 percent or more) for each were homicide-free. Although ARIMA could not be conducted on these jurisdictions, their lack of homicides over time underscore how they differ from Richmond, which had homicides in all but 11 months during the study period (11 of 168 months, or 7 percent of the months studied were homicide-free in Richmond). More simply, even without interrupted time-series results, we can conclude that Richmond's experience with homicides does not match the experiences of these 19 cities.

For those cities that had the same time series model as Richmond, the analyses then added the intervention (permanent decrease, starting January 1995) as an independent variable to determine if homicide patterns changed in other

TABLE 3: Results From Interrupted Time Series Analysis With Richmond and 75 California Cities

City	*Model*	*Akaike Information Criterion*	*Schwartz Bayesian Criterion*	B *Weight*	*Significance*
Richmond	(0,1,1)(0,1,1)	285.78	294.69	–1.06	.00
Richmond model					
Anaheim	**(0,1,1)(0,1,1)**	**269.24**	**277.70**	**–.45**	**.01**
Burbank	(0,1,1)(0,1,1)	52.80	57.63	–.29	.12
Compton	(0,1,1)(0,1,1)	233.45	242.47	–.12	.51
El Cajon	(0,1,1)(0,1,1)	86.26	91.10	.29	.45
El Monte	(0,1,1)(0,1,1)	187.46	195.34	.56	.04
Escondido	(0,1,1)(0,1,1)	94.63	100.92	.32	.06
Fremont	(0,1,1)(0,1,1)	43.57	48.23	–.03	.87
Fresno	(0,1,1)(0,1,1)	262.68	271.67	–.22	.43
Hayward	(0,1,1)(0,1,1)	102.51	109.08	.25	.11
Inglewood	**(0,1,1)(0,1,1)**	**316.09**	**325.06**	**–.48**	**.01**
Lancaster	(0,1,1)(0,1,1)	101.89	108.32	–.11	.49
Long Beach	(0,1,1)(0,1,1)	289.10	298.17	.24	.43
Norwalk	(0,1,1)(0,1,1)	127.04	133.52	.15	.47
Oakland	(0,1,1)(0,1,1)	177.46	186.59	–.03	.87
Orange	(0,1,1)(0,1,1)	75.12	80.80	.09	.63
Riverside	(0,1,1)(0,1,1)	277.62	286.29	–.17	.55
Salinas	(0,1,1)(0,1,1)	155.16	162.79	–.31	.16
San Bernardino	(0,1,1)(0,1,1)	301.31	310.38	–.38	.12
Santa Ana	(0,1,1)(0,1,1)	300.42	309.42	–.01	.98
Santa Rosa	(0,1,1)(0,1,1)	58.91	64.46	.19	.22
Stockton	(0,1,1)(0,1,1)	302.48	311.39	–.25	.18
South Gate	(0,1,1)(0,1,1)	129.46	136.25	.10	.68
Sunnyvale	(0,1,1)(0,1,1)	89.48	92.61	.12	.87
Torrance	(0,1,1)(0,1,1)	41.29	46.43	–.23	.31
Vacaville	(0,1,1)(0,1,1)	28.66	31.16	–.18	.79
West Covina	(0,1,1)(0,1,1)	89.05	94.73	–.08	.75
Whittier	(0,1,1)(0,1,1)	43.41	48.33	.02	.94
Other models					
Antioch	(2,1,0)(0,1,1)	85.41	92.26	–.35	.42
Bakersfield	(0,1,1)(3,1,0)	270.20	284.38	–.28	.10
Berkeley	(2,1,0)(0,1,1)	167.24	176.76	.37	.54
Carson	(0,1,1)(1,1,0)	193.12	200.66	.24	.21
Chula Vista	(2,1,1)(2,1,0)	102.74	115.41	–.08	.64
Downey	(1,1,0)(1,1,0)	138.54	144.03	–.35	.56
Fontana	(0,1,1)(1,1,0)	160.70	167.92	–.17	.41
Glendale	(1,1,0)(2,1,0)	183.48	191.36	.41	.26
Garden Grove	(0,1,1)(2,1,0)	124.54	133.65	.08	.71
Huntington Beach	(0,1,1)(1,1,0)	77.17	82.79	–.23	.26
Los Angeles	(2,1,0)(0,1,1)	–69.14	–56.97	–.15	.33
Modesto	(2,1,0,)(2,1,0)	164.61	176.76	–.04	.91

(continued)

TABLE 3 (continued)

City	*Model*	*Akaike Information Criterion*	*Schwartz Bayesian Criterion*	B *Weight*	*Significance*
Other models					
Moreno Valley	(1,1,0)(1,1,0)	154.42	160.61	.21	.76
Oceanside	(0,1,1)(1,1,0)	188.14	195.73	.01	.96
Ontario	**(2,1,1)(1,1,0)**	**223.35**	**236.76**	**–.23**	**.04**
Oxnard	(0,1,1)(2,1,0)	147.50	156.88	–.19	.35
Palmdale	(0,1,1)(1,1,0)	82.19	87.33	–.04	.91
Pasadena	(0,1,1)(2,1,0)	224.30	234.96	–.23	.27
Pomona	(3,1,0)(3,1,0)	330.12	350.81	.53	.25
Rancho Cucamonga	(1,1,0)(1,1,0)	108.04	113.18	.44	.17
Rialto	(2,1,0)(1,1,0)	149.96	158.27	–.37	.23
Sacramento	(0,1,1)(2,1,0)	290.53	302.60	.06	.82
San Diego	(2,1,0)(1,1,0)	296.75	308.90	–.12	.78
San Francisco	(1,1,1)(0,1,1)	233.83	245.00	.14	.50
San Jose	(0,1,1)(2,1,0)	300.71	312.70	.13	.58
Santa Monica	(0,1,1)(1,1,0)	117.70	124.03	.18	.44
Vallejo	**(0,1,1)(1,1,0)**	**193.40**	**201.00**	**–.58**	**.03**
Visalia	(1,1,0)(1,1,0)	107.22	113.65	–.23	.49
Westminster	(1,1,0)(1,1,0)	100.11	105.66	–.09	.81
Not tested (70 percent or more of months with no homicides)					
Alameda	—	—	—	—	—
Alhambra	—	—	—	—	—
Concord	—	—	—	—	—
Corona	—	—	—	—	—
Costa Mesa	—	—	—	—	—
Daly City	—	—	—	—	—
Fairfield	—	—	—	—	—
Fullerton	—	—	—	—	—
Irvine	—	—	—	—	—
Lake Forest	—	—	—	—	—
Lakewood	—	—	—	—	—
Mission Viejo	—	—	—	—	—
Redding	—	—	—	—	—
San Mateo	—	—	—	—	—
Santa Barbara	—	—	—	—	—
Santa Clara	—	—	—	—	—
Simi Valley	—	—	—	—	—
Thousand Oaks	—	—	—	—	—
Vista	—	—	—	—	—

NOTE: Bolded items indicate statistically significant results from the interrupted time-series analysis.

jurisdictions as they did in Richmond. Table 3 shows that only 3 cities had significant changes in their homicide trends in January 1995, as illustrated by the intervention significance levels in the right column. Only Anaheim and Inglewood had the same pattern of homicides as Richmond throughout the study period, including a significant and long-lasting decrease in January 1995. El Monte, on the other hand, had the same pattern of homicides as Richmond, including a significant change in January 1995, but the change involved an increase in homicides.[18]

For those cities that did not have the same time-series model as Richmond, the analyses identified the best-fitting model and added the January 1995 intervention. Again, results show that, even among cities experiencing different homicide trends than Richmond, few witnessed the January 1995 decrease observed in Richmond.[19] Only Ontario and Vallejo show significant decreases in homicide levels during the intervention period. Thus, results from ARIMA analyses with homicide data from other California cities suggest that the drop in homicides experienced in Richmond in early 1995 was unique, rather than a phenomenon witnessed by many cities in the state of California.

Because the multicity interrupted time-series analysis involved 76 statistical tests (Richmond and 75 other cities), statistically significant findings (at $p < .05$) due to random chance alone would be expected in approximately four cases. Including Richmond, we have discovered significant, long-term reductions in homicides starting in January 1995 in 5 cities (2 had the same ARIMA model as Richmond; 2 had a different model). However, we anticipated a significant effect in Richmond, based on the earlier descriptive analyses. Significant findings in the other 4 cities fit with what would be expected by chance alone (as does the increase discovered in El Monte).

We conducted additional time-series analysis to determine if the findings from Richmond were part of larger trends in homicide, with the decrease in Richmond coming before or after decreases in other California locations. We searched for changes in homicide in the two years prior to the Richmond decrease (1993 and 1994) and in the year after (remainder of 1995).[20] During that three-year span, 10 cities (13 percent of those examined) experienced a significant, long-lasting decrease in the number of homicides. Anaheim, Inglewood, Ontario, and Vallejo experienced drops at the same time as Richmond (as indicated previously). Antioch, Palmdale, and San Jose experienced decreases prior to the Richmond impact, and San Bernardino, Torrance, and Huntington Beach witnessed drops after January 1995. Three cities—Escondido, Hayward, and Sacramento—experienced an increase in homicides during that time. Sixty-two cities (83 percent of those examined) did not experience a significant change in the number of homicides from 1993 to 1995. Thus, this expanded analysis indicates that several other cities

experienced significant drops in homicide in the years before and after the Richmond impact.

CONCLUSION

This article tested the notion that homicide, a crime traditionally believed to be unaffected by police efforts, can be reduced or limited by the adoption of a problem-oriented style of policing. Richmond, California, experienced dramatic increases in violent crime and homicide during the early 1990s, encouraging its police department to rethink its overall philosophy for responding to crime. Recognizing that enforcement alone did not appreciably reduce violence or affect wider quality of life issues, the RPD adopted a problem-oriented philosophy that sought involvement, support, and approval of the residents of the community (RPD 1996).

It was this shift in philosophy as well as the vision of the police leadership that brought the RPD to the attention of the BJA in 1995 and resulted in their selection as a demonstration site for implementation of the Comprehensive Homicide Initiative. With substantial community involvement, the RPD developed their version of the Comprehensive Homicide Initiative, which reflects the first interrelated stages of a different, problem-oriented policing perspective (with elements of community policing as well) that seeks to reduce violence and increase public confidence.

The most direct test of Richmond's Comprehensive Homicide Initiative is to determine whether it helped to ameliorate the city's crisis of violence by reducing homicides. The descriptive analysis illustrates that both the nature and frequency of homicides in Richmond changed in important ways following the RPD's adoption of the new policing philosophy and that many of the decreases were greatest among homicides that have been most directly addressed by the RPD's new efforts (i.e., outdoor homicides, homicides involving guns and drugs). Additional analysis showed that similar reductions were witnessed among other types of nonfatal violence (robbery, aggravated assault, and rape measured as a combined violent crime rate). Moreover, ARIMA confirmed that homicide levels in Richmond dropped significantly in January 1995. However, because the analyses were retrospective and could not employ an experimental design, we are not able to conclude that the decreases in violence were caused by the Richmond police initiative.

In an effort to determine how common or universal the Richmond patterns were, we analyzed homicide data from all other California cities of similar size or larger over the same time period. If the experience in Richmond is different from other places, the results support the notion that the changes

witnessed in Richmond may have been a direct result of new, innovative police strategies that sought community involvement, placed a premium on prevention, and invested heavily in the youth who are most at risk of becoming perpetrators and victims of violence. If, on the other hand, the changes in homicide in Richmond are common to other cities, results suggest that perhaps larger social forces are at work, such as a booming economy, low unemployment, and maturation of the drug market.[21]

ARIMA analyses showed that only 2 of 75 California cities tested had a pattern of homicides that matched Richmond's, including the significant drop in murders in January 1995 (3 percent of cities tested). However, additional analysis indicated that 10 other cities experienced similar decreases in the years before and after the Richmond impact. These findings suggest that the Richmond experience was uncommon, although certainly not unique, and that there may be a larger, more general shift in homicide patterns throughout the state, at least during the three-year window we observed. Alternatively, homicide decreases in only 13 percent of California cities (with populations over 75,000) are not indicative of widespread, statewide trends in violence reduction. Although the additional analyses produced some support for the role of more general crime trends as a contributing factor in the Richmond homicide decrease, the evidence is not overwhelming.

Moreover, review of the 10 departments also experiencing decreases in homicides showed that all operate under a community or problem-oriented policing philosophy and that several of them adopted the philosophy in the early 1990s shortly before witnessing the homicide decrease (e.g., Anaheim, Antioch, Palmdale, Torrance, Huntington Beach, and Ontario adopted community or problem-oriented policing between 1991 and 1995). This raises the possibility that local homicide reductions, while often part of larger statewide (and national) trends, may be more common in jurisdictions in which police departments have committed themselves to proactive, community, and problem-oriented policing philosophies.[22]

Nevertheless, the relative distinctiveness of homicide trends in Richmond suggests that something happened in that city that occurred in few other places in the state. The explosion of violence during the early 1990s, the police response culminating in the Comprehensive Homicide Initiative, and the subsequent significant decrease in homicides, particularly among those specifically targeted by police efforts, all support the argument that the shift in policing philosophy and practice was an important factor in affecting levels of violence in Richmond.

These findings raise the question of whether the impact of a change in police leadership can be parsed out from the impact of the problem-oriented philosophy. That is, would the same decrease in homicides have occurred if Chief Lansdowne implemented a different policing philosophy (i.e., no

preventive component or no community involvement)? Or would the same decrease have occurred if a different leader (or the old leadership) implemented the problem-oriented strategy (Comprehensive Homicide Initiative)? Although these questions cannot be answered with the available data, the authors suggest that, at least in the case of Richmond, the two phenomena cannot be separated. That is, the new leadership and the new strategy together likely contributed to the reduction in homicide, and the effect on homicide would have been less (or may not have occurred at all) had either element not been present.

The findings from Richmond, like those from New York and Boston, indicate that problem-oriented policing can affect levels of violence and crime, but we believe that successful implementation of a new philosophy is dependent on the formal and informal policies of the police leadership. In other words, if the new strategy is perceived as nothing more than rhetoric intended to assuage the community, the rank-and-file of the department will not buy in to the philosophy and will not change the way they conduct their daily business. Importantly, the central theme of the problem-oriented philosophy involves changing the way patrol officers do their jobs. Thus, the police leadership must be able to inspire change at all levels of the department for the philosophy to take hold. As a result, we argue that, in the case of Richmond (and probably other places), the dynamic, dedicated leadership of Chief Lansdowne and the adoption of a problem-oriented philosophy cannot be separated, and more importantly, any contribution to the reduction in violence and crime in Richmond was a result of the collective impact of both phenomena.

Nevertheless, drawing conclusions about the impact of the change in police philosophy and practice is difficult because there are many larger social forces and contextual factors that may influence levels of homicide in Richmond and elsewhere. For example, it is difficult to measure or control for such factors as the state of Richmond's economy and its effects on the individuals who may be most at risk for homicide offending and victimization. Also, the data clearly show that 1990 to 1994 was an especially violent time in Richmond. Conceivably, therefore, the observed decreases in violence may simply be a return to normalcy. We also cannot control for the maturity or stability of the drug market in Richmond. Some criminologists (Harries 1997) have argued that, over the past decade, ruthless individuals have murdered off their competitors in the crack cocaine market, with the result that the market has now become monopolized by a few people who no longer need to resort to violence to gain and retain control. Studies generally suggest that the pool of people who engage in extreme violence is quite limited, so that decreases in homicides may simply reflect depletions in their numbers through murder and incarceration. More simply, homicide may have

decreased in Richmond because the pool of gun-wielding young men willing to kill for control of gang turf or the city's crack cocaine market has been depleted by incarceration and by the increase in homicides during the early 1990s.

Still, we know that

- Richmond suffered dramatic increases in homicides during the early 1990s.
- These increases were greatest in drug, gun, and stranger-on-stranger cases, which had been identified by the RPD as central to their problem-solving effort.
- The RPD solicited broad-based input from residents and government and private agencies in its effort to determine what could be done to reduce these homicides.
- With heavy community input and participation, the RPD made major changes in its approach to the problem of homicide and related violence, building into its work a problem-oriented philosophy with a far more substantial collaborative and preventive component than had ever existed before.
- The major changes in police philosophy and practice were followed by substantial decreases in homicide, most notably in areas specifically targeted by police efforts, and importantly, the Richmond homicide experience, particularly the decrease that began in early 1995, is unique among California cities.

The findings presented here support the growing body of research that suggests that community and problem-oriented policing styles can effectively control crime and violence (Braga et al. 1999, 2001; Clark 1992; Eck and Spelman 1987; Goldstein 1990). Richmond's Comprehensive Homicide Initiative involves the extension of the problem-oriented philosophy to police homicide work, perhaps the last bastion of traditional reactive policing. More generally, police and community partnerships and the move to problem- and community-oriented philosophies of policing represent a return to a first principle defined by Sir Robert Peel, the so-called father of modern policing. Peel argued that good policing is identifiable by the existence of stable public order and the absence of police business, rather than by police success in solving crimes and coping with disorder (see Lane 1980; Miller 1977). Although problem-oriented policing initiatives such as Richmond's acknowledge the importance of aggressive police crime-solving efforts, they place a premium on Peel's preventive ideal and on police ingenuity in short-circuiting problems before they manifest themselves in serious violent occurrences such as homicide.

Only time and replication can serve as the test of the competing hypotheses regarding the role of the RPD's efforts in reducing homicide, although findings here strongly suggest that the police played an integral part in the

shifting trends. Further research and the development of similar strategies in other locations are needed to continue to test the idea that homicide prevention is a critical police responsibility and that by recasting homicide work to include a strong preventive component and citizen involvement, police can effectively reduce the prevalence of such violence in their communities.

NOTES

1. At the time McGuire made his comments, they were a break from the then-prevailing police claim that their efforts had major effects on crime rates (see, e.g., Davis 1978; Leonard and More 1974). Perhaps the most eloquent and influential critique of the view that low crime rates were largely a product of well-managed policing was offered by Manning (1971). He argued that, in claiming the primary responsibility for crime-fighting, the police had imposed on themselves an impossible mandate and that they engaged in a varieties of tactics and strategies to make it appear as though they were fulfilling this untenable and self-inflicted mission. The subsequent comments of McGuire, whose history as a lawyer rather than as a career police official meant that he had no stake in the cops-as-crime-fighters camp, was one of the first such acknowledgments by a major police figure.

2. See, for example, David Simon's *Homicide: A Year on the Killing Streets* (1991).

3. This increase may be attributable, in large part, to improved gang intelligence operations and more complete classifications of gang membership by the Richmond Police Department (RPD) rather than to actual increases in gang violence. Although the RPD recognizes this fishbowl effect, both line officers and the department leadership believe that gang violence became increasingly common during the early 1990s.

4. Although the Comprehensive Homicide Initiative did not officially get underway until the fall 1995, the RPD had altered its philosophy well before then. In fact, the primary objective of the Comprehensive Homicide Initiative was not to funnel a large sum of money to start hosts of new programs but rather to provide the necessary resources to catalyze and refine local efforts. Thus, Richmond was selected as the demonstration site because its police department leadership had already taken significant steps to address its violence problem.

5. See White et al. (2000) for an in-depth discussion of the various components of Richmond's Comprehensive Homicide Initiative.

6. Our descriptive evaluation showed that nearly all components of the initiative were, in fact, carried out, but each achieved its stated objectives with varying degrees of success. For example, the analysis of youths picked up by the Truant Recovery Program indicated notable improvements in school performance, but also substantial increases in formal police contact. Also, the majority of offenders targeted by the Violent Offender Task Force continued to participate in the drug trade, as evidenced by a 60 percent rearrest rate. However, rather than thinking about the potential impact of each strategy on the target problem, the potential impact of the initiative as a whole is considered.

7. Taylor (1994:281) noted that history remains a serious concern for interrupted time-series analysis (ARIMA): "It is always possible that specific historical forces, influencing your outcome variable, came into play at the time the experimental treatment began."

8. Impact assessment is conducted by adding an independent, dichotomous variable representing the intervention to the existing time-series model. The independent variable has zeros for values for all months outside of the measured intervention period and ones for the months of the impact.

9. Rates were calculated using annual estimated population figures from the Federal Bureau of Investigation's Uniform Crime Reports. For each of the three time periods, an average estimated population was calculated by adding the annual figures and dividing by the number of years in each period.

10. The RPD did not officially have a gang unit until 1993, and since then, it has assigned two officers as gang specialists. These officers' responsibilities include identifying and tracking gang members, as well as keeping the department apprised of gang activity and trends. Then, in early 1998, RPD purchased a statewide, computerized gang-tracking system, called CALGANG, which facilitates gang identification and tracking. Thus, while both the RPD's leadership and its gang specialists acknowledge substantial increases in gang membership and gang-related activity over the past several years, the department and its gang unit have also gotten much better at identifying gang members and gang-related homicides, through improved intelligence, greater departmental awareness and concern, and better equipment and technology.

11. In particular, those trends include gang-related homicides with either victims or offenders having known gang affiliations, and victims or offenders having prior criminal convictions. As mentioned previously, the trend in gang-related homicides is explained, at least in part, by improved gang surveillance and intelligence (i.e., fishbowl effect). The percentages of victims and offenders with prior criminal convictions in the post-initiative years are down significantly from 1990 to 1994, but are still notably greater than levels seen in the 1980s.

12. The three-stage model building process is identification, estimation, and diagnosis. In the identification stage, the autocorrelation and partial autocorrelation functions are examined. In estimation, parameter estimates are identified. Finally, the last stage involves examining the error residuals.

13. The Akaike Information Criterion (AIC) value is 295.11 and the Schwartz Bayesian Criterion (SBC) value is 301.05. Both the moving average and seasonal moving average components are statistically significant ($p < .05$), and the residuals approximate white noise.

14. In some cases, a multivariate interrupted time-series analysis can be employed to address some of these historical threats to validity. However, the authors were not able locate the appropriate monthly data for Richmond during the entire study period to conduct such an analysis.

15. Key measures of impact include the probability of the intervention component, and the AIC and SBC values. Significant impacts are characterized by an intervention with a probability below .05 and AIC and SBC values that are lower than the values in the original model. The size and direction of the *B* weight describe the nature of the impact (strength and decrease or increase in the enrollment measure). See McDowall et al. (1980) for a more complete discussion of impact assessment.

16. This was a significant change in Richmond, where relations between the police and much of the community had been rather hostile and marked by mutual distrust and disdain. The early 1980s marked the nadir in police-community relations in Richmond. During those years, the Richmond Police Department was the target of a long series of suits alleging discrimination and other civil rights violations. These were nationally publicized in a *60 Minutes* exposé.

17. The number of homicides in Richmond began dropping slightly in the last half of 1994, but the most significant decrease (identified by ARIMA) began in January 1995.

18. We would expect half of the significant findings resulting from chance alone to be positive (i.e., an increase in homicides). As a result, the El Monte finding lends support to the argument that Richmond is not part of a larger trend.

19. Error residuals for Pasadena, Pomona, Rialto, and San Diego were significant (i.e., not random or white noise), which suggests that the identified models do not adequately reflect the trend. The authors were not able to identify better fitting models for these cities. Regardless, the Richmond ARIMA model did not adequately reflect the monthly homicide trends of these cities,

suggesting that the identified pattern in Richmond homicides is not found in these other California cities.

20. We examined only one year following the Richmond decrease (1995) because searching in the second year (1996) would have left too few data points (or months) after the impact for analysis.

21. Nevertheless, even if the Richmond findings are unique, weaknesses in the research design prevent the authors from concluding that there is a causal relationship between the drop in homicides and the change in policing philosophy (even if Richmond is unique, the drop in homicides may be a result of outside factors in Richmond, such as changes in the economy, demographics, and so forth).

22. Of course, the timing between homicide reductions and the adoption of community policing in these 10 cities could be entirely coincidental. No efforts were made to document the content of their community policing programs, nor were the other 65 cities contacted (this was beyond the scope of the article). Certainly, some of those other departments that did not experience a homicide decrease have adopted community policing as well.

REFERENCES

Babbie, Earl. 1992. *The Practice of Social Research*. Belmont, CA: Wadsworth.

Baumer, Eric, Janet L. Lauritsen, Richard Rosenfeld, and Richard Wright. 1998. "Influence of Crack Cocaine on Robbery, Burglary, and Homicide Rates: A Cross-City, Longitudinal Analysis." *Journal of Research in Crime and Delinquency* 35:316–40.

Berrien, Jenny and Christopher Winship. 1999. "Lessons Learned From Boston's Police-Community Collaboration." *Federal Probation* 63 (2): 25–32.

Blumstein, Alfred and Richard Rosenfeld. 1998. "Assessing the Recent Ups and Downs in the U.S. Homicide Rates." *National Institute of Justice Journal* 237:11–13.

Box, George E. P., Gwilym M. Jenkins, and Gregory C. Reinsel. 1994. *Time Series Analysis: Forecasting and Control*. Upper Saddle River, NJ: Prentice Hall.

Braga, Anthony A., David M. Kennedy, Elin J. Waring, and Anne Morrison Piehl. 2001. "Problem-Oriented Policing, Deterrence, and Youth Violence: An Evaluation of Boston's Operation Ceasefire." *Journal of Research in Crime and Delinquency* 38 (3): 195–225.

Braga, Anthony A., David L. Weisburd, Elin J. Waring, Lorraine Green Mazerolle, William Spelman, and Francis Gajewski. 1999. "Problem-Oriented Policing in Violent Crime Places: A Randomized Controlled Experiment." *Criminology* 37:541–80.

Bratton, William, with Peter Knobler. 1998. *Turnaround: How America's Top Cop Reversed the Crime Epidemic*. New York: Random House.

Clark, Ronald V., ed. 1992. *Situational Crime Prevention: Successful Case Studies*. New York: Harrow and Heston.

Davis, Edward M. 1978. *Staff One: A Perspective on Effective Police Management*. Englewood Cliffs, NJ: Prentice Hall.

Eck, John E. and William Spelman. 1987. *Problem-Solving: Problem-Oriented Policing in Newport News*. Washington, DC: National Institute of Justice.

Fields, Gary and Kevin Johnson. 1999. "Crime at Lowest Point in 32 Years." *USA Today*, October 18, p. 1A.

Goldstein, Herman. 1979. "Improving Policing: A Problem Oriented Approach." *Crime and Delinquency* 25:236–49.

———. 1990. *Problem-Oriented Policing*. Philadelphia: Temple University Press.

Harries, Keith. 1997. *Serious Violence: Patterns of Homicide and Assault in America*. 2d ed. Springfield, IL: Charles C Thomas.

International Association of Chiefs of Police. 1995. *Murder in America: Recommendations from the International Association of Chiefs of Police*. Alexandria, VA: International Association of Chiefs of Police.

Kelling, George L. and Catherine M. Coles. 1996. *Fixing Broken Windows: Restoring Order and Reducing Crime in Our Cities*. New York: Free Press.

Klein, Mark W. 1995. *The American Street Gang: Its Nature, Prevalence, and Control*. New York: Oxford University Press.

Lane, Roger. 1980. "Urban Police and Crime in Nineteenth-Century America." Pp. 1–43 in *Crime and Justice: An Annual Review of Research*, vol. 2, edited by N. Morris and M. Tonry. Chicago: University of Chicago Press.

———. 1997. *Murder in America: A History.* Columbus: Ohio State University Press.

Leonard, Vivian A. and Harry W. More. 1974. *Police Organization and Management*. 4th ed. Mineola, NY: Foundation Press.

Manning, Peter. 1971. "The Police: Mandate, Strategies and Appearances." Pp. 149–93 in *Crime and Justice in American Society*, edited by Jack D. Douglas. Indianapolis, IN: Bobbs-Merrill.

Maple, Jack and Chris Mitchell. 1999. *The Crimefighter: Putting the Bad Guys Out of Business*. New York: Doubleday.

Maxson, Cheryl L. 1999. "Gang Homicide." Pp. 239–54 in *Studying and Preventing Homicide: Issues and Challenges*, edited by M. D. Smith and M. Zahn. Thousand Oaks, CA: Sage.

McCleary, Richard and Richard A. Hay, Jr. 1980. *Applied Time Series Analysis for the Social Sciences*. Beverly Hills, CA: Sage.

McDowall, David, Richard McCleary, Errol Meidinger, and Richard A. Hay, Jr. 1980. *Interrupted Time Series Analysis. Series: Quantitative Applications in the Social Sciences*. Beverly Hills, CA: Sage.

Mercy, James A. and W. Rodney Hammond. 1999. "Preventing Homicide: A Public Health Perspective." Pp. 297–310 in *Studying and Preventing Homicide: Issues and Challenges*, edited by M. D. Smith and M. Zahn. Thousand Oaks, CA: Sage.

Miller, Wilbur. 1977. *Cops and Bobbies: Police Authority in London and New York City, 1830-1870*. Chicago: University of Chicago Press.

Piehl, Anne M., David M. Kennedy, and Anthony A. Braga. (2000). "Problem Solving and Youth Violence: An Evaluation of the Boston Gun Project." *American Law and Economics Review* 2 (1): 58–106.

Richmond Police Department. 1996. *Phase II Implementation Plan: A Police and Community Collaboration to Reduce Homicide and Violent Crime*. Richmond, CA: Richmond Police Department.

Silverman, Eli. 1999. *NYPD Battles Crime: Innovative Strategies in Policing*. Boston: Northeastern University Press.

Simon, David. 1991. *Homicide: A Year on the Killing Streets*. Boston: Houghton Mifflin.

Taylor, Ralph B. 1994. *Research Methods in Criminal Justice*. New York: McGraw-Hill.

White, Michael D., James J. Fyfe, John S. Goldkamp, and Suzanne P. Campbell. 2000. "Re-Defining the Police Response to Homicide: Assessing the Richmond, California Comprehensive Homicide Initiative." Report to the Bureau of Justice Assistance. Philadelphia: Crime and Justice Research Institute

White, Michael D., James J. Fyfe, Suzanne P. Campbell, and John S. Goldkamp. 2001. "The School-Police Partnership: Identifying At-Risk Youth Through a Truant Recovery Program." *Evaluation Review* 25 (5): 507–32.

Michael D. White is an assistant professor in the Department of Law, Police Science and Criminal Justice Administration at the John Jay College of Criminal Justice, City University of New York. He received his Ph.D. in criminal justice from Temple University. His research interests include policing, particularly use of force by police and innovations in policing, and homicide.

James J. Fyfe is the deputy commissioner, training, New York City Police Department, and distinguished professor of law, police science and criminal justice administration at John Jay College of Criminal Justice, The City University of New York. He holds a B.S. (1971) and an honorary doctorate of laws (1999) from John Jay College, and earned M.A. (1972) and Ph.D. (1978) degrees in criminal justice at the State University of New York at Albany. He has published seven books and more than 75 articles and book chapters involving the police.

Suzanne P. Campbell is manager, program evaluation and analysis, for ACS State and Local Solutions. She received her master's degree in criminal justice from Temple University. Her research interests include group violence, organized crime, and juvenile delinquency.

John S. Goldkamp is a professor of criminal justice at Temple University. He received his Ph.D. in criminal justice from the State University of New York at Albany. His research has focused on issues of judicial discretion and court innovation, reform of pretrial release, and detention in the United States.