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In 1977, the Chicago Police Department opened its files concerning police-involved shootings to inspection by a public interest group, the Chicago Law Enforcement Study Group. This represents the first time a major city's police force has allowed its shooting investigation files to be viewed by the public. The following article is based on excerpts from that group's report. The study will be presented in two parts. The first set of material, presented here, deals with the methodology, shooting types, and racial factors involved in the shootings. The set of data to be presented in the Spring issue deals with shootings of police officers, variations in shooting over time, and recommendations for shooting control strategies.

THE EDITORS

SHOOTINGS OF AND BY CHICAGO POLICE: UNCOMMON CRISES PART I: SHOOTINGS BY CHICAGO POLICE

WILLIAM A. GELLER* AND KEVIN J. KARALES**

Every year in the United States, several hundred people suffer what is bureaucratically termed "death by legal intervention—police."¹ These annual numbers translate into a *daily* average of one or two people who die at the hands of American police. Perhaps three times as many people are *wounded* by police bullets somewhere in the country on an annual and daily basis. And these numbers pale by comparison to the number of criminal suspects shot *at* but missed by police.

This report attempts to describe and study a phenomenon known as "police shootings," a subject about which little has been known but much has been said. Widely disparate kinds of interactions are encompassed by the term—from self-defense shootings to self-inflicted shoot-

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¹ These statistics are maintained by the federal government pursuant to an international classification system. See U.S. CENSUS BUREAU, 2 VITAL STATISTICS OF THE UNITED STATES, Table 123 at I-166 (1970) (These fatalities are listed under the heading of "Cause of Death, Code No. 984."); Sherman & Langworthy, *Measuring Homicide by Police Officers*, 70 J. CRIM. L. & C. 546, 548 (1979). See also Takagi, *Death by Police Intervention*, in U.S. DEP'T OF JUSTICE, A COMMUNITY CONCERN: POLICE USE OF DEADLY FORCE 32 (1979) [hereinafter cited as A COMMUNITY CONCERN].

ings. The different types of shootings are susceptible to very different types of control, and no single strategy for reducing shootings is relevant to all types of events. Police and the public at large have a common interest in identifying and employing the most effective control strategies possible, for the divisive impact which police-involved shootings can have on the community undermines all other efforts to combat crime and ensure public safety. Our focus includes not only shootings of civilians by police, but shootings *of* police as well—shootings inflicted by civilians and by police officers.

The importance of such research need not be stated at length. Regardless of the justifiability of shootings by police, such incidents sometimes have societal consequences far beyond the injury or death of the shooting victims. Gilbert Pompa, Director of the U.S. Justice Department's Community Relations Service, recently called police shootings "the most volatile and potentially divisive force in the nation today."² Police-involved shootings have played key roles in triggering several of America's disastrous urban riots, Miami (1980) being the most recent. Even a single, well-publicized shooting can foster a hostility between police and community which can take years to undo. As a result, much of the scholarly, legislative, and administrative attention to deadly force questions is prompted by both a moral and utilitarian concern over the social turmoil which police shootings can produce. The social costs clearly can go beyond the individual and family suffering which follow the shooting of a police officer or a civilian.

In considering what measures federal and local officials might take to prevent future shooting-induced riots, it is worth noting the kinds of incidents which have typically prompted upheaval. Some of the shootings were entirely within applicable state or local policy. Often, these were shootings of unarmed, fleeing felony suspects. Other shootings are clearly without justification and thus can be subjected to both administrative and prosecutorial process. Our data suggest that, to a significant extent, police shootings need not be the product of "split-second decisions," a term which can be used as a code defense of any decision because, "after all, it had to be made in an instant." More effective use of police policy, training and review processes can better equip officers to creatively, deliberately, and successfully resolve many potentially violent situations without resort to deadly force. A number of shootings which provoke anger, however, cannot be deterred through either prosecution or changes in law or policy, for they are accidental discharges, usually regretted as much by the shooting officer as by the community

² Pompa, *Police Use of Excessive Force: A Community Relations Concern* (Aug. 25, 1978) (speech to National Black Police).

at large.³ These tragic accidents, like most of the shooting incidents which have occasioned violent community responses, usually have not been the sole irritant; they have been viewed by communities in the context of a history of such incidents or in light of much broader social and economic problems.⁴

In sum, the divisive impact which police shootings have had on American communities over two decades provides an extra incentive to concerned citizens and policy makers at the local and national levels to re-examine deadly force policy, training, and practice. In the past, many such examinations have been conducted without the benefit of empirically-based portraits of the use of deadly force by and against police in urban America. This report, and some of the other research to be mentioned, should help to fill this gap and eliminate some of the guesswork which has necessarily pervaded prior reform efforts.

I. PRIOR RESEARCH AND THE OBJECTIVES OF THE PRESENT STUDY

A number of good law review articles⁵ have been written in recent years on the constitutional, statutory, and administrative framework governing police use of deadly force and the common law rules and historical conditions from which this framework derived. Many of these articles urge tightening the rules permitting police shootings, critiquing the current firearms policies in use in most states and municipalities.

Empirical studies are also available. More than half of them have

³ Training, however, may help prevent some of these incidents. A rash of accidental shootings in Chicago in late 1977 led to loud public protest. See, e.g., Chicago Tribune, December 6, 1977, § 1, at 1.

⁴ Riots in Miami may be better understood by considering a comment made by the director of the Community Relations Service's Southeast Region: "[P]olice/minority relations problems have dominated our work for each of the past 5 years." Sutton, *Police Use of Excessive Force: A Community Relations Concern*, in A COMMUNITY CONCERN, *supra* note 1, at 27.

⁵ See, e.g., Day, *Shooting the Fleeing Felon: State of the Law*, 14 CRIM. L. BULL. 285 (1978); Rummel, *The Right of Law Enforcement Officers to Use Deadly Force to Effect an Arrest*, 14 N.Y.L.F. 749 (1968); Sherman, *Restricting the License to Kill—Recent Developments in Police Use of Deadly Force*, 14 CRIM. L. BULL. 577 (1978); Sherman, *Police Homicide and the Constitution: Execution Without Trial*, 33 VAND. L. REV. 71 (1980) [hereinafter cited as *Execution Without Trial*]; Sherman & Langworthy, *supra* note 1; Tsimbinos, *The Justified Use of Deadly Force*, 4 CRIM. L. BULL. 3 (1968); Comment, *Policeman's Use of Deadly Force in Illinois*, 48 CHI.-KENT L. REV. 252 (1971); Comment, *Deadly Force to Arrest: Triggering Constitutional Review*, 11 HARV. C.R. - C.L.L. REV. 361 (1976); Comment, *Use of Deadly Force in the Arrest Process*, 31 LA. L. REV. 131 (1970); Comment, *Justification for the Use of Deadly Force in the Criminal Law*, 14 STAN. L. REV. 566 (1961); Note, *Appropriateness of Deadly Force*, 1969 HOW. L.J. 506; Note, *Justifiable Use of Deadly Force by the Police: A Statutory Survey*, 12 WM. & MARY L. REV. 67 (1970). See also *Mattis v. Schnarr*, 547 F.2d 1007 (8th Cir. 1976), *vacated sub nom.*, *Ashcroft v. Mattis*, 431 U.S. 171 (1977); C. MILTON, J. HALLECK, J. LARDNER & G. ALBRECHT, *POLICE USE OF DEADLY FORCE (1977)* [hereinafter cited as *DEADLY FORCE*]; MCCREEDY & HAGUE, *Administrative and Legal Aspects of a Policy to Limit the Use of Firearms by Police Officers*, POLICE CHIEF, Jan. 1975, at 48-52.

been published since this research project commenced in 1977. A number of these studies have examined firearms use policies as well as shooting data. However, virtually all of the empirical studies of American police-involved shootings⁶ have collected original data only on

⁶ W. CHAMBLISS & R. SEIDMAN, *LAW, ORDER AND POWER* 275 (1971); B. JENKINS & A. FAISON, *AN ANALYSIS OF 248 PERSONS KILLED BY NEW YORK CITY POLICEMEN* (1974); R. KNOOHUIZEN, R. FAHEY & D. PALMER, *THE POLICE AND THEIR USE OF FATAL FORCE IN CHICAGO* (1972); M. MEYER, *REPORT TO THE LOS ANGELES BOARD OF POLICE COMMISSIONERS ON POLICE USE OF DEADLY FORCE IN LOS ANGELES: OFFICER INVOLVED SHOOTINGS, PART FOUR* (1980); C. MILTON, ET AL., *DEADLY FORCE*, *supra* note 5; Bristow, *Police Officer Shootings—A Tactical Evaluation*, 54 J. CRIM. L.C. & P.S. 93 (1963); Chapman, *Police Policy on Use of Firearms*, POLICE CHIEF, July 1967, at 16. Fyfe, *Administrative Interventions on Police Shooting Discretion: An Empirical Examination*, 7 J. CRIM. JUST. 309 (1979); Fyfe, *Always Prepared: Police Off-Duty Guns*, 452 ANNALS 72 (1980); Fyfe, *Deadly Force*, 1979 FBI L. ENF. BULL. 7; Fyfe, *Geographic Correlates of Police Shooting: A Microanalysis*, 17 J. RESEARCH IN CRIME & DELINQUENCY 101 (1980); Goldkamp, *Minorities as Victims of Police Shootings: Interpretations of Racial Disproportionality and Police Use of Deadly Force*, 2 JUST. SYS. J. 169 (1976); Harding & Fahey, *Killings by Chicago Police, 1969-1970: An Empirical Study*, 46 S. CAL. L. REV. 284 (1973); Haring, Platt, Speigman & Takagi, *The Management of Police Killings*, 1977 CRIME & SOC. JUST. 34; Jacobs & Britt, *Inequality and Police Use of Deadly Force: An Empirical Assessment of a Conflict Hypothesis*, 26 SOC. PROB. 403 (1979); Kania & Mackey, *Police Violence as a Function of Community Characteristics*, 15 CRIMINOLOGY 27 (1977); Kobler, *Figures (and Perhaps Some Facts) on Police Killing of Civilians in the United States, 1965-1969*, 1975 J. SOC. ISSUES 185; Kobler, *Police Homicide in a Democracy*, 1975 J. SOC. ISSUES 163; Margarita, *Killing the Police: Myths and Motives*, 452 ANNALS 63 (1980); Robin, *Justifiable Homicide by Police Officers*, 54 J. CRIM. L.C. & P.S. 225 (1963); Safer, *Deadly Weapons in the Hands of Police Officers, On Duty and Off Duty*, 49 J. URB. L. 565 (1972); Takagi, *A Garrison State in "Democratic" Society*, 1974 CRIM. & SOC. JUST. 27; Uelman, *Varieties of Police Policy: A Study of Police Policy Regarding the Use of Deadly Force in Los Angeles County*, 6 LOY. L.A.L. REV. 1 (1973); Yount & O'Rourke, *Breaking the Ice: A Study of Accidental Discharges Among Illinois Police Officers*, POLICE CHIEF, Apr. 1978, at 72; Bureau of Criminal Justice Statistics, Div. of Law Enforcement, Cal. Dep't of Justice, *Peace Officer Involved Homicides in California, 1971-1972* (1974) (document No. 18786 in collection of National Criminal Justice Reference Service); Fyfe, *Officer Race and Police Shooting* (Nov. 1979) (paper presented at the Annual Meeting of the American Soc. of Criminology, Philadelphia); Fyfe, *Race and Extreme Police-Citizen Violence* (paper presented at the Annual Meeting of the Academy of Criminal Justice Sciences, Cincinnati, Ohio, March, 1979); Fyfe, *Shots Fired: A Typological Examination of New York City Police Firearms Discharges* (1978) (unpublished Ph.D. dissertation on file at the School of Criminal Justice, State University of New York at Albany, available through University Microfilms International, Ann Arbor, Michigan) [hereinafter cited as *Shots Fired*]; Fyfe, *Toward A Typology of Police Shootings* (paper presented at the Annual Meeting of the Academy of Criminal Justice Sciences, Oklahoma City, March, 1980); Gain, *Discharge of Firearms Policy: Effecting Justice Through Administrative Regulation—A Position Paper* (report released December 23, 1971 by Oakland Police Chief Charles Gain in explanation of a change in departmental deadly force policy); New York City Police Academy, *Study of Reports Received During 1970 Under Authority of Standard Operating Procedure No. 9 Series 1969* (1971) (6-page report described in abstract No. S-11125 of the National Council on Crime and Delinquency); Office of Policy and Planning, City of Seattle, *Police Use of Deadly Force* (January 16, 1978) (Seattle City Council memorandum); Planning and Research Div., Boston Police Dep't, *The Use of Deadly Force by Boston Police Personnel* (May 3, 1974) (available as document No. NCJ 26010 through NCJRS); Public Interest Law Center of Philadelphia, *A Study of the Use of Firearms by Philadelphia Policemen from 1970 Through 1974* (April 1, 1975); Sherman, *Grant Proposal to National Institute of Health: Homicide by Police Officers—Social Forces*

shootings by police; almost none have done the same for shootings of police, despite the comparative willingness of many departments to release such information.⁷ A few of these studies do cite FBI statistics on the annual number of police deaths, statistics which have been compiled since 1960.⁸ Many of the research efforts which examine shootings by police consider only fatal shootings, a category frequently referred to as "police homicides."⁹

Some of the studies consider shootings in a single city; others compare several cities; and a few compare states. For the most part, the sample sizes are too small to generate statistically significant findings.¹⁰ Furthermore, it is noteworthy that every available study has retrospectively analyzed pre-existing records generally kept in order to determine the justifiability of police conduct rather than for research purposes. (Our study uses the same sort of documents.) The fact that records on firearms discharges are kept for possible use in disciplinary or criminal proceedings suggests why researchers have been unable to successfully conduct contemporaneous studies of police shootings, *i.e.*, studies in which the researcher collects data on the shooting incidents as they occur, examining the scene of the shooting, interviewing the officers, other participants and uninvolved eyewitnesses, etc. Police are extremely unlikely to talk candidly with researchers about the details of shootings which are still under departmental and perhaps prosecutorial investigation.

Most research has been descriptive, providing basic details about the incidents and their participants. A few recently published or forthcoming examinations, however, have begun to explore the impact that social, legal, political, and police management variables have on rates of shootings by police either in different jurisdictions or in a single jurisdic-

and Public Policy (1977) (unpublished proposal for a major national study now in progress) [hereinafter cited as *Grant Proposal*]; Southern Methodist Law School, Report on Police Shootings (1974) (unpublished report presented to Dallas, Texas Police Dep't).

⁷ As early as 1959, a West Coast researcher found that information on officers shot could be "easily obtained by personal interview." Bristow, *supra* note 6, at 93.

⁸ Takagi, *A Garrison State in "Democratic" Society*, *supra* note 6, challenged FBI statistics which showed alarming increases in killings of police. Based on data from 1963 through 1971, he argued that while the *number* of police killed had indeed risen, the *rate* of killings had not, for there had been a substantial increase in the number of sworn police officers in the country during the period studied.

⁹ See, *e.g.*, Kobler, *Police Homicide in a Democracy*, *supra* note 6; Sherman, *Execution Without Trial*, *supra* note 5.

¹⁰ See Fyfe, *Shots Fired*, *supra* note 6, at 33, 36, 50, 54. Fyfe's report contains a very useful critique of the prior research (*id.* at 28-54); Sherman, *Grant Proposal*, *supra* note 6, at 22-29. Sherman presents a helpful survey of the terrain covered by earlier empirical investigations. Fyfe's and Sherman's works were of considerable guidance in our writing of this article. See also Sultan & Cooper, *Summary of Research on the Police Use of Deadly Force*, in A COMMUNITY CONCERN, *supra* note 1.

tion over time.¹¹

Among the various prior and contemporaneous research projects, three have been most influential in the design of our effort: The Police Foundation's 1977 report exploring shootings by police in seven cities; James Fyfe's unpublished 1978 Ph.D. dissertation on five years of shots fired by the New York City police¹² and Lawrence Sherman's national study of the impact of "social forces" and public policy on rates of killing by police throughout the country.¹³

From the Police Foundation's, Fyfe's, Sherman's and earlier studies, a pattern seems to emerge which, stated without qualification, supports the following broad assertion:

The most common shooting of a civilian by a police officer in urban America is one in which an on-duty, uniformed, white officer shoots an armed, Black male between the ages of 17 and 30 at night in a public location, in connection with an armed robbery. Typically, the shooting is subsequently deemed justifiable by the police department following an internal investigation. Even if the officer is criminally prosecuted, a jury is unlikely to convict.

This general pattern has prompted considerable interest in the issue of racism in police shootings. Several researchers have noted that, while black civilians constitute a large majority of the police shooting victims, they are also a large majority of those arrested for, or reported to have committed violent crimes of the sort that might be expected to lead to a shooting. The explanation of black over-representation among police shooting victims by reference to arrest or reported crime rates is the subject of heated public debate. Some people contend that this correlation disproves allegations of racism by police. Others contend that it proves nothing, arguing that bigotry influences both the decision to arrest and officer shooting practices.¹⁴ Caught in the middle are the majority of

¹¹ See discussion of Fyfe's and Sherman's research projects in the text *infra*.

¹² Fyfe has begun to report his findings in published articles and conference papers. See Fyfe's works cited in note 6 *supra*.

¹³ Sherman has reported his progress in three principal items: *Grant Proposal*, *supra* note 6; *Execution Without Trial*, *supra* note 5; and (co-authored with Langworthy) *Measuring Homicide by Police Officers*, *supra* note 1.

¹⁴ Sherman, *Grant Proposal*, *supra* note 6, at 44, indicates that "the racial composition of crime bears an unknown relationship to the racial composition of arrest." On the utility of minority arrest rates for explaining disproportionate minority shooting rates, see Haring *et al.*, *supra* note 6; Hinds, *The Police Use of Excessive and Deadly Force: Racial Implications*, in A COMMUNITY CONCERN, *supra* note 1, at 7; Kobler, Robin, Takagi, *supra* note 6. Some commentators charge that the entire criminal law and the system which administers it reflect a White value structure which tends to disadvantage racial, ethnic, and cultural minorities. See, e.g., Knowles & Prewitt, *Racism in the Administration of Justice*, in RACE, CRIME AND JUSTICE 13 (C. Reasons & J. Kuykendall eds. 1972). Others, such as Black, *The Social Organization of Arrest*, 23 STAN. L. REV. 1087 (1971), argue that racial differences in arrest patterns are not the result of officer prejudice but the product of differences in the frequency of encounters be-

the researchers who find the racial breakdown of arrests meaningful but not dispositive of the issue of whether some shootings are racially motivated. Such researchers are struggling to devise a researchable measure which will be better than "violent" arrest rates or reported crime rates for estimating the population "at risk" of being shot by police. What is needed for this estimate is some gauge of those susceptible to being involved in encounters with police, encounters which run the gamut from traffic stops through hot pursuits of cutthroats, since any such interchange potentially could involve the use of deadly force depending on the way the officer and civilian respond to each other. The universe of police-civilian encounters is not identical, of course, to the universe of civilians engaged in crime, since police do *not* detect all criminal activity and they *do* encounter many people not engaged in crimes. If we could identify the population whose behavior makes them eligible for police intervention, then we could study who is subjected to police intercession and who is not, and whether the officers' decisions in these cases are based on inappropriate considerations, such as race or cultural characteristics.

The existing literature has a great deal to offer conceptually, but it presents a mix of reliable and questionable portraits of police use of deadly force. Even when providing accurate officer, civilian, and incident characteristics, very few of the studies furnish anything but the barest detail about the interactive behaviors of the officers and civilians involved in the deadly force incidents. Almost none probe the perceptions of danger held by police. This lack of detail inhibits meaningful analysis of questions like the avoidability of shootings and possible racial bias in the use of weapons. The generality of the data also precludes informed questioning of existing deadly force policies. This analytic roadblock stems from the failure of most studies to collect detailed data relevant to the terms of police shooting policies. Such policies almost invariably take a "situational" approach—that is, they specify certain situations in which firearms may and may not be used. But most studies lack sufficient detail on the situational characteristics of deadly force incidents. It is critical that policies intended to reduce the frequency of shooting incidents be based on an accurate understanding of the nature of such incidents.¹⁵ Some research efforts have indicated the kinds of

tween minorities and police and the degree of deference shown to police by members of different racial groups during police-civilian encounters.

¹⁵ See Luckenbill, *Lethal Force in Police Related Violence* (June 1979) (unpublished background paper on file at Univ. of Illinois, Chicago Circle, Dep't of Criminal Justice). See also Luckenbill, *Criminal Homicide as a Situated Transaction*, 25 SOC. PROB. 176 (1977). As Fyfe indicates, "it is not enough to know only how many police shootings occur: To intelligently undertake social or administrative action to minimize this most extreme police-citizen violence, one must also know something about the circumstances in which it occurs." Fyfe,

crimes civilians are allegedly engaged in when shot, and whether the civilians were fleeing or not, but almost none have penetrated the incident enough to identify whether a fleeing civilian might be exhibiting threatening behavior and, if so, what sort. While a few studies have supplied information useful for examinations of policy and practice in the jurisdictions studied, there is no assurance that any of this research is generalizable to Chicago and its current experience with police use of deadly force. By examining in detail the situational characteristics of shootings in Chicago, we will attempt to construct a foundation for thinking about the policy, training and practices which can help reduce these shootings to an optimal level. By "optimal" we mean a level which represents a proper balance between the safety of the officer and the public and the rights of the criminal suspects.

The scope of our inquiry may be delineated briefly. In using the term "deadly force," we mean only shootings. Other force which, "under normal circumstances, poses a high risk of death or serious injury to its human target"¹⁶ is beyond the scope of this project. Thus, use of the baton, spraying mace or tear gas directly in a suspect's eyes, etc.,¹⁷ have been excluded from this study. In addition, shots fired which fail to hit a person—"off-target shots"—are not included, unless they occurred in a police-involved incident in which someone actually suffered a gunshot wound. Our exclusion of "misses" was solely for pragmatic reasons associated with the added amount of work such data collection would entail.¹⁸ We believe strongly that the most important unit of examination for the policy maker and the community alike is the officer's decision to pull the trigger—shots fired—regardless of whether the bullet finds its mark. As one commentator has put it, "woundings, off-target shots, and fatal shootings [are] varying results of equally grave decisions."¹⁹

Despite these omissions, this report still is broader in scope than most other writing in the field. Prior studies, using coroners' informa-

Toward a Typology of Police Shootings, *supra* note 6, at 9-10, 15. Fyfe argues that prior research purporting to examine the justifiability of shootings of minorities lacks the basis for such an examination when only aggregate rates are considered. For example, "Takagi's data on racial disproportion permit (no) assessment of the accuracy of his conclusion that police killings are 'manifestations of racism' by police; he provides no information on the degree to which situations justifying police shootings may be skewed among the races." *Id.* at 9.

¹⁶ C. MILTON, ET AL., DEADLY FORCE, *supra* note 5, at 41.

¹⁷ A Chicago Police Department training manual defines these as forms of deadly force. See Police Training Institute, University of Illinois, *The Police Officer's Use of Force: Law and Liability* (n.d.). Prior empirical research suggests that less than 3% of all civilians killed by American police die by means other than firearms. See 1973 CRIMINAL JUSTICE RESEARCH CENTER, SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS 194 (1973).

¹⁸ See text accompanying notes 35-40 *infra*.

¹⁹ Fyfe, *Geographic Correlates*, *supra* note 6, at 104.

tion, typically have examined fatal shootings of civilians by police. Our effort is extended on two dimensions. First, the inclusion of *woundings* as well as killings of civilians has substantially enlarged the size of our data base. Second, this study also examines shootings of police officers. We added this second dimension for more than practical reasons associated with gaining access to the data. We felt that one cannot properly understand why police shoot civilians—and thus, how to minimize the number of inappropriate incidents—unless one appreciates the risks of being shot that a police officer carries with him as he enters a dark alley or responds to another call for service. Our data set not only includes types of incidents excluded by other researchers, but it deals with *all* shootings (rather than a sample) of and by Chicago police officers over a five year period, 1974 through 1978.

II. THE DIVERSITY OF DEADLY FORCE POLICIES AND OBSTACLES TO COMPARING PRIOR RESEARCH FINDINGS

At the same time that it is crucial to appreciate the destructive capacity of police shootings, it is possible to forget, when dealing with a report devoted entirely to one type of police-civilian encounter, how many other types exist. While the visible hip holster is a constant reminder of the ultimate enforcement capacity of police, most police-civilian encounters do not involve resort to the weapon. Researchers have estimated that one might have to “ride along” for 80 hours in a squad car in many cities to witness a single instance of an officer even unholstering his revolver.²⁰ On the other hand, city-wide statistics on police gun use can mask the fact that citizens in different communities have vastly different exposure to this phenomenon. A researcher studying police shootings in Los Angeles dramatically characterized that city as containing some neighborhoods that seemed like “sleepy hollows” and others that amounted to “free-fire zones.” While our study does not focus on shootings at the neighborhood level (mostly City-wide data are presented), any pragmatic attempt to make headway in controlling shootings would be remiss to ignore the fact that residents of different parts of Chicago experience quite different “realities” regarding police use of deadly force.

Differences exist, not only from neighborhood to neighborhood, but also from state to state and police department to police department, where various laws and regulations regarding police shootings are in ef-

²⁰ Sherman, *Execution Without Trial*, *supra* note 5, at 97 n.161. Another estimate of the prohibitive costs of such observational study suggested that “one would have to have had an observation team the size of the patrol and detective force (700) to observe ten shootings in Oakland in 1974.” Sherman, *Grant Proposal*, *supra* note 6, at 28, based on Milton, *supra* note 6, which studied police shootings in Oakland and six other cities.

fect. Three general approaches have been adopted by the states: the common law rule, which, among other things, permits shooting to arrest any felony suspect (29 states);²¹ the 1962 Model Penal Code formula, which permits shooting when an officer finds that a violent crime has occurred or otherwise might ensue (12 states and the District of Columbia);²² and the enumeration of certain "forcible" or "violent" felonies which justify deadly force to arrest suspects (9 states, including Illinois).²³

Police department guidelines generally incorporate state law but add certain additional restrictions. For example, by forbidding the unnecessary "display" of weapons and the use of warning shots under certain conditions, the Chicago Police Department administratively restricts officers beyond the parameters of Illinois state law.

In addition to the policies mentioned above, a number of other model state codes or departmental guidelines have been proposed in recent years, most importantly the "defense-of-life rule." This rule, adopted by several major police departments, permits the use of force likely to kill only when the suspect is then posing a threat of death or serious bodily harm to the officer or another innocent person. Put another way, the rule would authorize shooting to arrest by an officer who eyewitnesses an immediate threat to life. If a state wanted to adopt this policy, it could probably simply abolish its current law on police use of force and retain its self-defense portion of the criminal code, which would cover all uses of deadly force by police contemplated by the defense-of-life rule.²⁴ Written departmental guidelines would still be im-

²¹ Different commentators and courts have counted and categorized the state laws slightly differently. The numbers given here are our best effort at amalgamation. Sources used include Sherman, *Execution Without Trial*, *supra* note 5, at 71-72; Comment, *Triggering Constitutional Review*, *supra* note 5; Note, *Justifiable Use of Deadly Force by Police*, *supra* note 5; as well as a large number of state laws on file at the Chicago Law Enforcement Study Group.

²² TASK FORCE ON THE POLICE, PRESIDENT'S COMM'N ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, TASK FORCE REPORT: THE POLICE 189 (1967) recommended a similar approach, restricting shootings of escaping suspects to "perpetrators who, in the course of their crime, threatened the use of deadly force" or to situations in which the "officer believes there is a substantial risk that the person whose arrest is sought will cause death or serious bodily harm if his apprehension is delayed." The officer, it was emphasized, has to be "virtually certain" that the offense was committed and that the fleeing suspect committed it. *Id.*

²³ W. GELLER & K. KARALES, SPLIT-SECOND DECISIONS: SHOOTINGS OF AND BY CHICAGO POLICE 24 (1981).

²⁴ Police officers would need to be exempted from the traditional obligation to retreat which the self-defense doctrine imposes. See 40 Am. Jr. 2d *Homicide* §§ 170-71; Tsimbinos, *supra* note 5; Comment, *Kill or Be Killed?: Use of Deadly Force in the Riot Situation*, 56 CALIF. L. REV. 829, 834 (1968). California law, for example (which does not impose a defense-of-life standard), specifies that "A peace officer who makes or attempts to make an arrest need not retreat or desist from his efforts by reason of the resistance or threatened resistance of the person being arrested; nor shall such officer be deemed an aggressor or lose his right to self-defense by the use of

portant, however, for they communicate the state law to the officers and typically provide useful elaboration and guidance on a number of topics not covered by statute.

Thus, one should not expect all police departments to have the same shooting rates, since they do not follow the same regulations. Similarly, one should not expect studies of various police departments to derive results which can be directly compared to one another.

In fact, not only do prior studies not afford a basis for a current assessment of shootings of and by police in Chicago, but they generally are not compatible with our study. Indeed, it would be harmfully misleading to compare the findings of most existing police shooting studies with those of any others, for a variety of reasons. Foremost, every such study has its own definition of the basic unit of analysis—the use of deadly force. To some, this means only fatal shootings by police. To others, it means all shots fired which hit human targets, and for other researchers it has included all discharges of the weapon. Still another body of research comprises death, by whatever means, caused by police officers, including, for example, use of the baton and fatal automobile crashes during high speed chases. To make matters more difficult, the definition of “deadly force” being used for a given study is not always fully explained in the published research.

On another dimension, “deadly force” has been used by some researchers to refer only to line-of-duty shootings²⁵ and by others to encompass all shootings by a department’s officers. Some departments or researchers will include wounds received in riots, off-duty incidents, accidental deaths, officer suicides, and instances in which a police gun was used by a civilian against another civilian and others will omit these cases or any combination of them from their compilations of police use of deadly force.²⁶ In addition, there is a divergence of approach concerning whether a shooting “counts” as a deadly force incident if it is committed outside the jurisdiction by a member of the given city police force. Similarly, researchers differ on whether shots fired within the city

reasonable force to effect the arrest or to prevent escape or to overcome resistance.” CAL. PEN. CODE § 835(a) (West 1976) (emphasis added).

²⁵ Line-of-duty to some may be synonymous with “on duty,” but to others it encompasses all situations in which on- or off-duty officers are taking “police action” as opposed to becoming involved in an incident as a private individual. For example, using this “police action” approach, an armed robbery of a police officer in civilian clothes who is walking in front of his house on personal business would be a non-line-of-duty incident, as would an intentional shooting by an officer of his spouse. But an off-duty officer who is shopping in a grocery store and intervenes when he notices armed bandits robbing the cashier would be acting in the line-of-duty. See, e.g., Fyfe, *Administrative Intervention*, *supra* note 6.

²⁶ See Sherman, *Grant Proposal*, *supra* note 6, at 22; Sherman & Langworthy, *supra* note 1, at 550; C. MILTON, ET AL., *DEADLY FORCE*, *supra* note 5, at 14.

boundaries by members of another police agency, like the county sheriff's deputies or jail guards, fall within the parameters of the deadly force data on a given city.²⁷

Furthermore, if the federal government's National Center for Health Statistics' data have been used, as they have in a number of studies, one may face a host of problems enumerated at length in a journal article.²⁸ For example, these data may attribute fatal shootings to the department in a decedent's city of residence rather than to the department whose officers actually killed the person. Also, the N.C.H.S. category of "death by legal intervention—police" may include most legal killings but not all *illegal* killings by police. The latter arguably are the ones policy makers need to be more aware of than the vast majority of killings which are deemed justifiable. Some of these wrongful killings might be lost in the stacks of incidents classed as "homicides," without reference to legal intervention.²⁹ And accidental fatal shootings by police could be buried amidst the "accidental" verdicts returned by coroners' juries. Neither the clearly unjustifiable nor the accidental fatal shootings by police, therefore, would be identified as involving law enforcement officers. Beyond these technical questions of categorization, Sherman and Langworthy have estimated that the N.C.H.S. data, based not on police reports but on coroners' reports, may routinely underreport homicides by police by anywhere from 25% to 50%.³⁰ The authors note the "irony" that police shootings, which presumably pose a more sensitive problem for police departments than for coroners, are reported far more accurately to the public by law enforcement agencies than by these public health officials.

A cornucopia of problems appears after a definition of "deadly force" has been selected, for that definition is only the threshold question in data collection and coding. Scores, and in some studies, hundreds of other variables remain to be defined. Each variable—whether it is the location type, civilian's behavior or crime which precipitated a

²⁷ Sherman & Langworthy, *supra* note 1, at 551, note that researchers relying on public health statistics for the New York City area would have no way of knowing whether the reported fatal shootings were done only by N.Y.P.D. personnel or both by such personnel and by their counterparts in the Transit Authority Police, Housing Authority Police, and other law enforcement agencies in the City. Hence, the inclusion of non-city police department shootings in a study which purports to deal only with that department's experience is the product not of differing intents among researchers but of their inability to control the content of the information provided by some data sources.

²⁸ Sherman & Langworthy, *supra* note 1. For a concurring view, see Meyer, *supra* note 6, at 26. Similar problems have been encountered, even by government officials, trying to match police records and state public health records on fatal shootings by police. See Bureau of Criminal Justice Statistics *supra* note 6, at 2.

²⁹ Sherman & Langworthy, *supra* note 1, at 549 n.24.

³⁰ *Id.* at 551-53, 560. See also Meyer, *supra* note 6, at 26.

police shooting, degree of threat posed by a civilian, or even something as basic as the civilian's Hispanic ethnicity—will have a discrete definition arising out of the particular characteristics of the data used. Frequently, as with the basic meaning of “deadly force,” the precise definition of each variable is not supplied in the research report. This vagueness could easily lead the reader to the erroneous belief that he was looking at comparable factors in different studies simply because the labels used were the same. What constitutes a defense-of-life shooting to one researcher may be another's questionable use of deadly force, yet both might report the percentages of civilians shot “in defense-of-life” without further elaboration.³¹ Without going back to original data sources and re-coding information using consistent definitions, one is unable to compare the findings of different studies.

Beyond definitional problems, a number of existing empirical studies are flawed in ways that make their findings of questionable accuracy or statistical significance. For example, the data source, whether a newspaper clipping or a police department's investigative files, may not furnish accurate figures on the incidence of deadly force use.³² Trying to compare rotten apples and oranges only compounds the normal difficulties.³³ For all these reasons, while valid comparisons can probably be made between cities in a multi-city study,³⁴ any effort to guess how Chi-

³¹ One researcher might consider that a civilian's threat to use—or even mere possession of—a deadly weapon during flight classifies shots fired at him by police as defense-of-life shots, while other researchers might place in this category only incidents involving direct or immediate efforts by the civilian to kill the officer or another innocent person. Yet, as indicated, the published research reports of both generally would not explain the background assumptions used to place incidents in the defense-of-life category.

³² See Sherman, *Grant Proposal*, *supra* note 6, at 22; Sherman & Langworthy, *supra* note 1, at 550.

³³ As noted by Fyfe, *Toward a Typology of Police Shootings*, *supra* note 6, at 8-9, even if police shootings are made comparable through the use of standard definitions, to understand differences in shooting rates between cities one would need to consider a variety of police organizational factors (*e.g.*, percentage of officers assigned to street duty and the way in which discretion not to arrest is exercised) and social variables (*e.g.*, the degree to which the resident population reflects the population at risk and the propensity of a city's armed criminal suspects to “shoot it out” with police rather than surrender when confronted). See also Meyer, *supra* note 6, at 25, which points out the importance of jurisdictional differences between city police departments. For example, the New York City police do not patrol that city's public transit system, a significant source of crime. A separate transit police force of several thousand officers bears that responsibility. In other cities, including Chicago, the police have general responsibility for law enforcement on public transit facilities.

³⁴ Attempting such a study using currently available measures of shootings by police is discouraged on the ground that such measures “contain too much error . . . to make reliable comparisons of specific cities. . . .” Sherman & Langworthy, *supra* note 1, at 547. Specifically discouraging inter-city examinations of fatal shootings, Sherman and Langworthy warn that “[s]ince in any particular city there is a substantial likelihood that the number of police homicides derived from any one data source is in error, comparisons of specific cities are likely to be dangerously misleading.” *Id.* at 559. The reliability of comparative studies by C.

icago, as reflected in our data, "measures up" against other locales is discouraged in the strongest terms.

III. METHODOLOGY

This is an empirical study of all shootings of and by Chicago Police Department officers which reportedly occurred within the city limits from January 1, 1974, through December 31, 1978.³⁵ In addition, the numbers of civilians shot by police during 1979 and 1980 are presented, but no data were collected on the characteristics of these individuals or the incidents in which they were shot. Both on- and off-duty and unintentional shootings are included. Encounters in which shots were fired at or by police but in which no person was hit are not part of our data set.³⁶ But misses are recorded if they were part of an incident in which one or more bullets did hit an officer or civilian. Injuries to police or civilians caused by means other than bullets are outside this inquiry. In the five year period, 650 qualifying incidents occurred during which 523 civilians were shot by police and 187 police were shot by civilians, by themselves, or by their colleagues. The civilians in this study are those who were shot by Chicago Police and/or those who shot such officers; the population of police officers is composed of sworn members of the Chicago Police Department who shot or *possibly* shot civilians (since it is often difficult to attribute a "hit" to a specific officer when several fire) and/or Chicago officers who were shot by civilians, themselves, or other police.

This study contains recommendations for various police initiatives to better control official use of deadly force. The efficacy of the recommended control strategies depends to a large extent on the accuracy of the data on which we have based these recommendations. The data are

MILTON, ET AL., *supra* note 5, R. KNOOHUIZEN, ET AL., Goldkamp, Takagi, Harding & Fahy, *supra* note 6, is questioned by Sherman and his colleague for these reasons. *Id.*

³⁵ No incidents which were reported to the Police Department needed to be excluded for methodological reasons. Some other studies have had to exclude grossly atypical events from their data sets lest those events skew the findings. For example, Marshall Meyer, in his recent study of Los Angeles police shootings, dropped from his data set the May 1974 shootout between the Symbionese Liberation Army and the Los Angeles Police Department. Meyer explained: "More than 5,000 rounds (plus 83 tear gas canisters) were fired by Los Angeles police officers in the S.L.A. incident, more rounds than the total fired in the remaining 912 officer-involved shootings analyzed here." Meyer, *supra* note 6, at 6.

³⁶ As one commentator has noted, all shots fired by police at civilians, except for true warning shots, involve a similar decision to employ force capable of killing. Thus, the most accurate picture of the frequency and characteristics of these police decisions would be derived from a consideration of hits as well as misses. But data on "off target" shots were not available for this research. (Reference is made, however, to some prior research by the Chicago Police Department on all shots fired over a three-year period.) See Fyfe, *Shots Fired*, *supra* note 6, at 32.

essentially the self-reported accounts of the shooting incidents by officers involved in them as shooters or victims. Accordingly, "reporting bias" may taint some portions of the data. Most of the variables we analyzed are very likely to have been reported accurately (*e.g.*, the age, gender, race, and degree of injury (wounded vs. killed) of the civilian and police participants in the shooting incidents, the officers' unit, duty status and experience in the Department). On the other hand, some other variables may be less immune from reporting bias. For example, in filling out the Department's mandatory "firearms use report," officers could have exaggerated the degree of danger they felt at the time they shot a civilian. Such exaggeration could stem from a conscious or unconscious desire by the shooting officer to legitimize his conduct in his own mind or to avoid discipline for a questionable shooting. Misreporting of danger could take a variety of forms, including false claims that the civilian suspect was armed (possibly involving the use of "drop guns"³⁷) or that the civilian pointed a gun or threatened to use it against the officer. Because it was impractical for us to independently attempt to verify the police accounts of these shootings, we have no way of knowing how often such reporting bias may be present in our data or what patterns, if any, it might follow—except that it almost certainly would put police officers in a favorable light. Indeed, it would be unusual if police officers were exempt from the human tendency, exhibited by most workers in most job settings, to try to place their own conduct in the best possible light when under the scrutiny of their employer. While any reporting bias is a source of concern, we are convinced that a cautious and thorough examination of police records is far more enlightening and beneficial to the public than a continuation of virtually complete public ignorance on the subject of police-involved shootings. Despite any limitations of scope and reliability, this data base is one of the most comprehensive that has been developed, and affords the public our first panoramic look at the deadly force issue in Chicago. Further, findings which reveal room for improvement in police practices are that much more credible if based on data that give the benefit of the doubt to the police.

A. DATA COLLECTION

This is an "archival" study. That is, the source material consisted principally of written records. We made no effort to interview officers or civilians who had been involved in the shootings, although we did talk to police officers and community group leaders about their perceptions of issues relating to police shootings. The data collection effort for this

³⁷ See C. MILTON, ET AL., *DEADLY FORCE*, *supra* note 5, at 55, 74.

study was extensive, accumulating information from the files of five agencies spread over eight different geographically separated offices. We sought and obtained information on police-involved shootings from each of the agencies, other than the Police Department, which exercised any sort of review over such incidents and would, therefore, be likely to have archival information. These agencies included the offices of the Cook County State's Attorney, the Cook County Medical Examiner, and the Chicago Police Board. In addition, we researched newspaper clipping files at the Municipal Reference Library. Once the Police Department opened its files to us, we discovered that most of the files reviewed at other agencies were repetitive of, but less comprehensive than, the Department's records. We attempted to minimize repetitious data gathering by setting up tally sheets to show what kinds of information were still needed in specific cases. We found a vast amount of new information in the Department's records which, combined with our decision to add an additional year (1978) of shootings to the study, presented an imposing data collection task.

Data collection was accomplished with the use of a form which contained both "closed" and "open-ended" questions. We revised and expanded the data form three times. These revisions were prompted by the discovery, in records of the other agencies, of Police Department forms specifying response categories and types of information which seemed to us potentially useful for an understanding of shootings of and by police.

The Chicago Police Department provided the best data source—the Department's internal investigative files (also referred to below as the O.P.S./I.A.D. files). These records furnished the most consistently complete picture of the deadly force incident.³⁸ Unlike most of our other sources mentioned above, these files painted a detailed portrait of both the incident scenarios and the participants' characteristics. (As indicated earlier, the information contained in these records, like the information contained in other documents mentioned in this section, may be subject to varying degrees of "reporting bias." It would have been impractical for us to independently verify the information contained in police reports on the shootings. Thus, this study describes and analyzes police shootings as they have been officially reported.)

For the incidents within our study which occurred prior to September 1974, the Internal Affairs Division (I.A.D.) files were utilized. The I.A.D. is a unit of the Police Department responsible for investigating

³⁸ These files were not available for some 1978 shootings, which were still under investigation or review at the time of data collection. Less extensive data were available for those shootings from some of the other sources indicated below in the text.

alleged misconduct by members of the Department. Until September 1974, investigations of shootings by police fell under its jurisdiction. In that month, the Office of Professional Standards (O.P.S.) was instituted to examine, among other things, citizen complaints of police excessive force and all shootings by police, whether or not a citizen lodged a complaint. (I.A.D. still retained a considerable caseload pertaining to other kinds of alleged police impropriety.) Unlike the I.A.D., O.P.S. is staffed entirely by civilians and is intended to be relatively independent of the Department's command structure. Although the organization and procedures of O.P.S. and the pre-1975 I.A.D. are certainly distinct, the files generated by both offices can be discussed interchangeably for the purposes of this report, since the relevant data were quite similar.

Typical information on the disposition of the involved officers' cases would consist of the decision of the Cook County State's Attorney's Special Prosecutions Bureau on prosecution of these officers; the recommendation of O.P.S. or I.A.D. on whether to discipline the officer; the punishment, if any, meted out by the Department; a "second opinion" from the Chicago Commission on Human Relations concerning the validity of the O.P.S. or I.A.D. finding; and the results of any Police Board hearings connected with the case.

Several incident summaries, each somewhat repetitive of the others, were contained in the files. These summaries were prepared by O.P.S. staff, the participant officers and their superiors. The participant officer's report of the incident was found in a number of places, including two documents discussed below: the Firearms Use Report and, if included among the records in the O.P.S. file, the statement taken by the State's Attorney's office. Characteristics and behaviors of the civilian(s) involved were also recorded in numerous reports within the O.P.S./I.A.D. file.

Some of the data available in this file, but not in some of the other sources used, are the type of weapon used by the civilian and whether it was recovered; criminal background; number of shots fired by the civilian(s); information on which hospital the civilian was taken to, who transported him, and his condition after arrival. In addition, we found the usual information found in other sources—civilian's age, sex, race, home address, etc.—although these items were found more consistently in the O.P.S./I.A.D. files than elsewhere.

The form most instrumental in furnishing information on officer and incident characteristics which was unavailable from sources other than the Police Department was the Firearms Use Report. Such a form must be filled out for each incident in which an officer discharges his weapon, with limited exceptions not relevant to this study. Some of the key elements of this report not contained in other documents are: the

distance between the officer and the civilian when the officer fired his first and last shots; whether the officer had to sight and aim; number of shots fired and whether they were "single" or "double" action firings; the protective cover, if any, used; an explanation as to why the officer used his gun ("protect self," "prevent flight or escape of felon," etc.); and a description of the weapon used by the officer. Other information in the O.P.S./I.A.D. file not always obtainable through other reports includes the lighting conditions at the scene and the unit and beat assignments of the involved officers.

Data on shootings *of* officers, were acquired through the Police Department, but not from O.P.S. files, which, as noted, are only created for shootings *by* police. The records used for shootings of officers were hospitalization case reports, "supplementary reports," and officer "battery and assault files," among others. These reports are based primarily on the results of homicide officers' investigations.

Gaps in officer-related information which remained after our exhaustive review of the records previously mentioned and those of other agencies were partially filled by the Department's own data collection efforts using personnel files. That is, we supplied tally sheets to the Department indicating which information was unavailable for certain cases in the records we had searched, and the Department supplied the missing information from personnel files (to which we were not privy). The kind of information generally obtained through this process included officers' race, date of birth, and date of appointment to the Department.

B. CODING, DATA RETRIEVAL AND ANALYSIS

Coding was accomplished with the use of a "codebook" which we developed based on the information contained in our data forms. One form was completed for each case. Information obtained in answer to open-ended questions, such as narrative descriptions of the police-civilian interactions, had to be placed in discrete categories. Our coding system was designed to capture as much of the data as possible.

Six staff members, including the authors, participated in coding the data. The coders were carefully trained in the use of our "codebook," and quality control was exercised both through close supervision and by having only the authors code questions which called for subjective judgments.

Not all the data we collected and would have liked to code could be coded given the press of time and budgetary constraints. (Not all the data coded could be analyzed for similar reasons.) We created three

basic kinds of variables: incident-, civilian- and officer-specific.³⁹ The total number of variables coded for each case varied, depending on the number of participants. For every shooting incident, we coded a set number of variables concerning incident characteristics (when, where, etc.) plus a set number of variables on the characteristics and behaviors of up to three civilians and up to four officers who were involved. In an incident with three civilian and four officer participants, more than 400 variables would be coded, while a "one-on-one" shooting would require the coding of fewer variables. The nature of the variables coded was determined after a review of the literature and examination of classifications used by the Chicago Police Department on various reporting forms (*e.g.*, Firearms Use Report, Officer Battery and Assault Report).

The principal analytic techniques relied upon in this study were cross tabulations and correlations. Time and resources did not permit us to conduct multivariate analyses. We would strongly urge that such analyses be run in the future, especially in relation to the race issue and the variables which might help explain variations in shootings over time, to the extent that the data permit. Multivariate statistical techniques might help to distinguish among the host of variables which could determine the nature and rate of shooting incidents. The simple cross tabs we have produced are an important prerequisite to multivariate analysis because they permit the researcher to think about the possible impact of each separate variable on shootings. Multivariate analysis, as a next step in the research, may permit more confident conclusions. In addition, because multivariate analysis eliminates the need to present each factor related to a key variable (such as race) separately in sequence, such analysis permits a more compact presentation of the data.

We performed some tests of statistical significance in order to judge the strength of the relationships we found between variables. Technically, these tests are designed to help the researcher judge whether or not the relationships found for a sample of cases are sufficiently strong to conclude that the same pattern of relationship can be expected to exist in the large population of cases from which this sample was drawn. For this study, we are not really interested in generalizing relationships from sample to population data since we were already examining the entire

³⁹ The term "civilians" encompasses the full range of individuals from crime suspects to clearly innocent victims of accidental shootings. Actor-specific information profiles the individual civilian and police shooters and shooting victims. The incident-specific approach focuses on the situations in which police bullets struck one or more civilians and situations in which either civilian or police bullets struck one or more officers. Thus, "incidents" are occurrences of shootings, some involving multiple participants. The number of incidents is not equal to the number of persons who were shot or who shot others.

population of cases for the 1974 to 1978 period. Nonetheless, if statistical significance is found, the relationship may be sufficiently strong to persuade the researcher to infer (if other sorts of evidence so warrant) a causal connection between the variables. The reader should be aware, however, that the number of cases involved (and not just the magnitude of the differences between cells) has a marked effect on tests of statistical significance. Thus, differences between cells, which are not statistically significant with the small number of cases we have in this study, would be statistically significant if large numbers were involved.⁴⁰ For this reason, the reader needs to be cautious about the lack of statistical significance found in some of our tables. Causal relationships may still exist. We have, therefore, pursued discussion of various relationships despite the lack of statistical significance.

IV. SHOOTING TYPES

The circumstances in which Chicago police shot 523 civilians from 1974 through 1978 are distributed as indicated by Figure 1. This figure depicts the reasons the officers gave their superiors for firing shots which struck civilians. These reasons typically described the civilians' alleged conduct just prior to the shooting (*e.g.*, use or threatened use of a gun, flight to evade arrest, etc.).⁴¹ In the cases of unintentional shootings, however, descriptions of officer mistakes or involuntary actions were offered to explain the shootings. Several definitions are important for an understanding of the different shooting types. All the shootings except for "accidental," "mistaken I.D." and "stray bullet" were intentional. "Intentional" shootings are those where the officer accurately understood whom he was shooting (not necessarily by name, but by role, such as "crime suspect" or "spouse") and voluntarily shot this person. The three types of unintentional shootings are defined as follows. Accidental shootings are those in which the officer did not mean to pull the trigger. In mistaken identity shootings, the officer meant to shoot the person but inaccurately perceived the victim's role or identity. Stray bullet incidents are those where the officer meant to discharge the weapon but not

⁴⁰ We have used a rather traditional social science approach to analyze our data, mindful that the small number of cases involved imposes limitations for such an analysis. A longer time period or a population base larger than that available in studying a single city would have provided more traditional size "Ns" for social science analysis. To paraphrase Churchill's characterization of democracy, our social science approach to analyzing these data is the worst possible approach, except for all the alternatives.

⁴¹ It should be noted that these types do not represent the various kinds of incidents which *initially* prompted officers to become involved. Indeed, our types cut across these reasons for involvement. For example, an encounter which ended with a shooting precipitated by the civilian's use of a gun on officers may have commenced with a call of "armed robbery in progress," "man with a gun" or with an off-duty officer's involvement in a personal dispute.

to hit the person who was shot. Shots intended as warning shots which hit a person are included among the stray bullet shootings. As these definitions indicate, mistaken identity and stray bullet shootings are both unanticipated consequences of the decision to pull the trigger, while accidental shootings are unintentional in a more absolute sense.

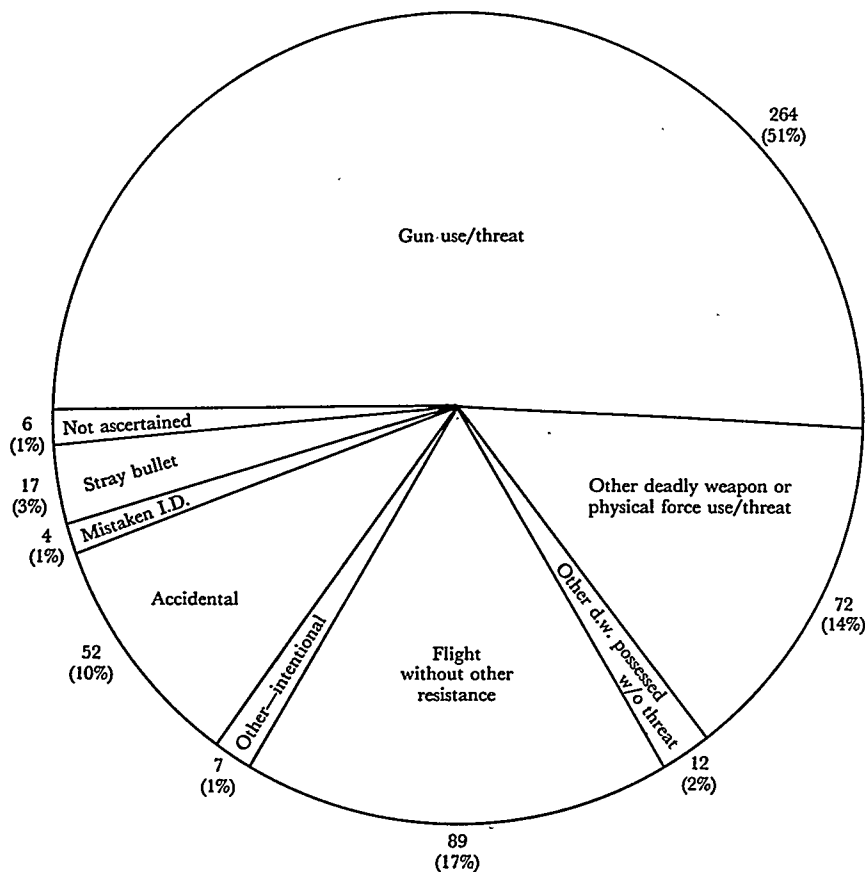


FIGURE 1

TYOLOGY: REASONS GIVEN BY POLICE FOR SHOOTING CIVILIANS IN CHICAGO, 1974-1978

(n = 523 Civilians shot)

A. INTENTIONAL SHOOTINGS

(1) "Gun use/threat" (type 1)

By far the most frequent reason given by police for shootings is a civilian's use or threatened use of a gun. More than half of all civilians

shot by police (264) were reportedly engaged in such conduct when shot. The category "gun use/threat," as well as most of the other shooting types, was derived by combining several, more specific reasons which officers frequently gave for shooting. "Gun use/threat" comprises the following categories of reported civilian conduct, with the numbers and percentages of all civilians shot for these reasons indicated:

	<u>Number</u>	<u>Percentage</u>
(a) Civilian shot officer or another	19	7%
(b) Civilian fired gun at officer or another, but missed	86	33
(c) Civilian lunged at officer or officer's gun	6	2
(d) Civilian attempted to use a gun against officer or another	9	3
(e) Civilian appeared to point or did point a gun at officer or another	128	49
(f) Civilian threatened to use a gun against officer or another	3	1
(g) Civilian moved in a way that made officer think he was about to draw or use a weapon	12	5
(h) Civilian appeared to display a gun without pointing it at a person	<u>1</u>	<u>.4</u>
Total	264	100 ⁴²

Categories (e) and (h) above, as well as some of the categories associated with other shooting types, include officers who shot in response to seeing "dark" or "shiny" objects. In some cases, these objects turned out to be guns. In others, however, the objects were subsequently discovered to be combs, tire irons, sunglasses, and the like. Sixteen of the civilian shooting victims whom police reportedly thought were armed with a gun at the time of the shooting were not so armed, as revealed by later investigation, and most of these 16 shootings were of the "dark" or "shiny" object variety. While guns were reportedly recovered from the vast majority of the civilian shooting victims who were shot because of alleged use of a gun, we cannot independently verify these reports (just as we cannot independently confirm any of the other information we recorded from source documents). Accordingly, our data do not permit us to address the topic of "drop guns," a term which signifies the planting of a gun on a shooting victim to make a questionable shooting or other police action appear justified.⁴³

⁴² Does not total to 100% because of rounding.

⁴³ See C. MILTON, ET AL., *DEADLY FORCE*, *supra* note 5, at 55, 74. See text accompanying notes 35-40 *supra* for additional discussion of possible "reporting bias" in our data.

(2) "Other deadly weapon or physical force use/threat" (type 2)

Seventy-two civilians (14%) were shot by police for either using or threatening to use a deadly weapon other than a gun or for using or threatening to use physical force.⁴⁴ The kinds of conduct encompassed within Type 2 shootings are diverse in some ways, but share the common feature that they can be life-threatening at close range. "Other deadly weapons" include knives, broken glass, motor vehicles if used as weapons, and any other object normally capable of causing death or serious bodily injury. Like the previous type, "other deadly weapon or physical force use/threat" was derived through the combination of several kinds of reported precipitating conduct:

	<u>Number</u>	<u>Percentage</u>
(a) Civilian used a deadly weapon other than a gun against officer or another	7	10%
(b) Civilian struggled or fought without a weapon with officer or another	5	7
(c) Civilian attempted to use a deadly weapon other than a gun against officer or another	51	71
(d) Civilian appeared to point a deadly weapon other than a gun at officer or another	2	3
(e) Civilian appeared to point an unknown object at officer or another	5	7
(f) During flight, civilian suddenly stopped and turned toward officer in a menacing manner	$\frac{2}{72}$	$\frac{3}{100}$
Total	$\frac{2}{72}$	$\frac{3}{100}$

The extent to which these various behaviors left the officer with options depends on the facts of specific cases, some of which the data address and some of which they do not. Some of the facts one might need to know, for example, to determine whether a shooting was necessary to protect life, are whether a knife-wielding suspect was within striking distance of the officer or another person and whether the officer had availed himself of any possible cover.

⁴⁴ We have combined use and threats to use deadly weapons other than guns with physical force in our Type 2 shootings for two reasons. First, fists can be just as deadly as weapons other than guns, depending on the relative size and strength of the civilian and the officer and other factors. Second, there is always the possibility that the kind of civilian who is not afraid to physically attack an armed police officer could disarm the officer. The use or threat to use guns is separated out in Type 1 because those threats or uses can be meaningful at long distance, while Type 2 shootings share the common feature that they are responses to threats or force which can be life-threatening only within "grabbing" distance.

(3) "Other deadly weapon possessed without threat" (type 3)

Twelve more civilians (2%) were shot for allegedly possessing a deadly weapon other than a gun without attempting to use it at the time of the shooting. In some cases, the officer apparently had reason to believe the weapon played a key part in the civilian's recent commission of a crime, and in others the officer seemingly had little basis for drawing such a conclusion. A number of the Type 3 incidents, like some of the Type 1 (gun use/threat) incidents, include "dark" or "shiny" objects which officers reportedly believed to be guns or knives. Two types of precipitating conduct combine to produce this third category of shootings, as indicated below:

	<u>Number</u>	<u>Percentage</u>
(a) Civilian appeared to display an unknown object without pointing it	5	42%
(b) Civilian appeared to possess an unknown concealed object	7	58
Total	<u>12</u>	<u>100</u>

(4) "Flight without other resistance" (type 4)

Probably the most widely debated element of deadly force policy in America is that which permits police to shoot at fleeing civilians who may have committed a serious offense but whose only resistance to arrest at the time of the shooting is flight. This category, the second largest, includes 89 civilians (17% of all victims) shot by Chicago police. Officers' reports indicated that these civilians were shot when offering no resistance to arrest other than flight. It is noteworthy that every one of these 89 civilians was reportedly thought to be fleeing from a forcible felony,⁴⁵ a key statutory condition justifying such a shooting.⁴⁶ Not all such shootings were deemed justifiable under Chicago Police Department guidelines. In one well-publicized incident, for example, an officer was fired after the Department found he had shot a young fleeing burglary suspect without attempting other means of capture (chase, etc.) prior to shooting.⁴⁷ But the vast majority of the "forcible fleeing felon shootings" were found justifiable by the Department, a result consistent

⁴⁵ Under Illinois law, forcible felonies are defined as "treason, murder, voluntary manslaughter, rape, robbery, burglary, arson, kidnapping, aggravated battery, and any other felony which involved the use or threat of physical force or violence against any individual." ILL. REV. STAT. ch. 38, ¶¶ 2-8 (1979). See also *id.* at ¶¶ 5-7, "Peace Officer's Use of Force in Making Arrest."

⁴⁶ No independent verification of the officers' reports was feasible, and reporting bias may taint this finding.

⁴⁷ After court review of the Department's decision, the officer was reinstated.

with the fact that officers are trained to shoot, if necessary, to prevent the escape of persons suspected of forcible felonies.

The array of forcible felonies which officers reportedly suspected these 89 civilians of running from is indicated in Table 1. Burglary is the crime most often associated in the media and the public mind with so-called "fleeing felon" shootings, and Table 1 verifies the accuracy of that perception. Close behind burglary, with 32% of all "fleeing" victims, is the combination of armed and strong arm robbery.

TABLE 1

FORCIBLE FELONIES WHICH POLICE SUSPECTED WHEN
THEY SHOT FLEEING CIVILIANS IN CHICAGO,
1974-1978

SUSPECTED FORCIBLE FELONY	CIVILIANS SHOT IN FLIGHT	
	#	%
Rape	2	2%
Robbery (armed and strong arm)	28	32%
Burglary	43	48%
Aggravated Assault/Aggravated Battery	16	18%
Total	89	100%

(5) *"Other reasons for shooting intentionally" (type 5)*

Seven civilians (2%) were shot intentionally for reasons other than the preceding four types. These included wrongful shootings, in which the civilian's conduct was not the precipitating factor or at least not considered a justifying factor by the Department. That is, these civilians were shot neither in self-defense nor for purposes of apprehension. Also included among these seven cases are shootings in which civilians who were facing away from responding officers but not fleeing were shot when they turned towards officers in manners that could not reasonably be described as menacing. Officer nervousness may have played a role in the few shootings of this latter kind.

B. UNINTENTIONAL SHOOTINGS (TYPES 6-8)

As Figure 1 shows, "accidental" shootings (Type 6) are clearly the modal type of unintentional shooting by police,⁴⁸ accounting for 71% of all civilians shot unintentionally. Overall, 10% of all civilians (52) shot by Chicago police were shot by officers who reportedly did not intend to pull the trigger.⁴⁹ Only four (1%) civilians were reportedly shot as a result of mistaken identity (Type 7) over the five years studied. Seventeen civilians (3%) were struck by "stray bullets" (Type 8)—bullets intended for other targets or no targets at all (warning shots).

The preceding three types of unintentional shootings have three characteristics in common. First, female victims, who are approximately 6% of all civilians shot by police, represent 16% of the civilians shot unintentionally. Another and perhaps more striking way to put this is that 41% of all females who are hit by police bullets are shot unintentionally, while only 13% of male civilian victims fall into this category. The disproportionate involvement of women and girls as victims of gun-cleaning and other non-confrontational gun discharges helps explain this pattern. Second, juveniles (under 18 years old), who are 17% of those shot, regardless of the shooting officers' intent, account for 27% of the civilians shot unintentionally. This variation is at least partially accounted for by the fact that all of the civilian victims 13 years of age or under were shot unintentionally. Of the 71 civilian victims of unintentional shootings whose ages were ascertained, 27% were under 18, 13% were between 18 and 20 years old, 27% were between 21 and 24, 31% were between 25 and 44, and 3% were over 45 years old.⁵⁰ Third, a clear pattern emerges regarding the role of civilians shot unintentionally by the police. Only 58% of such civilians were crime suspects (as distinguished from innocent bystanders, crime victims, etc.), while 97% of the civilians reportedly shot intentionally were suspected of a crime.

V. DEGREE OF INJURY AND SHOOTING TYPES

The eight shooting types set forth above involve qualitatively differ-

⁴⁸ As indicated previously, accidental shootings are a specific type of unintentional event.

⁴⁹ Conversations with police consultants suggested that some percentage of shootings listed as accidental are in fact intentional shootings. These are, reportedly, incidents which the shooting officers feel their superiors might not view as justifiable. Hence, the officers report the incidents as accidental in the hope of avoiding the serious penalties that might attend the Department's finding that an *intentional* shooting was improper. The possibility of self-serving reporting bias, as indicated in the methodology section of the text, *supra*, applies to all categories of shootings in our typology.

⁵⁰ These age ranges were used for convenience because they conform to the ranges reported by the Chicago Police Department for arrestees.

ent kinds of behavior by both civilians and police and, accordingly, are useful for analyzing both outcomes of shootings and the characteristics of the participants. The most important direct outcome of a shooting is whether the person shot lives to stand trial for alleged offenses or dies. Table 2 indicates the degree of injury of civilians shot in each type of shooting. This table shows that different "fatality rates" coincide with

TABLE 2

CIVILIANS SHOT BY POLICE IN CHICAGO, 1974-1978:
DEGREE OF INJURY AND SHOOTING TYPES^a

SHOOTING TYPE	DEGREE OF INJURY OF CIVILIANS SHOT BY POLICE			
	Wounded	Killed	% Killed	Total
(1) Gun use/threat	179	85	32%	264
(2) Other deadly weapon or physical force use/threat	50	22	31%	72
(3) Other deadly weapon possessed without threat	9	1	10%	10
(4) Flight w/o other resistance	77	10	12%	87
(5) Other reasons for shooting intentionally	2	1	33%	3
(6) Accidental	44	8	15%	52
(7) Mistaken Identity	3	1	25%	4
(8) Stray Bullet	15	2	12%	17
Total	379	130	26%	509 ^b

a Using the χ^2 test of significance for all types of shootings shown in the table, there are significant differences at the .05 level.

b Not ascertained = 14.

different shooting types. A number of factors are likely⁵¹ explanations: differential shooting accuracy and numbers of shots fired under different circumstances, as well as differential intents to kill based on the officer's perception of danger to his own or someone else's life. Civilians reported to have been in direct confrontations with officers at the time of the

⁵¹ Further analysis, which we were unable to conduct due to time constraints, would very likely help make some of these conclusions more confident. For example, one might find it productive to examine the shooting types according to the frequency with which civilians in each type were shot at more than once and struck more than once, showing whether the civilians survived.

shooting (Types 1 and 2) had the greatest chance of dying following the incident.⁵² Approximately one-third of these civilians died from their wounds. But civilians shot in flight were approximately one-third as likely to die. And civilians shot accidentally were half as likely as those shot in confrontations to succumb to their wounds.⁵³ The greater difficulty involved in shooting at a moving target at relatively great distances seems a likely explanation for the higher survival rate of fleeing suspects, while accidental shooting results probably stem from the fact that the vast majority of such incidents involve only one, unarmed shot. Similarly, the 12% fatality rate for victims of stray bullets probably results from the fact that officers were not attempting to hit the person struck.⁵⁴ While the numbers associated with shooting Type 3 ("other deadly weapon possessed without threat") in Table 2 are too small to support confident conclusions, the low percentage of civilians killed when shot for possessing but not using a weapon other than a gun is consistent with the hypothesis that police perceive these situations as less dangerous than shooting Types 1 or 2 (use or threat to use a gun or other deadly weapon) and exercise their discretion by firing fewer times in the less threatening cases.

Since police have at least some degree of discretion whether and how often to shoot in many situations, one logically wonders about what factors guide that discretion. Of particular concern is whether police shooting decisions are made for inappropriate reasons, such as the race of the civilians involved. We cannot, on the basis of the written records from which our data were obtained, know what specific officers were thinking when they fired their weapons. The next step, accordingly, is to search for patterns which would be consistent or inconsistent with racial motivation on the part of shooting officers.

⁵² The number of civilians involved in Type 5 shootings is too small to yield reliable results.

⁵³ The low fatality rate for civilians shot accidentally is not consistent over time. All of the civilians who died from accidentally inflicted wounds were shot in 1975 and 1977. Thus, with no accidental killings in 1974 or 1976, the concentration of such incidents in 1975 and 1977 had a significant community impact. The 1977 shootings, in particular, received a high degree of publicity and brought the Chicago Police Department a great deal of criticism because the half dozen incidents all occurred within a four or five month period and involved youthful victims.

⁵⁴ Notwithstanding this probable explanation, one should not overstate the capacity of police officers—or others—to shoot the standard police revolver with great accuracy under street conditions. A more in-depth discussion of this statement will follow in Part II of this article, which will appear in the Spring, 1982, issue of this publication.

VI. RACE AND OTHER KEY VARIABLES IN SHOOTINGS OF CIVILIANS

Approximately 20% (105) of the civilians shot by Chicago police over the five years studied were white, 70% (358) were black, and 10% (51) were Hispanic.⁵⁵ Minorities, therefore, accounted for 80% of all shooting victims. The 1970 Census reported that whites were approximately 60% of Chicago's resident population. Blacks were 33% and Hispanics were 7.5%. Updated estimates suggest that the racial distribution of Chicago's population has shifted to 47% white, 41% black, and 12% Hispanic.⁵⁶ By either of these measures, black civilians were shot by police in a disproportionate number of incidents, although the disparity among the rates is somewhat smaller when the updated estimates are used. In this section, we will attempt to explore the reasons for this disproportion using two main devices: (1) comparison of shooting data to contextual factors, like population figures, arrest statistics, and the racial composition of the Chicago police force; and (2) detailed examination of our data to check for racially-linked patterns.⁵⁷

A. RACE, POPULATION AND ARRESTS

The purpose of comparing the numbers of civilians shot to popula-

⁵⁵ The race/ethnicity (hereinafter "race") of nine civilians was not ascertainable from source documents.

⁵⁶ Chicago Tribune, May 18, 1980, § 2, at 1, col. 1. Rev. Jorge Morales, an Hispanic leader in Chicago, was quoted in the Chicago Sun-Times, October 25, 1978, § 1, at 16, col. 1, with an estimate that Hispanics were at least 15% of Chicago's population. It should be emphasized that the discussion of population figures in this section necessarily assumes, almost certainly incorrectly, that the size of Chicago's resident population did not change during the five years studied. Yearly population estimates were not easily accessible to us, however, so the figures presented are all approximate.

⁵⁷ We tread delicately in this sensitive area of possible racism, aware that our data, like most social science research findings, at best convey only an imperfect version of broad patterns of behavior and may bear little relation to specific experiences which individuals have had with police officers. Two major caveats concerning our analysis in this section must be noted at the outset. The first is that multivariate statistical techniques could not be employed because of time and resource constraints. The second caveat is that our data contain only the police accounts of the shooting incidents. While there is little reason to expect that police reports would be inaccurate in recording the race or ethnicity of civilians shot or the police who shot them, we have no way to be sure that the course of conduct reported by police to have preceded the shootings occurred exactly as reported. In most cases, the police reports from which our data were collected provided a general description of the chain of events which culminated in a shooting, but lacked the kind of "step-by-step" detail on more subtle elements of the interaction between civilian and officer (body language, tone of voice with which statements were made, presence of bystanders and their conduct, if any, which affected the police-civilian encounter) which one might wish for in an attempt to check for racial motivations behind shootings. These data are used because they are the best information available to date concerning police shootings in Chicago. In any event, this report should be considered only one, necessarily inconclusive step toward identifying the role race may play in police shootings.

tion or arrest figures or to any other numbers is to try to find a standard against which to determine whether race plays a role in shooting incidents. Put simply, when someone comments, "An awful lot of blacks are shot by police," one may reasonably inquire, "Compared to what?" Obviously, every shooting victim is one too many, but that realization does not take us very far toward understanding whether one racial group is experiencing more shootings than could be expected or is experiencing shootings of a type which raise questions about racism.

One could argue that in a perfectly egalitarian society, no social configurations, including the distribution of police shooting victims, would show any racial disproportions. Thus, in such a setting, if blacks were 45% of the population, they would be 45% of the college graduates, 45% of the artists, 45% of the corporate executives, and 45% of the shooting victims. In a society with no racial bias, a deviation in any area from the population distribution would be explainable by chance or by factors other than skin color. In our less than perfect society, one understandably wonders whether racism is a contributing factor when any racial groups are significantly over- or under-represented among the "haves" or the "have nots." Such an inquiry seems entirely appropriate in this study since less than half the city population is black but 70% of those shot by police are black.

Arrest rates may help explain the wide disparity between the racial distribution of Chicago's population and the racial distribution of civilian victims of police shootings. Arrest encounters have been used by other researchers⁵⁸ to approximate the number of situations in which police and civilians have the physical opportunity, because they are in each other's presence to become involved in situations that could result in one shooting the other. To be sure, police and civilians have many encounters for every one that results in an arrest, but, arguably, one can estimate the total number of encounters based on the number of arrests.⁵⁹ We, too, have analyzed our data using arrest statistics in this fashion, but with somewhat less confidence⁶⁰ that variations in the number of arrests produce variations in the number of shootings. We have used arrest data as a standard for lack of better alternative standards against which to measure the racial distribution of shooting victims. Additionally, it seems correct to expect that the chances of having shootings occur would vary with increases or decreases in the number of

⁵⁸ See, e.g., C. MILTON, ET AL., DEADLY FORCE, *supra* note 5, Fyfe, *Shots Fired*, *supra* note 6.

⁵⁹ This assumption is subject to the objection that police may be more likely to arrest blacks than whites for similar conduct. For example, it could be that blacks commit 60% of all serious crimes, but, due to discriminatory behavior by police, are 70% of those arrested. Future researchers may find it helpful to examine victimization surveys to clarify this point.

⁶⁰ See, e.g., Fyfe, *Shots Fired*, *supra* note 6.

arrest encounters. (This logic derives from our finding that most shootings reportedly occur in connection with forcible felonies.) Our doubts about the relationship between arrests and shootings are set forth following a presentation of the data.

Table 3 reports these data. It shows the average annual rates⁶¹ at which civilians were shot by police based on two population and two arrest figures. The population statistics used are from the 1970 Census and updated estimates reported in the press. The arrest figures used are (1) arrests for "forcible felonies," which in Illinois are the offenses (crimes of personal violence plus burglary) whose suspects police officers may legally shoot, under certain circumstances, to prevent their escape; and (2) arrests for "all offenses," ranging from murder through petty larceny. Only traffic violations are excluded from the latter category. The category of "forcible felony arrests" arguably should present a much better⁶² basis than "all arrests" for estimating the "population at risk"—those civilians whose interactions with police are serious enough that they reasonably have a potential to result in shootings. It should be noted that Table 3 compares the numbers of civilians shot to external factors—population and arrest figures—without illuminating the circumstances in which civilians of different races or ethnicities were shot. That inquiry will follow this one.

Table 3 suggests that, based on our *best* indicator of the population at risk (forcible felony arrests), whites are slightly more likely to be shot by police than are blacks or Hispanics. Using statistical tests, however, we found that the differences in the "forcible felony" column rates are not significant. The rate differences may still be indicative of important differences⁶³ (even though the numbers are too small to produce statistically significant findings). The other three columns in Table 3 report rates which have been of some interest to prior researchers but which we will mention only in passing because we do not feel that they are based on conceptually adequate indicators of the population at risk. The far

⁶¹ All rates relating to the race of civilians or police-officers in this report are calculated using figures for the number of persons of the indicated race in the base. For example, a rate concerning the number of white officers who shot civilians per 1,000 white officers on the police force is calculated using not the total number of police officers but the total number of *white* officers in the base.

⁶² Neither arrest nor population data are the ideal basis for estimating the population at risk, but none better have been found. Recommendations for future research follow in Part II of this article. Although our analysis only discusses forcible felony arrests, Table 3 includes data on "all arrests" because the reader may be interested in considering "all arrests" as a surrogate for all police-civilian encounters. For our purposes, a surrogate for all potentially violent police-civilian encounters is more suitable.

⁶³ If the rates do represent important differences in the chances which civilians of different races have of being shot by police, the disparity may be due partially to the disproportionate number of whites who are shot accidentally, as suggested below in connection with Table 6.

right hand column reveals that whites are somewhat less likely than blacks or Hispanics to be shot by police per 10,000 civilians of the indicated race who are arrested for *any* offense—including petty crimes. This comparison is conceptually weak, however, because it is not very likely that the population in serious jeopardy of being shot by police includes very many persons whose encounters with police concern only petty offenses. The population-based rates, as would be expected, suggest a fairly wide disparity in shooting rates among the races (blacks are either 3.8 or 6.6 times more likely than whites to be shot by police depending upon the population figure used.⁶⁴) It must be remembered,

TABLE 3
AVERAGE ANNUAL RATES AT WHICH POLICE SHOT
CIVILIANS IN CHICAGO, 1974-1978,
BY VICTIMS' RACE

RACE OF CIVILIANS SHOT	AVERAGE ANNUAL NUMBER OF CIVILIANS SHOT:			
	Per 100,000 population- 1970 Census	Per 100,000 population- updated ^a	Per 1,000 for- cible felony arrests ^b	Per 10,000 ar- rests for "all offenses" ^c
White	1.0	1.4	5.6	2.9
Black	6.6	5.3	4.5	3.8
Hispanic ^d	4.1	2.6	4.3	3.6
Total	3.2	^e	4.7 ^f	3.6

a Based on population estimates reported in Chicago Tribune, May 18, 1980.

b Forcible felony arrests include arrests for murder, rape, armed and strong arm robbery, aggravated battery, aggravated assault, and burglary.

c All arrests by the Chicago Police Department are included, from murder through petty larceny. Only arrests for traffic violations are excluded. Source: Chicago Police Department annual statistical summaries.

d Population and arrest figures for Hispanics are estimated since neither the 1970 Census nor Chicago Police Department statistical reports adequately specify a "Hispanic" category. Census Bureau staff and staff from the U.S. Commission on Civil Rights aided in estimating Hispanic population figures. Chicago Police Department reports have categories for white, black, Indian, Chinese, Japanese, and "other" races. After consultation with Police Department statisticians, we determined that the "other" category could be used as a rough surrogate measure for Hispanic arrestees. Some Hispanics may be included in the white category and some non-Hispanics may be included in the "other" category of arrestees. The race of the shooting victims was not estimated, however. Police records specified whether the individuals were white, black, Puerto Rican, Mexican or otherwise.

e No revised estimate of the total population was indicated in the source used for updated population figures—Chicago Tribune, May 18, 1980.

f Using a standard "Z" test for equality of proportions, none of the differences between the rates in this column are statistically significant at the .05 level.

⁶⁴ The disparity between the likelihood of blacks and whites being shot based on their

however, that the general population is not a good indicator of the population at risk of being shot, and while the rates based on total population are perhaps of general interest, they do not provide the proper context needed to examine racial issues in the data.

A slightly different perspective can be gained on the arrest-shooting comparison by looking beyond only those shooting incidents in which persons were struck by bullets. We have considered data not collected by the Study Group but compiled by the Chicago Police Department some years ago and made available to us. These data pertain to all civilians fired at by Chicago police, whether or not the civilians were struck by the bullets. These data span a three-year period, 1975 through 1977, and reveal that approximately 17% (236) of those fired at by Chicago police were white, 75% (1,074) were black, and 9% (125) were Hispanic.⁶⁵ The Police Department's figures on persons fired upon by police are presented in Table 4.

Table 4 suggests that, based on forcible felony arrests, blacks are slightly more likely than whites to be fired upon by police, while Hispanics are somewhat less likely than whites or blacks to be fired at. However, with the exception of the black-Hispanic disparity, the differences in rates are not statistically significant. As was the case with Table 3, the "all offenses" column and the general population columns in Table 4 suggest that blacks and Hispanics are more likely than whites to be fired upon by police, but the rates in these columns are not considered realistic reflections of the chances that persons in serious confrontations with police have of being shot. (Again, they are reported here only in passing because of widespread prior interest in these kinds of rates.)

Considering Tables 3 and 4 together, we find that, with one exception,⁶⁶ civilians of different races face approximately equal chances of being either fired upon or actually shot by police in Chicago. This finding is based on the exposure of civilians of each race to forcible felony arrest encounters. Given this finding, one might argue that race is not a significant factor in determining either persons shot at or persons struck by police bullets. One could contend—and indeed others have con-

representation in the population at large does not seem to be the result of the age distribution of each of the races, although our data on this point are not very precise. It is apparent from Census data that both the black and Hispanic populations in Chicago have a greater percentage of juveniles than does the white population. But these disparities are not parallel to the disparities which appear in age-race distributions for the civilians who were shot by police.

⁶⁵ Civilians of other races and those whose race was not ascertainable from source documents were excluded from the calculation.

⁶⁶ There is a statistically significant difference between the forcible felony-based rate for blacks and Hispanics fired upon but not necessarily hit by police.

tended based on data concerning other cities⁶⁷—that the disproportionate shooting of blacks by police in those jurisdictions is explainable by the disproportionate arrests of blacks for serious crimes. (To reiterate, our data show that 70% of all civilians shot by police were black and that 72% of all persons arrested for forcible felonies were black.)

TABLE 4

AVERAGE ANNUAL RATES AT WHICH POLICE FIRED AT
CIVILIANS IN CHICAGO, 1975-1977, BY VICTIMS'
RACE

RACE OF CIVILIANS FIRED UPON	AVERAGE ANNUAL NUMBER OF CIVILIANS FIRED UPON:			
	Per 100,000 population- 1970 Census	Per 100,000 population- Updated ^a	Per 1,000 for- cible felony arrests ^b	Per 10,000 arrests for all crimes ^c
White (79/yr.)	4.0	5.1	21.0	11.0
Black (358/yr.)	32.9	26.3	22.4	19.1
Hispanic (42/yr.)	16.9	10.6	17.6	14.6
TOTAL (478/yr.)	14.5	d	21.6	16.6

a The following numbers were used for calculating the rates: Updated population—1,552,571 white; 1,363,879 black; 393,936 Hispanic.

b The following numbers were used for calculating the rates: Forcible felony arrests during the three years (1975-1977)—11,252 white; 47,931 black; 7,117 Hispanic; 66,300 total.

c The following numbers were used for calculating the rates: Arrests for all offenses for the three years (1975-1977)—214,192 white; 563,353 black; 85,635 Hispanic; 863,180 total.

d No revised total population figure was available.

Note: The standard "Z" test for equality of proportions was run for the rates in the forcible felony column only. This test revealed that only the difference between blacks and Hispanics is statistically significant at the .05 level.

But, as suggested above, we have some doubts about the use of arrest figures as an explanation for differential shooting patterns for whites and blacks. Arrest statistics have been criticized as a basis of comparison on the ground that arrests may not accurately reflect the number of total encounters which civilians of different races have with police. If, for example, police arrested eight out of every ten blacks who appeared

⁶⁷ See generally C. MILTON ET AL., DEADLY FORCE, *supra* note 5; Fyfe, *Shots Fired*, *supra* note 6.

to be involved in some criminal conduct but only three out of every ten such whites; or if police charged blacks and whites engaged in similar misconduct with different offenses; or if police arrested blacks, but not whites, for harassment purposes unrelated to suspected criminal conduct, then arrest rates would not be an accurate predictor of the number of encounters (opportunities for shootings) between police and civilians of different races.

While we have no data on the appropriateness of arrests, the data we do have suggest that arrests may not be as strong a correlate of shootings as we assumed based on our literature review. Forcible felony arrests and the number of civilians shot by police in Chicago show a $+0.64$ correlation. While this is a moderately strong correlation for social science research, it nevertheless means only that changes in the number of arrests *may help* explain changes in the number of shootings. A myriad of other factors besides arrests also could help account for trends in the shooting rate. These factors could include the weather (big winter storms could reduce certain kinds of street crime but increase assaultive behavior due to "cabin fever"), number of officers on the street, the establishment of new shooting review procedures, fire department strikes which strain police resources, threatened police job actions, overtime employment to put more officers on patrol, quick promotions which increase the number of supervisors and decrease by the same amount the number of patrol officers, team policing, task forces, tumultuous mayoral campaigns and consequent turmoil within the police department, etc.

Another fact is important in considering arrest encounters as an explanation for racial disproportions in shooting victims. The racial distribution of shooting victims which one finds considering the five years of data together—20% white, 70% black, and 10% Hispanic—breaks down when each year is considered separately. Taking the five years of shooting data and forcible felony arrests together revealed that the racial distributions of shooting victims and arrestees were almost identical. While the percentage of blacks arrested for forcible felonies remains at approximately 70% each year, the percentage of civilians shot each year who are black varies from a low of 63% to a high of 81%. (Some of this apparent variability may result from the small numbers of civilians shot each year. For example, the shooting of five fewer blacks or five more whites in any given year could alter their percentages to the point where the difference between the shooting and arrest distributions might be insignificant.)

While forcible felony arrests are a moderately strong correlate of shootings, that alone does not demonstrate a causal connection between the two variables. Such arrests (as an indicator of relative risk) are one

TABLE 5

RACE AND INJURY OF CIVILIANS SHOT BY POLICE IN
CHICAGO, 1974-1978^a

RACE OF VICTIMS	DEGREE OF INJURY (# OF CIVILIANS)		
	Wounded	Killed	% Killed
White	69	31	31%
Black	277	83	23%
Hispanic	34	16	32%
TOTAL	380	130	26%

a Using the χ^2 test of independence, there are no statistically significant differences among the fatality rates in the right hand column at the .05 level.

among many possible explanations for the racial distribution of shooting victims. To further explore the role of race in police shootings, we turn to two other inquiries: (1) an examination of the details of shootings to see whether whites, blacks and Hispanics are shot under the same circumstances and with the same outcomes; and (2) consideration of the race of both the civilians and officers involved in the same incidents.

B. RACE, DEGREE OF INJURY, AND SHOOTING TYPES

The outcomes (degree of injury to the civilian shot) are displayed in Table 5. The table shows that black civilians are less likely than either whites or Hispanics to die when struck by police bullets. Whereas 31% of whites and 32% of Hispanics who are shot succumb to their wounds, only 23% of blacks die. Again, based on the relatively small numbers involved here, there is no statistically significant difference between the fatality rates of civilians of different races, but the percentages could be indicative of important differences. Since our data represent not a sample, but *all* of the shootings involving Chicago police officers over a five year period, we can say with confidence that, from 1974 through 1978, black civilians did experience the lowest fatality rate when shot by police. What we cannot assert with certainty is that this pattern is the result of causes other than chance or that this pattern is likely to be reflected in other time periods. (See the methodology section.) If the pattern reported in Table 5 is not simply a chance occurrence, one might expect that it would be explainable by reference to the circumstances in which civilians of each race were shot by police. This expectation arises because, as Table 2 shows, certain types of shooting incidents

are more likely than others to result in fatalities. To test this hypothesis, we considered the race of civilians shot in each type of incident. The distributions are shown in Table 6.

Table 6 when compared with Table 2 does not seem to support the notion that the somewhat higher black survival rate is the product of the kinds of situations in which blacks are shot.⁶⁸ Earlier, Table 2 showed

TABLE 6
RACE OF CIVILIANS SHOT BY POLICE IN CHICAGO, 1974-1978, BY SHOOTING TYPES^a

SHOOTING TYPE		RACE OF CIVILIANS SHOT			
		White	Black	Hispanic	Total
(1)	Gun use/threat	35	199	28	262
	Col.%	37%	55%	56%	52%
(2)	Other d.w. or physical force use/threat	20	40	11	71
	Col.%	21%	11%	22%	14%
(3)	Other d.w. possessed without threat	1	9	0	10
	Col.%	1%	3%	—	2%
(4)	Flight without other resistance	11	70	6	87
	Col.%	12%	19%	12%	17%
(5)	Other reasons for shooting intentionally	1	2	0	3
	Col.%	1%	0.6%	—	1%
(6)	Accidental	21	27	4	52
	Col.%	22%	8%	8%	10%
(7)	Mistaken Identity	0	4	0	4
	Col.%	—	1%	—	1%
(8)	Stray Bullet	7	9	1	17
	Col.%	7%	3%	2%	3%
TOTAL		96	360	50	506 ^b
	Col.%	100% ^c	100% ^c	100%	100%

a Using the χ^2 test of significance for types 1-5, there *are* significant differences at the .05 level. Types 6-8 were excluded from this test of significance because they represent qualitatively different kinds of events from types 1-5. However, an χ^2 test of significance was conducted for accidental shootings separately, and revealed no statistically significant differences.

b Not ascertained/other race = 17.

c Does not total 100% due to rounding.

⁶⁸ While the data are suggestive of no racial discrimination in seriousness of wound, the data analysis is insufficiently refined to guarantee that the opposite conclusion is false. Future study of the data in Tables 2 and 6 using two-way analysis of variance, if methodologically feasible, could help researchers derive a more confident conclusion on this point.

that civilians shot in one group of incidents (Types 1, 2, and 5) had considerably higher fatality rates than those shot in another group (incident Types 3, 4, 6, and 8). The numbers in Type 7 are excluded because they are too small to yield reliable results. Placing the figures in Table 6 into these two groups shows that 32% (115) of the black shooting victims were shot in circumstances which yield a lower fatality rate, while 42% (40) of the white shooting victims were shot in such cases. Accordingly, from Table 6 one would expect that a smaller percentage of whites than blacks would die when shot by police, exactly the opposite of what is indicated in Table 5.

While Table 6 does not help explain differential fatality rates among the races, it does suggest three additional disparities among civilian victims of different races. First a higher percentage of the blacks and Hispanics (than whites) who are shot by police reportedly were using or threatening use of a gun at the time: 37% of the white shooting victims allegedly fired or threatened to fire a gun, while more than half of all black and Hispanic victims were reported to have done so at the time they were shot by police. Another aspect of this disparity is that 11% of black shooting victims were shot for allegedly using or threatening to use physical force or a deadly weapon other than a gun, while 21% of white civilians—and 22% of Hispanics—were shot under these circumstances. Second, Table 6 shows that a larger percentage of whites than blacks is shot accidentally. Of all white civilian shooting victims, 22% were shot accidentally, while 8% of the black—and Hispanic—victims were shot accidentally. The difference between these percentages was found not to be statistically significant. However, such differences could be indicative of important differences. If so, the fact that most of the officers are white and that a large percentage of accidental shootings of civilians involve family members or friends as victims could help explain the pattern. The disproportionate number of white civilians shot accidentally may also help explain the finding reported in connection with Table 3 that, based on forcible felony arrests, white civilians are slightly more likely than black civilians to be shot by police.

The third noteworthy pattern shown in Table 6 is that, of all shooting victims, a slightly higher percentage of blacks (19%) than whites (12%) is shot in flight. Our data do not permit us to assess whether this disparity (although small) may stem from police beliefs about the relative chances of white and black fleeing suspects being armed, from discriminatory behavior, or from other factors.⁶⁹ But the data do permit a

⁶⁹ Future research, equipped with data and analytic techniques which more sensitively identify the degree of danger confronting a shooting officer—and thus the degree of discretion

further investigation of the circumstances in which civilians of different races were shot for fleeing. Table 7 indicates the crimes which police reportedly suspected civilians of different races were fleeing from at the time the civilians were shot.

Before describing the findings reported in Table 7, a few words of explanation and qualification are appropriate. This table shows the number of civilians shot in each circumstance as well as shooting rates. The rates indicate the number of civilians shot for fleeing from each type of suspected crime per 1,000 civilians of that race arrested for that type of crime. The arrest figures are used as a proxy for the proportion

TABLE 7
FORCIBLE FELONIES WHICH POLICE SUSPECTED WHEN
THEY SHOT FLEEING CIVILIANS IN CHICAGO,
1974-1978, BY RACE OF CIVILIAN
VICTIMS^a

SUSPECTED FORCIBLE FELONY		RACE OF CIVILIANS SHOT			
		White	Black	Hispanic	Total
Rape	Number	0	2	0	2
	Rate ^b	—	0.7	—	0.5
Robbery	Number	4	18	1	23
	Rate	1.1	0.6	0.3	0.6
Burglary	Number	6	33	2	41
	Rate	0.5	1.0	0.3	0.8
Agg. Assault/ Agg. Battery	Number	1	12	3	16
	Rate	0.5	1.5	2.1	1.4
TOTAL	Number	11	65	6	82 ^c
	Rate	0.6	0.9	0.5	0.8

a Using the χ^2 test of significance, there are no statistically significant differences in crime types among the races at the .05 level.

b All rates in the table represent the number of civilians shot per 1,000 civilians of that race arrested for the indicated offense.

c Not ascertained = 7.

he has whether to shoot—could better identify the impact of race on police shooting behavior. With such relatively small numbers as are involved in shooting studies and so many factors potentially affecting shooting, honing in on those instances in which racism is most likely to influence police behavior would be desirable (even though it further reduces the numbers for analysis). It is possible that the situations in which race might be an important influence on officers' decisions to shoot or not shoot a civilian would amount to no more than five or ten over a several-year period. Even if it were true that five or ten civilians were shot largely because of their race during our study period, our data analysis probably is not sufficiently sensitive and refined to identify these cases, in part since other factors may have greater explanatory power. (Whether or not five or ten cases of racially motivated shootings out of several hundred total shootings would be socially significant is a value judgment we each must make individually.)

of civilians of each race who flee from attempted arrests. Thus, the rates are used to indicate the chance that civilians of each race have of being shot when they flee from attempted forcible felony arrests. The utility of the rates depends on the accuracy of the assumption that whites, blacks, and Hispanics are all equally as likely to flee when police attempt to arrest them for forcible felonies.⁷⁰ If this is not the case (for example, if fear of racist treatment at the hands of the criminal justice system prompts a larger percentage of blacks and Hispanics than whites to attempt to evade arrest), the rates would not give an accurate impression of the chances that civilians of each race have of being shot when they flee.

If the rates *do* convey a relatively accurate impression of the chances that fleeing suspects have of being shot, then Table 7 suggests that blacks are 1.5 times more likely than whites to be shot for fleeing from alleged forcible felonies, considering all the types of forcible felonies together. Examining the offense types separately, blacks are twice as likely as whites to be shot for fleeing from alleged burglaries and three times as likely to be shot for fleeing from alleged serious assaults or batteries. On the other hand, whites are nearly twice as likely as blacks to be shot for running away from suspected robberies and armed robberies. All the numbers on which these rates are based are small, however, and the differences among the races were not found to be statistically significant, so the findings are only suggestive.⁷¹

While some of the data thus far examined do suggest racially linked patterns of shootings, such patterns cannot simply be credited to racism,⁷² for the preceding analysis omits a key consideration: the race of the shooting officers *in relation to* the race of the civilian victims.

C. OFFICERS' RACE AND DUTY STATUS AND CIVILIANS' RACE

Thus far the question of shootings and race has been examined treating police officers as a group and examining their collective behavior towards civilians of different races. Below we consider the extent to which officers of different races exhibit different shooting patterns—we assess the slogan that “police are not black or white, they’re blue.” This

⁷⁰ In any event, arrest rates would not be an accurate proxy for those who get away when they flee.

⁷¹ Future research might profitably explore an additional question: Whether the kinds of conduct by civilians of different races which result in specific charges, such as “aggravated assault,” are dissimilar in ways which suggest racial bias in charging decisions. If such bias is discovered, one would need to control for it so as to permit an assessment of the likelihood that civilians fleeing from similar misconduct will be shot.

⁷² The patterns cut both ways (*e.g.*, more blacks are shot, but more whites are killed by police).

notion is tested by comparing the race of both the civilian victims and the shooting officers. The findings are depicted in Table 8. The numbers represent incidents rather than civilian victims (some incidents had more than one victim). The rates show the number of shootings by white, black and Hispanic officers per 1,000 officers of each race on the Chicago police force.⁷³ These rates are presented in order to make the relative conduct of white, black and Hispanic officers comparable by controlling for the fact that the Department is not composed of equal numbers of officers of each race.

TABLE 8

INCIDENTS IN WHICH POLICE SHOT CIVILIANS IN CHICAGO,
1974-1978: OFFICER RACE BY CIVILIAN RACE^a

RACE OF OFFICER SHOOTERS ^b		RACE OF CIVILIANS SHOT BY POLICE			
		White	Black	Hispanic	Total
White	Number	84	206	44	334
	Rate ^c	1.6	3.8	0.8	6.2
Black	Number	5	111	3	119
	Rate	0.4	9.5	0.3	10.2
Hispanic	Number	4	1	4	9
	Rate	3.3	0.8	3.3	7.5
White & Black	Number	0	18	1	19
	Rate	—	—	—	—
TOTAL	Number	93	336	52	481 ^d
	Rate	1.4	5.0	0.8	7.2

a Dropping Hispanics from this table (because of small numbers), an χ^2 test of significance shows significant differences at the .05 level.

b Race represents the race of all officers who shot civilians during the incidents. Thus, the "White & Black" category of shooters means that both white and black officers were involved in shooting civilians in the incidents. The single race categories mean that all the officers who shot civilians in the incidents were of the same race.

c All rates are the average annual number of shooting incidents per 1,000 officers of the indicated race in the Department.

d Not ascertained = 16.

⁷³ The rates are based on Chicago Police Department computer printouts on personnel for 1976, the midpoint of this five-year study. The size of the Department remained relatively constant during this period, although the nature of the Department cannot necessarily be assumed to have remained the same. For example, an increase of 100 sworn personnel in one year could have reflected the attrition of 500 officers and the addition of 600 rookies or minimal attrition with a much smaller number of inexperienced personnel added. The two situations could have different impacts on shooting patterns. Unfortunately, the data available to us did not indicate how many officers were lost and added each year to the police force. Unless otherwise indicated, the numbers of sworn personnel used to calculate all of the officer rates in this section are as follows: total = 13,363 officers, made up of 10,775 white, 2,331 black, 240 Hispanic, and 17 Asian, Filipino and American Indian personnel.

Table 8 shows that, overall, white officers shot civilians in 334 (70%) of all the incidents resulting in civilian victimization. Black officers shot civilians in 119 (25%), and Hispanic officers shot civilians in 9 (2%) of all such incidents. Mixed white and black officer teams shot civilians in 19 (4%) of all the incidents. No teams of black and Hispanic officers were involved in shooting civilians. Considering both the officers' race and the race of the civilians shot, white police shot black civilians in almost twice as many incidents as did black police (206 vs. 111) but, controlling for the makeup of the police force, black officers were 2.5 times as likely as white officers to shoot black civilians (annual average of 9.5 shootings by black officers per 1,000 on the force vs. 3.8 shootings by white officers per 1,000 on the force). White officers were four times as likely as black officers to shoot white civilians (rates of 1.6 vs. 0.4). The rates for shootings by Hispanic officers are based on a total of nine shootings and thus would not be likely to yield reliable results. (In 1976, the midpoint of this five-year study, 240 of the Department's 13,363 sworn personnel were Hispanic). White officers were 2.7 times more likely than black officers to shoot Hispanic civilians (rates of 0.8 vs. 0.3).

Overall, minority-race officers were more likely than white officers, per 1,000 officers of each race on the force, to shoot civilians. Based on the data, if the Chicago Police Department were composed of 1,000 white, 1,000 black, and 1,000 Hispanic officers and nothing else changed as a result of that makeup,⁷⁴ in an average year black officers would shoot civilians in 10.2 incidents, Hispanic officers would shoot civilians in 7.5 incidents, and white officers would shoot civilians in 6.2 incidents. These projections show that black officers are 1.6 times more likely, and Hispanic officers are 1.2 times more likely than white officers to shoot civilians over the course of a year. (Again, the disproportion between white and Hispanic officers is very slight, and not reliable because of the small number of Hispanic shooters.) The Department is not so constructed, of course, and so the actual numbers of civilians shot are quite different. Since most police officers are white, most of the white, black and Hispanic civilians who are shot are shot by white officers.

The findings reported in Table 8 may have an important bearing on the question of what role race plays in police shootings. While earlier discussion in this section failed to establish a sufficient explanation for why blacks are shot more than their representation in Chicago's popula-

⁷⁴ The assumption that nothing else would change is, of course, false. Many things, especially deployment patterns, which affect shootings, would change if the force were composed of equal numbers of white, black, and Hispanic personnel. The example is oversimplified to illustrate the meaning of the rates used in this report.

TABLE 9
RACE OF OFFICERS WHO SHOT CIVILIANS, BY DUTY
STATUS OF OFFICERS^a

DUTY STATUS		RACE OF OFFICER SHOOTERS			
		White	Black	Hispanic	Total
<u>ON</u>	Number	384	90	6	480
	Rate ^b	7.1	7.7	5.0	7.2
	Row %	80.0%	18.7%	1.3%	100%
	% of CPD	80.6%	17.4%	2.0%	100%
<u>OFF</u>	Number	70	61	5	136
	Rate	1.3	5.2	4.2	2.0
	Row %	51.0%	45.0%	4.0%	100%
	% of CPD	80.6%	17.4%	2.0%	100%
TOTAL	Number	454	151	11	616 ^c
	Rate	8.4	13.0	9.2	9.2
	Row %	74.0%	25.0%	2.0%	100%
	% of CPD	80.6%	17.4%	2.0%	100%

- a Using an χ^2 test of significance, the black-white difference is significant at the .05 level.
- b All rates = average annual number of officers who shot civilians per 1,000 officers of the indicated race on the Chicago police force.
- c Not ascertained = 24.

tion suggests they would be, the data in Table 8 raise considerations that inhibit the conclusion that racism explains this disproportion. As Table 8 shows, correcting for their representation in the police force, black officers are more likely than white officers to shoot black civilians. Moreover, white officers are more likely than black officers to shoot white civilians, and Hispanic officers (whose numbers are too small to yield reliable patterns) seem more likely than either white or black officers to shoot Hispanic civilians. One would expect that, if racism were a key explanation for police shootings, the rates of shootings would be highest where the races of the officers and civilians involved in a given incident were not the same.

The higher shooting rate for black officers than for white officers requires further analysis. Two explanations have been offered by other researchers⁷⁵ for disproportionate involvement of black officers in shootings: (1) disproportionate assignment of such officers to high-crime areas, and (2) housing patterns in which most black officers live and, consequently, spend most of their off-duty time in high-crime areas and most white officers live and spend most of their time off in low-crime areas. The first explanation has been used as a reason for over-represen-

⁷⁵ See, e.g., Fyfe, *Shots Fired*, *supra* note 6.

tation of minority officers among on-duty shooters; the second has application primarily to off-duty shooting patterns.

At this level of analysis, the first explanation is not called for in Chicago because, as Table 9 shows, the over-representation of black officers as shooters (they shoot 25% of the civilians shot by police) is primarily an off-duty phenomenon. The on-duty officers who shot civilians fall into almost precisely the same racial distribution as the Department's overall composition. That is, white officers are 80.6% of the Department and 80% of the on-duty shooters; black officers are 17.4% of the Department's sworn personnel and 18.7% of the on-duty shooters; and for Hispanic officers, the percentages are 2% and 1.3%, respectively. Put another way, Table 9 shows that black and white officers (Hispanic officers are omitted because of their small numbers) were approximately equally likely, based on their representation on the force, to be involved in on-duty shootings (7.1 white officers per 1,000 in the Department vs. a black officer rate of 7.7).

It is interesting to note, however, that while black officers are not significantly over-represented as on-duty shooters, they are indeed disproportionately assigned to high-crime districts.⁷⁶ Thirty-five percent of the patrol officers assigned to high crime districts are black.⁷⁷

Although the disproportionate assignment of black officers to high-crime districts does not help explain the over-representation of black officers as shooters, deployment patterns are indeed useful in explaining the geographic distribution of shootings by officers of different races. Table 10 shows the distribution of shootings by on-duty white, black and Hispanic officers among three categories of crime districts: high, medium, and low. The table shows that black officers are 6.2% of the officers who shot civilians in low-crime districts, 16.7% of the officers who did so in medium-crime districts, and 24.5% of the officers who did so in high-crime districts. White officers, who are disproportionately assigned to low-crime districts, are 92.3% of the officers who shot civilians in low-crime districts, 81.3% of the officers who did so in medium-crime districts and 74.5% of the officers who did so in high-crime districts. The

⁷⁶ "High-crime district" is defined in conjunction with Table 10 in the text.

⁷⁷ The Department offers two principal explanations for this pattern: that officers prefer to work in districts close to their homes and that the assignment of minority race officers to minority communities produces a better police-community rapport and hence better police work. Over the years, critics of racial assignment patterns have not seriously disputed the wisdom of these two rationales (indeed, sometimes minority community leaders have demanded adherence to them). Rather, such critics have complained that minority race officers receive the least desirable assignments within their given districts and are less likely than equally qualified white officers to be promoted.

TABLE 10
CRIME LEVEL OF DISTRICTS IN WHICH ON-DUTY POLICE
SHOT CIVILIANS IN CHICAGO, 1974-1978, BY
OFFICERS' RACE^a

CRIME LEVEL OF DIST. OF SHOOTING		RACE OF OFFICERS WHO SHOT CIVILIANS			
		White	Black	Hispanic	Total
Low ^b	Number	60	4	1	65
	Row %	92.3%	6.2%	1.5%	100%
Medium ^c	Number	175	36	4	215
	Row%	81.3%	16.7%	1.9%	100%
High ^d	Number	149	50	1	200
	Row %	74.5%	25.0%	0.5%	100%
TOTAL	Number	384	90	6	480
	Row %	80.0%	18.7%	1.3%	100%

a Using the χ^2 test of significance, black-white differences *are* significant at the .05 level.

b Low-crime districts = 200 or less forcible felonies (crimes of personal violence plus burglary) per 10,000 population per year in a district.

c Medium-crime districts = districts with 201-300 forcible felonies per 10,000 population per year.

d High-crime districts = districts with more than 300 forcible felonies per 10,000 population per year.

number of Hispanic officers who shot civilians is too small to serve as a reliable basis for analysis.

An explanation for the fact that black officers are not significantly over-represented as on-duty shooters despite their disproportionate deployment in high-crime districts may lie in the assignment patterns of officers of different races, not according to districts but according to units of the Department. Thus far, we have considered the deployment pattern only of officers in the Patrol Division of the Department. That division is by far the Department's largest, containing approximately 80% of all the sworn personnel on the force. It is the black officers of *that division* who are disproportionately assigned to high-crime districts. But other units, in which black officers are *under*-represented, are considerably more likely than Patrol Division officers to become involved in shootings. Table 11 shows the percentage of black officers in each of several units of the Department and the rate at which officers of each unit shot civilians.

Table 11 indicates that officers assigned to the Special Operations Group (a separately-focused tactical squad), the district tactical units, and the Robbery Division are far more likely than officers in most other

units to shoot civilians while on duty. (S.O.G. personnel, who represent 0.6% of the Department, are 5.7% of the on-duty shooters; Tactical officers are 3.3% of the Department's sworn personnel and 20.4% of the on-duty officers who shot civilians; and Robbery detectives are 1.8% of all officers but 4.7% of the on-duty shooters. Officers in these three units are over-represented as on-duty shooters, based solely on their numbers in the Department.) At the same time, the table indicates that black officers are considerably under-represented in these units. Using the figure of 17.4% (overall black representation on the Department, regardless of unit of assignment) as a dividing line, the units shown in this table can be arranged into those with an under-representation of Black officers—S.O.G., Tactical, Robbery, Homicide/Sex, Burglary, and Traffic—and those with an over-representation—Mass Transit, Gang Crimes, and the Patrol Division. Taken together, on-duty officers of the units with a black “under-representation” shoot an annual average of 22.6 civilians for every 1,000 officers in those units. On-duty officers in the units with a black “over-representation,” by contrast, shoot an average of 7.2 civilians per year, for every 1,000 officers in those units. The implication of these findings is that black officers are not over-represented among on-duty shooters, despite their heavy deployment in high-crime districts, because black officers are not prominent in the units of the Police Department which see the most shooting action.

TABLE 11

BLACK REPRESENTATION AND RATE OF SHOOTINGS OF
CIVILIANS BY CHICAGO POLICE DEPARTMENT
UNITS, 1974-1978

OFFICERS' UNIT	% BLACK PER- SONNEL IN UNIT	RATE ^a OF SHOOTINGS
Special Operations Group	6.2%	83.1
Tactical	13.5%	50.0
Robbery	10.3%	20.6
Mass Transit	25.9%	8.5
Gang Crimes	23.4%	7.6
Patrol	18.9%	7.2
Homicide/Sex	8.6%	7.0
Burglary	11.7%	6.9
Traffic	8.5%	1.5

a All rates = average annual number of officers in unit who shot civilians, per 1,000 officers in unit.

As indicated in Table 9, black officers are, indeed, over-represented among off-duty shooters: 45% of the officers who shot civilians while off duty were black. Comparison of the rates in Table 9 shows that off-duty black officers are four times more likely than off-duty white officers to shoot civilians (rates of 5.2 vs. 1.3). The second traditional explanation for disproportionate involvement of black officers in shootings mentioned earlier—residential patterns—seems relevant to explaining this phenomenon in Chicago. We do not have data on the residence of Chicago police personnel, but the Department has estimated that black officers live predominantly in high- and medium-crime districts and that white officers live predominantly in low- and medium-crime districts of the City.

Table 12 shows that the distribution of off-duty officers of each race who shot civilians conforms closely to the suggested residential patterns of officers. Ninety-three percent of the black off-duty officers who shot civilians did so in medium- or high-crime areas, whereas 90% of the white off-duty officers who shot civilians did so in low- or medium-crime districts. Based on the rates in the table, off-duty white officers

TABLE 12
CRIME LEVEL OF DISTRICTS IN WHICH OFF-DUTY POLICE
SHOT CIVILIANS IN CHICAGO, 1974-1978, BY
OFFICERS' RACE^a

RACE OF OFFICERS WHO SHOT CIVILIANS		CRIME LEVEL OF DISTRICT OF SHOOTING			Total
		Low ^b	Medium ^c	High ^d	
White	Number	31	32	7	70
	Rate ^e	0.6	0.6	0.1	1.3
Black	Number	4	23	34	61
	Rate	0.3	2.0	2.9	5.2
Hispanic	Number	0	4	1	5
	Rate	—	3.3	0.8	4.2
TOTAL	Number	35	59	42	136
	Rate	0.5	0.9	0.6	2.0

a Using the χ^2 test of significance, black-white differences are significant at the .05 level.

b Low-crime districts are those with 200 or less forcible felonies (crimes of personal violence plus burglary) per 10,000 population per year.

c Medium-crime districts are those with 201-300 forcible felonies per 10,000 population per year.

d High-crime districts are those with more than 300 forcible felonies per 10,000 population per year.

e All rates = average annual number of officers who shot civilians, per 1,000 officers of the indicated race on the police force.

are twice as likely as off-duty black officers to shoot a civilian in a low-crime district. But off-duty black officers are 29 times more likely than off-duty white officers to shoot a civilian in a high-crime district (rates of 2.9 vs. 0.1). These findings on race and off-duty shootings are consistent with the hypothesis that officers who live in high-crime areas will be more likely than officers living in quiet neighborhoods to encounter violence during their time off and thus to use their weapons.

Since distinct differences appear in the on- and off-duty shooting patterns of officers based on their races, with black officers showing a substantial over-representation among off-duty shooters, we will examine the kinds of shootings in which officers of each race become involved when on- and off-duty to explore whether there are further variations among officers of different races. Tables 13 and 14 show the eight kinds of shootings in our typology for on- and off-duty officers, respectively.

Although neither Table 13 nor Table 14 display statistically significant differences, it seems appropriate to discuss patterns shown on the possibility that the tables do suggest important differences (see methodology section). Indeed, it seems very likely that the lack of statistically significant differences in Table 14 is primarily the result of the small numbers it contains, since the difference between black and white officers in the "gun use/threat" category is fairly large. Thus, Tables 13 and 14 together suggest that, while on-duty black officers are slightly more likely than on-duty white officers to shoot civilians for allegedly using or threatening to use a gun, the disparity is pronounced for off-duty officers. Off-duty black officers are more than eight times as likely as off-duty white officers to shoot civilians for allegedly using or threatening to use a gun. This pattern may well result from denser concentration of guns in communities where black officers live than in areas where most white officers reside. Officers who shot civilians for fleeing from suspected forcible felonies do not follow precisely the same pattern. Relatively few off-duty officers shot fleeing felony suspects, so any differences between these off-duty officers are based on numbers too small to suggest reliable results. But the numbers of on-duty officers who shot fleeing suspects are considerably larger. These latter numbers show that on-duty white officers are more than twice as likely as on-duty black officers to shoot fleeing forcible felony suspects. Looking only at rates in Table 13 shows that on-duty black officers are seven times more likely to shoot gun-wielding suspects than they are to shoot fleeing felony suspects. On-duty white officers, in contrast, are only 2.7 times more likely to shoot civilians with guns than they are to shoot fleeing suspects. A relatively similar picture emerges for off-duty white and black officers

TABLE 13

CIVILIANS SHOT BY *ON*-DUTY POLICE IN CHICAGO, 1974-1978: OFFICER RACE BY SHOOTING TYPE^a

SHOOTING TYPE		RACE OF OFFICER SHOOTERS			
		White	Black	Hispanic	Total
(1) Gun use/threat	Number ^b	218	57	3	278
	Rate ^c	4.1	4.9	2.5	4.2
	Col.%	55.9%	64.8%	50.0%	57.4%
(2) Other d.w. or physical force use/threat	Number	52	14	1	67
	Rate	1.0	1.2	0.8	1.0
	Col.%	13.3%	15.9%	16.7%	13.8%
(3) Other d.w. possessed without threat	Number	14	2	0	16
	Rate	0.3	0.2	—	0.2
	Col.%	3.6%	2.3%	—	3.3%
(4) Flight without other resistance	Number	79	8	0	87
	Rate	1.5	0.7	—	1.3
	Col.%	20.3%	9.1%	—	18.0%
(5) Other reasons for shooting intentionally	Number	2	0	0	2
	Rate	0.04	—	—	0.03
	Col.%	0.5%	—	—	0.4%
(6) Accidental	Number	17	7	2	26
	Rate	0.3	0.6	1.7	0.4
	Col.%	4.4%	8.0%	33.3%	5.4%
(7) Mistaken Identity	Number	3	0	0	3
	Rate	0.1	—	—	0.05
	Col.%	0.8%	—	—	0.6%
(8) Stray Bullet	Number	5	0	0	5
	Rate	0.1	—	—	0.08
	Col.%	1.3%	—	—	1.0%
TOTAL	Number	390	88	6	484 ^d
	Rate	1.2	7.6	5.0	7.2
	Col.%	100% ^e	100% ^e	100%	100% ^e

a Using the χ^2 test of significance, there is *not* a statistically significant difference between shooting types 1-5 for black and white officers at the .05 level.

b Number of *on*-duty officers who shot civilians.

c All rates are the average annual number of *on*-duty officers who shot civilians per 1,000 officers of the indicated race on the police force.

d Not ascertained = 13.

e Does not total 100% due to rounding.

based on Table 14. These findings suggest that, both on and off duty, black officers may be exposed to gun-wielding suspects more often and to fleeing felony suspects less often than are white officers.

It is also interesting to note that no strong racially-linked patterns

emerge for officers involved in accidental shootings. Both on- and off-duty, white and black officers have approximately the same chance of

TABLE 14

CIVILIANS SHOT BY *OFF-DUTY* POLICE IN CHICAGO, 1974-1978: OFFICER RACE BY SHOOTING TYPE^a

SHOOTING TYPE		RACE OF OFFICER SHOOTERS			
		White	Black	Hispanic	Total
(1) Gun use/threat	Number ^b	22	38	2	62
	Rate ^c	0.4	3.3	1.7	0.9
	Col.%	31.9%	63.3%	40.0%	46.3%
(2) Other d.w. or physical force use/threat	Number	11	6	1	18
	Rate	0.2	0.5	0.9	0.3
	Col.%	15.9%	10.0%	20.0%	13.4%
(3) Other d.w. possessed without threat	Number	0	0	0	0
	Rate	—	—	—	—
	Col.%	—	—	—	—
(4) Flight without other resistance	Number	11	8	1	20
	Rate	0.2	0.7	0.8	0.3
	Col.%	15.9%	13.3%	20.0%	14.9%
(5) Other reasons for shooting intentionally	Number	1	0	0	1
	Rate	0.02	—	—	0.02
	Col.%	1.4%	—	—	0.7%
(6) Accidental	Number	19	6	1	26
	Rate	0.4	0.5	0.8	0.4
	Col.%	27.5%	10.0%	20.0%	19.4%
(7) Mistaken Identity	Number	1	1	0	2
	Rate	0.02	0.1	—	0.03
	Col.%	1.4%	1.7%	—	1.5%
(8) Stray Bullet	Number	4	1	0	5
	Rate	0.1	0.1	—	0.08
	Col.%	5.8%	1.7%	—	3.7%
TOTAL	Number	69	60	5	134 ^d
	Rate	1.3	5.2	4.2	2.0
	Col.%	100% ^e	100%	100%	100% ^e

a Using the χ^2 test of significance, there is *not* a statistically significant difference between shooting types 1-5 for black and white officers at the .05 level.

b Number of *off-duty* officers who shot civilians.

c All rates are the average annual number of *off-duty* officers who shot civilians per 1,000 officers of the indicated race on the police force.

d Not ascertained = 2.

e Does not total 100% due to rounding.

shooting civilians accidentally.⁷⁸ (The numbers of Hispanic officers involved in accidental and most other categories of shootings are simply too small to form a reliable basis for analysis.)

Thus far, in an attempt to test for racially-linked shooting patterns, we have compared the races of the officer shooters with the races of the civilian victims, with the shooting types, and with the officers' duty status. We have also considered the civilians' degree of injury in relation to shooting types. The following table, the final one in this section, presents the data from a slightly different perspective. In Table 15 the degree of injury of civilians of different races is examined in relation to the races of the shooting officers. Only on-duty shootings are included because off-duty shootings, for reasons associated with residential patterns, are very frequently intra-racial events and could, therefore, hide racial patterns in on-duty shootings.

The numbers presented in Table 15 are not strictly comparable to the numbers in Table 8. While Table 8 uses numbers of *incidents* in which civilians were shot, Table 15 uses numbers of *civilians* shot during those incidents. But since only 25 incidents had more than one civilian victim, rough comparisons can be made.⁷⁹ The rates in Table 15, as in Table 8, are the average annual number of events per 1,000 police officers of the indicated race in the Chicago Police Department. Table 15 shows not only the total number and rate of civilians shot, but also provides a breakdown of the numbers and rates for civilians who were wounded and civilians who were killed.

Thus, Table 15 is particularly useful for examining whether on-duty shootings reveal differential fatality rates depending on the races of both the officers and the civilians involved. The results of this question are noteworthy, although in some cases based on small numbers. Both white and black on-duty officers have close to a 50-50 chance of killing white civilians when they shoot them. (Overall, approximately 40% of the white civilians shot by on-duty police die from the wounds.) In contrast, both white and black on-duty officers have a far greater chance of wounding than killing *black* civilians. On-duty white officers are more than four times as likely to wound as they are to kill a black civilian. On-duty black officers are 2.5 times more likely to wound than to kill a black civilian. This suggested pattern of black civilians surviving shoot-

⁷⁸ Although the on-duty rates are 0.3 for white officers and 0.6 for black officers, the actual numbers involved are so small that we did not consider these rates to be meaningfully different.

⁷⁹ Peculiarities of the coding system made it convenient to present the data in these slightly different forms in Tables 8 and 15.

ing incidents more often than white civilians has been noted earlier, without a satisfactory explanation, but Table 15 adds the information that the apparent survival rate difference holds regardless of the race of the officers doing the shooting.⁸⁰

Stepping back from the specific question of degree of injury, significant differences are revealed in the likelihood that on-duty officers of different races will shoot civilians of different races. On-duty white officers are four times as likely to shoot black civilians as they are to shoot white civilians (rates of 3.7 vs. 0.9). But on-duty black officers are more than 15 times as likely to shoot black civilians as they are to shoot white civilians (rates of 4.6 vs. 0.3). In this instance, deployment patterns, which earlier were not considered applicable, may help explain the result. The concentration of white officers in white communities and of black officers in black communities presents black officers with a far greater number of occasions than white officers have when they might become involved in a shooting incident with black civilians.

VII. CONCLUSION

In sum, a definitive conclusion on the possible role of racism as a motivating factor in police shootings of civilians is impossible without far more extensive and intensive data and statistical analysis techniques than we have been able to use. The disproportionate involvement of black civilians as shooting victims could not be fully explained on the basis of our data. We considered it important, however, to look at the disproportionate shooting of black civilians in light of the race of the officer shooters. A number of patterns emerge regarding the race of both officers and civilians, some suggesting over-involvement of black officers as shooters, others suggesting over-involvement of white officers as shooters. These patterns, however, seem explainable by residency and deployment patterns of officers of different races. For example,

⁸⁰ Further research should be conducted to examine whether other factors might explain differential survival rates. For example, the age distributions of blacks and whites may differ in a way which increases the likelihood of blacks surviving their wounds more often than whites. Such differences might also increase the chances that black suspects will be better than white suspects at eluding efforts by police to arrest them with use of deadly force. A sizeable random sample of non-shooting incidents is required for comparison to shooting cases.

TABLE 15
CIVILIANS SHOT BY ON-DUTY POLICE IN CHICAGO, 1974-1978: OFFICER RACE BY CIVILIAN RACE AND CIVILIAN INJURY^a

RACE OF OFFICER SHOOTERS	RACE OF CIVILIANS SHOT							
	White		Black		Hispanic		Total	
All White	N ^b = 48		200 ^f		29		277	
<i>Total</i>	Rate ^c = 0.9		3.7		0.5		5.1	
<i>Wounded-killed breakdown</i>	<u>W^d</u>	<u>K^e</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>
	27	21	160	38	17	12	204	71
	0.5	0.4	3.0	0.7	0.3	0.2	3.8	1.3
All Black	4		53		2		59	
<i>Total</i>	0.3		4.6		0.2		5.1	
<i>Wounded-killed breakdown</i>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>
	2	2	38	15	2	0	42	17
	0.2	0.2	3.3	1.3	0.2	—	3.6	1.5
All Hispanic	2		0		3		5	
<i>Total</i>	1.7		—		2.5		4.2	
<i>Wounded-killed breakdown</i>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>
	2	0	0	0	3	0	5	0
	1.7	—	—	—	2.5	—	4.2	—
Other/Not Asc.	3		23		1		27	
<i>Wounded-killed breakdown</i>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>
	3	0	14	9	0	1	17	10
TOTAL	57		274		35		366	
<i>Total</i>	0.9		4.1		0.5		5.5	
<i>Wounded-killed breakdown</i>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>	<u>W</u>	<u>K</u>
	34	23	212	62	22	13	268	98
	0.5	0.3	3.2	0.9	0.3	0.2	4.0	1.5

RACE OF OFFICER SHOOTERS	RACE OF CIVILIANS SHOT			
	White	Black	Hispanic	Total

a Using the χ^2 test of significance, there *are* statistically significant differences in the rates for shootings by white officers but *not* in the rates for black officers. The small sample size is very likely the principal reason for the lack of significant differences in black officers' shooting rates. The significant differences for white officers apply, *e.g.*, to the chances that white officers have of killing white civilians as opposed to the chances they have of killing black civilians.

b N = number of civilians shot by on-duty police officers.

c All rates, including those under the "W" and "K" headings, are the average annual number of civilians shot by officers of the indicated race per 1,000 officers of that race on the Chicago police force.

d & e "W" = civilians wounded and "K" = civilians killed.

f Includes 2 civilians whose injury was not ascertained. Therefore, the wounded and killed breakdowns in this cell total only 198.

black officers are a vastly disproportionate number of the off-duty shooters; but they also generally reside in far more hazardous neighborhoods than do white officers. As to on-duty shootings, officers of each race shoot approximately as often as might be expected from their representation on the police force. This is not simply the result of deployment patterns which assign officers in relation to their representation on the force (for that is not the reality), but it is possible that racially-linked deployment patterns counteract one another so that, in the final analysis, on-duty officers shoot in proportion to their numbers on the police force. Such counteracting patterns may be exemplified by the disproportionate assignment of black officers to high-crime districts but the disproportionate assignment of white officers in those high-crime districts to the units (Special Operations Group, Tactical) which have the highest shooting rates. What can be said, on the basis of the research we have done this far, is this: While our data are not adequate for drawing confident conclusions, our analysis does not reveal findings which, on balance, are consistent with the racism theory.