

WHY IS CRIME DECREASING?

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SUMMARY

In March of 1998, the *Journal of Criminal Law & Criminology* hosted a conference at Northwestern University School of Law to discuss the decreasing crime rate and explore possible explanations and theories. The early 1990s saw a decrease in the rate of violent crime in the United States, a phenomenon which has engendered much debate amongst scholars as to the causes of the decrease and how we can identify those causes and translate them into social policy which will effectively combat crime further. Several criminal law scholars and criminologists from around the country joined us, and participated in a day long conference, presenting papers and offering comments on those papers. The day resulted in eleven articles, which will be published soon in an issue of the *Journal*. I have enclosed copies of those articles, which are currently in draft form, with accompanying graphics, as the Draft of the Final Project Report. Many of them will not change, and are in nearly final form. What follows is a summary of each article's findings and arguments about why the crime rate is decreasing, as well their implications for criminal justice operation.

Alcohol and Homicide in the United States 1934-1995—or One Reason Why U.S. Rates of Violence May be Going Down, by Robert Nash Parker and Randi S. Cartmill. This papers explores the possibility that the declining crime rate is linked to and follows a declining rate in alcohol consumption. Parker and Cartmill explore a significant body of research which establishes a link between alcohol consumption and violence at several different levels of aggregation. They explore the homicide and alcohol relationship by several different factors, including race and alcoholic beverage. The paper also presents the results of a new, multi-variate time series analysis of homicide, alcohol consumption, and other factors in the United States between 1934 and 1995.

Parker and Cartmill propose that historically, declining homicide rates have followed declining rates in alcohol consumption, and advance several theoretical arguments as to why alcohol consumption might be a causal factor in homicide and other forms of violent crime. They reference a number of empirical studies which have found support for this idea. The authors conclude by discussing the importance of their research for future research on violence and for public policy designed to reduce rates of violent crime in the United States. They emphasize that alcohol policy is a crucial component for any effective violence prevention.

Explaining Recent Trends in U.S. Homicide Rates, by Alfred Blumstein and Richard Rosenfeld. This article explores some of the factors which have been proffered as leading to the decline in violent crime. The authors focus on those explanations whose effects are measurable and quantifiable, and point out where aggregates may provide a misleading picture as to the explanation. For example, they identify some instances where one aspect of a variable leads to an increase, while another aspect of the same variable leads to a decrease. One example of this is age. A recurring theme in the paper is that it is not useful to consider homicide rates as a unitary phenomenon, but rather more useful to think of it as the product of several different subgroup trends. Blumstein and Rosenfeld explore whether the declining crime rate is due to aggressive policing, a reduction in firearm homicides committed by young people, changing drug markets, the booming economy, or increased incapacitation achieved through increasing the prison population. The authors conclude that the overall decline is probably due in part to some of these trends, but that it is impossible to isolate one trend as being primarily responsible for the decrease in crime. The factors contributing are many and complex and probably differ in different places. They do mention that a significant factor could well be undoing some of the factors which contributed to a rise in violent crime in the

eighties, such as kids carrying guns. They attribute this to community and policing efforts. Blumstein and Rosenfeld conclude by cautioning against too much optimism, and asserting that we must anticipate the recent declines could well be reversed in the future, on account of resurgent drug markets, accompanying violence and a downturn in the economy.

Declining Crime Rates: Insiders' Views of the New York City Story, by George L. Kelling and William J. Bratton. This article provides an in-depth look at the dramatic decrease in violent crime in New York City in the early 1990s. The authors provide evidence that this extraordinary reduction was not due to changes in the economy, unemployment decreases, or changing drug use patterns or demographic changes. Kelling and Bratton assert that the decline in violent crime was due to aggressive police efforts. They describe the "broken windows" theory they had--that broken windows left unfixed are a sign that no one cares, and will lead to further and more severe property damage. Thus, disorderly conditions and behaviors left untended are a sign no one cares, and they lead to urban decay. Kelling and Bratton assert that cleaning up urban decay is a sign that someone cares, and those efforts led to a decrease in violent crime. They first applied this idea to cleaning up New York's subway system, and then expanded to a city wide effort to prevent all crime, even less serious crimes. Doing so was a move to reassert control, and the reasserted control led to a decrease in violent crime.

Declining Homicide in New York City: A Tale of Two Trends, by Jeffrey Fagan, Franklin Zimring, and June Kim. This articles explore the 52% drop in New York homicides in a period of five years. The authors assess the extent and causes of the five-year drop in homicide by comparing the drop to previous drops in New York crime and also to other experiences in the United States. They examine changes in the patterns of homicide during the overall decline in an attempt to find

explanations for what caused the decline. This included examining categories of crime, and changes within those categories, as well as contemporaneous trends in drug use, demography and incarceration rates. They identify two trends which are relevant. Fagan et al. assert that the consistent decline in non-gun homicides which they found begins too early and continues too evenly to be a plausible explanation to the dramatic homicide drop. They then examine the increased policing efforts as a possible explanation, and concluded that the pattern of decline in New York is consistent with gun-oriented policing. The article ends by cautioning that the real impact of the policing efforts remains to be seen.

The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs, and Youth in the 1990s, by Richard Curtis. This article explores several years of field research done by the author on drug markets in inner-city neighborhoods in New York City, primarily Bushwick and Williamsburg. Curtis explores the remarkable comeback made by these two particular neighborhoods which began at the peak of the crack epidemic, when most people were ready to write these neighborhoods off as a lost cause. This transformation challenged two assumptions that were prevalent at the time: that cities were becoming progressively more dangerous places to live, and that children were becoming more violent. Curtis conducted a study focussing primarily on Bushwick and Williamsburg based on ten years of ethnographic field work in nine different Brooklyn neighborhoods. He spoke to hundreds of people living in these neighborhoods about their lives, experiences and what they saw happening in their areas. He credits residents in inner-city neighborhoods with creating changes in those neighborhoods by forestalling social disintegration and economic ruin, and showing a revitalization, marked by decreasing crime rates. Curtis

concludes by urging us to remember that poor people can and have effected change in their lives and their neighborhoods.

Asymmetrical Causation and Criminal Desistance, by Christopher Uggen and Irving Piliavin. Uggen and Piliavin posit that the decreasing crime rate should be examined from theories other than simply the usual etiological investigations as to the causes of crime, and assert that desistance studies provide a useful tool for understanding the declining crime rate and for advancing policy goals. The authors examine the conditions promoting the re-integration into society of criminal offenders, and assert that desistance studies are useful because the causes of desistance are easier to discern than the causes of crime, and that it is easier to translate knowledge about causes of desistance into specific social policies. The article advocates the use of desistance research as an approach, rather than focussing on the causes of crime or the causes of decreasing crime.

Social Institutions and the Crime "Bust" of the 1990s, by Gary La Free. This article evaluated the size of the decline in crime rates by comparing it to other decreases in crime in the United States since World War II. LaFree looks at trends for different crimes and data sources, as well as for some of the larger cities, including Boston, Chicago, Dallas, Detroit, Houston, Los Angeles, New York, Philadelphia, Phoenix, and San Diego. LaFree focuses mainly on street crimes, such as murder, robbery, theft, rape, aggravated assault, larceny, and burglary. He argues that crime rates increase as social institutions lose legitimacy. He defines institutions as those mutually shared ways people develop for living together and credits institutions with defining and regulating human conduct. When institutions are easily able to get people to follow rules and norms, including the law, crime rates decrease. The converse is also true. LaFree concludes the street crime trends in the 1990s are a bust, meaning that there has been a dramatic decrease. He attributes this to increased

trust in political institutions, increased economic well-being, and growing acceptance for families other than the traditional two-parent family. He argues the increased legitimacy of these institutions led to a decrease in the crime rate. He also credits increased support for criminal justice, and cites the correlative evidence here as being the strongest. He cautions that predictions are difficult to make, and that firm conclusions about the reasons for declining crime must await a far more detailed empirical analysis.

Understanding the Time Path of Crime, by John Donahue. This article asserts that it is virtually impossible to fully explain or precisely predict that crime rate at any point in time. Donahue argues that random factors influence the amount of criminal conduct at any given point, and thus make a full explanation impossible. He argues that the primary goal should be to identify the long-run trends because those are the most useful in understanding what is likely to happen in the future. His point is that we should not focus on short-term fluctuations, because those are not a proper basis for accurate long-term predictions, and that the search for causal explanations can be very misleading. The paper sorts out the long-term trends in crime over the last fifty years. He identifies two clear trends over the last half century: one involving sharply rising crime until the 1970s, followed by a slow decline over the next two decades. Donahue notes that there have been several short term fluctuations within these two trends, and asserts that the current dramatic decrease in crime is merely one of those. He argues that the slow decline can be explained by increased incarceration and demographic changes, but that this reason can't explain the big drop in the 1990s.

Volunteerism and the Decline of Violent Crime, by Warren Friedman. The author of the paper is the director of the Chicago Alliance for Neighborhood Safety, an organization which organizes and oversees community policing efforts in Chicago. He argues that it is largely

community activist efforts in policing communities which are responsible for the declining crime rate. He attributes the efforts of residents who volunteer their time and energy as making a serious contribution to the decline in violent crime nationally. He argues for more investment in and support of the work of these citizens and their organizations. This would lead to more widespread community organizing activity, which he believes would have a larger and more sustained impact on violent crime. Friedman asserts that this would be the most effective anti-crime strategy available to Americans. The article notes that there are other reasons for the declining crime rate, among them lower unemployment, fewer young men in the crime-prone age group, fewer violent drug markets, fewer handguns, reduced alcohol consumption, and more aggressive policing. He sets forth the argument that all these factors fit together, but the efforts and successes of community activists must not be overlooked.

Effective Law-Enforcement Techniques for Reducing Crime, by John Gallo. This author writes from the perspective of a former Federal Prosecutor who is currently in private practice doing white-collar criminal defense with a large law firm in Chicago. He gives his experienced opinion on what law-enforcement techniques have been effective in reducing crime. Gallo argues that law-enforcement has an impact in deterring crime, but that the type of deterrence varies widely with the type of criminal activity. Specifically, in the case of white-collar crime, the prosecution of someone generally deters others from committing the same or similar crimes. He asserts that the same is not necessarily true in cases of violent crime, where decisions are not necessarily rational. In cases of violent crime, Gallo argues that law enforcement is more effective when it reacts to offenders' conduct by seeking closer social supervision of offenders, or by seeking incarceration for frequent or repeat offenders. In cases of white-collar crime, such as corruption or violent organizations,

targeting high-ranking members of the organization for prosecution and incarceration tends to be very effective law-enforcement.

Which Homicides Decreased? Why?, by Michael D. Maltz. Maltz provides comments on some of the methods employed by other paper presenters at the conference. He compliments them on the care and efforts put into their research and presentations, but asserts the additional steps are necessary to fully explain what caused the decline in crime rates. He recommends disaggregating the homicide data, and considering whether the “regression to the mean” really explains the dramatic drop in New York City homicides. With respect to his point about disaggregation, Maltz argues that while homicide is a crime in and of itself, it is also frequently the fatal outcome of a number of different crimes, such as child abuse, domestic violence against an intimate partner, or armed robbery. He suggests that to understand a phenomenon, it is necessary to go to the next level, and disaggregate the homicide statistics and gain an understanding of the context or contexts in which homicide occurs. He also asserts that we examine whether the “regression of the mean” is really a possible explanation for the phenomenon in New York City. Maltz looks at a different data set than that used by Fagan et al., and concludes that New York State, and therefore New York City, did have a higher than expected number of homicides during a two year period preceding the dramatic drop in crime rates. However, he concluded also that the necessary mean-volatility in the data was not present, so that reference to “regression to the mean” as an explanation may not be entirely accurate. He suggests that Fagan et al. should not refer to “regression to the mean” but rather “compensatory feedback” as a possible explanation for what happened in New York City.

ALCOHOL AND HOMICIDE IN THE UNITED STATES 1934-1995—OR ONE REASON WHY U.S. RATES OF VIOLENCE MAY BE GOING DOWN

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I. INTRODUCTION

In the last few years, a great deal of attention has been devoted to the apparent decline in rates of homicide and other kinds of violence in the United States. Commentators debate whether rates of violence are actually declining, and what are the reasons for this apparent decline. The purpose of this paper is to explore the possibility that one reason for the apparent recent decline in homicide may be its relationship to the rate of alcohol consumption during this same time period. As there is a growing body of research that shows a significant relationship between alcohol and violence at different levels of aggregation, in different countries and sub-units of countries, among different types of people, and across time periods, we will also explore the homicide and alcohol relationship by race and by type of alcoholic beverage. There are also the beginnings of a theoretical body of knowledge that would explain why variations in alcohol consumption and availability should be considered part of the

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explanation for variations in the rate of homicide and other types of violence. These issues will be discussed in detail in this paper, and the results of a new multivariate time series analysis of homicide, alcohol consumption and other indicators for the U.S. between 1934 and 1995 will be presented. The importance of this evidence for violence prevention policy will be discussed as well. Part II proposes that historically declining homicide rates follow decreases in alcohol consumption. Part III reviews some of the theoretical arguments that have been advanced to explain why alcohol would be a causal factor in homicide and other forms of violence, with references to a number of empirical studies that have found support for this idea. The paper then presents the results of a multivariate time series analysis of the data displayed in Figure 1, with controls for some factors represented in the major theoretical models of homicide in the literature. Finally, the implications of this analysis are discussed in terms of their importance for research on violence and for public policy designed to reduce rates of homicide and other violence in the United States.

II. WHY ARE RATES OF HOMICIDE IN DECLINING IN THE U.S.?

According to the U.S. Vital Statistics,¹ the overall rate of homicide in the U.S. has declined steadily in the 1990s. In 1991, the rate of homicides per 100,000 people was 10.5; by 1995, the last year of data available for this report, the overall rate was 8.0.² Indeed, media reports indicate that rates for 1996 and 1997 show further declines, with one major media outlet reporting recently that homicide rates are almost as low now as they were in 1970.³ The data given here in Figure 1 confirm this, as the rate of homicide in the U.S. in 1970 was 8.3 per 100,000.

Figure 1 About Here

¹ U.S. CENTER FOR HEALTH STATISTICS, VITAL STATISTICS OF THE UNITED STATES: MORALITY (1997).

² *Id.*

³ *Homicides in L.A. Drop to Lowest Total in 20 Years*, L.A. TIMES, Dec. 29, 1997, at 1.

However, a long term perspective on the issue of whether homicide rates are declining, as shown in Figure 1, might lead to a very different conclusion. Overall homicide rates decreased rather rapidly and more extensively than the decline evidenced in the 1990s during the 1930s and early 1940s, reaching a low of 5.0 in 1944, from a high of 9.7 in 1934.⁴ After a brief rise at the end of World War II,⁵ the homicide rate declined steadily during the 1950s, reaching a twentieth century low of 4.5 per 100,000 in 1957 and 1958.⁶ It is important for understanding recent trends to place those trends in a longer term context as in Figure 1. Is the current downward trend the beginning of a long term decline in homicide rates, as was evidenced between 1945 and 1958? Or is this current trend a short term decline, to be followed by a sharp increase, as was the case between the late 1970s and the early 1990s? A more far-sighted view of homicide rates in the U.S. recommends against the over-interpretation of shorter term trends, and argues against complacency from a prevention policy point of view.

Another important aspect of the trends in homicide that is not displayed in Figure 1, however, is the fact that hidden by this overall trend in homicide rates is a great deal of variation in those trends themselves, especially when disaggregated by age of the victim. As Blumstein⁷ and others have argued, the recent decline in homicide rates, significant as it is, really only applies to the homicides of adults twenty-five years of age and older. The data for youth show the opposite trend, an almost steady *increase* in homicide rates, especially beginning in the mid 1980s.⁸ In addition, as Roncek and Maier have shown, homicide rates

⁴ PAUL C. HOLLINGER, *VIOLENT DEATH IN THE UNITED STATES* 209-11 (1987)

⁵ *Id.*

⁶ *Id.*

⁷ Alfred Blumstein, *Youth Violence, Guns, and the Illicit-Drug Industry*, 86 J. CRIM. L. & CRIMINOLOGY 10, 17-18 (1995).

⁸ Robert Nash Parker et al., *Alcohol Policy and Youth Homicide: An Examination of Gender- and Race-Specific Models of Victimization* (1997) (unpublished manuscript, on file with Presley Center for Crime and Justice Studies, Riverside, CA).

vary enormously by city block.⁹ Furthermore, Alaniz et al. have shown that rates of assault and other kinds of youth violence vary enormously over short distances within moderate and even small-sized cities.¹⁰ Sherman has also argued that 30 major urban areas in the U.S. account for a substantial majority of all the homicides in the country.¹¹ Thus, some caution should be exercised in interpreting the declining homicide rate.

Figure 1 also reveals that for the vast majority of the time covered by these data there is a remarkable correspondence between the rate of alcohol consumption per adult¹² and the homicide rate. Beginning with a decrease in alcohol consumption at the end of World War II, which was followed by a decline in homicide about a year later, a pattern emerged in which changes in alcohol consumption typically foreshadow changes in the homicide rates. The pattern continued for most of the period. For example, alcohol consumption climbed steadily in the middle 1950s while homicide rates began their climb in 1958, peaking in the early 1970s. Between 1958 and 1970, consumption was flat with a slight decline; homicide rates began to decline in the mid-1970s. Again alcohol consumption peaked in the late 1970s, with homicide following by peaking at the end of the decade. By the early 1980s alcohol consumption began a steady decline still continuing in the late 1990s, with homicide again dropping to a low in the middle 1980s. In the late 1980s, fueled by an increase in youth homicide, the two trend lines diverged for the first time in fifty years. By the end of the time displayed here, the decrease in alcohol consumption again foreshadowed a decrease in homicide which began in the early 1990s and continues into the latter part of the decade.

⁹ Dennis W. Roncek & Pamela A. Maier, *Bars, Blocks, and Crime Revisited: Linking the Theory of Routine Activities to the Empiricism of "Hot Spots"*, 29 *CRIMINOLOGY* 725, 736 (1991).

¹⁰ Maria Luisa Alaniz et al., *Immigrants and Violence: The Importance of Neighborhood Context*, 20 *HISPANIC J. OF BEHAV. SCI.* 155, 166 (1998).

¹¹ See Sherman et al., *supra* note 5, at **pinpoint needed.**[author wants note removed - need a substitute cite if the accompanying text is to stay]

¹² G.D. WILLIAMS ET AL., NATIONAL INST. OF ALCOHOL ABUSE AND ALCOHOLISM, *ALCOHOL AND HEALTH: A REPORT TO CONGRESS* 4 (1997); NATIONAL INST. OF ALCOHOL ABUSE AND ALCOHOLISM, *SURVEILLANCE REPORT #31: APPARENT ALCOHOL CONSUMPTION: NATIONAL STATE, AND REGIONAL TRENDS* 2 (1995).

As was the case with trends in homicide alone, it would be inappropriate to over-interpret the relationship displayed between alcohol and homicide in Figure 1, as will be described later in this article. Alcohol consumption trends differ by beverage type as well; like homicide, alcohol consumption also varies by age. The apparent relationship shown has not received the proper attention from researchers and others asking the question that has motivated this collection of papers, i.e., what explains why the rate of violence seems to be falling in the U.S.? The use of the plural is deliberate, as it would also be inappropriate to claim that a decline in alcohol consumption is the most important or the only reason why homicide rates are falling. A complete explanation of the variation in the rate of homicide certainly involves a number of competing and complimentary explanations. However, Figure 1 clearly raises the notion that alcohol consumption has an influence on homicide to the status of a testable and reasonable hypothesis for consideration. In fact, there is a growing body of scientific research that suggests a theoretically derived and empirically verified causal link between alcohol and violence net of other important relationships, theories, and hypotheses.¹³

III. LINKING ALCOHOL AND VIOLENCE

A number of studies have reported an association between the homicide rate and alcohol consumption rate. For example, a study of homicide rates in the United States in the early 1980s by Parker found that states with higher rates of alcohol consumption had higher rates of several types of homicide examined.¹⁴ In addition, alcohol consumption interacted with poverty so that places with above-average consumption and above average poverty had even higher rates of homicide.¹⁵

¹³ For a review, see Robert Nash Parker & Kathleen Auerhahn, *Alcohol, Drugs, and Violence*, 24 ANN. REV. SOC. 291, 307 (J. Hagan ed., 1998).

¹⁴ Robert Nash Parker, *Bringing "Booze" Back In: The Relationship Between Alcohol and Homicide*, 32 J. OF RES. IN CRIME AND DELINQ. 3, 23 (1995).

¹⁵ *Id.*

A second study estimated the impact of consumption on youth homicide rates.¹⁶ This study examined all U.S. states during the period 1976 through 1983, and found that beer consumption rates were significant predictors of youth homicide rates in five of six age groups by victim/offender relationship homicide rates examined. In both of these studies, additional factors such as poverty and inequality were included as well, and alcohol consumption was found to be a significant predictor of homicide net of these other factors.¹⁷

A more comprehensive pooled cross-section time series analysis of youth homicide for states over the period 1973 through 1992 also found a significant net effect for beer consumption on youth homicide rates overall, and specifically for male youth homicide.¹⁸ In this case, controls were included for poverty, inequality, urbanization, beer taxation and other indicators of alcohol policy, and a measure of the impact of the increasing concentration of poor and disenfranchised groups in inner cities.¹⁹

Studies outside the U.S. have also reported significant effects of alcohol consumption on rates of homicide. For example, Lenke examined the relationship between alcohol consumption and homicide rates in several European states and found evidence of a significant relationship.²⁰ Parker examined the impact of alcohol consumption on seventeen European and North American countries in a comprehensive pooled cross-section and time series model for the period 1950 to 1985.²¹ Although Parker reports that alcohol consumption did not have any direct effects on either male or female homicide rates, con-

¹⁶ ROBERT NASH PARKER & LINDA-ANNE REBHUN, ALCOHOL AND HOMICIDE: A DEADLY COMBINATION OF TWO AMERICAN TRADITIONS 102-17 (1995).

¹⁷ *Id.*

¹⁸ See Parker et al., *supra* note 6.

¹⁹ See WILLIAM JULIUS WILSON, THE TRULY DISADVANTAGED (1987).

²⁰ LEIF LENKE, ALCOHOL AND CRIMINAL VIOLENCE: TIME SERIES ANALYSES IN A COMPARATIVE PERSPECTIVE 139 (1990).

²¹ Robert Nash Parker, *Alcohol, Homicide, and Cultural Context: A Cross-National Analysis of Gender-Specific Homicide Victimization*, 2 HOMICIDE STUD. 6, 10-11 (1998).

sumption interacted with divorce to increase homicide rates for male victims.²²

A second approach to the nature of the relationship between alcohol and homicide includes studies that examine this relationship in a more indirect manner. In the U.S. general alcohol consumption rate measurements, based on sales of alcohol²³ are available only at the state level. Studies examining the alcohol and homicide link at levels less aggregated than this have utilized measures of the availability of alcohol as a proxy for consumption. This is based in part on results from research on the link between consumption and availability that show a strong positive relationship between these two indicators.²⁴ For example, a longitudinal study of 256 American cities over the period 1960, 1970, and 1980, reported in Parker and Rebhun found that the density of liquor stores in a city was a significant predictor of the change in homicide rates, in a time frame in which homicide increased 300%.²⁵ The significant impact of outlet density was net of a number of indicators of processes well known to be predictors and causes of violent crime, including poverty, social bonds, family structure, and racial composition.²⁶

On the more micro level of analysis, in contrast to the macro level studies cited previously, two studies of violent crime locations at the address, block, and census tract level have found an association between outlet locations and violent locations. Sherman et al., in an investigation of the places that police were repeatedly called to in a large U.S. city, found that on-site outlets such as bars and restaurants were among the "hottest" spots.²⁷ For example, the top hot spot between December 1985 and December 1986 in the city examined was an intersec-

²² *Id.* at 21.

²³ See Williams, *supra* note 13, at 4.

²⁴ Paul J. Gruenewald et al., *The Relationship of Outlet Densities to Alcohol Consumption: A Time Series Cross-Sectional Analysis*, 17 ALCOHOLISM: CLINICAL AND EXPERIMENTAL RES. 38, 42 (1993).

²⁵ See PARKER & REBHUN, *supra* note 16, at 64.

²⁶ *Id.* at 81.

²⁷ Lawrence W. Sherman et al., *Hot Spots of Predatory Crime: Routine Activities and the Criminology of Place*, 27 CRIMINOLOGY 39, 45 (1989).

tion where there were several bars, a liquor store, and a park. Police received thirty-three calls reporting rapes, robberies, and auto thefts during the year observed in these data. The third ranking hot spot, with twenty-seven such calls, was another intersection with several bars; the fifth and sixth hottest locations, twenty-seven and twenty-five calls, respectively, also involved multiple or—in the case of the sixth hot spot—a single on site alcohol outlet. In fact, Sherman et al. found that on-site alcohol outlets were part of the locations that accounted for one third of the robberies, rapes, and auto thefts reported in the course of a year.²⁸ Sherman et al. reported that the sixth hottest spot in the city, an individual bar, had a robbery rate that was seven times the robbery rate of the entire city. In addition, one out of every four persons who visited the bar was victimized during the year, assuming maximum occupancy during open hours.²⁹

An analysis of data at the city block level for a different American city also found an association between blocks that had bars located on them and the occurrence of assaults, robberies, and rapes.³⁰ In this analysis, the impact of having one or more bars on the block was significant even after controls for unemployment, poverty, and racial composition had been entered into the regression model.

IV. TWO PATHS LINKING ALCOHOL AVAILABILITY AND HOMICIDE

Taken as a group, these studies suggest two different paths by which we can explain the link between alcohol and homicide. Selective disinhibition³¹ is primarily an individual link between alcohol and violence, and the “great attractor” notion³² is primarily an environmental link. Evidence of a relationship between alcohol and homicide has been well established at the state, city, county, and block level in previous research.³³ How-

²⁸ *Id.* at 45.

²⁹ *Id.* at 44.

³⁰ See Roncek & Maier, *supra* note 10, at 744.

³¹ PARKER & REBHUN, *supra* note 16, at 33-41; Robert Nash Parker, *The Effects of Context on Alcohol and Violence*, 17 ALCOHOL HEALTH AND RES. 117, 120 (1993); Parker, *supra* note 15, at 5-6.

³² Alaniz et al., *supra* note 10, at 161-62.

³³ Parker & Auerhahn, *supra* note 13, at 301-04.

ever, these two paths describe how this relationship comes about, and help to explain why the data in Figure 1 show such a strong correspondence. As we will evaluate this relationship at the aggregate level, it is important to establish the underlying causal reasoning as to why this relationship makes sense as a candidate for explaining declining rates of violence in the U.S.

A. PATH 1: SELECTIVE DISINHIBITION

In this linkage, the higher the concentration of outlets, the more likely it is that people in and around those outlets will have been drinking prior to the homicide. If we could be certain that one or more of the participants had been drinking prior to the event, this would make the inference that outlet concentration leads to violence much more straightforward, as we could invoke the selective disinhibition approach described by Parker and Rebhun.³⁴ Aggregate studies of the impact of availability on consumption show that greater concentration of outlets leads to more consumption.³⁵ Thus, the probabilistic statement describing this first step in the chain that links alcohol with homicide would be that the greater the concentration of alcohol outlets, the higher the likelihood that people near those outlets will have consumed alcohol. If potential victims and offenders have consumed alcohol, the well known effects of alcohol on judgment and information processing come into play.³⁶ Individuals are more likely to misinterpret the actions of others, to mistake the response of others to their own behavior, to focus more closely on immediate goals rather than more distant goals, and to lead to the operation of active and passive constraint.³⁷ Active constraint is the social interactional situation in which doing something contrary to the social and behav-

³⁴ PARKER & REBHUN, *supra* note 16, at 33-41. See also Parker, *supra* note 31, at 120; Parker, *supra* note 14, at 5-6.

³⁵ Gruenewald et al., *supra* note 24, at 42.

³⁶ R. O. Pihl et al., *A Biosocial Model of the Alcohol-Aggression Relationship*, J. STUD. ON ALCOHOL 128, 136-37 (1993).

³⁷ PARKER & REBHUN, *supra* note 16, at 33-41; Philip J. Cook & Michael J. Moore, *Economic Perspectives on Reducing Alcohol Related Violence*, in ALCOHOL AND INTERPERSONAL VIOLENCE: FOSTERING MULTIDISCIPLINARY PERSPECTIVES 193, 194 (Susan E. Martin ed., 1993).

ioral norms is clearly in the personal interests—material, physical, social, psychological, etc.—of an actor. Internalized beliefs and/or external social control must be actively present and functioning to prevent the actor from seeking his/her own interests in an active constraint situation. If alcohol has the effects on judgment that many studies show it does, information processing, and focus on near-versus long-term goals and interests,³⁸ the person under the influence of alcohol is more likely to overcome active constraint and use violence to achieve a near-term personal interest goal than those who have not consumed alcohol in the same situation. It is also likely that the amount of alcohol consumed, relative to body weight and gender, may increase the probability of overcoming active constraint and lead to violence. Thus this pathway connects outlet concentration with consumption, consumption with selective disinhibition, and selective disinhibition with an increased likelihood of violent behavior.

Passive constraint operates in situations where violence provides no enhancement of personal interests and goals, thus making it easy to conform to norms against violence. No active intervention of externally or internally focused agents of control is necessary to prevent violence. This is why alcohol's effect on violence is "selective;" alcohol does not always disinhibit because even intoxicated persons have some sense of goals and the means to secure them.³⁹

So, in this pathway, greater alcohol outlet density leads to increased violence because greater density increases alcohol consumption. Since both potential victims and potential offenders have higher average rates of alcohol consumption, and given that the distinction between victims and offenders is most often decided by the outcome of the violent incident,⁴⁰ higher rates of both violent offending and victimization would result from greater concentrations of outlets. Alcohol consumption plays a direct role in this pathway, linking aggregate consump-

³⁸ Pihl, *supra* note 36, at 130.

³⁹ KAI PERNANEN, *ALCOHOL IN HUMAN VIOLENCE* at 219 (1991).

⁴⁰ Janet L. Lauritsen et al., *The Link Between Offending and Victimization Among Adolescents*, 29 *CRIMINOLOGY* 265, 287 (1991).

tion to homicide rates; a decrease in consumption should lead to a decrease in homicide rates.

B. PATH 2: OUTLET CONCENTRATIONS AS "GREAT ATTRACTORS"

In astronomy, the concept of a "great attractor" is that of an immense region in the universe of known space so full of matter that all other galaxy clusters and individual galaxies are drawn towards the attractor by the physical force of gravity. In this approach to understanding the outlet density-violence relationship, places with outlet concentrations are social "great attractors," providing a magnet that draws people to these locations. Once concentrations of people are drawn to a particular corner or block, a number of possibilities exist. What kinds of places are these with high concentrations of bars, restaurants serving alcohol, liquor and convenience stores selling alcohol? In one sense it could be argued that these are places that are socially disinhibited—people come to these places, to these establishments, for entertainment, for relaxation, to get away from the normal constraints of work, school, and home, to seek the company of others, and so on. So these are places where the usual social norms and external controls are weakened, and they are full of people seeking "time-out" opportunities.⁴¹ In such a context, it would not be surprising to find more violence, independent of alcohol consumption and the impact of selective disinhibition. Other non-normative activities are likely to be attracted to these locations as well—prostitution, drug use and drug sales, gang related conflicts—all of which would lead to greater rates of violence around these social attractor locations.

Does this argument then imply that alcohol availability is spuriously related to this violence? It does not imply spuriousness if in fact alcohol outlets dominate the commercial and retail activity in the location. Therefore, the concentration of the outlets creates the conditions that make all kinds of time-out behaviors possible by creating an atmosphere that attracts and further reinforces such activity. Advertising in such locations

⁴¹ CRAIG MACANDREW & ROBERT B. EDGERTON, DRUNKEN COMPORMENT 73(1969).

may also contribute to the sense of "anything goes here," in that the images and lifestyles portrayed in alcohol ads in and around outlets—such as ads which commodify and demean women—may help to reinforce the idea that women who come to this location are available, especially in connection with alcohol.⁴² In addition, the notion that some places attract potential victims and motivated offenders is not a new idea.⁴³ It could be said that in this pathway between alcohol outlets and homicide, the alcohol sold at these outlets is incidental, although actual consumption should lead to selective disinhibition here as well as elsewhere. However, it is the attractor nature of these places, a nature that is established and maintained by the concentration of alcohol outlets, that drives this process, so that from a public policy point of view, the fact that it is alcohol outlets that are concentrated and not dry cleaning outlets or gas stations is important. Thus, the implication is that reducing outlets would reduce violence, but it would do so because of the decline in the attractor nature of the location, not because of any decline in alcohol sales or consumption that might result.

We are not arguing that these two pathways are mutually exclusive—probably some of each are operating to explain the strong empirical relationship found in this study as well as those cited here. However, the relative strength of each path may vary in locations or in historical periods, and the dominance of one path over the other would condition the nature of any public policy debate about why the concentration of outlets should be reduced if we wish to prevent violence. Given the data available here, we cannot distinguish between the two. However, if we can convince the reader that one or both of these pathways is plausible, then we have a theoretical justification for examining this relationship in the context of a study designed to investigate the relationship between homicide and alcohol, and to contrib-

⁴² Maria Luisa Alaniz et al., *Ethnic Targeting and the Objectification of Women: Alcohol Advertising and Violence Among Young Latinas*, in CURRENTS IN CRIMINOLOGY (N. R. Parker ed., forthcoming 1998); Maria L. Alaniz & Chris Wilkes, *Reinterpreting Latino Culture in the Commodity Form: the Case of Alcohol Advertising in the Mexican American Community*, 17 HISPANIC J. OF BEHAV. SCI. 430, 433 (1995).

⁴³ See, e.g., Lawrence E. Cohen & Marcus Felson, *Social Change and Crime Rate Trends: A Routine Activity Approach*, 44 AM. SOC. REV. 588 (1979).

ute to the development of policy alternatives that have potential to prevent homicide.

V. DATA AND METHODS

A number of studies have demonstrated the importance of race in research on homicide causation in general. As Messner and Sampson⁴⁴ and Huff-Corzine et al.⁴⁵ have demonstrated, many of the predictors of homicide operate differentially on race-specific homicide rates. For example, Sampson finds that economic deprivation, among other predictors, has a greater impact on African-American violent victimization rates than it does on non-African-American rates.⁴⁶ An examination of race specific rates of victimization in the present context might reveal that among African-Americans, poverty has such a strong impact that any additional impact of alcohol is nonsignificant, while the opposite may be true for non-African-Americans. Figure 2 shows the homicide rate disaggregated by race between 1934 and 1995; the categories used here are "nonwhite" and "white", for reasons of data availability over the entire period of time under examination here.⁴⁷

FIGURE 2 ABOUT HERE

Although the two curves parallel each other over the long term, the nonwhite rate tends to change faster, and over a wider range than the white rate, which is multiplied by 4 in Figure 2 to allow for comparison on the same scale. There are also some differences in the timing of upward and downward movement, peaks and floors; for example, while rates for both groups begin to climb in the late 1950s and early 1960s, the rate for nonwhites rises much faster and peaks first, in 1971, while the white

⁴⁴ Steven F. Messner & Robert J. Sampson, *The Sex Ratio, Family Disruption, and Rates of Violent Crime: The Paradox of Demographic Structure*, 69 SOC. FORCES 693-713 (1991).

⁴⁵ Lin Huff-Corzine et al., *Deadly Connections: Culture, Poverty, and the Direction of Lethal Violence*, 69 SOC. FORCES 715 (1991).

⁴⁶ Robert J. Sampson, *Urban Black Violence: The Effect of Male Joblessness and Family Disruption*, 93 AM. J. SOC. 348 (1987).

⁴⁷ HOLLINGER, *supra* note 4, at 206-11; U.S. Center for Health Statistics, *supra* note 1.

rate does not reach its peak until the mid-1970s. Also note that this early 1970s peak is the peak for non-white homicide rates for the post-WW II era, while for whites the overall peak for the entire series does not occur until the early 1980s. Previous research and these data suggest the possibility that alcohol may have a different relationship with homicide disaggregated by race.⁴⁸

Alcohol consumption can also be disaggregated among the three major beverage types that account for most of the total amount of alcohol consumed between 1935 and the present: beer, spirits, and wine. The three series are displayed in Figure 3, and it is immediately clear that wine consumption is of a different nature from that of beer and spirits during this period.⁴⁹ Although all three beverages rise into the Post WWII period, wine changes very little after that, rising from a 1945 peak of about .25 gallons of pure ethanol equivalent per capita to about .3 at the overall peak of the series, 1986.

FIGURE 3 ABOUT HERE

Spirits and beer, accounting for nearly 90% of total consumption across this entire period, rise more sharply after WWII to a peak in the early 1970s for spirits. Beer consumption continues to rise into the early 1980s, as does overall consumption, and begins to decline towards the end of the period considered here. This different pattern suggests that the relationship between alcohol consumption and homicide rate overall and disaggregated by race, may vary by type of beverage. Research on alcohol consumption indicates that beverages vary in their average cost to consumers, such that spirits are more expensive and show greater variation, followed by wine and then beer on both the cost and variation dimensions.⁵⁰ In addition, alcohol con-

⁴⁸ Darnel Hawkins, *African American Homicide*, in ISSUES IN THE STUDY AND PREVENTION OF HOMICIDE 42, 47 (M.D. Smith & M. Zahn eds., 1998).

⁴⁹ Williams, *supra* note 12, at 4; NATIONAL INSTITUTE OF ALCOHOL ABUSE AND ALCOHOLISM, *supra* note 12, at 2.

⁵⁰ Andrew J. Trepo et al., *Alcohol Beverage Price Spectra: Opportunities for Substitution*, 17 ALCOHOLISM: CLINICAL & EXPERIMENTAL 675 (1993).

sumption overall is well known to vary directly with income.⁵¹ Thus, it might be the case that the homicide and alcohol relationship might differ by race and beverage type. Figure 3 reveals that there is sufficient variation in the three types that it should be possible to include at least two types, wine plus either spirits or beer, in each multivariate model to be estimated here. As there is no evidence from prior research about beverage preference by race, we will empirically examine all possible combinations in the models for African-Americans and whites in order to determine the optimal set of beverage types to include if indeed the hypothesis about variation by race and beverage type proves to be relevant.

A. ADDITIONAL FACTORS

In any time series analysis covering the span of time such as that in Figures 1, 2, and 3, the investigators will be limited in the number and variety of indicators representing factors other than alcohol that are known to play a role in homicide causation. However, it is incumbent upon the investigator to measure as many concepts from competing theories and perspectives as possible to reduce the possibility that chance alone will masquerade as an important effect in a statistical model. Criminology has been particularly plagued with the problem of what could be called "the one factor wonder theory" a point that has been discussed elsewhere.⁵² Here, we have assembled indicators that represent the two major perspectives that have been most successful in understanding and predicting homicide: economic deprivation⁵³ and routine activity.⁵⁴

Poverty is measured here by the infant mortality rate, one of the components of Loftin and Hill's⁵⁵ structural poverty index, and one of the more reliably measured indicators of poverty

⁵¹ W. PONICKI, *THE PRICE AND INCOME ELASTICITIES OF THE DEMAND FOR ALCOHOL: A REVIEW OF THE LITERATURE* (1991).

⁵² See Parker, *supra* note 14, at 14.

⁵³ Robert Nash Parker, *Poverty, Subculture of Violence, and Type of Homicide*, 67 SOC. FORCES 983 (1989); Colin Loftin & Robert H. Hill, *Regional Subculture and Homicide: An Examination of the Gastil-Hackney Thesis*, 39 AM. SOC. REV. 714 (1974).

⁵⁴ Parker, *supra* note 15; Sampson, *supra* note 45; Cohen & Felson, *supra* note 42.

⁵⁵ Loftin & Hill, *supra* note 53, at 720.

available.⁵⁶ Another advantage of this measure is that it is available for white and nonwhite infants throughout the entire period under study.⁵⁷

We have included two measures from those often used as indicators of the routine activities perspective at the aggregate level. First, we measured the proportion of the population that is between the ages of 15 and 24 inclusive.⁵⁸ In addition, we included in each model a measure of earned income, based on the arguments of Cohen and Felson.⁵⁹ In "Routine Activity" theory, as this approach is referred to, the flow of good and services, for which earnings are a proxy, is an indicator of the availability of attractive and available targets for crime. In the case of the white homicide model, the measure is adult per capita income. In the non-white homicide model, the measure is total earnings from transfer payments of all levels of government per capita. The use of two different measures was designed to reflect the fact that whites dominate the total earnings of the U.S. because of their majority status, and that transfer payments are a much larger proportion of total earnings for non-whites than for whites historically.⁶⁰

In short, two models will be analyzed, one for white homicide and one for nonwhite homicide. Each model will include disaggregated beverage types, infant mortality and earnings disaggregated by race, and the proportion of the population that is young and male.

⁵⁶ Colin Loftin & Robert Nash Parker, *An Errors-in-variable Model of the Effect of Poverty on Urban Homicide Rates*, 23 CRIMINOLOGY 269, 273-74 (1985).

⁵⁷ U.S. Center for Health Statistics, *supra* note 1; ROBERT D. GROVE & ALICE M. HETZEL, VITAL STATISTICS RATES IN THE U.S., 1940-1960. (1968).

⁵⁸ PARKER & REBHUN, *supra* note 16; U.S. BUREAU OF THE CENSUS, CURRENT POPULATION REPORTS (Series P-25, 1997).

⁵⁹ Cohen & Felson, *supra* note 42.

⁶⁰ BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COMMERCE, STATE PERSONAL INCOME, 1928-1982, at 25-32 (USGPO, 1984); BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COMMERCE, STATE PERSONAL INCOME 5 (USGPO, 1989); BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COMMERCE, STATE PERSONAL INCOME 5 (USGPO, 1990); BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COMMERCE, STATE PERSONAL INCOME 5 (USGPO, 1993); BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COMMERCE, STATE PERSONAL INCOME 5 (USGPO, 1996).

B. STATISTICAL METHODS

A multivariate time series analysis was utilized to enable a simultaneous estimation of relationship between homicide and each variable, and among the independent variables. Estimating the impact of alcohol consumption on homicide requires a statistical methodology designed to model the complexity of the time dependent processes that are often found in time series data. In order to appropriately test the hypothesis that alcohol is a cause of homicide, the statistical method used must be multivariate in nature. That is, we must be able to estimate the longitudinal impact (if any) of alcohol on homicide while holding other factors, that might have an effect on the latter, statistically constant.

Given the complexities introduced by the time series data utilized here, ordinary least squares (OLS) or multiple regression are not the most appropriate means to estimate the net effects of alcohol, routine activities, and poverty on homicide. One of the major assumptions of OLS, that the data points or cases are independently sampled from the population, is clearly violated (i.e. observations from 1970 are not independent of observations from 1969). This violation results in residuals or error terms that are correlated with one another, successively, across observations and, therefore, across time. Although it is possible to introduce a correction to an OLS model to deal with this problem, the success of such an approach given the nature of our data is tenuous at best. The reason for this is that there is likely to be a complex set of over time relationships among the independent variables and between the independent variables and the dependent variables. A regression corrected model or generalized least squares model (GLS), rests on the assumption that simple corrections (e.g. first-order serial dependence or perhaps second-order dependence) is required to adjust for the problem. However, the more complex time driven error structures which are presented by these data are difficult to model, and the GLS approach has a number of shortcomings. Similar

problems and limitations are also found with regard to Box-Jenkins⁶¹ style transfer function time series modeling.⁶²

Neither of these alternatives provides a fully analogous multivariate regression style model which can at the same time deal effectively with the complex error structures engendered by time series data. However, the multivariate time series model or Vector ARMA (Auto Regressive Moving Average) models,⁶³ of which transfer function models are a special case, has provided analysts with the full OLS analog for time series data. We will utilize the Vector ARMA model because of its ability to model complex error structures and to provide fully OLS regression analogous results.

C. MODEL SPECIFICATION

Like the procedures used in univariate Box-Jenkins analyses⁶⁴ the identification and evaluation of Vector ARMA models involve first of all an exploratory set of analyses designed to provide information about the nature of the model and lag structure required by the data. In this stage, two techniques are used: the cross-correlation matrix (CCM), analogous to the cross-correlation function used in bivariate modeling, and the auto-regression matrices (ARM). An attempt is made to identify a common error structure model for the vector of series; although as described previously, Vector ARMA models can be more complicated, a common noise model is often useful and parsimonious. We utilized the modeling procedures as outlined by Tiao and Box⁶⁵ and Liu and Hudak.⁶⁶ Significant cross-correlations occur when the noise component of the vector time series is driven by a moving average process, MA(q), where q is

⁶¹ GEORGE E.P. BOX & GWILON M. JENKINS, *TIME SERIES ANALYSIS: FORECASTING AND CONTROL* (1976).

⁶² For a detailed discussion, see Harold D. Holder & Robert Nash Parker, *Effect of Alcoholism Treatment on Cirrhosis Mortality: A 20-Year Multivariate Time Series Analysis*, 87 (BRITISH JOURNAL OF) ADDICTION 1263 (1992).

⁶³ G. C. Tiao & G. E.P. Box, *Modeling Multiple Time Series with Applications*, 76 J. OF THE AM. STAT. ASS'N, 802 (1981).

⁶⁴ BOX & JENKINS, *supra* note 61, at 203-24.

⁶⁵ Tiao & Box, *supra* note 61.

⁶⁶ LAWRENCE M. LIU & GREGORY B. HUDAK, *THE SCA SYSTEM FOR UNIVARIATE-MULTIVARIATE TIME SERIES AND GENERAL STATISTICAL ANALYSIS* (1983).

equal to any time lag, in this case, q months. If the noise model is of the form $MA(q)$, the CCM for lags less than or equal to q will contain large numbers of significant entries, while those for lags greater than q will show relatively few such entries. Likewise, significant entries within the ARM will occur up to and including lag p , also expressed in months, if a noise model is driven by an auto-regressive process, $AR(p)$. A summary statistic distributed as a Chi-square can be used to determine the degree to which the auto-regression coefficients as a set depart from a null hypothesis of zero auto-correlation for each lag. It is often the case that one type of process is found to be an acceptable description of the underlying time-oriented processes which drive the data, and this will be reflected in the comparison of the CCM and ARM. If one shows no pattern of decay at longer lags while the other demonstrates such a pattern, it is likely that the data can be adequately described by the process associated with the decaying diagnostic matrix. Once the likely lags for the $MA(q)$ and $AR(p)$ models have been identified, multivariate models can be estimated in which our hypotheses are specified and directly tested. The residuals from these models can be examined with the cross-correlation and auto regression matrices, thus helping to identify any additional error structure components which should be included in the models and to uncover any important omitted relationships to be examined in the context of the larger model. This procedure allows us to empirically identify the lag structure over which alcohol may cause changes in homicide. Although prior research and theoretical analyses often suggest which relationships should be lagged, usually there is little or no insight about the specific lag structure available in the previous research.

D. RESULTS

Tables 1 and 2 report results from the identification stage for the models of white and nonwhite homicide.

TABLES 1 & 2 HERE

These tables report the results of the CCM and ARM analyses of the six observed time series. In the case of Table 1, these series are white homicide, per capita earnings, white infant mortality, wine consumption, spirits consumption, and young males. Thus there are 72 parameters in each CCM, resulting from the 6 by 6 variables in the model. The number of lags is somewhat arbitrary, but we examined 24 lags, more than 1/3 of the series, and found that after 8 lags almost no significant correlations were found. On the ARM side of Table 1, the auto regression models use many degrees of freedom, and so only models up to the fourth lag were identified. In the case of Table 1, the identification phase indicates that most of the action is in the AR side of the model, as indicated by the significant CCM correlations, and the sharp drop off in chi squares for the ARM models. The bottom panel indicates that the final model accounts for most of the significant CCM entries observed in the identification phase, and the Lag 1 Chi square has dropped dramatically on the ARM side, suggesting the appropriate model has been identified. Over-fitting⁶⁷ was also used to further investigate this model, and no additional parameters were found that further reduced the Chi square on the ARM side of the model. In addition no further significant CCM correlations were accounted for by any of the additional parameters added during over-fitting.

Table 2 reports the identification results for nonwhite homicide. Although the final model does result in some reduction in CCM significant entries, the fact that this model includes a properly identified MA component is indicated by the much greater impact on the ARM Chi square values than was the case for white homicide. Over-fitting did not reveal any additional AR or MA parameters which would significantly improve on the fit of this model.

Table 3 presents the substantive results for white homicide rates.

TABLE 3 HERE

⁶⁷ See RICHARD HAY MCCLEARY ET AL., *APPLIED TIME SERIES ANALYSIS* 97 (1980).

As multiple versions of the same indicator at different lags can be included in the same model, very high correlations among estimates can cause difficulties analogous to collinearity in a regression model, so that in some cases a parameter which was not significant in the first version of the model was dropped if it displayed a very high correlation with one or more of the other estimates. The AR (1) results for white homicide show significant effects for per capita earnings, and spirits consumption, both positive and in the expected direction. Wine consumption has a negative effect on homicide lagged one year, a finding that probably reflects the fact that while wine consumption was rising in the post prohibition period, white homicide was declining. Further, as show in Figures 2 and 3, wine consumption has been relatively flat since the mid 1960s, during which white homicide rose and then declined. Beer consumption was included in the model, but did not have a significant impact, either in the absence of the other types of consumption or net of them. Beer consumption also showed very high correlations with the spirits estimates and was therefore dropped from the model. The AR (2) results add little to the overall substantive interpretation of the model, but significantly improve the fit of the overall model.

Table 4 reports the results for nonwhite homicide.

TABLE 4 HERE

The AR (1) and AR (2) results indicate that this model does not do a very good job explaining nonwhite homicide, except that the internal dynamics of each of the six series-with transfer payments substituting for per capita earnings, nonwhite infant mortality for white infant mortality, and beer consumption for spirits-are highly significant at these lags (not reported in the tables). The MA (2) component shows that beer consumption has a significant and positive effect on nonwhite homicide between 1935 and 1995, but no addition effects are found. Spirits consumption was included in earlier versions of this model, and had to be dropped for the same reasons that beer was dropped from the white homicide model.

VI. DISCUSSION AND CONCLUSION

The results in Table 3 and 4 provide corroboration for the notion so well demonstrated in Figure 1 that declining alcohol consumption has something to do with the falling rate of homicide in the U.S. Effects linking alcohol consumption to homicide were found for time lags of one and two years, a reasonable expectation given the way the changes in consumption have occurred over the last sixty years. Further, evidence was found for effects of alcohol on both white and nonwhite homicide, albeit more so for the former rather than the latter. This is consistent with other evidence suggesting that African-Americans drink less than Whites, and may have fewer problems that are directly related to their alcohol consumption.⁶⁸ However, the fact that effects occur for both types of homicide and with beverage specific constellations makes sense given the general consumption patterns of whites and nonwhites in the U.S. This suggests that the importance of alcohol policy in violence prevention has been overlooked. Since alcohol is a regulated drug, a system for regulating the distribution of alcohol, and its availability, is already in place. This system typically involves both state and local governments in the process by which an alcohol outlet is permitted to sell alcoholic beverages at retail prices. In approximately one-third of U.S. states, alcohol availability is more tightly controlled via state owned and regulated retail sales monopolies. Research on the impact of availability on consumption has shown that availability in general has a significant positive relationship to consumption⁶⁹ and that increased availability leads to increased consumption.⁷⁰ Lenke has also shown that decreases in availability of alcohol lead to reduced rates of violence in his research on several cases of strikes, embargoes and other catastrophic decreases in alcohol supplies in several

⁶⁸ Kellie M. Barr et al., *Race, Class, and Gender Differences in Substance Abuse. Evidence of Middle-Class/Underclass Polarization Among Black Males*, 40 SOC. PROBS. 314, 323 (1993).

⁶⁹ Gruenewald et al., *supra* note 24.

⁷⁰ Harold D. Holder & Alexander C. Wagenaar, *Effects of the Elimination of a State Monopoly on Distilled Spirits' Retail Sales: A Time Series Analysis of Iowa*, 85 (BRITISH JOURNAL OF) ADDICTION 1615 (1990).

European states.⁷¹ Alaniz et al. show that alcohol availability is a significant predictor of the geographic concentration of youth violence at the neighborhood levels.⁷² All of this evidence points to the control of alcohol availability as one possible mechanism to prevent some violence.

Is there direct evidence that changes in alcohol policy lead to reduced levels of violence? Other evidence is beginning to accumulate which shows that alcohol policy can have direct effects on rates of violence. For example, Chiu et al. studied the effect of a complete ban on alcohol imposed by referendum on the City of Barrow, Alaska.⁷³ This particular case is telling because the citizens of Barrow voted for a ban, lifted that ban, and voted to impose a second ban in a thirty-three month period. Chiu et al report significant decreases in emergency room visits and assaults when the first ban was imposed, dramatic increase in both when the ban was lifted, and significant declines once again when the ban was reinstated.⁷⁴ Parker and Rebhun found that increases in the minimum age of purchase for alcohol in several U.S. states had significant and negative effects on youth homicides in which the victim and the offender were acquainted prior to the homicide.⁷⁵ In a replication and extension of those results, Parker et al. found that, at least during the period between 1972 and 1984, upward changes in the age of purchase led to fewer youth homicides both overall, and among males, net of a comprehensive set of alternative explanations.⁷⁶ Both of these studies show significant impacts of beer consumption on youth homicide, further underscoring the potential of alcohol policy as a tool in violence prevention strategies. Parker et al. also replicate and extend findings from economic research that the rate of taxation for beer has a negative net effect on

⁷¹ LENKE, *supra* note 20.

⁷² Alaniz et al., *supra* note 11.

⁷³ Arva Y. Chiu et al., *Impact of Banning Alcohol on Outpatient Visits in Barrow, Alaska* 278 JAMA, 1775 (1997).

⁷⁴ *Id.* at 1776.

⁷⁵ PARKER & REBHUN, *supra* note 16, at 110.

⁷⁶ Parker, *supra* note 8, at 12.

youth homicide.⁷⁷ The results reported here, combined with those about the relationship between availability, consumption, and violence discussed above, and the direct evidence about the impact of alcohol policy on violence, demonstrate the potential for violence prevention through tighter regulation of alcohol availability, taxation, and restrictions on the age of purchase. In each case these policies require no new legislative agenda, as the authority to regulate and tax alcohol is clearly established at the federal, state, and local levels in the U.S. In some cases stepped up enforcement of existing laws can be a cost-effective way to reduce violence; in Union City, CA., where an enhanced enforcement of zoning laws resulted in the closure of several alcohol outlets, youth violence significantly decreased in the block groups where outlets had been closed.⁷⁸

Although the current study shows that alcohol consumption is leading rates of homicide downward, and that there may be many other reasons in addition to declining alcohol consumption that explain this trend, an examination of the history of homicide over the last sixty years that is displayed in Figure 1 demonstrates the fallacy of complacency. Alcohol consumption may begin to rise in the next decade, and if it does we may expect a concomitant increase in homicide rates. However, with effective regulation we may be able to stabilize or further reduce consumption, resulting in fewer homicide deaths in the future. Thus, we can increase our preventative leverage by taking these findings into account and designing policies that allow communities and states to more effectively regulate alcohol with an additional payoff of some additional prevention and control of violence.

⁷⁷ *Id.* See also Philip J. Cook & George Tauchen, *The Effect of Liquor Taxes on Heavy Drinking*, 13 BELL J. OF ECON. 379 (1982).

⁷⁸ Robert Nash Parker & Deborah Plechner, *The Impact of Alcohol Policy on Youth Violence: the Case of Union City, CA* (1998) (unpublished manuscript, on file with author).

FIGURE 1: ALCOHOL AND HOMICIDE, 1934-1995
TOTAL CONSUMPTION (4X) PER ADULT

HOMICIDES PER 100,000

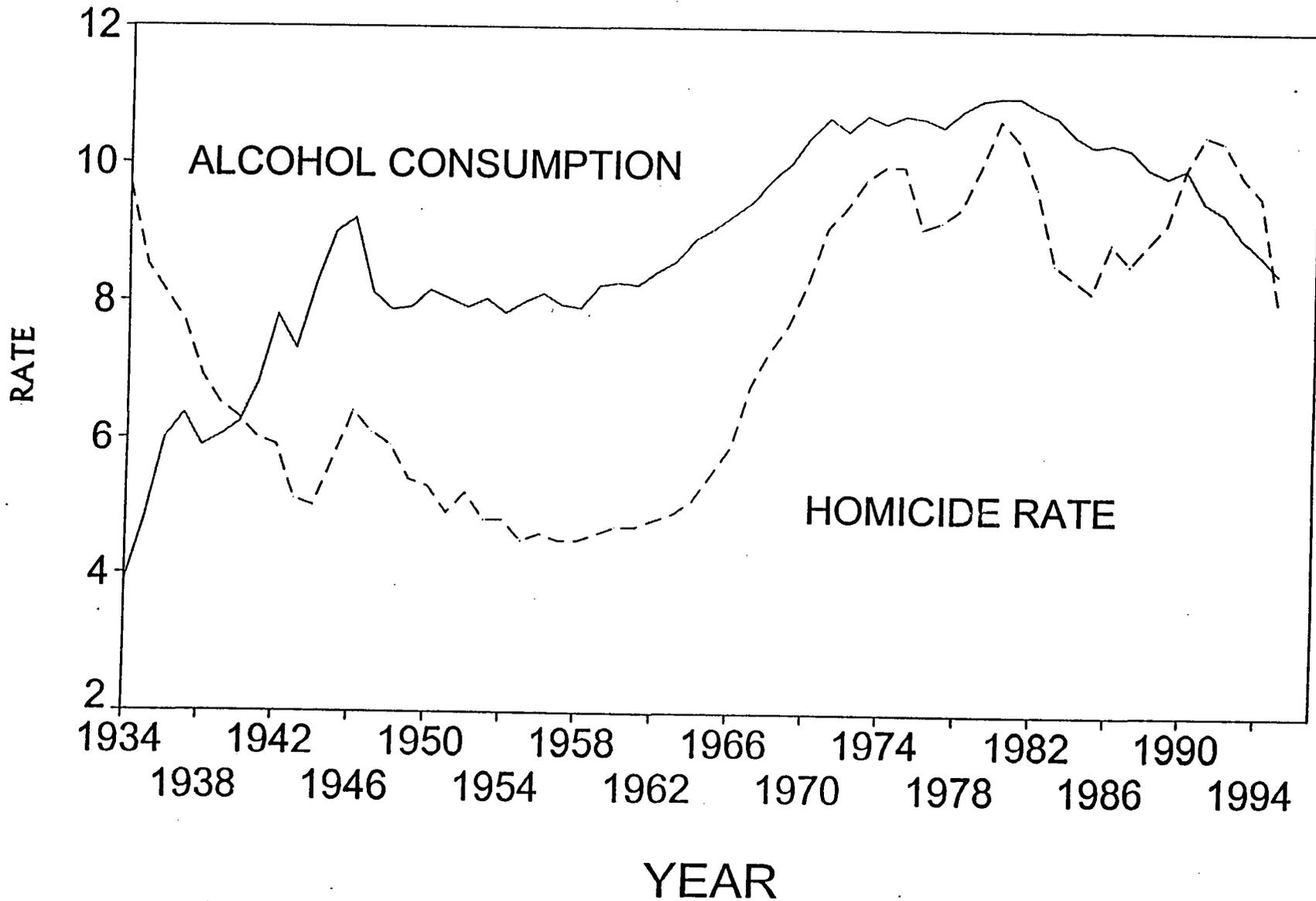
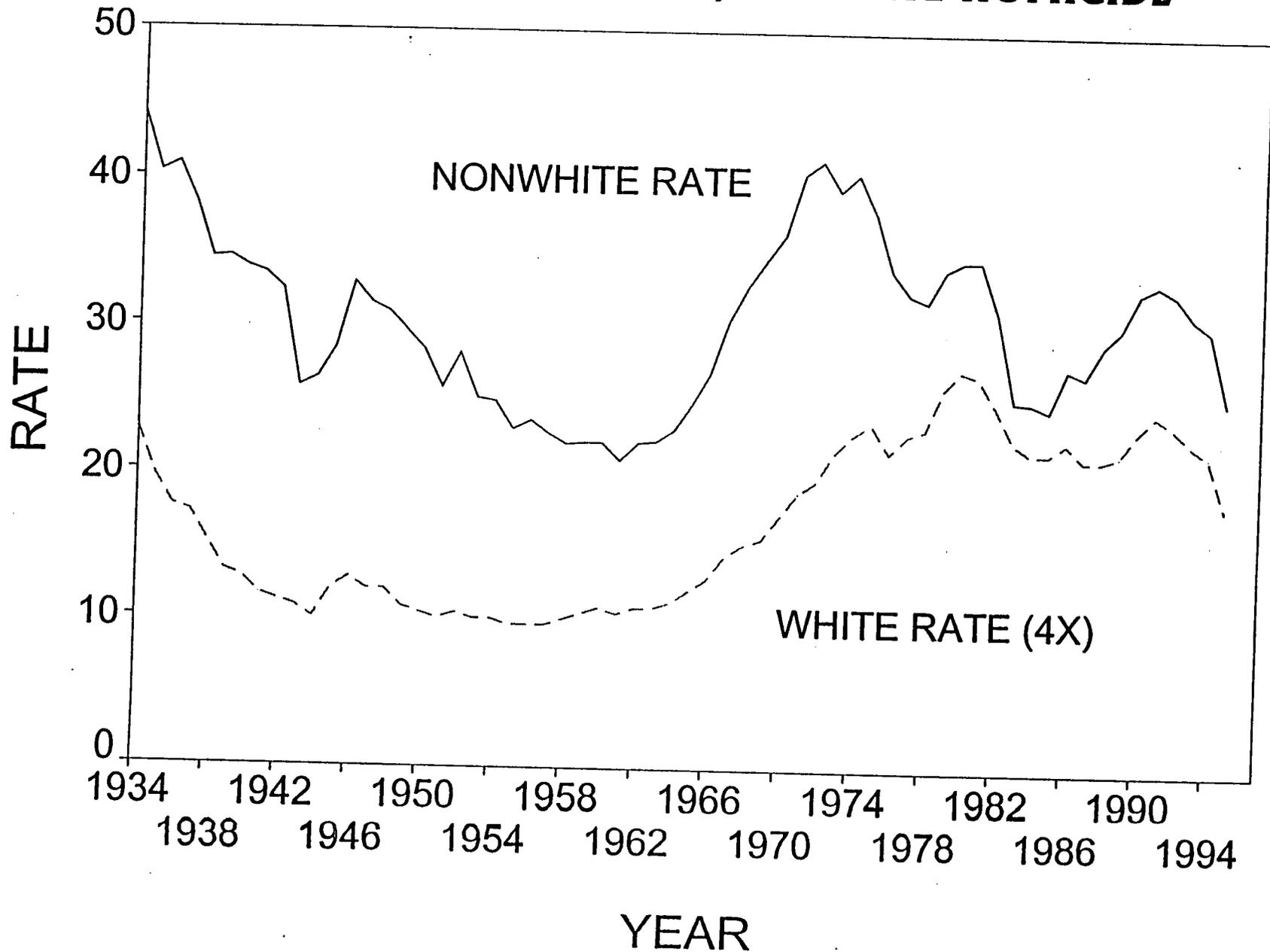


FIGURE 2: HOMICIDE RATES BY RACE, 1934-1995
NONWHITE HOMICIDE; 4X WHITE HOMICIDE



**FIGURE 3: ALCOHOL CONSUMPTION
BY BEVERAGE TYPE**

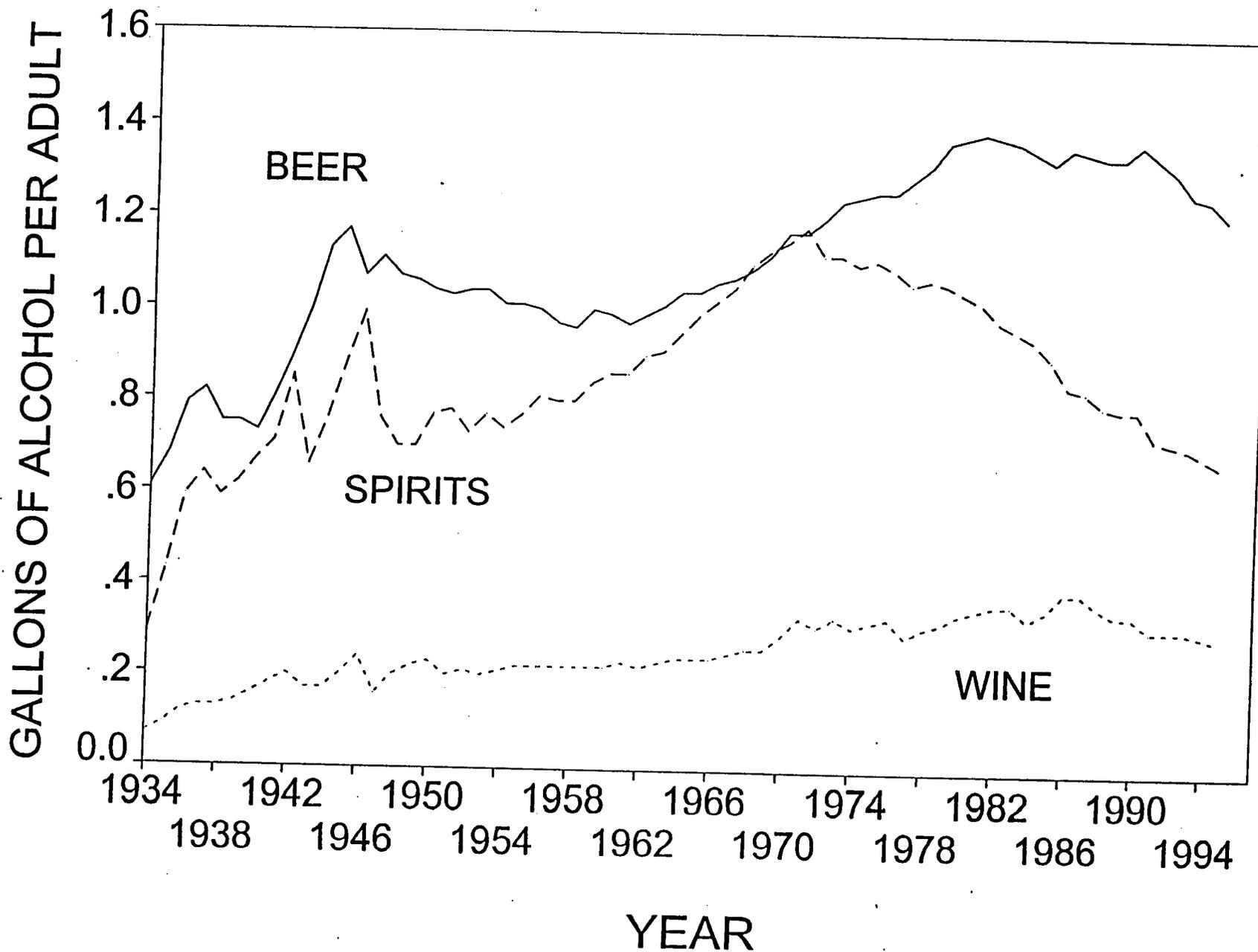


Table 1: Vector ARMA Analysis, White Homicide: Identification and Estimation Phase

Cross Correlation Summary

Auto Regression Summary

IDENTIFICATION

Lags 1-2: 15 of 72 significant

Lag 1: Chi Square = 156.69

Lags 3-4: 12 of 72 significant

Lag 2: Chi Square = 61.65

Lags 5-6: 16 of 72 significant

Lag 3: Chi Square = 58.22

Lags 7-8: 13 of 72 significant

Lag 4: Chi Square = 57.56

Lags are years; Chi Square significance levels: .05 = 52.6; .01 = 57.9

AR (1,2) Model

Lags 1-2: 7 of 72 significant

Lag 1: Chi Square = 40.87

Lags 3-4: 12 of 72 Significant

Lag 2: Chi Square = 60.44

Lags 5-6: 4 of 72 significant

Lag 3: Chi Square = 37.75

Lags 7-8: 2 of 72 significant

Lag 4: Chi Square = 58.87

Lags are years; Chi Square significance levels: .05 = 52.6; .01 = 57.9

Table 2: Vector ARMA Analysis, Non White Homicide: Identification and Estimation Phase

Cross Correlation Summary

Auto Regression Summary

IDENTIFICATION

Lags 1-2: 8 of 72 significant

Lag 1: Chi Square = 145.86

Lags 3-4: 9 of 72 significant

Lag 2: Chi Square = 78.72

Lags 5-6: 10 of 72 significant

Lag 3: Chi Square = 62.58

Lags 7-8: 7 of 72 significant

Lag 4: Chi Square = 60.62

Lags are years; Chi Square significance levels: .05 = 52.6; .01 = 57.9

AR (1,2), MA (2) Model

Lags 1-2: 7 of 72 significant

Lag 1: Chi Square = 61.49

Lags 3-4: 9 of 72 Significant

Lag 2: Chi Square = 55.00

Lags 5-6: 4 of 72 significant

Lag 3: Chi Square = 59.99

Lags 7-8: 1 of 72 significant

Lag 4: Chi Square = 53.64

Lags are years; Chi Square significance levels: .05 = 52.6; .01 = 57.9

Table 3: Vector ARMA Model of White Homicide: AR (1,2)

<u>Variable</u>	<u>AR (1)</u>	<u>Effect</u>	<u>Standard Error</u>	<u>T Value</u>
Per Capita Earnings		.330	.115	2.87 *
White Infant Mortality		---	---	---
Wine Consumption		-.436	.074	5.89 *
Spirits Consumption		.487	.100	4.87 *
Percent Young Males		.492	.393	1.25

<u>Variable</u>	<u>AR (2)</u>	<u>Effect</u>	<u>Standard Error</u>	<u>T Value</u>
Per Capita Earnings		---	---	---
White Infant Mortality		.360	.223	1.61
Wine Consumption		-.180	.082	2.20 *
Spirits Consumption		-.070	.085	0.82
Percent Young Males		---	---	---

Table 4: Vector ARMA Model of Non White Homicide: AR (1,2) MA (2)

AR (1)			
<u>Variable</u>	<u>Effect</u>	<u>Standard Error</u>	<u>T Value</u>
Transfer Payments	-.084	0.46	1.83
White Infant Mortality	-.021	.170	0.12
Wine Consumption	---	---	---
Beer Consumption	---	---	---
Percent Young Males	-.568	.641	0.89
AR (2)			
<u>Variable</u>	<u>Effect</u>	<u>Standard Error</u>	<u>T Value</u>
Transfer Payments	---	---	---
White Infant Mortality	---	---	---
Wine Consumption	---	---	---
Beer Consumption	---	---	---
Percent Young Males	---	---	---
MA (2)			
<u>Variable</u>	<u>Effect</u>	<u>Standard Error</u>	<u>T Value</u>
Transfer Payments	---	---	---
White Infant Mortality	-.235	.150	1.57
Wine Consumption	.116	.077	1.51
Beer Consumption	.525	.178	2.95 *
Percent Young Males	---	---	---

EXPLAINING RECENT TRENDS IN U.S. HOMICIDE RATES

ALFRED BLUMSTEIN* AND RICHARD ROSENFELD**

I. THE CHANGING HOMICIDE RATE

During the past decade some sharp swings have occurred in the homicide rate in the United States. The rate in 1980 was a peak of 10.2 per 100,000 population, and by 1985 it fell to a trough of 7.9. It then climbed a full 24% to a peak of 9.8 in 1991, and has been declining markedly since then, reaching a level of 7.4 in 1996 (see Figure 1) and x.x in 1997, which is lower than any annual rate since 1967. Early indications are that the rate for 1997 will fall still further to about 6.7 (based on trends during the first half of the year), a level that is lower than any annual rate since 1967.¹

[Figure 1 about here]

The jubilation over this decline is mixed with widespread curiosity over the factors that are responsible for it. In this paper, we explore some of those factors, focusing particularly on those whose effects are reasonably measurable and where aggregates may present a misleading picture. In some cases, for example, we identify aspects of some variable contributing to an increase in homicide and other aspects of the same variable contributing to a decrease.

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¹ FEDERAL BUREAU OF INVESTIGATION, UNIFORM CRIME REPORTS 1997 (1998).

This is the case, for example, with age. During the late 1980s, young people were contributing to an increase in homicides while older people were committing fewer homicides and contributing to a decrease. In other cases, there are important interactions, for example, between race and age. A large increase in homicide with handguns occurred among young African-Americans in the late 1980s, but we observe no such increase for older African-Americans.² In such instances, demographic disaggregation is necessary to isolate the effects being examined. A general theme of our discussion is that it is not productive to think of homicide rates as unitary phenomena. Rather, the recent change in the aggregate homicide rate is the product of several distinct subgroup trends. Any credible explanation—much less forecasting—of the overall change in homicide rates, therefore, must make sense of multiple, interactive, and sometimes countervailing influences.

Many explanations have been offered for the recent decline in homicide rates. There have been claims, most notably by New York City Mayor Rudolf Giuliani and William Bratton, when he was New York's Police Commissioner, that virtually all of the homicide drop in New York resulted from smart and aggressive policing.³ Another view attributes the decline to a change in some of the factors that contributed to the growth, most importantly, a reduction in the high rates of firearm homicide committed by (and mostly against) young people, particularly African-Americans.⁴ Some of this turnaround may be the result of changes in policing, especially the use of aggressive stop-and-frisk tactics to remove guns from kids, but other factors could well be involved. These could include community efforts to mediate inter-gang disputes, a greater availability of jobs in

² KATHLEEN MAGUIRE & ANN L. PASTORE, SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS 1996, 339, Tables 3.130, 3.131 (1997).

³ See Fox Butterfield, *Many Cities in U.S. Show Sharp Drop in Homicide Rates*, N.Y. TIMES, Aug. 13, 1995, at A1, A8; see also GEORGE L. KELLING & CATHERINE M. COLES, *FIXING BROKEN WINDOWS: RESTORING ORDER AND REDUCING CRIME IN OUR COMMUNITIES* 157, 259-60 (1997); Clifford Krauss, *N.Y. Crime Rate Plummets to Levels Not Seen in 30 Years*, N.Y. TIMES, Dec. 20, 1996, at A1; Alison Mitchell, *Giuliani Cites Drop in Crime In Assessment*, N.Y. TIMES, Sept. 14, 1994, at B1; George L. Kelling & William J. Bratton, *Declining Crime Rates: Insiders' Views of the New York City Story*, 88 J. CRIM. L. & CRIMINOLOGY [page#] (1998).

⁴ See Alfred Blumstein & Daniel Cork, *Linking Gun Availability to Youth Gun Violence*, 59 J.L. & CONTEMP. PROBS. 5, 5-24 (1996).

the booming economy, changing drug markets with diminished roles for young people, and growing incapacitation effects through increases in the prison population. And, looking across the nation, we will find that the effects of changes in the large cities have a dominant effect on the aggregate rates.

In this article, we assess the influence on homicide trends of some of these changes that have occurred during the last decade. We begin by setting out some basic facts about recent trends in homicide that any credible explanation must confront. These include the differing patterns by age, recent demographic shifts, the role of weapons (particularly handguns) and the domination of the national trends by the changes occurring in the largest cities. We then evaluate several explanations for the drop in homicide, devoting particular attention to explanations which focus on the impact of declining or "maturing" drug markets, growth in incarceration, economic expansion, changes in family structure, and enforcement policy. We conclude with some speculations about the changes in homicide rates likely to occur over the next decade, given certain assumptions about stability or change in the conditions that, in our view, have been most closely associated with past trends.

II. THE RHETORICAL CONTEXT

We should say at the outset that it is not our intention to engage in explicit forecasting of homicide trends. Forecasting homicide became a popular academic pastime during the rapid increase of the late 1980s and early 1990s. Some of the predictions were accompanied by dire and dramatic warnings of an impending crisis in criminal violence. One academic commentator warned of a coming "blood bath" of juvenile and youth violence that would inevitably accompany the increasing size of the youthful segment of the population, even if their offending rates did not go up.⁵ Others characterized a subgroup of active offenders as youthful "super predators" who would terrorize the

⁵ James A. Fox, Presentation to the Meeting of the American Academy for the Advancement of Science, Feb. 19, 1995.

nation's cities.⁶ The motivation for this kind of rhetoric from persons the public looks to for serious guidance on the crime problem is unclear. The effect, however, has been to reinforce an already overheated climate of opinion and policy regarding the homicide problem. We do not wish to contribute further to that rhetorical environment.

Claims of a rather different sort, coming primarily from public officials, accompanied the drop in homicide rates in one city after another in the early 1990s. As happened in New York, the inclination to account for the local declines in terms of this or that special local initiative apparently was all but irresistible.⁷ Not surprisingly, perhaps, very different types of causal rhetoric dominate public discussion during periods of rising and falling crime rates. During periods of increase, explanations tend to emphasize the importance of immutable conditions or forces for which public officials (at least those currently in office) cannot reasonably be held accountable. Popular examples are demographic changes caused by the birth rates of another decade, breakdowns in the family and other key institutions, and a generalized decline in morality and civilized behavior. In contrast, when serious violence is on the decline, the imputed causes are more often located in policies or practices for which public officials are willing or eager to take credit, such as putting more police on the street or more offenders in prison.

A kind of rhetorical bidding war began to emerge in the early 1990s between some academic criminologists, who tended to explain the decrease in homicide and other violent crimes in terms of factors that were largely beyond the control of policymakers, and policy enthusiasts, who saw the decline as evidence confirming the utility or wisdom of a favored program or practice.⁸ This debate has a sterile and dogmatic quality that is unlikely to advance understanding of the multiple and interacting factors responsible for the rise and fall of homicide rates over the past decade. Our view is that policy can make a difference,

⁶ WILLIAM J. BENNETT ET AL., *BODY COUNT: MORAL POVERTY . . . AND HOW TO WIN AMERICA'S WAR AGAINST CRIME AND DRUGS* 25 (1996).

⁷ See Butterfield, *supra* note 3, at A8.

⁸ Fox Butterfield, *Crime Fighting's About Face*, N.Y. TIMES, Jan. 19, 1997, at Section 4, p. 1.

but the difference it makes is highly dependent on existing levels and trends in violent crime. We elaborate this position later in the paper with reference to the dramatic decline in New York City's homicide rate.⁹ Our point here is simply that the debate over whether policy changes are responsible for the drop in homicide has largely overlooked the question of how policy interacts with other factors influencing trends in criminal violence. A key factor with which any policy assessment must contend involves the sharply different trends in homicide by age.

III. CHANGES IN AGE-SPECIFIC HOMICIDE ARREST RATES

An earlier paper in this Journal presented the striking changes between 1985 and 1992 in age-specific arrest rates for homicide.¹⁰ That paper showed that, while the rates for persons age eighteen and younger more than doubled, the rates for those thirty and above declined by about 20-25%.¹¹ We can now extend those analyses to 1996, and we see some striking changes in the younger group. Figure 1a presents the age-specific arrest rate for murder for the years 1985, which was the last year of a fifteen-year period of very stable age-specific rates, and 1993, which was the peak year of juvenile age-specific rates. We see that, even though the rates for ages twenty and under had more than doubled over this interval, the rates for those over thirty had indeed declined.

[Figure 1a about here]

Figure 1b depicts the same 1993 situation along with the figure for 1996, where we see the rates for all ages decline, with the steepest decline around age eighteen, where the growth had been greatest.

[Figure 1b about here]

⁹ See text accompanying notes [section VI].

¹⁰ Alfred Blumstein, *Youth Violence, Guns, and the Illicit-Drug Industry*, 86 J. CRIM. L. & CRIMINOLOGY 10, 10-36 (1995).

¹¹ *Id.*

It is instructive to break out these changes in more detail by looking at the time trends for each individual age. Figure 2 depicts the trend for the ages traditionally displaying the peak homicide arrest rates, eighteen through twenty-four. We see how similar those rates were from 1970 through 1985, and then the divergence beginning in about 1985. The rate for the eighteen-year-olds more than doubled by 1991, dropped in 1992, reached a new peak in 1993, and then declined for the next three years. The pattern is similar for the other ages depicted in Figure 2, although the rise in the late 1980s is less steep with increasing age and the decline after 1993 is correspondingly less for the older ages. For youth under eighteen, the pattern is very similar, although the stable base rate in the 1970-1985 period is lower, but in all cases the rate more than doubled by 1993. The pattern for the ages above twenty-four is similarly flat through the mid 1980s, followed by a steady decline for most of the ages.

[Figure 2 about here]

These changes for the growth period, 1985 to 1993, and for the decline period, 1993 to 1996, are reflected in Figure 3, which depicts for each age the ratio of the age-specific arrest rate for murder to the rates that prevailed in 1985. Points above the heavy line (at the ratio of one) represent an increase in the rates and points below that line represent a decrease. The upper graph portrays the ratio reached in the peak year, 1993, and the lower graph portrays the degree to which the ratio had declined by 1996.

[Figure 3 about here]

Here, we see that the arrest rate for fifteen-year-olds in 1993 was triple the rate that had prevailed in 1985. The growth to 1993 declined with age, but it was more than double the 1985 rate for all ages of twenty and below. In contrast, for the older ages of thirty and above, the 1993 rates were actually about 20%

lower than the 1985 rates. This divergence between the patterns of young and old is striking and should be a central focus of explanations of the recent homicide decline.

The graph of the 1996-to-1985 ratio is clearly below that for 1993, and the greatest decline occurred in the teenage years. But it is clear that the teenage rates are still 60 to 80% above the 1985 rates that had prevailed since 1970. Accordingly, there is still considerable room for improvement to get back down to the 1985 rates.

Also, we note the continuing decline in the homicide rates for the older ages. By 1996, the twenty-five to thirty year-old group had declined from the 1985 rates by about 20%, and the older groups had declined by about 40%.

These figures underscore the central importance of the different effects of different age groups in explaining the trends in the aggregate homicide rate since 1985. The growth until the 1991 peak was caused because the rates of the younger people were increasing faster than the rates for the older people were declining. Between 1991 and 1993, the rates for younger people were generally flat (as reflected in the pattern for the eighteen-year-olds in Figure 2), and thus the decline among older age groups dominated the aggregate, and so the down-turn began in 1992. And, since the rates of both young and old were decreasing after 1993, the aggregate rate continued to fall.

In sum, all of the increase in the level of homicide in the United States during the growth period of the late 1980s and early 1990s was due to the trends in the younger ages, because homicide rates for those twenty-five and older did not go up. However, some of the decrease during the decline period since 1993 is due to the drop in offending among young people, and some is attributable to the continuing decline in offending among older persons. Even though they commit homicide at much lower rates, the contribution of the older age groups to the recent decline in the aggregate homicide rate may be appreciable given their large numbers.

We have calculated the relative contribution of persons under age twenty-five and those twenty-five and over to the total decline in homicide since the 1993 peak in the juvenile rates.

Table 1 shows that total arrests for homicide dropped 18% by 1996, the last full year for which Uniform Crime Reports (UCR) estimated arrest totals were available. As we have seen, the rate of decrease at the younger ages has been somewhat greater than for older persons. Estimated homicide arrests fell by 20% for persons less than twenty-five-years-old and by 16% for those twenty-five and over.

[Table 1 about here]

Not surprisingly, given their sharply higher arrest rates, younger persons contributed disproportionately to the overall decline in homicide arrests. Over 4,000 fewer arrests were made for homicide in 1996 than in 1993, and the decrease in arrests of persons under age twenty-five accounted for almost two-thirds of that total decline.

Explanations of the homicide decline that fail to take into account the factors responsible for the fall in homicide among adults are, at best, incomplete. At worst, they will be misleading, because these factors are not necessarily the same as those associated with the drop in homicide offending in the younger groups.

IV. EFFECTS OF CHANGING DEMOGRAPHIC COMPOSITION

Much of the speculation about the recent decline in homicide rates attributes the decline to changing demographics.¹² This may be a hold-over from the realization that much of the decline that began in 1980 was attributable to a demographic shift, as the baby-boom generation aged out of the high-crime ages.¹³ But those same demographic effects are not still at work

¹²Writing in the *New York Times*, David Kocieniewski states that "some [unnamed] criminologists attribute the decline to demographic factors like a smaller number or [sic] teenagers . . ." David Kocieniewski, *New York City Murder Rate May Hit 30-Year Low*, N.Y. TIMES, Dec. 25, 1997, at B1. In an article on the "mystery" of the drop in crime, David Anderson notes that some analysts explain the drop as resulting from "random demographic changes." David C. Anderson, *The Mystery of the Falling Crime Rate*, THE AMERICAN PROSPECT, May-June 1997, at 49.

¹³Alfred Blumstein et al., *Demographically Disaggregated Projections of Prison Populations*, 8 J. CRIM. JUST. 1, 3-4 (1980); Darrell Steffensmeier & Miles D. Harer, *Did Crime Rise or Fall During the Reagan Presidency? The Effects of an "Aging" U.S. Population on the Nation's Crime Rate*, 28 J. RES. CRIME & DELINQ. 330, 331-2 (1991).

in the early 1990s, since demographic effects do not always have to work in the same direction.

The decline after 1980 was significantly affected by the shrinking size of the cohorts in the high-crime ages, but the U.S. in the 1990s is in a period of growing cohort¹⁴ sizes in the late teens and early twenties. Figure 4a depicts the age distribution of the U.S. population in 1998. It is evident that the smallest age cohort under forty is about twenty-two, the cohort born in 1976. Each of the younger cohorts is larger than its predecessor until the peak at age six. Thus, if teen-age age-specific crime rates were to remain constant, then the aggregate crime rate would increase as a result of the larger cohort sizes. This possibility spurred the warnings of a demographic "crime bomb" set to go off during the 1990s.¹⁵

[Figure 4a about here]

Yet it is important to recognize that these age-composition changes are relatively small, with cohort sizes growing at a rate of about 1% per year. In the face of much larger swings in the age-specific crime rates, as much as 10-20% up (in the 1980s) as well as down (in the 1990s), the 1% change in demographic composition is a minor effect.

Examining changes in age-composition by race (Figure 4b), we see basically similar patterns for whites (which includes a large majority of Hispanics) and blacks (whose number is scaled up by a factor of seven to provide a comparison with whites). The more recent growth rate for blacks at the younger ages is somewhat greater than that for whites, but even so, the growth rate for black cohorts younger than the trough year of twenty-two is still only about 2% per year, well below the swings in the age-specific homicide rates.

¹⁴ In this context, a "cohort" refers to all the people born in the same year, so that the reference to "growing cohort sizes" indicates that there are more 18-year-olds than 19-year-olds, more 17-year-olds than 18-year-olds, etc.

¹⁵ John J. DiIulio Jr., *Rule of Law. Why Violent Crime Rates have Dropped*, WALL ST. J., Sept. 6, 1995, at A19.

[Figure 4b about here]

Finally, it is possible that changes in relative cohort size could alter the age-specific rates through mechanisms described by Easterlin and others.¹⁶ However, the evidence suggests that if changes in the relative size of age cohorts influence homicide rates, the cohort effects are minor compared to age and period effects.¹⁷

V. EXAMINING THE ROLE OF WEAPONS

There is widespread recognition of the changing role of weaponry in young people's hands. Over the last decade the weapons involved in settling juveniles' disputes have changed dramatically from fists or knives to handguns, with their much greater lethality. That growth in lethal weaponry is reflected in the changes in the weapons involved in homicides in different race and age groups.¹⁸

The FBI's Supplementary Homicide Reports (SHR) provide data to track such changes. Those reports, filed by individual police departments, provide considerable detail on individual homicide incidents. Each report contains information on the victim and (where known) offender characteristics and their relationship, the weapon involved in the homicide, and the circumstances leading up to the homicide, such as argument, drug involvement, or gang involvement. Unfortunately, only a single circumstance may be designated, and so time trends in the fashion with which police designate the single circumstance limit the reliability of that aspect.¹⁹

¹⁶ RICHARD A. EASTERLIN, *BIRTH AND FORTUNE* (2d ed. 1987); M. Dwayne Smith, *the Era of Increased Violence in the United States: Age, Period, or Cohort Effect?*, 27 *SOC. Q.* 239, 239-51 (1986).

¹⁷ See Paul S. Maxim, *Cohort Size and Juvenile Delinquency: A Test of the Easterlin Hypothesis*, 63 *SOCIAL FORCES* 661 (1985); Robert M. O'Brien, *Relative Cohort Size and Age-Specific Crime Rates: An Age-Period-Relative-Cohort-Size Model*, 27 *CRIMINOLOGY* 57 (1989); Darrell Steffensmeier et al., *Cohort Size and Arrest Rates Over the Life Course. The Easterlin Hypothesis Reconsidered*, 57 *AM. SOC. REV.* 306 (1992).

¹⁸ Blumstein & Cork, *supra* note 4, at 5. See generally Philip J. Cook, ed., *Kids, Guns, and Public Policy*, 59 *J.L. & CONTEMP. PROBS.* 1 (1996).

¹⁹ The number of incidents reported by an agency to the SHR is close to, but not identical to the number of incidents reported to the FBI Uniform Crime Reports (UCR). The variation can result from differences in the reporting procedures when different segments of the police department handle the two reporting tasks. A number of jurisdictions have varied considerably

A. THE GROWTH PERIOD, 1985-1993

Figures 5a-5c provide information on the time trends of the weaponry used in homicides by offenders in three age categories: adults, twenty-five to forty-five years old (Figure 5a); youth, eighteen to twenty-four (Figure 5b); and juveniles, seventeen and under (Figure 5c). The weapons are classified into three groups: handguns; other guns; and non-guns (which includes no physical weapon). We can see that over the time period shown, 1977-1995, little meaningful change has occurred in the use of handguns by adults. The situation for youth and juveniles is quite different, however. For both these groups, there was no clear trend until 1986, and then a significant growth in handgun use began. With 1985 as the base year, handgun homicide among youth increased over 100% by 1994, and juveniles' use of handguns increased over 300%. In both these groups, there is a leveling out from 1993 to 1994; we see a sharp decline in 1995 and we anticipate a similarly sharp decline in 1996, consistent with the decline in homicide arrest rates shown in Figure 2.

[Figures 5a-5c about here]

In all these figures, no appreciable increase has occurred in either the long-gun or the non-gun categories. There has been some decline in the non-gun category for youth, but this decline (28% from 1985 to 1994) is small compared to the more than 100% growth in their use of handguns. Thus, we observe that the growth in homicides by young people, which accounted for all the growth in homicides in the post-1985 period, was accounted for totally by the growth in homicides committed with handguns. Clearly, the sharply increasing prevalence of handguns in youth and juvenile homicide must be considered of fundamental importance in any explanation of the homicide increase of the late 1980s and early 1990s.

We also observe some important racial differences in the growth of handgun homicides, with the dominant growth being

over time in the number of incidents reported to the SHR, including years when they simply submitted no reports at all. Rather than misrepresent fluctuations in reporting as changes in homicides, we have omitted from our analyses those places that display such large fluctuations.

among African-American young people, both as offenders and as victims. Figure 6 presents the number of homicides committed by black youth, 18-24, and displays the sharp growth, more than tripling from the low in 1984 to the peak in 1993. There was no comparable growth in the role of the other weapon types.

[Figure 6 about here]

While some growth also occurred in handgun homicides by white youth, that growth was far less than among the black youth. The difference is depicted in Figure 7, which compares the two racial groups. This figure focuses on all cities over 100,000 population, and includes in the "white" group all those also classified as Hispanic. Here we see the strong growth in handgun prevalence for black youth, from a low in 1984 to a tripling by 1993. The rise for the whites does not start until 1989, but does display a doubling by the 1993 peak. Finally, the post-1993 decline is much sharper for the black youth than among young whites.

[Figure 7 about here]

B. THE DECLINE PERIOD, 1993-1996

Because the available SHR data extend only a few years into the decline period, we cannot be as confident about how changing patterns of weapon use may have contributed to the decline. However, the flattening of the growth in the handgun homicide rate between 1993 and 1994 is consistent with the decline in youth homicide rates shown in Figure 2, suggesting that the decline in homicide is also associated with the decline in the use of handguns by young people.

The pattern of growth and decline in handgun use also is reflected in Figures 8a and 8b, which depict the time trend in the rate of weapons arrests at the various ages. The pattern here is very similar to the homicide patterns depicted in Figure 2, but there is a much more distinct peaking in 1993, with a

clear decline subsequently. Changes in the rate of weapons arrests result from a combination of changes in the presence of weapons in the population and changes in police aggressiveness in pursuing illegal weapons. It is clear from other data that there was considerable growth in weapon prevalence during the late 1980s and also that police became more concerned about weapons, especially in the hands of young people.²⁰ That combination is reflected in the rise in weapons arrests until the peak in 1993. There is no indication that there was any abatement by police in their concern about young people's guns after 1993, and so it seems likely that the decline after 1993 is due much more to a reduction in the carrying of guns than to a slackening of police efforts to capture the guns. The reduction in carrying seems to have contributed to the decrease in homicide by young people.

[Figures 8a and 8b about here]

VI. ROLE OF THE BIG CITIES

The largest cities contribute disproportionately to patterns of serious violence for the nation as a whole. The prominent role of the large cities is clearly evident in the trends in homicide. Based on UCR data for 1991, for example, the U.S. experienced 24,700 homicides.²¹ New York City alone provided 2,154 of them, or about 9% of the total.²² As New York City's homicide rate has declined faster than the national rate, its percentage contribution to the total has dropped to a value below 5%.

Although no other city has as large an effect as New York, the importance of the large cities is reflected in the relative contribution they make to the total homicide picture. In 1996, ten cities (New York, Chicago, Los Angeles, Detroit, Philadelphia,

²⁰ See, for example, Blumstein and Cork, *supra* note 4, and, more generally, 59 J. L. & CONTEMP. PROBS., *supra* note 4.

²¹ UNIFORM CRIME REPORTS, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES, 1991 59 (1991).

²² *Id.* at 139.

Washington, New Orleans, Baltimore, Houston, and Dallas, in order of decreasing numbers of homicides) accounted for fully one-quarter of all the nation's homicides. In contrast, in 1991, when New York alone accounted for 9% of all U.S. homicides, only seven cities (New York, Los Angeles, Chicago, Detroit, Houston, Dallas, and Washington) were needed to account for a quarter of U.S. homicides.²³

New York City has been a major contributor to the national decline since the early 1990s. In the national net decline in homicides from 1993 to 1994 (a reduction of 1,200 homicides), New York City's drop of 385 accounted for 32% of that change.²⁴ In the net change from 1994 to 1995 (a national net drop of 1,720 homicides), New York City's drop of 384 accounted for 22% of the total decrease.²⁵ New York City's contribution to the drop since 1995 has been closer to 10%,²⁶ still very large, but smaller than in the earlier years, in part because the smaller cities are beginning to catch up. It is thus clear that what goes on in New York City, or the largest cities more generally, can have a very powerful effect on national statistics.

Examination of the trends over time offers a compelling picture of the saliency of the large cities, both in the rise of homicide in the 1980s and the decline during the 1990s. Figures 9a (for homicides with other than handguns) and 9b (for homicides with handguns) uses the Supplementary Homicide Reports to estimate the number of homicides in each of four groups of cities (those of 1 million or more, those in the range of 500,000 to 1 million, 250,000 to 500,000, and 100,000 to 250,000).²⁷

²³ *Id.* at 108 tbl.8; UNIFORM CRIME REPORTS, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES, 1996 112 tbl.8 (1996).

²⁴ UNIFORM CRIME REPORTS, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES, 1993 139 tbl.8 (1993); UNIFORM CRIME REPORTS, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES, 1994 138 tbl.8 (1994).

²⁵ UNIFORM CRIME REPORTS, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES, 1995 58, 134 tbl.8 (1995).

²⁶ *Id.*

²⁷ Each individual city was assigned to a "city size" category based on its mean population over the period 1988 to 1992 in order to ensure that each category contained the same cities over the period shown. Without some such stabilizing assignment rule, this assignment would vary over time and would by itself affect the group rates whenever a change took place. Because the homicide rate is positively related to population, as cities grow and move from one class to a higher one, even if there were no change in any city's homicide rate, that movement alone

[Figures 9a and 9b about here]

Because the number of homicides associated with each of the city-size groups other than the largest is roughly the same in each year,²⁸ we can discuss these results as associated with the large cities and contrast them with the smaller cities. There were six cities in the million-plus group: New York, Detroit, Philadelphia, Los Angeles, San Diego, and Dallas.²⁹

Figure 9a shows limited variation associated with the non-handgun homicides. There was very little change in the smaller cities, and a rather gradual decline of 18% in the large cities from a peak in 1986 through 1993, with a comparable drop of 21% from 1993 to 1994.

But the non-handgun homicide changes were much smaller than those in the handgun homicides. Figure 9b shows that the large cities had a major growth beginning in 1996, increasing 85% from 1985 to the flat 1991-1993 peak, and then declining 37% to the low in 1995 with indications that that decline will continue, at least for some period into the future.

We note that the smaller cities also had a distinct up-turn in the handgun homicides, but that the up-turn did not begin until 1988, two years later than in the large cities. That up-turn was even larger in percentage terms, collectively increasing 116% from the trough in 1987 to the collective peak in 1994. The more recent down-turn also began later than in the large cities: in 1994 in the 250,000-500,000 cities and not until 1995 in the other two groups. The drop from the collective 1993 peak was still only about 16% in 1995.³⁰

would reduce the homicide rate in the group they left, but also reduce it in the group they moved up to. These effects would be negligible among the large numbers of smaller cities, but could be very influential among the smaller numbers of the largest cities.

²⁸ This is partly a result of the fact that, as the population size approximately halves between groups, the number of cities approximately doubles, thereby keeping the number of homicides roughly stable.

²⁹ Some cities, including Chicago and Houston, were not included here because their reporting to the SHR was sporadic, and we did not want to attribute these fluctuations in reporting to changes in the homicide patterns being observed.

³⁰ These trends in firearm and non-firearm homicide as reflected in offending by city size are very consistent with the homicide trends of victimization within urbanization strata reported in Lois A Fingerhut et al., *Homicide Rates Among US Teenagers and Young Adults: Differences by Mecha-*

The rise in the handgun homicides could be associated with crack markets, as hypothesized by Blumstein.³¹ Since crack markets generally emerged first in the largest cities, and may have diffused to smaller cities at a later time, that could possibly account for these lag effects.³²

It is also the case that the peak occurs later in the smaller cities. It is reached in 1991 in the largest cities, and the lag is larger as the city size grows smaller. We also note that the decline in the largest cities is quite sharp after the flat 1991-1993 peak. In the smaller cities, however, a comparable sharp decline was not yet displayed by 1995. Indeed, news reports in 1997 and 1998 chronicle the escalating homicide rates in some mid-sized cities and speculate that these increases could be associated with the later emergence of crack markets and associated drug-related violence.³³

To the extent that both the increase and down-turn in handgun homicides in the largest cities are associated with corresponding changes in crack markets, we would anticipate that homicide rates in the smaller cities should be reaching a peak and in some instances beginning to decline. The timing of these changes should correspond with city size: the declines should begin first in larger cities and later in the smaller cities. SHR data beyond 1995 will be needed to confirm these speculations about the role of drug markets in the increase and the decline of U.S. homicide rates, and in the differences in the timing of these changes observed across cities of different sizes. However, the observed patterns are highly consistent with explanations of homicide trends that assign central importance to the rise and decline of crack in the United States.

nism, *Level of Urbanization, Race, and Sex, 1987 through 1995*, 280 J. Am. Med. Ass'n 423, 423-427 (1998).

³¹ See Blumstein, *supra* note 10, at 29-32.

³² This diffusion was hypothesized by Blumstein, *supra* note 10, and evidence for it was provided by Golub and Johnson. ANDREW LANG GOLUB & BRUCE D. JOHNSON, U.S. DEP'T OF JUST., RESEARCH IN BRIEF, CRACK'S DECLINE: SOME SURPRISES ACROSS U.S. CITIES.

³³ See, e.g., Michael Janofsky, *Missing Trend, Some Cities See Murders Rise*, N.Y. TIMES, Jan. 15, 1998, at A16.

VII. SOME OBSERVATIONS AND SPECULATIONS ABOUT CAUSES OF THE DECLINE

It has been striking to note the sharp rise in homicide during the late 1980s and the correspondingly sharp decline in the 1990s. The increase in the aggregate homicide rate was due to escalating rates among juveniles and youth, predominantly (although not exclusively) by and against black males, particularly in the larger cities and exclusively involving handguns. In 1996, the decline is still less than half-way to the stable rate that prevailed for the fifteen years from 1970 through 1985. But we are not necessarily at the end of the down-turn of the cycles, and there is some reason to hope that the declines will continue.

If the observed process of a rise followed by a subsequent decline is indeed cyclical with a reasonably well-defined cycle time, perhaps the difference between the larger and the smaller cities is merely one that reflects the lag in the initiation of this process: the large cities started first, and then the smaller ones followed, roughly in order of their size. Subsequent data from the smaller cities over the next few years will be available to test this speculation. If this speculation is in fact confirmed, that opens the questions, first, of the forces driving this cyclical process, both up and down, and, second, of the factors contributing to the lag between the larger and the smaller cities. Here again, we can only speculate. The evidence available so far, while short of providing unambiguous confirmation, is largely consistent with the earlier hypothesis of the sequence that created the rise phase: introduction of crack in the mid-1980s; recruitment of young minority males to sell the drugs; arming of the drug sellers with handguns; diffusion of guns to peers; irresponsible and excessively casual use of guns by young people, leading to a "contagious" growth in homicide.³⁴

There is still no comparably strong hypothesis about the decline period, but a variety of forces are likely implicated, some more salient in some places and others elsewhere. These can be grouped as: (1) *independent forces* that came about on their own and contributed to the decline; and (2) *reactive forces* that re-

³⁴Blumstein, *supra* note 10, at 29-31. See also Colin Loftin, *Assaultive Violence as a Contagious Social Process*, 52 BULL. N.Y. ACAD. MED. 550-55 (1986).

sponded to the growth in homicide to stop the rise and turn it down.

Although the two types of factors are distinct from one another in important respects, their impact on homicide rates is fundamentally interactive: multiple factors are almost certainly responsible for the recent homicide decline, and the effectiveness of any single factor depends on the presence of others. We illustrate this contention in concluding remarks about some of the more important independent and reactive factors in the homicide decline.

A. INDEPENDENT FORCES

1. *Drug Markets*

The independent forces could be of many forms. One involves the changes in the nature of the demand for drugs, as identified by Golub and Johnson.³⁵ As the number of new crack users diminished in the early 1990s, that could well have brought some stability to drug markets, allowing them to function in a more secretive and surreptitious manner off the streets, and reducing the need to keep recruiting young people who are irresponsible with the use of violence. Those alterations could well have been amplified by the maturity of those managing the supply side of the market, many of whom were the survivors of the early violent period and had time and opportunity to develop dispute-resolution mechanisms other than the use of violence, much as their Mafia predecessors had done a generation earlier.

We acknowledge the absence of systematic evidence for the salience of any such maturation process, either in the markets or in the individual sellers or buyers. However, explanations of the homicide decline that emphasize the central role of changes in drug markets are a promising point of departure for the necessary research. For one thing, they are causally symmetrical: they account for both the increase and the decline in violence. Rates of serious violence, including homicide, went up during

³⁵ANDREW LANG GOLUB & BRUCE D. JOHNSON, U.S. DEP'T OF JUST., RESEARCH IN BRIEF, CRACK'S DECLINE: SOME SURPRISES ACROSS U.S. CITIES.

the rise phase of the crack epidemic and have been dropping during the decline phase.³⁶ As the crack epidemic spread in the mid to late 1980s, so did the danger around inner city drug markets, driving up the incentive for more kids to arm themselves in an increasingly threatening environment. That environment also became a prime recruiting ground for urban street gangs. Once kids acquired guns to protect themselves from other kids, a classic arms race began, and firearm violence diffused away from the drug markets.³⁷

As the crack epidemic began to abate in the early 1990s, levels of firearm violence fell as well, although some lag should be expected due to the self-perpetuating, "contagious" quality of an arms race. The drug market-firearm diffusion hypothesis, then, is suggestive of an epidemic-like process inherent in the growth and decline of homicide. Indeed, an important reason why public health terms like "contagion" and "epidemic" may have more than merely metaphorical significance for explanations of serious criminal violence lies in the intriguing connection between the recent cycles of violence and drug use in the United States.

The focus on changes in drug markets also helps to account for the variable timing of the peaks and declines in homicide across cities. A large coastal city such as New York, for example, where crack took hold earlier and where it peaked sooner than in other cities,³⁸ should have experienced a drop in its rate of homicide sooner than in other cities—and it did. An additional advantage of the drug-market hypothesis is that it directs attention to the population groups in which the changes in homicide were concentrated: youth, not necessarily as drug users, but as attractive sellers because of their reduced legal liability, and on

³⁶Eric Baumer et al., *The Influence of Crack Cocaine on Robbery, Burglary, and Homicide Rates: A Cross-City, Longitudinal Analysis*, 35 J. RES. CRIME & DELINQ. 316, 316-340 (1998); Butterfield, *supra* note 1, at A10; PAMELA K. LATTIMORE ET AL., U.S. DEP'T JUST., RESEARCH IN BRIEF, A STUDY OF HOMICIDE IN EIGHT U.S. CITIES: AN NIJ INTRAMURAL RESEARCH PROJECT (1997).

³⁷JOSEPH F. SHELEY & JAMES D. WRIGHT, IN THE LINE OF FIRE: YOUTH, GUNS, AND VIOLENCE IN URBAN AMERICA 150, 154-56 (1995). Blumstein, *supra* note 10, at 30.

³⁸ See Golub & Johnson, *supra* note 35, at 3.

African-American youth in particular, who disproportionately participated as sellers in inner-city crack markets.³⁹

2. Economic Expansion

Some of the recent decline in homicide rates is almost certainly related to the economic expansion of the past six years. Unemployment rates have dropped to levels not seen since the early 1970s, and consumer confidence is higher than in nearly three decades.⁴⁰ Importantly, economic gains have been shared by racial minorities, teenagers, and high school dropouts, groups at disproportionate risk for serious criminal violence.⁴¹

The role of opportunities in the legitimate labor market interacts in complex ways with changes in the illicit opportunity structure of distressed urban communities. The availability of low-wage jobs in the secondary labor market is particularly relevant when illicit markets and the employment opportunities they offer are shrinking. The conventional view of the connection between employment and crime portrays individuals, especially teenagers and youth, as turning to criminal activity when their legitimate employment opportunities are restricted.⁴² The relationship is likely to operate in the other direction also. Young people can also turn to legitimate jobs in response to dwindling opportunities for illegitimate work. Evidence from Freeman⁴³ suggests that low-income teenagers will substitute illegitimate for legitimate work when the perceived rewards of doing so outweigh the costs, and that a sizable fraction of inner-city young men engage in both legal and illegal activity at the

³⁹ This is reflected in the sharp rise in the arrest rate of non-white juveniles for drug offenses in the late 1980s. See, for example, Blumstein, *supra* note 10, at 28 fig.10.

⁴⁰ See, e.g., Robert D. Hershey, Jr., *Confidence of Consumers is Surging*, N.Y. TIMES, Dec. 31, 1997, at C1; Robert D. Hershey, Jr., *US Jobless Rate Declines to 4.7%, Lowest Since 1973*, N.Y. TIMES, Nov. 8, 1997, at A1; Louis Uchitelle, *6 Years in the Plus Column for the US Economy*, N.Y. TIMES, Mar. 12, 1997, at C1.

⁴¹ See Sylvia Nasar, *Jobs Juggernaut Continues Surge, 300,000 Find Work*, N.Y. TIMES, Mar. 7, 1998, at A1.

⁴² Emilie Andersen Allan & Darrell J. Steffensmeier, *Youth, Underemployment, and Property Crime: Differential Effects of Job Availability and Job Quality on Juvenile and Adult Arrest Rates*, 54 Am. Soc. Rev. 107, 107-123 (1989).

⁴³ RICHARD B. FREEMAN, CRIME AND THE JOB MARKET (National Bureau of Econ. Research Working Paper No. 4910, 1994); RICHARD B. FREEMAN, WHY DO SO MANY YOUNG AMERICAN MEN COMMIT CRIMES AND WHAT MIGHT WE DO ABOUT IT? (National Bureau of Econ. Research, Working Paper No. 5451, 1996).

same time, moving back and forth from one to the other as opportunity permits. He explains that "Someone may need help selling stolen goods; a car with a stereo may be parked on a deserted street; the local fast food franchise or supermarket may be hiring. If the opportunity is there, and if the likely gain exceeds the reservation wage, someone will act on it."⁴⁴

These observations imply that the effects on criminal involvement of legitimate and illegitimate opportunities are fundamentally interactive: when the supply of illegitimate opportunities drops, the demand for legitimate work increases. If the assessments of the decline in crack markets in large cities in recent years are correct, then the movement to legitimate employment should have a particularly pronounced effect on the level of criminal involvement of low-skilled teenagers, and especially on their willingness to risk the serious violence associated with drug markets. There may be much to criticize about the low-end "go nowhere" jobs produced during the economic expansion of the 1990s, but they do employ teenagers—they are the only kind of jobs for which the great majority of teenagers are qualified—and they do reduce their risk of being victims and offenders.

Whatever the other drawbacks of flipping hamburgers or bagging groceries, kids are far less likely to kill or to be killed when working in a fast-food restaurant or supermarket than when selling crack on the street corner outside. These effects, however, are inherently short-term, not only because of the cyclical character of legitimate employment opportunities, but also because jobs in the secondary labor market are not, by themselves, a strong foundation for the kind of long-term integration in the mainstream economic and social life of a community that is necessary to permanently reduce the economic attractions of crime. It would be a very unwise policy to count on purely cyclical forces, and their interaction with changes in illegitimate income opportunities, to prevent youth crime and violence. Many kids involved in the illegal drug business apparently resort to legitimate employment only when other money-

⁴⁴ *Id.* at 17.

making options are closed off. After the police had temporarily suppressed the crack markets in New Haven in the mid-1990s, for example, a former drug seller lamented: "People are scared now, so they're just getting, like, jobs." The boy's tone was described as "pitying, appalled" by the journalist who interviewed him, who concluded: "Jobs were apparently only for the truly desperate."⁴⁵ Although low-wage jobs can have important short-term preventive effects, longer term benefits will require education and training programs that prepare teenagers in the work skills, habits, and discipline they will need as adults and that operate during periods of economic decline as well as expansion.⁴⁶

3. Incarceration Effects

Although in one sense changes in sentencing policy and resulting changes in the level of imprisonment are clearly "reactive" with respect to the problem of criminal violence, we include them as independent forces in our discussion because the dramatic growth in incarceration began a decade before homicide rates went up in the mid-1980s. Incarceration effects are undoubtedly an important contributor to the continuing decline of homicide rates among older people (as displayed in Figure 3), especially for those over thirty, who displayed a 40% drop in homicide rates between 1985 and 1996. This connection is particularly close because the median age of prisoners is about thirty-two.

One of the contributors to the growth in incapacitation effects is the large number of drug sellers who have been sentenced to prison in the last two decades. Ironically, they have not been major contributors to a decline in drug offending because they have been replaced by other sellers, but, as long as they have any risk of committing homicide, they have contributed to the decline in homicide rates. Unfortunately, however, we cannot at this time isolate these incapacitation effects from

⁴⁵ William Finnegan, *Job Gap Results in Shrinking Middle Class*, ST. LOUIS POST-DISPATCH, July 8, 1998, at B7; see also, BRUCE A. JACOBS, *DEALING CRACK: THE SOCIAL WORLD OF STREET CORNER SELLING* (1999).

⁴⁶ For one set of proposals, see WILLIAM JULIUS WILSON, *WHEN WORK DISAPPEARS: THE WORLD OF THE NEW URBAN POOR* 207-38 (1996).

other effects contributing to a decline in homicide by older people, such as the effects of the reductions in intimate-partner homicide.

Incarceration effects are far less likely to have been a significant factor in the more recent decline in homicide rates among teenagers and youth and most likely limited to older youth whose incarceration risk is greatest. In addition, levels of homicide have fallen in the younger age groups in recent years even as their incarceration risk has increased.⁴⁷ It is possible of course that the decline might have been less steep in the absence of the "get tough on kids" sentencing policies enacted in recent years.

4. *Declining "Domesticity" and Intimate Partner Homicide*

In addition to the incapacitation effects of increasing incarceration on adults, there has been a sustained drop in homicides involving spouses, ex-spouses, and other intimate partners over the past two decades.⁴⁸ This decrease, which is especially pronounced among African-American adults, results from a corresponding drop in "domesticity," that is, declining marriage rates, increasing age at marriage, and high divorce rates.⁴⁹ Some preliminary evidence suggests that the increasing availability of legal advocacy and other domestic violence services also may have played a role.⁵⁰

B. REACTIVE FORCES

1. *Police Programs to Remove Guns from Kids*

Notable among the reactive forces are police efforts to remove guns from kids. These tactics could include a mixture of

⁴⁷ MELISSA SICKMUND ET AL., JUVENILE OFFENDERS AND VICTIMS: 1997 UPDATE ON VIOLENCE 28-32, 39 (1997).

⁴⁸ LAWRENCE A. GREENFELD, US DEP'T JUSTICE, VIOLENCE BY INTIMATES (1998).

⁴⁹ Richard Rosenfeld, *Changing Relationships Between Men and Women: A Note on the Decline in Intimate Partner Homicide*, 1 HOMICIDE STUD. 72-83 (1997).

⁵⁰ LAURA DUGAN ET AL., EXPLAINING THE DECLINE IN INTIMATE PARTNER HOMICIDE: THE EFFECTS OF CHANGING DOMESTICITY, WOMEN'S STATUS, AND DOMESTIC VIOLENCE RESOURCES, HOMICIDE STUDIES (forthcoming).

aggressive stop-and-frisk detentions, especially in high-violence neighborhoods (reputed to have been an important part of the response in New York City),⁵¹ introduction of programs offering a bounty for reports of illegal guns that would lead to confiscation (undertaken in Charleston, South Carolina, with apparent success),⁵² and "voluntary" searches of homes suspected of containing illegal weapons (with an agreement to confiscate the weapons but with a commitment not to press criminal charges for the possession) carried out in St. Louis.⁵³ The theory behind the confiscation strategies lies not only in the benefits of the confiscation itself, but in the broader deterrent threat that the risk of confiscation has on the carrying of the weapons or on the brandishing of a gun. To the extent that the carrying is reduced thereby, it in turn reduces the concern over self-protection, and thereby diminishes the incentive for others to carry their own guns. Thus, the contagious escalation characteristic of the rise period can display a similar contagion process of disarmament during the decline period.

Enforcement activity and related community-based reactive forces almost certainly have contributed to the drop in homicide in specific localities. However, the magnitude of this effect is difficult to gauge, because levels of homicide also have decreased in places with no discernible change in enforcement and because the effects of enforcement tend to interact with other influences over which the police and community leaders have little control. Los Angeles, for example, has seen large decreases in its own homicide rates, but we have seen no indication of actions they have taken to achieve that decrease. Understanding the interactions among the reactive and independent forces responsible for the recent decline in homicide rates should help policy makers and the public think more realistically about what communities can and cannot do when the rates turn up again.

⁵¹ WILLIAM BRATTON & PETER KNOBLER, *TURNAROUND: HOW AMERICA'S TOP COP REVERSED THE CRIME EPIDEMIC* (1998).

⁵² Interview by Alfred Blumstein with Chief Reuben Greenberg, Police Chief, Charleston, S.C. (March, 1995).

⁵³ Richard Rosenfeld & Scott H. Decker, *Consent to Search and Seize: Evaluating an Innovative Youth Firearm Suppression Program*, 59 J.L. & CONTEMP. PROBS. 197, 197-220 (1996).

2. *Community Efforts*⁵⁴

Other reactive forces would include community efforts to stop and reverse the escalation process. These efforts may be independent of the police, but could well involve community-policing resources when those were seen as relevant. These can take the form of mediation and negotiation between conflicting gangs, mentoring programs, hands-are-not-for-guns campaigns, and introduction of various community-center activities (e.g., "midnight basketball"), all stimulated by a community's concern over the escalating violence in its midst. One promising model for such community-policing partnerships is Boston's Cease Fire project, which combines highly targeted law enforcement interventions with prevention programs and has stimulated replications in several other cities.⁵⁵

VIII. SUMMARY

It is clear that the candidate factors contributing to the decline in homicides over the past several years are numerous and complex, and could well differ in different places. A significant aspect of the improvement involved undoing the factors that contributed to the growth in the late 1980s—especially kids carrying and using guns and thereby stimulating others to do likewise. Efforts in that direction have been carried out by both police and community groups. Much of the decline may be attributable to incapacitation associated with the doubling of the incarceration rate since 1985, but that effect shows itself only in reductions in older individuals, since young people are only rarely candidates for incarceration. That emphasizes the importance of efforts to prevent homicide by finding ways to socialize the young and train them with the skills necessary to function in a rapidly evolving economy. Current economic conditions seem to have provided legitimate economic opportunities at the same time that opportunities in the illicit drug markets were dimin-

⁵⁴ Warren Friedman, *Volunteerism and the Decline of Violent Crime*, 88 J. CRIM. L. & CRIMINOLOGY [first page], [Community Efforts Subsection page #s] (1998).

⁵⁵ David Kennedy & Anthony Braga, *Homicide in Minneapolis: Research for Problem Solving*, 2 HOMICIDE STUD. 263, 263-90 (1998); David Kennedy et al., *Youth Violence in Boston: Gun Markets, Serious Youth Offenders, and a Use-Reduction Strategy*, 59 J.L. & CONTEMP. PROBS. 147, 147-96 (1996).

ishing, but the cyclical nature of economic conditions makes their crime reduction effects uncertain in the future. There is undoubtedly a connection between illicit drug markets, particularly crack markets, and violence, but the nature of that connection is undoubtedly very complex and is not effectively addressed simply through prohibition of the drugs or through "cracking down" on the participants in the markets. Treating addicts medically, for example, could diminish the activity in the markets and could well diminish the violence as a result.

As we look to the future, we must anticipate that the recent declines could well be reversed. This could occur through a resurgence of active drug markets and the violence that can accompany them through a downturn in the economy and the impact that would have in the communities where violence is most likely to re-ignite, and through the dropping from welfare rolls the remaining individuals who are least able to transition into the legitimate economy. We cannot be certain when the next increase in homicide will occur, but the current decline cannot continue indefinitely, and we should take the opportunity it offers to fashion criminal justice and community-based policies to prepare for the next increase.

Table 1. Change in Homicide Arrests by Age Group, 1993 to 1996

	1993	1996	Change	Percent Change	Percent of Total Change
Total Estimated Homicide Arrests	23328	19070	-4258	-18.2%	100.0%
Suspects Under Age 25	13399	10709	-2690	-20.1%	63.2%
Suspects Age 25 and Over	9929	8361	-1568	-15.8%	36.8%

Figure 1

UCR Murder and Robbery Rates

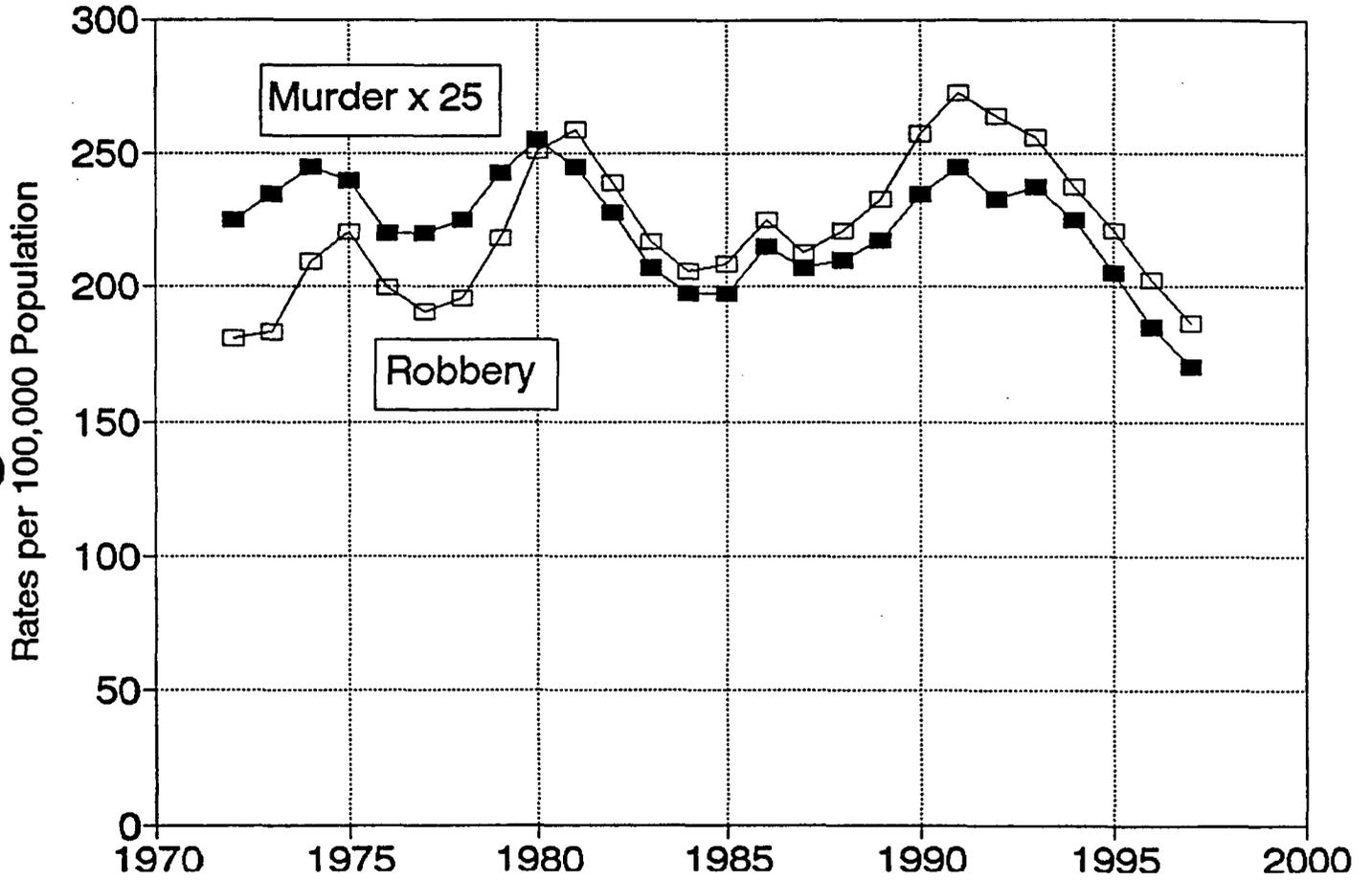


Figure 1a

Age-Specific Murder Rate: 1985-1993

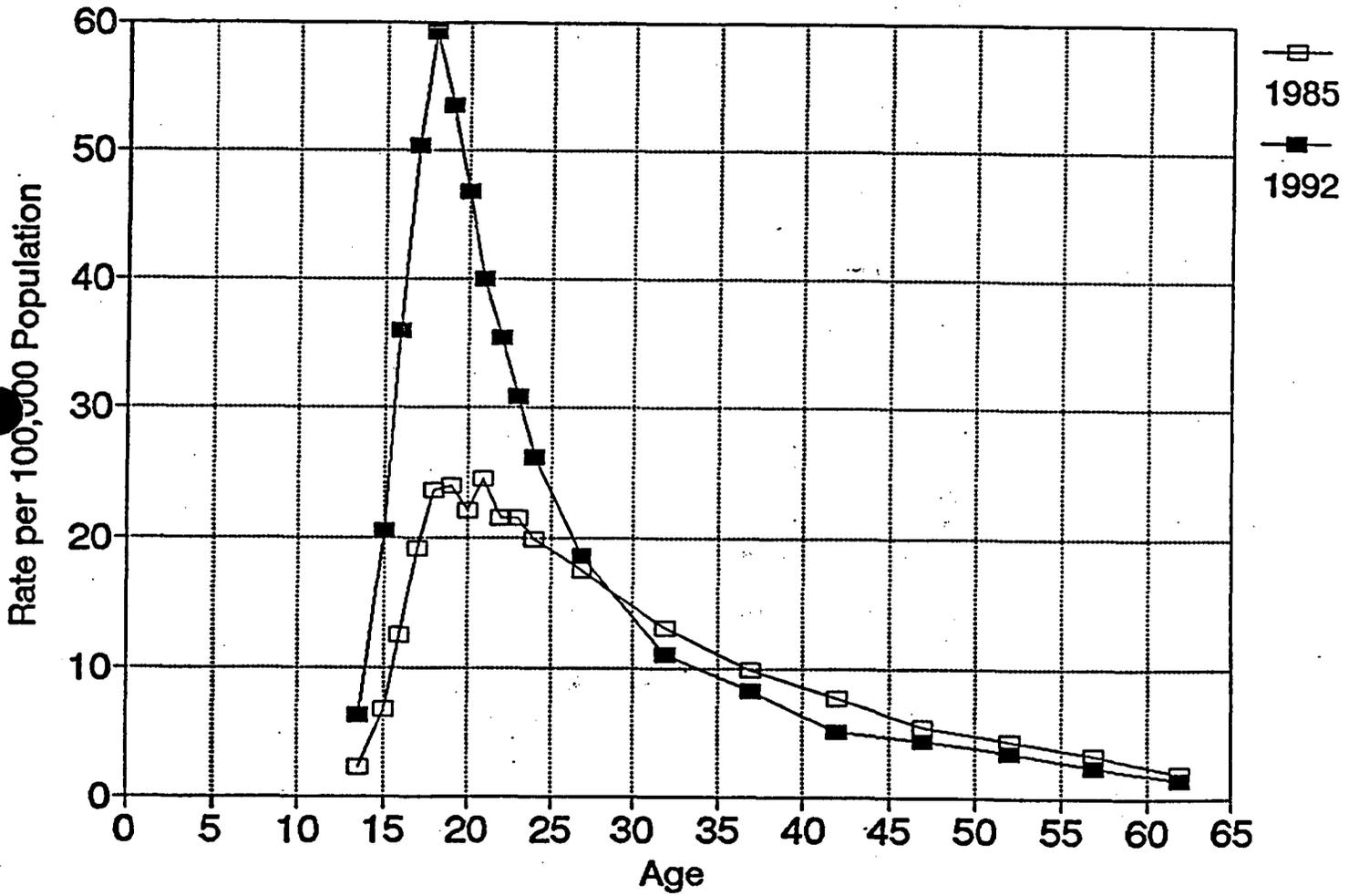


Figure 1b

Age-Specific Murder Rate: 1993-1996

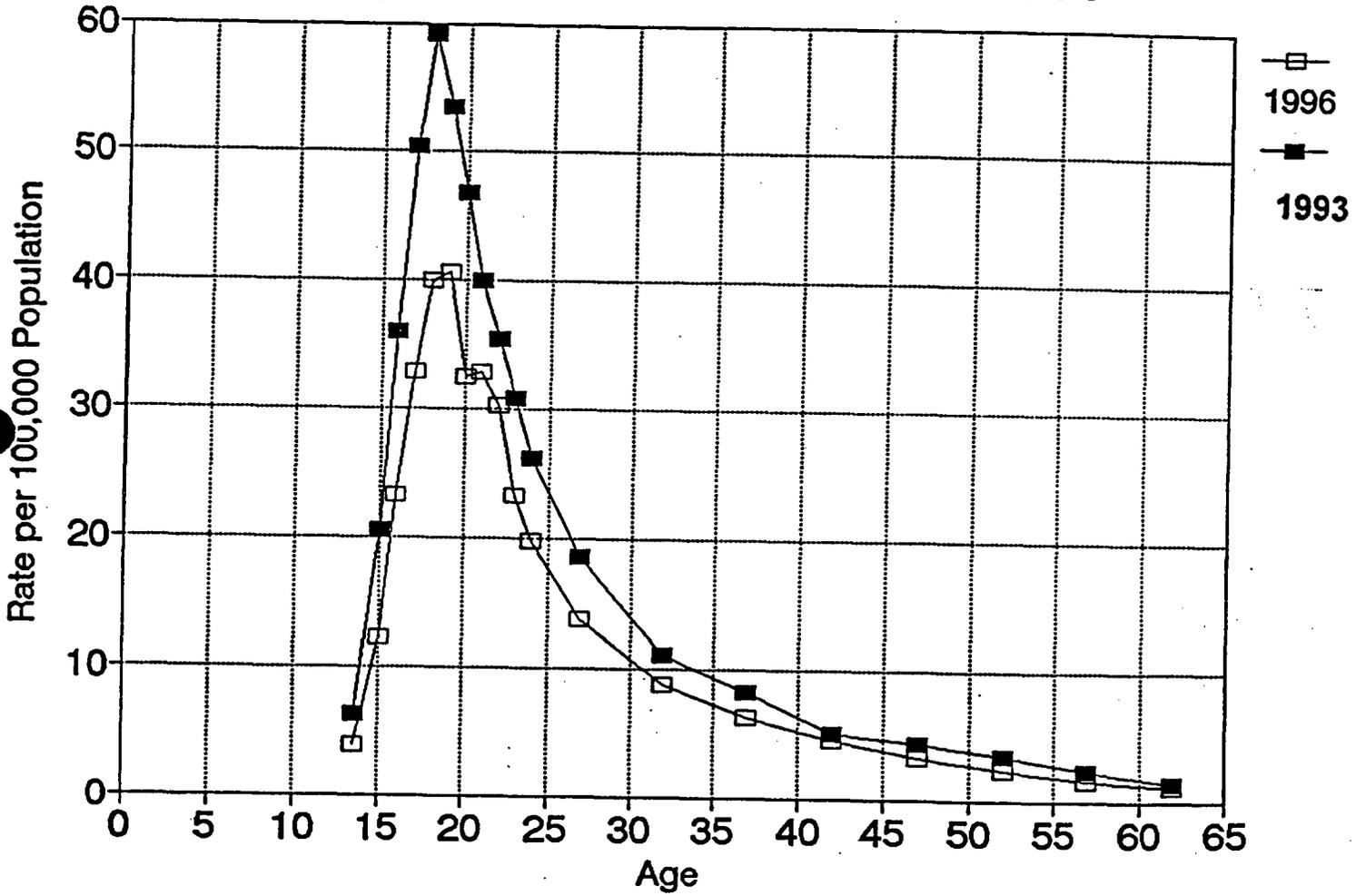


Figure 10 a

Homicides with NonHandguns by City Size

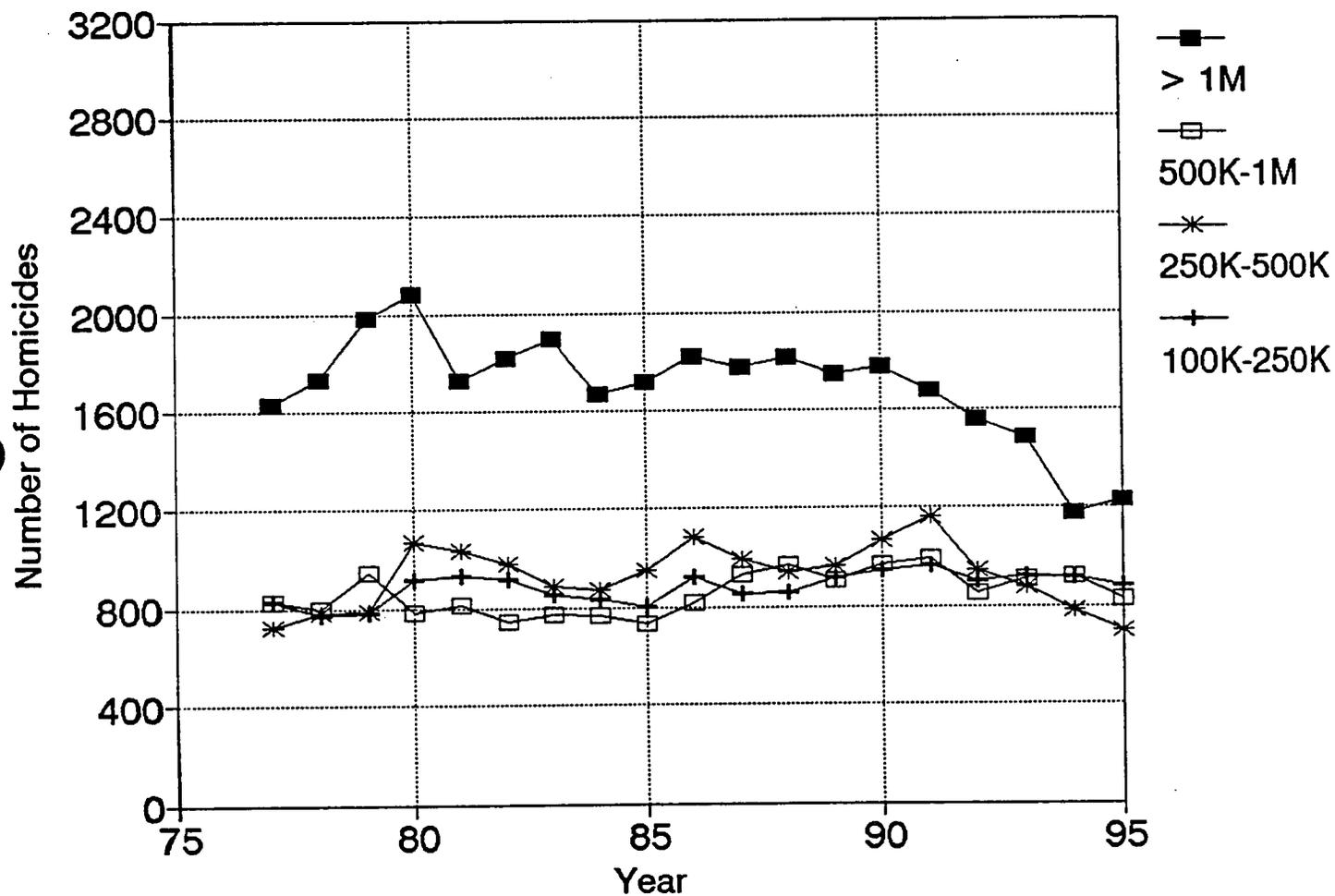
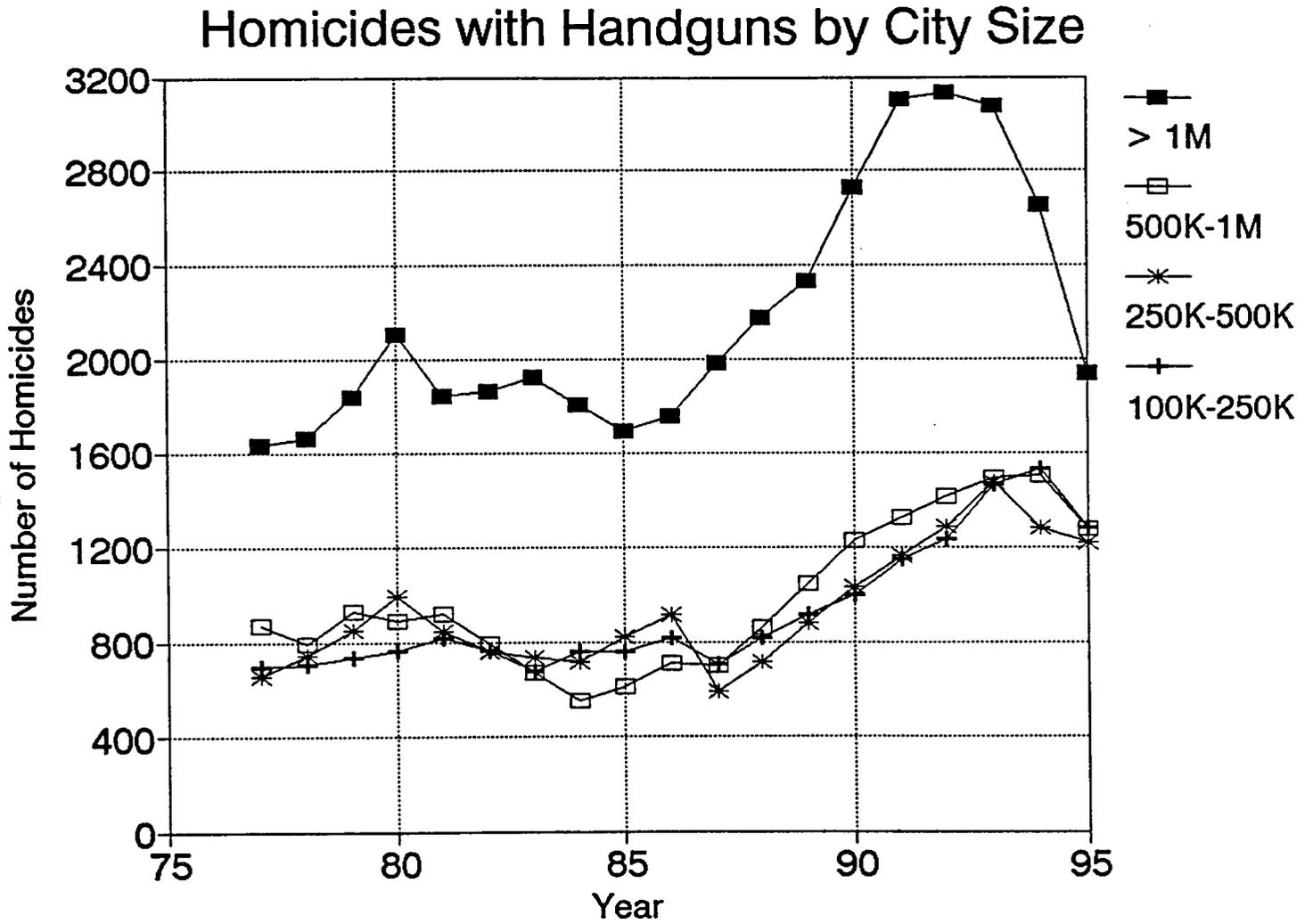


Figure 10 b



DECLINING CRIME RATES: INSIDERS' VIEWS OF THE NEW YORK CITY STORY

GEORGE L. KELLING* AND WILLIAM J. BRATTON**

I. INTRODUCTION

Something dramatic happened in New York City in 1994: a lot of people stopped committing crimes, especially violent ones. The reduction in the number of persons committing murders, for example, while not unprecedented,¹ was extraordinary. Since 1994, a debate has raged about why this happened. Putting our position up front, we believe the police played an important, even central, role in getting people to stop committing crime in New York City. Despite arguments to the contrary,² no evidence exists that the substantial drops in crime in New York City, especially the initial ones when one of the authors of this paper, William Bratton, was commissioner, were the result of economic change, changes in drug use patterns, or demographic changes. Arguably, New York City's economy, drug use patterns, and demography might be different *now* in 1998. Unemployment was at 10% the month Bratton took over the New York City Police Department (January 1994) and at 8.7% when he resigned (April 1996)—hardly a booming economy.³ And remember as well, the initial reductions in crime

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¹ See Jeffrey Fagan et al., *Declining Homicide in New York City: a Tale of Two Trends*, 88 J. CRIM. L. & CRIMINOLOGY [3] (1998).

² See, e.g., Alfred Blumstein & Richard Rosenfeld, *Assessing the Recent Ups and Downs in U.S. Homicide Rates*, NAT'L. INST. OF JUST., Oct. 1998 at 9-11.

³ NEW YORK CITY POLICE DEPARTMENT, NEW YORK CITY CRIME CONTROL INDICATORS & STRATEGY ASSESSMENT 41 (1998).

were so steep that by August of 1995—3 years ago, but only 20 months after Bratton took office—*New York* magazine declared in a cover story, “The End of Crime As We Know It.”⁴

Readers should understand that this debate about the origins of crime reductions in the United States, especially in New York City, are not just academic in the sense that detached scholars are searching objectively for some “truth” lurking out there somewhere in the data. In fact, criminological and political ideologies have shaped a good portion of this debate and are barely beneath the surface of even the most “detached” presentations. We do not pretend to be free from strong points of view about what happened in New York City. We were there and our presence belies any “detached objectivity.” Yet, we are not alone in having important vested interests in the outcome of the debate.

Aside from the lack of any competing explanations, our confidence that the police played an important role in New York City has three origins:

(1) We had a guiding “idea” about how to prevent crime; put another way, we had a theory of action;

(2) We applied this idea in New York City’s subway and, without anticipating it, the subway experiences became the “pretest” for what was to happen later citywide;

(3) Bratton, most importantly, but Kelling as well, had been struggling with issues of how to improve policing through police leadership, management, and administration for over two decades—principles developed in the context of organizational and policy literature and experience.

In the three sections that follow, we will be brief. We have written elsewhere about these issues and will not repeat our arguments here in detail.

II. THE “IDEA”—BROKEN WINDOWS

The “broken windows” metaphor had its origin in an *Atlantic Monthly* article by James Q. Wilson and Kelling.⁵ It argued

⁴ Craig Horowitz, *The Suddenly Safer City*, NEW YORK, Aug. 14, 1995, at 20.

that, just as a broken window left untended was a sign that nobody cares and leads to more and severe property damage, so disorderly conditions and behaviors left untended send a signal that nobody cares and results in citizen fear of crime, serious crime, and the "downward spiral of urban decay."⁶ The article also argued that whenever crime and communities verged on being out of control in the past, residents and authorities in neighborhoods moved to reassert controls over youth and over disorderly behavior.

The implications of this point of view are that minor offenses have serious consequences for the life of neighborhoods and communities. Citizens, city officials, and police ignore them at their peril. This point of view is at odds with the reigning crime control policy view that had been developing throughout the 1950s and 1960s and made explicit by President Johnson's Crime Control Commission.⁷ Police, in this view, are "law enforcement officers," the front end of the criminal justice system whose business is serious crime—arresting offenders. For a variety of reasons police got out of the business of minor offenses. These reasons went beyond the utilitarian view that scarce police resources should best be concentrated on "serious" crimes. They included an understanding of how police abused loitering and vagrancy ordinances in the past; a desire for less intrusive policing and a more judicious use of police authority in a democracy; and, a view that many of the offenses, like prostitution, are victimless.

Nonetheless, we argued that the links between disorder, fear, and crime went something like the following:

⁵ James Q. Wilson & George L. Kelling, *Broken Windows: The Police and Neighborhood Safety*, ATLANTIC MONTHLY, Mar. 1982, at 29.

⁶ WESLEY SKOGAN, DISORDER AND DECLINE: CRIME AND THE SPIRAL OF URBAN DECAY IN AMERICAN NEIGHBORHOODS at 84 (1990). **[[is this a book? If so drop the "at"]]**

⁷ PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND THE ADMINISTRATION OF JUSTICE, *THE CHALLENGE OF CRIME IN A FREE SOCIETY* (1967).

Disorder → Citizen Fear → Withdrawal (Physical & Social)
→ Increased Predatory Behavior → Increased Crime → Spiral
of Decline⁸

According to this model, waiting until serious crimes occur to intervene is too late: dealing with disorderly behavior early, like successful communities have in the past, prevented the cycle from accelerating and perpetuating itself.⁹

Moreover, experiences in the subway taught us that many chronic, serious offenders also behave in a disorderly fashion and commit minor offenses like farebeating. Police order maintenance activities also give police the opportunity to make contact with and arrest serious offenders for minor offenses.

We never claimed that order maintenance alone is the sole means of preventing crime. Solving crimes, incarceration, social change, deterrence by other means, police presence and persuasion, citizen vigilance, reduction of opportunities, environmental design, and other factors play a role as well. In New York City's subway, however, we argue that order maintenance was an especially significant part of reclaiming the subway and reducing crime.

III. THE SUBWAY

In April of 1989, Robert Kiley, Chairman of New York State's Metropolitan Transportation Authority (MTA) asked Kelling to assist the MTA solve a problem in the New York City Transit Authority's subway (NYCTA). Kiley believed that the subway was in deep trouble—passenger usage of the subway was in rapid decline. New York City's late 1980s economic slump partially explained this decline. But marketing surveys suggested a more complicated problem: "homelessness" was frightening passengers and causing them to abandon the sub-

⁸ See SKOGAN, *supra* note 5 at 77; GEORGE L. KELLING AND CATHERINE M. COLES, *FIXING BROKEN WINDOWS: RESTORING ORDER AND REDUCING CRIME IN OUR COMMUNITIES* 20 (1996).

⁹ See Wilson & Kelling, *supra* note 4, at 33.

way in droves. This was after \$8 billion dollars had been poured into the subway to upgrade trains and tracks during the early and mid-1980s.

The NYCTA had already largely solved the problem of subway graffiti—a problem considered so intractable that its eradication was considered by some to be one of the most successful urban policy “wins” on record.¹⁰ Yet, despite this achievement, the frightening and intimidating behavior of a large group of miscreants overmatched whatever advantages accrued from graffiti elimination.

For those who have not experienced New York's subway during the late 1980s, its nightmarish circumstances are hard to describe. “In your face” panhandlers confronted riders throughout the system, from station entrances to trains. A quarter of a million passengers a day were “farebeaters,” going over, under, and around turnstiles. Youths deliberately blocked turnstiles, held open emergency gates, and extorted fares from passengers. Platforms, trains, and passageways reeked from public urination and defecation. Young men stalked tollbooths planning to rob them if by any chance their doors were opened. These same tollbooths—literally under siege—had already been firmly secured, including being equipped with special automatic fire extinguishers that would be activated if youths poured gasoline into the money window and lit it to force toll-takers to open booth doors. Drug and alcohol abusers and the emotionally disturbed, often one and the same, sprawled throughout the entire system—at times taking over entire cars on a train. Robberies of passengers were increasing.

For the Transit Police Department (TPD), at this time an independent police department of some 4,000 officers, it was business as usual. They shared the common view held by everyone from homeless advocates, to the New York City Civil Liberties Union, to the *New York Times*.¹¹ The problem was

¹⁰ Nathan Glazer, *On Subway Graffiti in New York*, PUBLIC INTEREST, Winter 1978, at 3-11; Maryalice Sloan-Howitt & George L. Kelling, *Subway Graffiti in New York City: 'Gettin' Up' vs. 'Meanin' It and Cleanin' It*, 1 SECURITYJ. 131 (1990).

¹¹ Kirk Johnson, *Officials Debate How to Get Homeless out of Subways*, N.Y. TIMES, Sept. 5, 1988, § 1, at 23.

“homelessness” and homelessness was not the TPD’s problem. Robberies consumed its attention. For example, the TPD was eager to restart an earlier discredited decoy unit.¹² When confronted by Kiley about the subway’s “homelessness” problems, TPD’s administration at first balked. Later, under pressure, it proposed massive cleaning crews armed with high-powered hoses supported by a special police unit that would eject the “homeless” as they “interfered” with or got in the way of cleaning.¹³

The story of reclaiming the subway by the police has been told elsewhere and need not be repeated here.¹⁴ Summarizing, a large scale problem-solving exercise was conducted, the problem in the subway was properly understood as illegal disorderly behavior, policies were developed and officers trained to deal with disorder. The legal battles over police activities to rein in panhandling were fought and ultimately won; TPD leadership, however, was recalcitrant and the effort flagged. Bratton was recruited as Chief of the TPD in April of 1990; he provided leadership and implemented a large-scale effort to restore order. Following these actions, serious crime began an immediate and steep decline.

Disorder and crime are no longer serious problems in New York’s subway—it is among the safest in the world. It feels, smells, and “tastes” different. Indeed, the culture was so different that by the mid-1990s the Transit Authority initiated a civility campaign, encouraging citizens to queue before boarding trains—a campaign that would have been a joke in the late 1980s. Returning ex-New Yorkers are stunned by the changes.

We highlight the subway experience because it has been lost in the bigger New York City disorder and crime story, especially since the TPD was absorbed by the New York City Police Department (NYPD) in 1995. Yet, it is an important story. It is probably one of the largest problem-solving exercises on record. The police tactics, organizational change, and administrative

¹² Personal observation of the author (Kelling).

¹³ Personal observation of the author (Kelling).

¹⁴ See generally WILLIAM J. BRATTON, *TURNAROUND: HOW AMERICA’S TOP COP REVERSED THE CRIME EPIDEMIC* (1998); KELLING & COLES, *supra* note 7, at 108-56.

processes implemented in the TPD foreshadowed changes in the New York City Police Department. Still and all, the reclamation of the subway stands as a major event in public policy—certainly on a par with graffiti eradication—that raised and managed complex policy, constitutional, legal, and moral issues.

From our point of view and within the context of this discussion, it is especially important because it is hard to attribute the changes in the subway to anything other than police action. To be sure, the NYCTA implemented major efforts to deal with the genuinely homeless who were attempting to use the subway as a surrogate shelter. Graffiti had been eliminated and trains and tracks upgraded. Attempts had been made to target-harden the tollbooths and token-boxes (youths had been able to “spring” their doors with large screwdrivers and steal hundreds of tokens at a time), and some areas had been blocked off to the public. Moreover, subway officials were implementing a “station manager” program that focused on restoring a sense of station “ownership” and concern for passengers. But the subway environment was spinning out of control despite subway improvements and attempts at target hardening. Moreover, *post-hoc* explanations used to explain the later citywide reductions in crime—changes in drug use patterns, improved economy, declines in the number of youths, etc.—simply do not apply. Drug selling was not a major issue in the subway; unemployment was increasing during the time in question; and there was no evidence of a decline in the youth population.

The question is raised, “But isn’t the subway a simpler system and easier to reclaim than city streets and public spaces?” This is the point of the subway story. It *is* a simpler system. People pay to enter it. There are few private spaces—only trains, platforms, passageways, and entrances and exits. One would expect that if police action, in this case to restore order, was to have an impact in any setting, it would be in such a restricted environment. From our standpoint it was an ideal place to test the broken windows hypothesis: that is, one way to reduce fear of crime and prevent serious crime is to restore order. The subway is a system in which the potentially confounding variables cited by social scientists are controlled.

Certainly, we cannot aver with scientific certainty that the crime reductions in the subway are the result of the police intervention. We put forward the following, however:

1. In response to a growing problem, the TPD developed a specific set of interventions that included police tactics and changes in organizational structure and administrative processes;
2. The TPD "called its shots," predicting that order could be restored and that crime would be reduced;¹⁵
3. Immediately following the intervention, crime began a steep decline.

The "after, therefore because of" fallacy? Perhaps. We doubt it. No other explanation seems plausible. Did graffiti elimination play a role? Target hardening? Social services for the genuinely homeless? Other factors? Of course. But action by the TPD achieved a "tipping point." We will return to the idea of "tipping point."

A final point in this introduction: no explanation of what happened in New York City can ignore the subway experience. While originally not conceived of as such, it became the pretest to what happened in the city.¹⁶

IV. LEADERSHIP AND MANAGEMENT

The New York *City* story is more complicated than the subway story. New York City is an intricate political, social, economic, and cultural entity in its own right. It has elaborate linkages to state, national, and international institutions and

¹⁵ The TPD's slogan under Bratton was "Disorder, farebeating, and robbery are one problem—deal with one and you deal with all."

¹⁶ Although, frankly, at least once over dinner, Bratton, Robert Wasserman, and Kelling played the mind game of how such tactics and policies could be implemented in New York City and, oh, if only they could. Moreover, Kelling had some hope that broken windows ideas might be incorporated into New York City. Prior to Mayor Giuliani's 1993 campaign for mayor, Kelling had met with Giuliani and his staff on one occasion and with Giuliani alone on another to discuss the implications of broken windows for New York City. Likewise, Bratton met with him during this period to discuss the turnaround in the subway.

forces. Crime is more complicated in the city than in the subway. For example, the serious crime problem in the subway is largely robbery, with most of them being "grab and run"—crimes that, while not trivial, are less ominous than many of the confrontational robberies on city streets. Crime varies in other respects as well.

Moreover, more complex control systems operate in the city—from the "small change" of neighborhood life,¹⁷ to schools, churches, family, workplace, business improvement districts, community groups, and others. Potentially confounding influences are not naturally controlled.

The NYPD is more complicated than the TPD was, and, frankly, it was in deep trouble when Bratton assumed control in 1994. Its troubles with abuse and corruption during the early 1990s were well known, largely as a result of newspaper revelations and the subsequent work of the Mollen Commission.¹⁸ But there was another story in the NYPD, as least as dark as the abuse and corruption accounts, but far less well known—the lack of quality policing. Since the 1970s Knapp Commission,¹⁹ the NYPD had been preoccupied with corruption. So much so that it was widely understood, but only partially true, that the "business" of the NYPD had become "staying out of trouble." And, of course, the most certain way to stay out of trouble was "to do nothing." Surely this is an overstatement, but nonetheless, it had considerable basis in fact. Most symptomatic of this "stay out of trouble by doing nothing" orientation was that line patrol officers were restrained by policy from making drug arrests, even if dealing was conducted right in front of their noses.²⁰ In respects it was the worst of all possible scenarios: too much abuse and corruption, too much corruption control, and

¹⁷ JUNE JACOBS, *THE DEATH AND LIFE OF GREAT AMERICAN CITIES* 73 (1961).

¹⁸ The Mollen Commission investigated corruption and abuse in the New York City Police Department during the early 1990's.

¹⁹ The Knapp Commission investigated corruption and abuse in the New York City Police Department during the early 1970's.

²⁰ Marcus Felson, Kelling's colleague at the Rutgers School of Criminal Justice, has suggested in a personal conversation that a major crime prevention mechanism would be to "get people to do their jobs"—police, prosecutors, zoning officials, etc.—at one level, just what Bratton did with the NYPD.

not enough quality policing.²¹ Bratton described the NYPD administrative world in *Turnaround*:

[T]he New York City Police department was dysfunctional.

First, it was divided into little fiefdoms, and some bureau chiefs didn't even talk to each other. OCCP didn't talk to patrol, patrol didn't get along with the Detective Bureau, and nobody talked to internal affairs. . . .

. . . Each bureau was like a silo: Information entered at the bottom and had to be delivered up the chain of command from one level to another until it reached the chief's office. . . .

. . . .
When Maple [a key Bratton advisor who had been a lieutenant in the TPD and who was a deputy commissioner under Bratton] analyzed the bureaus, the news got worse. How was the NYPD deployed? The Narcotics Bureau, he discovered, worked largely nine to five or five to one, Monday through Friday. The warrant squad was off weekends. Auto-crimes squad, off weekends. Robbery squads? Off weekends. The community-policing officers—those six thousand baby-faced twenty-two-year-olds who were going to solve all the neighborhoods' problems—off weekends. Essentially, except for the detectives, patrol officers, and some other operations going round the clock, the whole place took Saturdays and Sundays off.²²

Leading and managing such troubled organizations had become Bratton's stock-in-trade. The NYPD had been the fifth police organization he had headed that was in organizational trouble. His conviction that leading, inspiring, and directing middle-management was the key to improving police organizations was evident in a paper he published with Kelling²³ and was apparent in his work with the TPD.²⁴ His closest organizational advisors, Robert Wasserman (a police leader and consultant for over 30 years) and Robert Johnson (President of First Security—a Boston-based private security firm) had struggled with management issues for decades. Wasserman, who had been an advi-

²¹ See, e.g., FRANK ANECHIARICO & JAMES B. JACOBS, *THE PURSUIT OF ABSOLUTE INTEGRITY: HOW CORRUPTION CONTROL MAKES GOVERNMENT INEFFECTIVE* 157-70 (1996).

²² BRATTON, *supra* note 9, at 208-09.

²³ George L. Kelling & William J. Bratton, *Implementing Community Policing: The Administrative Problem*, in *PERSPECTIVES ON POLICING* 4 (National Institute of Justice ed., 1993).

²⁴ BRATTON, *supra* note 9, at 157-60.

sor to previous NYPD Commissioner Lee Brown, knew where the strengths of the NYPD were buried. Johnson had struggled to find leadership and management methods in the private sector to maintain core values and technologies in highly decentralized and geographically dispersed organizations. Other key advisors included John Linder, who had developed methods to do quick scans on organizational problems and opportunities, and Jack Maple, who is perhaps one of the savviest, street wise, and creative cops around. The ideas for Compstat—an organizational method both for holding precinct commanders accountable and for developing anti-crime tactics—grew directly out of the private sector management experiences of Johnson and the street sense of Maples.

This, too has all been discussed previously.²⁵ We summarize it here to make the following point: Bratton approached his commissionership in New York City with a clear plan. He had an idea about how to prevent crime; he had an organizational strategy he wanted to implement; and he had pre-tested both with great success in New York City's subways. Again as in the subway, he called his shots—both by demanding that mid-level managers be held accountable for crime reduction and by producing plans for dealing with specific problems such as guns, youth violence, domestic violence, quality of life, auto crimes, and others. One of the hallmarks in social science is that research should be guided by theory. Bratton's strategy was, in effect, management guided by theory. Innovations were implemented and crime dropped. A lot.

V. CONCLUSION

What happened in New York City? We, of course, will never know with scientific certainty. No credible alternatives, however, have been put forward to contradict our belief that police action played a pivotal role. In the final analysis, we believe that we have seen New York City do what cities and communities have traditionally done when confronted by disorder, crime,

²⁵ *Id.* at 233-39; KELLING & COLES, *supra* note 7 at 146-49.

and mayhem: it has moved to reassert control over disorderly behavior, fear, and crime.

The move to reassert control has been discernible in New York City since the late 1970s. Communities organized, business improvement districts organized, graffiti was eliminated from the subway, additional police were recruited and hired, prosecutors turned to communities for guidance (especially in Brooklyn), order was restored in the subway, and Mayor Rudi Giuliani was given a political mandate to restore order and help bring crime under control. But, there were limits to what could be accomplished without an active police presence. Things had been allowed to deteriorate for so long, aggressive youths had been so emboldened—indeed in the absence of an active police presence, they virtually dominated public spaces in many communities—that traditional control measures were simply not robust enough to restrain their predatory behavior. And, in the midst of the “crack” epidemic, their violence spun out of control. Thus, the pattern described in Fagan et al.’s “Tale of Two Trends”²⁶ comes as no surprise to us. They compare non-gun homicides with gun homicides. That non-gun homicides should be declining over an extended period of time is consistent with our view of how New Yorkers have been reclaiming their city over the long haul. Fagan et al.’s assertion that “The rate of lethal violence broke important new ground only after 1995 or 1996”²⁷ is consistent with our interpretation as well. This was the *exact* period during which police were reinvigorated and their impact started to be felt. Likewise, we have no quarrel with Curtis’ basic thesis in “The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs and Youth in the 1990s,”²⁸ that poor people are capable of helping themselves. We have never asserted otherwise: it has been basic to Bratton’s practice and it is explicit in both the original “Broken Windows”²⁹ and *Fixing Broken Windows*.³⁰

²⁶ Fagan et al., *supra* note 1 at 12-13.

²⁷ *Id.* at 12.

²⁸ Richard Curtis, *The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs and Youth in the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY [27] (1998).

²⁹ Wilson & Kelling, *supra* note 4.

Our basic premise is this: the restoration of assertive policing in 1994 and 1995 interacted with community forces to achieve an unprecedented "tipping point" in violent and other forms of crime.³¹ Community forces, although formidable, could not do it alone. History and research gives us evidence that police cannot do it alone.³² To assert that both the community and police played significant roles demeans neither. Can we ever be more specific in attributing causality? We doubt it.

The interesting question is, however, why things got so out of control. What happened that communities throughout the country either lacked the will or capacity to maintain order and keep its miscreants under control during the past three decades? Certainly macro economic and demographic forces were at play. More specifically the forces that have been aligned against neighborhoods and communities over the last three decades have been staggering. As Kelling wrote elsewhere:

Aside from the seemingly inevitable growth of the suburbs, consider what was done to our cities during the 1950s, 1960s, and 1970s. In the name of urban renewal, entire inner-city neighborhoods were torn apart. No provisions were made for displaced residents, so naturally they moved into adjacent neighborhoods. Because many of those displaced were African Americans, real estate blockbusters followed them, undercutting property values and scaring other residents into moving. In the renewal areas, concrete blocks of multistory public housing was built, often, as in Chicago with external unsecured elevators. This was the housing of the last resort for the most troubled and troublesome families. Expanded tenant "rights," however, made it virtually impossible to evict troublemakers regardless of their behavior or capacity for mayhem. Expressway construction followed and cut wide swaths through communities, displacing entire neighborhoods and dividing others. Neighborhood schools were abandoned and students were bussed throughout the city. Mental hospitals emptied patients onto city streets and drunkenness was decriminalized. The mentally ill and alcohol and drug abusers drifted into urban centers. In the name of their "liberty interests" and to forestall family and governmental abuse, parental and governmental authority over youths was reduced. To ensure that we

³⁰ KELLING & COLES, *supra* note 7.

³¹ Malcolm Gladwell, *The Tipping Point*, NEW YORKER, June 3, 1996, at 32.

³² For a summary of this history and research, see KELLING AND COLES, *supra* note 7, at 70-107.

children would not be stigmatized, we abandoned the idea of early identification of predelinquents.³³

Intermingling with these urban policies, were equally disastrous police and criminal justice policies that grew out of the 1960's Presidential Commission on Law Enforcement and the Administration of Justice. Its position was explicit: poverty, racism, and economic injustices caused crime. To prevent crime one had to eliminate these "root causes." The business of the police and other criminal justice agencies became arresting and processing offenders. This view became so pervasive that many early defenders of community policing asserted that because police could not deal with poverty, racism, etc., they could do little about crime. Thus the crime problem was "de-policed" for many police leaders—a view that most line officers found absolutely unacceptable, complicating the implementation of community policing. Police tactics grew out of these assumptions and police became "law enforcement officers" responding to serious crimes and calls for service—their isolation in cars virtually "de-policing" city streets. The political far right came in with their variation: crime was caused by breakdown of family values associated with welfare. Consequently, crime *prevention* was held hostage by both the ideologies of the far left and right: economic redistribution or elimination of welfare. Aside from community policing, criminal justice innovations were limited to more certain and longer incarceration.

Happily, police, criminal justice practitioners, and urban officials are breaking new ground. Most criminal justice professionals have no quarrel with the idea that disorder and crime are somehow linked to poverty, racism, and breakdown of values. But, they also understand that these linkages interact in an extraordinarily complex way. Meantime, they have rediscovered policing, as opposed to law enforcement, and prevention, as opposed to case processing. The changes that are taking place in the basic modalities of many public housing agencies,

³³ George L. Kelling, *Crime Control, The Police, and Culture Wars: Broken Windows and Cultural Pluralism*, in National Institute of Justice, II PERSPECTIVES ON CRIME AND JUSTICE: 1997-1998 LECTURE SERIES 13-14 (1998).

schools, zoning agencies, city attorneys' offices, and other agencies are equally as impressive. The interesting thing, as both of us travel around the country, is that different cities are doing it in different ways. The starting points are different. Powerful collaborations are forming among citizen groups, business, city agencies, prosecutors, correctional officials, and others. They take different configurations in different cities and deal with different problems in different ways. But this, of course, is the lesson. Each city is singular. Within cities, communities are unique. They are asserting control over themselves in unique ways as well.

In sum, neither of us would back away from a concluding statement in Bratton's *Turnaround*:

In terms of importance and potential and commitment, police in America are probably the most misunderstood entity in public life today. Old images exist, and, in truth, old-guard departments exist as well. But, as we approach the millenium, there is a new breed of police leader and a new breed of police officer. We need more of them.

I was privileged during my last half-dozen years in policing to work on the national and international stage, and I feel there is still more the police can do. The turnaround of the NYPD was the catalyst for the turnaround of New York City itself and offers a potential blueprint for the turnaround of the crime situation in the entire country. We clearly showed that when properly led, properly managed, and in effective partnership with the neighborhoods and the political leaders, police can effect great change. We have clearly shown that police can take back streets that were given up as lost for decades. The continuing challenge for American police leaders is to take them back in a lawful and respectful manner so that the behavior of the police reflects the civil behavior society expects of its citizens.³⁴

³⁴ BRATTON, *supra* note 9 at 310-11.

DECLINING HOMICIDE IN NEW YORK CITY: A TALE OF TWO TRENDS

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The mass media pay plenty of attention to crime and violence in the United States, but very few of the big stories on the American crime beat can be classified as good news. The drive-by shootings and carjackings that illuminate nightly news broadcasts are the opposite of good tidings. Most efforts at prevention and law enforcement seem more like reactive attempts to contain ever expanding problems rather than discernable public triumphs. In recent American history, crime rates seem to increase on the front page and moderate in obscurity.

The recent decline in homicides in New York City is an exception to the usual pattern, the most celebrated example of crime-news-as-good-news in decades. No doubt part of the public attention can be explained because the story took place in the media capital of the United States. But more than location made the New York story newsworthy. The drop in homicides was both large and abrupt—the homicide rate in the nation's largest city fell 52% in five years. Further, changes in police manpower and strategy are widely believed to have contributed to the decline. If this drop can be plausibly tied to enforcement

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activities, it would be the most conspicuous success of city police deployment policies in the twentieth century.

This article reports our attempt to assess the extent and causes of the five-year decline in life threatening violence in New York City. Part I puts the homicide decline in a variety of statistical contexts, comparing the drop to previous New York experience and to the experiences of other cities in the United States. Part II examines changes in patterns of homicide during the decline in search of clues about causes. Part III examines available data on crime trends and trends in crime-related phenomena over the years when homicide increased and declined. Did many crime categories fall, and by how much? Was the decline concentrated in a few categories or spread evenly across the spectrum of felony crime? What were contemporaneous trends in drug use, demography, and incarceration? Part IV reviews some explanations of the decline.

I. HOW BIG A DROP?

This section places the five-year decline in New York City homicide in a variety of historical contexts. How large is this drop compared to previous periods in the history of New York City? Is a drop this substantial a typical event in the history of a big city?

One important element of context for studying the New York City experience is the recent history of homicide rates in the United States. Figure 1.1 provides national level homicide rates by year over the period 1950-95.

INSERT FIGURE 1-1

After steady to declining trends until the early 1960s, the homicide rate doubled in the period from 1964-74 from just under 5 per 100,000 at the beginning of that period to just under 10 per 100,000 in 1974. After 1974, the trend over time appears to be fluctuations around the 1974 high. Homicide dropped somewhat in the mid-1970s then climbed back up to just above 10 per 100,000 in 1980, dropped in the early 1980s,

then climbed back up close to the 1980 high point in the early 1990s only to drop off again after 1991.

If all the homicide trends since 1964 were forced into a single trend line, the direction of the trend would be upward. If the doubling of rate prior to 1975 is plotted separately, however, the two decades since 1975 represent a trendless fluctuation down from the new peak rate of 10 per 100,000 per year and then back up. By 1995, the homicide rate had dropped back near but not yet below the twenty-year low set in 1984.

The New York City history can be briefly stated. In its relative and absolute magnitude, the homicide drops after 1992 were by far the largest in the postwar history of New York City. The second largest percentage drop was 25% from 1981-1985. The number of lives involved is even more impressive, with more than 1,100 fewer homicide victims in New York City in 1996 than in 1992. This reduction in homicide far exceeded the total number of homicides the city experienced each year in the 1950s and early 1960s.

The comparison of this New York experience with the experience of other cities is a more complicated story. Figure 1.2 begins the analysis by reporting on the largest five-year declines in homicides reported since 1945 in each of the fifteen largest cities in the United States as of 1950.

INSERT FIGURE 1-2

The five-year records for big cities vary from a 61% decline in Pittsburgh through a 15% decline in Chicago. The median decline was 40% and seven cities reported highest decline percentages between 43% and 38%. The New York decline is the third highest for the major cities, behind Pittsburgh, equal to Houston, and about 25% larger than the cluster of city records around 40%. Based on straight arithmetic, the New York experience is not unprecedented, but is a higher percentage drop than twelve of the nation's fifteen biggest cities have experienced in a five-year span.

There are two other city comparisons that help to illuminate the relative standing of the New York City decline. Figure

1.3 drops the constraint of a five-year span and searches for the largest homicide declines in a decade or less for each of the thirteen largest cities in 1950.

INSERT FIGURE 1-3

New York City's five-year drop maintains its position as the third largest in this comparison, but a much larger number of cities record declines of the same general magnitude of New York's 51%. It is worth noting, however, that the very largest cities in the United States other than New York City have more modest percentage declines than the smaller cities. New York City's population greatly exceeds Houston's, the next largest city with a similar relative homicide decline.

Figure 1.4 tests the five cities with the highest five-year declines against the hypothesis that an abnormally high homicide rate for a short period of time is the reason for a large drop in the homicide rate. The low year in the largest five-year decline is compared to the mean rate in that city for the previous fifteen years.

Figure 1.4 helps the observer tell the difference between a big drop that occurs when a city rate returns to near historically normal rates from an atypical high level and declines that still look dramatic when compared with homicide in a city over the long term.

INSERT FIGURE 1-4

Three of the five largest declines (including New York City) represent a substantial reduction from the average rate in the previous fifteen years. For Pittsburgh, Houston, and New York City, it is difficult to argue that the drops recorded were merely regression from abnormally high rates. The Boston decline, by contrast, was only to a point 11% below the previous long-term mean. Regression is a much more likely explanation in that case.

There is one further measure of possible regression relevant to our inquiry. In an era when very wide swings in rates of

criminal homicide occur, sharp downward movements in the homicide rate might be expected after sharp upward movements. The theory here is that some downward momentum might be expected after a steep climb in homicide rates for the same reason that rollercoasters tend to drop faster when they have climbed to a great height. The 59% drop in Houston homicides after 1991 came after a sharp increase in rate. Between 1987 and 1991, Houston's homicide rate climbed from 18.5 per 100,000 to 36.3—a 96% increase. Viewed against this background, both the swiftness and the extent of the decline is less astonishing. When measured against the previous low point in 1987, the Houston homicide rate had declined 19.6% instead of 59%, from 18.5 to 14.9 per 100,000. Moreover, the first year in which the Houston homicide was lower than its 1987 level was 1995, three years after the decline started. The real possibility of cyclical variations means that Houston may not have broken out of its long-term pattern until late in the current decline, and that the current homicide level is only modestly lower than the previous low. Similar measures can be found in Dallas, where a 58% decline in homicide brought the 1996 homicide rate to 23% under the city's 1983 rate.

How does New York City fare on this measure? To use the rollercoaster metaphor, the climb in New York City was not as steep prior to the post-1991 drop, so that less of the New York decline seems likely to be merely cyclical. Between 1985 and 1991, New York City's homicide rate had increased 56% from 17.5 to 27.3 per 100,000. The homicide rate in 1996 was 23% below the 1985 rate, so that about half of the decrease noted by 1996 was outside the range of cyclical variations experienced in the recent past in New York City.

Still, much of the New York decline could have been cyclical, and this possibility constrains our capacity to explain the homicide decline on other grounds, or to time with precision when New York homicide started behaving in non-cyclical fashion. As late as the end of 1995, the New York homicide rate was within 10% of its 1985 level. The rate of lethal violence broke important new ground only after 1995 or 1996.

A number of conclusions can be drawn from this brief excursion into the natural history of homicide rates in U.S. cities. The percentage decline experienced in New York in five years is quite large but by no means unprecedented in major cities. The largest five-year drop in the average major city since the Second World War is about 40%—a figure 20% smaller than New York City's. When declines over a six- to nine-year span are allowed, six other cities produce declines of a magnitude similar to the New York experience at some point in post-war history. These declines usually come after periods of general increase in homicide rates. The most common year as a starting point for a city's record decline was 1980, the highest year in U.S. homicide for at least a half century.

Declines of the magnitude experienced in New York City are not unprecedented, but they are not very common either. Only two other large cities exceed the New York percentage decline at any time in the post-war era. The New York record far exceeded the short-term drops recorded in any other city with a population of more than two million. And the large difference between the 1996 homicide rate in New York City and the previous fifteen years of homicide make a strong case against regression as a major part of the explanation for the five-year decline. So the decline is large by historical standards and not merely an echo of a sharp but temporary previous rise. None of this goes directly to the question of what may have caused the New York drop. We have first attempted to get an accurate measure of the size of the effort we are studying.

The next section shifts attention from the number of homicides occurring in New York City to an account of the different trends for different types of killings. The theory is that shifts in the types of homicides that take place can provide clues as to why the change has occurred.

II. THE NATURE OF THE HOMICIDE DECLINE

The homicide statistics discussed in the previous section are an aggregation of many different types of attack, many different community areas, and many different population groups that live in New York City. This section will analyze the types of

homicide that have changed the most, in order to search for clues as to the probable causes of the changes. The analysis reports on cross-tabulations of New York City homicide over time by borough, by weapon, and by demographic groups in the city. Each of these disaggregations produces findings we believe to be of major importance in interpreting the New York story.

A. VARIATIONS BY BOROUGH

One important approach to disaggregating New York homicide rates is by borough. The four major boroughs in the city—Brooklyn, Manhattan, Queens, and the Bronx—each have a population that would rank in the top ten U.S. cities. These four urban assemblages differ importantly from each other in economy, culture, population, and many other community characteristics. A natural question to ask is whether the homicide decline has been spread evenly over these four clusters or has been uneven in impact.

Figure 2.1 approaches this question by taking the average annual homicide count for each of the four large boroughs for the years 1985, 1986, and 1987 and expressing each year's homicide over the period 1985-95 as a percentage of that base. If the homicide count in Manhattan during 1989 was 25% more than the annual average during 1985-1987, the index for 1989 homicide in Manhattan will be 125 on the figure. This strategy is adopted to facilitate comparing the trends over time in the four boroughs. Staten Island is deleted from the analysis.

INSERT FIGURE 2.1

The four different boroughs differ importantly in the patterns observed while homicide rates grew in New York City, but are much less divergent during the years of decline. The peak volume of homicide in Manhattan was 35% greater than the 1985-1987 average, while Queens and Brooklyn grew 64 and 69% and the Bronx grew 93%. These were large differences in growth rate that were accompanied by a slight difference in timing. The peak year in Manhattan and the Bronx was 1990, while Brooklyn and Queens had their highest levels in 1991. Still, the

temporal pattern during the late 1980s and early 1990s was pretty consistent across boroughs.

The boroughs are even more parallel in the period of decline. Even though the increases were very uneven across the boroughs, each of them experienced close to a 50% drop from the high value of the decade by 1995. The 1995 volume of homicide in the four boroughs ranges from 47% of the high for the Bronx to 50.6% of the high value in Queens. The extent of the increase had no discernable impact on the proportionate homicide decline. This pattern seems the obverse of the saying that a rising tide lifts all boats.

B. PATTERNS BY WEAPON

The significant division of homicides in New York by weapon is between gunshot deaths and all others. The best data available on homicide by weapon over time comes from the Office of the Medical Examiner, which includes a small category of justifiable killings but otherwise should be parallel to the police data. Figure 2.2 shows the pattern by weapon using the 675 nongun killings in 1995 and the 834 gun killings in that year as a base of 100 to track trends over time. The nongun total for 1990 has been adjusted by deleting 85 of the 86 killings from the Happyland Social Club fire, in effect counting that episode as one homicide. This is done to smooth out the long-term trend curve.

INSERT FIGURE 2.2

In Figure 2.2, the patterns for gun and nongun killings are sharply different. Nongun killings drift downward from the beginning, interrupted only in 1990 by the 86 fire deaths in a single incident. By 1992, nongun deaths had dropped by 35%, and this trend continued through to 1996. Gun deaths meanwhile doubled between 1985 and 1991 and did not fall back to the 1985 level until 1995.

The gun death pattern is well known, and the rise in homicide by gun was large enough in the late 1980s and early 1990s to increase the total level of homicide until 1990 in the medical

examiner's data, and to keep total homicide high through 1993. What the gun trends obscure is the steadiest long-term trend in New York City—a downward movement in homicides by all means other than gun that began after 1986 and gathered momentum steadily throughout the late 1980s and early 1990s. By 1992, 70% of the total decline in nongun killings noted in the entire 1985-1996 period had already occurred. The declines after 1992 in nongun killings appear to have been a continuation of the eight years of previous decreases.

There are thus two dynamic and different patterns in the data on homicide by weapon. Gun killings first increase then fall back to previous levels. Nongun killings trend down from start to finish. The magnitude of the nongun trend is substantial and its timing is well documented. But it has not previously been noticed.

C. THE DEMOGRAPHICS OF HOMICIDE

The distinct patterns of gun and nongun homicide raise questions about whether these patterns were similarly distributed among the population of homicide victims. Using the Medical Examiner records, we disaggregated characteristics of gun and nongun homicide victims by age, sex, and race. The demographic patterns of gun and nongun homicide throughout this period tell two interesting stories. First, the homicide trends for women differ from the patterns for men, a gender contrast consistent with prior studies on the stability of female homicide. Second, changes in adolescent homicide rates were accompanied by parallel but less dramatic changes among the older population. This trend varies from the national picture of steadily declining rates among older groups.

1. Sex

Homicide rates for women were lower overall from 1985 through 1995, consistent with homicide trends historically. However, the trends in gun and nongun homicides for males and females differed in the magnitude, timing, and duration of change over the period. Figure 2.3 shows that gun homicides by women increased by 68% during this period, compared to an

increase of over 105% for males. The timing and duration of the increase for females was similar to that of males. Rates for women peaked in 1991, the same year as males, and sustained their peak rate for approximately three years before dropping sharply in 1994. By 1995, gun homicides for females had dropped 5% below their 1985 levels, but remained 10% above the 1985 levels for males.

INSERT FIGURE 2.3

The steady decline in nongun homicides described earlier was not consistent for men and women. Figure 2.3 shows that there were steady declines for both groups, but the decline was greater for men than women. By 1995, nongun homicide rates for males were 45% below their 1985 rates.¹ However, the rates for women declined far less. After reaching a low of 25% below their 1985 rate in 1992, they settled at about 80% by 1995. In fact, the overall trend for women has not changed since 1992.

2. Age

Much of public and scholarly attention on violence in the past decade has focused on the increase in gun homicides by adolescents.² Trends nationwide show that gun homicide rates for adolescents increased during this period while gun homicide rates for persons over twenty-five years of age were declining. Figure 2.4 shows that while adolescent participation in gun homicide did rise sharply from 1985-1991, rates for other age groups also continued to rise during this period.³

¹ The 1990 spike for male nongun homicides most likely reflects the 89 deaths in the Happyland Social Club fire. However, we could not adjust the rates for these deaths since data were not available on the gender composition of the victims of that fire.

² See Alfred Blumstein, *Youth Violence, Guns, and the Illicit Drug Industry*, 86 J. CRIM. LAW & CRIMINOLOGY 10 (1995); Phillip Cook & John Laub, *The Unprecedented Epidemic in Youth Violence*, in M. TONRY & M. MOORE, *YOUTH VIOLENCE* (Crime and Justice: An Annual Review of Research vol. 24, forthcoming 1998).

³ We include only homicide victims ages 15 and above. The gun homicide counts for those 14-years-old and younger were extremely low during this period, and their participation in nongun homicide exceeded gun homicide by 50% or more.

INSERT FIGURE 2.4

Gun homicides by adolescents ages 15-19 rose more quickly and sharply over this period. By 1991, the gun homicide rate for this group reached a peak of 176% above its 1985 rate. The other population groups also increased, peaking at approximately the same time at about 100% above its 1985 rates. Rates for the oldest population group, those thirty-five-years-of-age or more, rose slightly more slowly, peaking at 77% over their 1985 rate. Accordingly, adolescents became an active part of a homicide epidemic that spanned age groups.

The decline among adolescents was equally precipitous. By 1995, adolescent homicide counts declined to 25% above their 1985 base rate. All other population groups returned to their 1985 rates or declined below those rates. The slightly higher rate in 1995 for this group compared to the older groups suggests that a process of replacement, with pre-adolescents during the 1991 peak joining the higher risk 15-19 age group by 1995.

INSERT FIGURE 2.5

Figure 2.5 shows that the nongun homicide rates during this period declined for all age groups. We excluded the 1990 data, since age distributions of the Happyland Social Club fire victims were unavailable. The oldest and youngest age groups contributed proportionally to the nongun homicide decline from 1985-1989. By 1991, the decline was evident among all age groups.

3. Race

None of the data sources permitted detailed disaggregation of the homicide trends by race over the entire 1985-1995 period. Detailed data were available only for African-Americans; whites and Hispanics were not distinguished in the police or Medical Examiner data until after 1990. From the available data, there were no changes in the racial composition of the homicide population during this period. Data from several

sources show that homicide rates among African-Americans were higher compared to others throughout the period from 1985-1995.⁴

III. CONCOMITANTS

This section compares the city-wide homicide data developed in the previous section with trends in crime statistics and selected other social data widely believed to be linked to trends in lethal violence. City-wide data comparisons are presented because of the finding in the previous section that trends are consistent in time and, with one minor exception, in magnitude, over New York's four large metropolitan boroughs. The historical data for gun and nongun violence is presented separately in this section because, as discussed in the previous section, gun and nongun homicides have distinctly different histories in the city.

The first part of this section compares homicide trends with trends in police reported assaults. The second part measures the trends in gun and nongun homicide with trends in other crimes.

A. HOMICIDE AND ASSAULT DATA

The pattern over time for firearms homicide and firearms assault is shown in Figure 3.1, with 1985 rates of shooting deaths and firearms assaults expressed as 100 and all other values normed to that scale.

INSERT FIGURE 3.1

⁴ One data source does provide race-disaggregated information on weapon-related fatalities and injuries, but only from 1990-95. Sharp declines in firearm assault injuries and fatalities were observed for all races from 1990-95, according to the Injury Surveillance System of the New York City Department of Health. The surveillance system hierarchically combines case-level data on fatalities, hospitalizations, and emergency room admissions. OFFICE OF VITAL STATISTICS AND EPIDEMIOLOGY, SUMMARY OF VITAL STATISTICS, 1996, THE CITY OF NEW YORK (1997). Firearm death and nonfatal injury rates declined by 50% or more for both Blacks and Hispanics from 1991 to 1995. Rates for whites also declined, but at a slower pace. Rates of nonfirearm deaths and injuries declined more slowly for all races during this period.

The trends in police reported gun assaults and health department gun homicides are almost perfectly matched for the six years of increase to 1991, and for the decreases thereafter. In both timing and relative magnitude, the firearm assault trends match the firearm homicide trends. For this time period, trends in known firearm assaults are a very good index of trends in gun deaths. The case fatality rate of gun death per each ten gun assaults is stable over time. The increased level of firearm assaults, about 8,600 more known cases by 1990 and 1991, appears to be the mechanism that is driving the increase in gun fatalities, and the sharp drop in firearms assaults after 1993 seems to be the dynamic in the drop in firearms fatalities, although no strict test for causal ordering can be imposed on this data.

The data on nonfirearm aggravated assault trends and health department homicides by all means other than firearms are an extraordinary contrast to the firearms trends, as shown in Figure 3.2.

INSERT FIGURE 3.2

For most of the period, trends in nonfirearm aggravated assaults are a very poor index of trends in nonfirearm homicides: while the rate of death drops by half in the period from 1985-1995, the incidence of aggravated assault *increases* slightly. As a consequence of these sharply divergent trends, the case fatality rate drops from 16 per 1,000 in 1985 to 8 per 1,000 in 1995. Obviously, any increase in total aggravated assaults during this period would have to be clustered in nonlife-threatening types of attack.

There is, however, a good reason to suppose that the growth in nongun aggravated assault cases is solely the product of greater willingness to classify borderline cases as the aggravated form of assault. At the national level, assault rates have grown over the same period much more quickly than any change in

death rates could explain. So New York may simply be reflecting this national reclassification tendency.⁵

1. One Trend or Two?

An objection might be raised that the major finding of this study—the two separate trends in nongun and gun homicides—is really an artificial division of a unitary trend in violence over the period. The decline in nongun killings that starts in the mid-1980s is merely a shift from knife and personal force attacks to gun attacks. A proponent of this view might argue that there is no real reduction in violence to explain until after 1990, when total killings and presumably total high lethality attacks start to come down. Now that weapon specific assault data has been added to the homicide story, this possible objection can be addressed with some economy.

The circumstantial evidence against this possibility comes from many separate sources. In the first place, while gun deaths doubled between 1985 and 1992, a shift in the volume of knife, other weapon, and personal force attacks that was large enough to reduce the nongun homicide rate by 35% would be expected to increase the gun death total by at least 150%. This is because the case fatality rate in 1985 for gun assaults was 88 per 1,000 compared to 16 per 1,000 for the nongun assaults in New York in 1985. Given the instrumentality effects, the increase in firearms death was too small to fit with a displacement rather than decline in nongun violence. Nongun high lethality violence had to be coming down in the second half of the 1980s.

A second problem with attributing the increase in gun incidents in New York City to the same violent incidents now occurring with guns rather than other weapons of attack is that this is inconsistent with the prevailing explanation for increased gun attacks in the late 1980s. The conventional wisdom is that gun incidents increased in large part because of turf conflict in the new crack trade.⁶ If new types of conflict explain much of the

⁵ FRANKLIN ZIMRING, *AMERICAN YOUTH VIOLENCE* 38-45 (1998).

⁶ See, e.g., BLUMSTEIN, *supra* note 2. See also BOURGOIS, *infra* note 25.

growth in gun violence, that would leave even less of the gun cases to explain as the effects of displacement.

A third problem with the late 1980s pattern as a reciprocal displacement story is that the timing of the two trends is inconsistent with reciprocity. The two largest increases in gun homicide in the late 1980s occurred in 1988 and 1990. The biggest declines in nongun homicide happened in 1987 and 1992.

A fourth problem with a reciprocity explanation for the first seven years after 1985 is that the nongun homicide trends continued in a relatively uninterrupted fashion after 1992 as well. The magnitude of the drops in nongun killing after 1991 are quite consistent with the nongun pattern in the late 1980s, yet the increases in gun killings disappeared. An observer would have to maintain grossly different explanations for the front end years of the trend and the later years, despite the similarity in over-all pattern for the eleven years.

There is also evidence external to New York City that expanding gun homicide levels are not associated with declines in nongun violence. While gun homicide tends to increase more in up years than other weapon killings, and is also over-represented in declines, the nongun trends tend to be flat rather than to fluctuate in the opposite direction.⁷

Even granting the anomalous trend data for nongun assaults throughout the period it should also be mentioned that the police nonfatal assault data just reviewed is also grossly inconsistent with any reciprocity explanation of the decline in nongun violence in the late 1980s. More reliable nonfatal assault data for the 1980s would help us put a more precise point on the independence of the gun and nongun trends but the pattern seems clear on available evidence. A long decline in nonfirearms lethal violence continued throughout the period under study. In twelve years, the death rate dropped steadily until the 1996 rate was almost exactly half the 1985 rate.

⁷ For the United States as a whole, see Franklin E. Zimring, *Firearms and Federal Law. The Gun Control Act of 1968*, 4 J. LEGAL STUD. 133 n.2 (1975). For youth violence, see Franklin E. Zimring, *Kids, Guns, and Homicide. Policy Notes on an Age-Specific Epidemic*, 59 LAW & CONTEMP. PROBS. 25, fig.2 (1996).

Meanwhile, homicide by gun increased substantially and then decreased even more swiftly. The two homicide trends occurred in the same city but appear to be independent of each other, at least through the early 1990s and perhaps for the whole period under study.

B. OTHER CRIME TRENDS

Patterns of both robbery and property crime reflect the "two trend" finding in homicide, but the timing is not identical. Figure 3.3 shows the trends for firearm and other armed robberies for 1985-1996, again using the 1985 incidence as the base.⁸ Figure 3.4 shows property crime trends. The pattern of firearm robbery during this period is similar to the patterns of firearm assault and homicide, peaking in 1990 before declining sharply. The general decline in nonfirearm homicide is mirrored by the trend for property crimes and nonfirearm robberies, though the phasing of their decline differs by about two years.

INSERT FIGURE 3.3

The incidence of firearm robberies peaked in 1990, at 63% higher than the 1985 rate. This peak maintained for twelve months through 1991, before declining sharply through 1996. By 1996, the incidence of gun robberies was 47% lower than the 1985 index, a decline that substantially outperforms the gun homicide and assault trends. The trend for nonfirearm robberies more closely resembles the firearm crime trends generally. These robberies peaked in 1989 at 37% above the 1985 rate, and by 1996 declined to a point 25% below the 1985 rate.

At first glance, this trend appears to contradict the "two trends" finding from the homicide and assault data. One could conclude that these data portray a more unitary violence phenomenon during the period, with rates rising and falling in concert. However, there are two objections to this coupling of

⁸ The data point for the base year is greater than 100. The within-year fluctuations require smoothing of the curve based on moving averages of six-month periods. Thus, the initial data point actually includes the index for 18 months, or from January 1985 through June 1986.

firearm and other robberies in a general violence trend. First, the robbery trend beginning in 1989 mirrors identically the "two trends" conclusion in homicides. From a high in 1989, nonfirearm robberies began an uninterrupted decline to an incidence 52% below the peak. Thus, what differs in the robbery trends is the phasing of the trend, not its shape or magnitude. Though beginning somewhat later, the decline in nonfirearm robberies is otherwise quite similar to the decline in nonfirearm homicides.

Second, robbery itself is a heterogeneous crime, with acts ranging from chain snatching to threats or acts of violence to take property from a person. The growth in nonfirearm robberies from 1985-1989 may reflect a reclassification of borderline cases similar to the nonfirearm assault trends. That is, theft or larceny (without force) cases could be reclassified as robberies in circumstances where threats may be reported. As we show in Figure 3.4, the incidence of larcenies rose slightly during this period, suggesting a general trend of property crime increases that may confound these two crime categories.

INSERT FIGURE 3.4

Property crime trends are shown in Figure 3.4. Motor vehicle theft spiked in 1989 at over 150% of its 1985 incidence, before declining precipitously through 1996. By 1996, auto theft was 25% below its 1985 rate, and nearly two-thirds below its peak incidence in 1988. Burglary trends declined steadily throughout the period, part of a long-term trend in burglary that dates back to the late 1970s. The incidence of burglary in 1996 is 50% lower than the 1985 incidence, and half of its 1980 incidence.⁹

Larceny patterns, by comparison, are very stable, rising only 17% above its 1985 level before declining steadily. By 1996, lar-

⁹ Data on insurance claims confirm the decline in reports of auto theft and residential burglary. We obtained information from State Farm Insurance, the third largest underwriter of both automobile and homeowners insurance policies in New York City, on claims and settlements from 1991-1995. The number of claims declined 46%, and insurance settlements declined by 29% (unadjusted for inflation).

ceny was 38% below its 1985 rate, and over 50% below its peak in 1988. Thus, larceny and nonfirearm robbery trends are close in both shape and phasing. And, though phased three years later, these trends reflect the general nonfirearm crime decline observed earlier. Accordingly, a broad version of a "two trend" theory may be consistent with trends in both robbery and property crimes. The disjuncture between firearm and nonfirearm violence extends to robbery, while the longer-term downward secular trend in nonfirearm crimes now appears to include both violent and property offenses.

C. SOCIAL TRENDS

Both popular and social science explanations of the decline of New York homicide rates have focused on important social trends, particularly changes in drug markets and reductions in the population of offenders with the greatest propensity for homicide and gun violence.¹⁰ There are two reasons that make these explanations particularly attractive. First, homicide and drug epidemics have been closely phased, both temporally and spatially, in New York and nationwide, for nearly thirty years.¹¹ Homicide peaks in 1972, 1979, and 1991 mirror three drug epidemics: heroin; cocaine hydrochloride (powder); and crack cocaine. These long-term trends predict that declines in drug use would occur contemporaneously with declines in homicide.

Second, the scale of broader social trends, such as demographic shifts, matches the social scale on which broad crime trends rise and fall. Epidemic theories suggest that declines in the size of the susceptible populations would lead to declines in the incidence of social behaviors whose rapid rise above the

¹⁰ See, e.g., Richard Curtis, *The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs and Youth in the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY — (1998).

¹¹ Jeffrey A. Fagan, *Intoxication and Aggression*, in M. TONRY & J. WILSON, DRUGS AND CRIME (Crime and Justice: An Annual Review of Research vol. 13, 1990); Jeffrey A. Fagan, *Continuity and Change in American Crime. Lessons from Three Decades*, in U.S. DEP'T OF JUSTICE, THE CHALLENGE OF CRIME IN A FREE SOCIETY: LOOKING BACK, LOOKING FORWARD (1998).

base rate and equally rapid decline illustrate basic epidemic patterns.¹²

Figures 3.5 and 3.6 compare trends in firearm and nonfirearm homicide with trends in both drug activity and population change. We compiled two trends of drug activity: drug overdose deaths, from the records of the Medical Examiner, and trends in drug-related crimes, based on urinalysis results from the Drug Use Forecasting System (DUF). Figure 3.5 shows that the incidence of drug-positive arrestees remains unchanged throughout the period, and is unrelated to both firearm and nonfirearm homicide trends. Moreover, nonfirearm homicides decline steadily throughout the period, and appear to be independent from either drug indicator.

INSERT FIGURE 3.5

In contrast, drug overdose deaths follow a pattern of short cycles, with relatively brief periods of increase and decline. For example, by 1988, the incidence of drug overdose deaths is 60% higher than the 1985 base rate.¹³ They fall to 10% below the base rate in 1990, then rise through 1993 and remain about 40% above the 1985 incidence.

The rise in drug overdose deaths seems to increase as the incidence of firearm homicide deaths declines. By 1996, the incidence of drug overdose deaths is 21% above the 1985 base, while firearm homicide deaths are 22% below the 1985 base. Beginning in 1990, the mortality rate for drug overdose deaths rises from below 10 per 10,000 persons in 1985, peaks at 16 per 100,000 in 1993, and remains stable at 14.3 in 1996. During this period, the homicide fatality rate drops from over 30 deaths per 100,000 to 16.1 in 1996. Indeed, as Richard Curtis and others have pointed out, drugs such as heroin and ketamine sup-

¹² KENNETH J. ROTHMAN, *MODERN EPIDEMIOLOGY* (1986); Colin Loftin, *Assaultive Violence as a Contagious Process*, 62 *BULL. OF THE N.Y. ACAD. OF MED.* 550 (1986); Malcolm Gladwell, *The Tipping Point*, *THE NEW YORKER*, June 3, 1996, at 32.

¹³ The base year of 1985 is an important year, falling between the earlier emergence of street-level powder cocaine markets and the explosion of crack cocaine in 1986.

planted crack as the favored street drug.¹⁴ These drugs are more likely to cause overdose deaths.¹⁵

What appears as replacement, however, may simply be a spurious relationship between firearm fatalities and drug overdose deaths. Drug use and selling have different correlations with violence, and tend to motivate different types of violence. Homicide rates associated with drug *sales* rose sharply during the crack era, but violence associated with drug *use* remained relatively infrequent.¹⁶ And, although many users were involved in small-scale drug sales, most high-rate drug selling occurred among infrequent drug users.¹⁷

Accordingly, it is more likely that a decline in street-level drug selling activity may have reduced, to some unknown extent, the types of social interactions that lead to firearm homicides and assaults. It is less likely, however, that high violence drug sellers turned to more lethal forms of drug use.

INSERT FIGURE 3.6A AND 3.6B

Figures 3.6a and 3.6b show the trends for firearm and non-firearm homicides arrayed with population estimates for the subgroups with the highest homicide risk: males 15-29 years of age.¹⁸ Demographic trends appear to be unrelated to firearm

¹⁴ Curtis, *supra* note 10, at 30.

¹⁵ OFFICE OF VITAL STATISTICS AND EPIDEMIOLOGY, NEW YORK CITY DEP'T OF HEALTH, SUMMARY OF VITAL STATISTICS 1996, THE CITY OF NEW YORK (1997).

¹⁶ Paul J. Goldstein et al., *Crack and Homicide in New York City, 1988: A Conceptually Based Event Analysis*, 16 CONTEMP. DRUG PROBS. 651 (1989); Jeffrey Fagan, *Violence as Regulation and Social Control in the Distribution of Crack*, in MARIO DE LA ROSA ET AL., DRUGS AND VIOLENCE (NIDA Research Monograph No. 103, 1990).

¹⁷ See Fagan, *supra* note 16, at 25.

¹⁸ Population subgroup estimates were obtained from the Current Population Survey for 1985, the U.S. Census for 1990, and population projections completed by the New York Metropolitan Transportation Council for 1995. The latter were developed to predict transportation demand. The population model uses a cohort-survival technique that adjusts for cohort mortality, natality, survival rates and net migration rates at five-year intervals. Population is broken down into age/sex/race-specific cohorts using the Census Bureau MARS data set. Separate projections are made for each age/sex/race cohort. Population growth is based on forecasted age-specific fertility rates for females. The net-migration component is a function of historical rates and projected labor force demand segmented by type of job. See N.Y. METROPOLITAN

homicides. However, nonfirearm trends appear to coincide with population declines among white and Black males. The population projection for 1995 for Black males forecasts a 17% decline among males 15-29 years, or about 41,000 persons in absolute terms. For whites, the decline is sharper: 130,000 fewer males ages 15-29 are estimated to be living in New York City in 1995 than a decade earlier.

Can such declines produce the magnitude of homicide decline observed in this decade? Population declines for the highest risk groups, non-white males ages 15-29, were evident throughout the period, beginning during the increase in firearm homicide and continuing through the period of decline. Accordingly, it is tempting to dismiss demography as a correlate of the homicide decline. However, the relationship of population to a changing behavioral pattern may be nonlinear.¹⁹ In other words, did the population decline reach a threshold where it could lead to a decline in the incidence of firearm homicides?²⁰ This is a plausible but unfalsifiable explanation. Like the effects of declining drug markets, the contraction in the highest risk population is an important but unknowable influence on the decline in firearm homicides from 1992-1996.

TRANSPORTATION COUNCIL, TRANSPORTATION MODELS AND DATA INITIATIVE, TECHNICAL MEMORANDUM NO. 8.9: POPULATION FORECASTING AND ANALYSIS (1995).

¹⁹ See Gladwell, *supra* note 12, at 33.

²⁰ Sustained declines in populations with the highest propensity for lethal violence, males ages 15-29, might weaken their social networks and reduce the extent of social interactions of their members. The social and spatial clustering of homicide suggests that it is concentrated within overlapping social networks in small areas. Jeffrey Fagan et al., *Social Contagion of Youth Homicide in New York*, in P.J. Cook & M. Moore, *THE EPIDEMIC OF YOUTH VIOLENCE: A SUBSTANTIVE AND INTELLECTUAL CHALLENGE* (1998). Social contagion theory suggests that individuals are likely to mutually influence the behaviors of others with whom they are in frequent and redundant contact. R. BURT, *SOCIAL CONTAGION* (1992); Bovasso, *A Network Analysis of Social Contagion Processes in an Organizational Intervention*, 49 *HUM. REL.* 1419 (1996). The social interactions underlying assaultive violence suggest its spread by social contact. See Loftin, *supra* note 12, at 554. The dissolution of social networks from attrition would reduce opportunities for social transmission of assaultive violence. The relationship of network density to social contagion is nonlinear, however. Thus, epidemiologists discuss thresholds, or tipping points, where behavioral change accelerates and spreads through a population before beginning its process of decline. See, e.g., Jonathan Crane, *The Epidemic Theory of Ghettos and Neighborhood Effects on Dropping Out and Teenage Childbearing*, 96 *AM. J. SOC.* 1226 (1991); Gladwell, *supra* note 12, at 34.

D. LAW AND POLICY

Significant changes occurred in law and criminal justice during this period to produce important changes in the likelihood of detection and punishment of crime. Rapid expansion of prison populations have occurred in nearly every state, including New York.²¹ Moreover, New York City implemented an aggressive policy of street-level enforcement against both drug crimes in the 1980s²² and "quality of life" crimes in 1994.²³ In this section, we assess the relationships between these two policy shifts and the trends in homicide.

1. Policing

Figure 3.7 shows the trends in policing over the 11-year period. Changes in policing were unrelated to the long-term decline in nongun homicides. This is a secular trend whose explanations lie beyond the hypotheses raised here about post-1990 interventions. But there are some apparent links between police resources, firearm killings and crime rates, as well as police strategy and homicide trends. Patrol strength increased from its 1991 count of 6,647 officers to over 8,305 officers in 1995, an increase of nearly 25%. Figure 3.7 shows that the increase in patrol strength was sharpest from 1991 to 1994, the period of onset of the decline in firearm homicides. In addition, marked shifts in policing strategy began in 1994,²⁴ concurrent with even sharper declines in firearm homicides from 1994-1996.

INSERT FIGURE 3.7

The influence of policing on homicide is evident in data on the locations of homicides. The New York Police Department

²¹ MICHAEL H. TONRY, *MALIGN NEGLECT: RACE, CRIME & PUNISHMENT IN AMERICA* 58-66 (1995).

²² M. SVIRIDOFF ET AL., *THE NEIGHBORHOOD EFFECTS OF STREET-LEVEL DRUG ENFORCEMENT: TACTICAL NARCOTICS TEAMS IN NEW YORK. FINAL REPORT*, NIJ GRANT 89-IJ-CX-0056 (1992).

²³ GEORGE L. KELLING & CATHERINE M. COLES, *FIXING BROKEN WINDOWS: RESTORING ORDER AND REDUCING CRIME IN OUR COMMUNITIES* (1997).

²⁴ *Id.* at 29.

records whether crime events are "visible by patrol"; we used this indicator as a proxy for whether crimes occurred indoors or outdoors. Increased patrol and aggressive patrol tactics should reduce opportunities for visible or outdoor crime commission. Figure 3.8 shows trends in homicides committed indoors and outdoors, again using the 1985 incidence as a base of 100.

INSERT FIGURE 3.8

Visible homicides increased rapidly from 1986-1990, peaking at 134% above the 1985 base rate. There were two periods of decline, from 1991-1993, and a sharper decline from 1994-1996 when they returned to the 1985 level. After a one-year rise in 1986, nonvisible homicides fluctuated from 1987-1994 before beginning a sharp decline. By 1996, nonvisible homicides were 52% lower than the 1985 incidence. We find no evidence of displacement from outdoor to indoor homicide in these trends.

This represents a different "two trend" phenomenon with potentially different explanations for two different periods in this decade. From 1991-1994, there were two downward shifts in exogenous events tied to homicides, especially those occurring outdoors. The increase in patrol strength beginning in 1991 had a positive effect on reducing visible homicides. The second pressure was tied to changes in the dynamics of drug distribution. The decline in visible homicide was concurrent with the shift from outdoor to indoor drug selling, reducing the volatility of drug transactions and the opportunities for conflicts over money or territory.²⁵

The 1994-1996 decline coincides with changes in police strategy. Combined with earlier downward pressures, the shift toward an aggressive enforcement strategy targeted at firearms

²⁵ PHILIPPE J. BOURGOIS, *IN SEARCH OF RESPECT: SELLING CRACK IN EL BARRIO* (1995); Curtis, *supra* note 11, at 26-27. Although the "drug-relatedness" of specific homicides is difficult to determine, the direct and indirect contribution of drug problems to homicide rates has been stable over time. Goldstein, *supra* note 16, at 663. Changes in drug markets, as evidenced by shifts in consumption patterns and marketing styles, should contribute to changes in homicide rates. B.D. Johnson et al., *Careers in Crack, Drug Use, Distribution and Non-Drug Criminality*, 34 *CRIME & DELINQ.* 251 (1995).

produced sharp declines in both indoor and outdoor homicides.

2. Incapacitation

Both city and state incarceration populations are arrayed with homicide trends in Figure 3.9.²⁶ During the period of increasing firearm homicide rates from 1985 through 1991, prison and jail populations increased at the same pace. Jail populations declined from 1992-1994, a year after the onset of the homicide decline. Jail populations then rose again in 1995 as homicides continued to decrease. By 1995, jail admissions were 50% higher than in 1985. State prison populations rose throughout the period from 1985-1995. By 1991, when the incidence of firearm homicides was highest, state prison populations had doubled the 1985 rate. That is, homicide and state prison populations rose in lockstep through 1991, and continued to rise even as firearm homicides, and homicides overall, began their rapid decline.

INSERT FIGURE 3.9

While firearm homicides and homicides generally began their decline in 1992, state prison admissions continued to rise. By 1993, they were nearly 150% higher than the 1985 rate, and about 50% higher than the rate at the 1991 peak of the incidence of homicide and other firearm-related crimes.

The extent to which these legal policies influenced homicide trends differs by policy domain. Incarceration trends seem to be unrelated to homicide trends. There appears to be a negative correlation between police strength and firearm homicide, but the significance of these effects, or their primacy in relation to social influences, is not knowable. The effects of both manpower and tactical changes in policing are no doubt impor-

²⁶ Average daily populations are shown for the jail populations, and the year-end census is shown for the state prisons. According to the New York State Department of Correctional Services, approximately 70% of the state prison population in any year comes from New York City. Interview with Paul Korotkin, New York State Dep't of Correctional Services (?).

tant and strong contributors to the homicide decline. However, the magnitude and timing of the decline in firearm homicides is so great as to require additional, contemporaneous explanations and effects that no doubt interact with policing to produce unprecedented change.

IV. CONSIDERING CAUSES

The identification of two separate types of homicide with two discrete time trends is a major complication to theories that wish to identify discrete causes of reduced violence and crime in New York City. In this brief concluding note, we give our own interpretation of how the "two trend" conclusion of this study might be particularly relevant to the frequently voiced theory that changes in policing that occur early in the 1990s are an important explanation of declines in New York homicide.

We start with our negative conclusion. The consistent decline in nongun homicide identified in Part II starts too early and continues too evenly throughout the period under study to have any plausible linkage to changes that come into the city two or three years into the 1990s. Indeed, the evenness of the decline across a decade suggests the influence of an accretive process rather than any sudden step-function change in the environment of New York city homicide was responsible for cutting the nonfirearms homicide rate by half.

However, some important process is involved. There was no indication of regression in this pattern because there was no steep increase prior to 1985 in nongun homicide. Further, the rate of nongun killing is much lower by 1992 than at any time in the previous 15 years. The single or multiple processes that explain the decline in nongun homicide in New York City happened too early to be in the design perspective of this research, but they are no less important for that reason.

The more difficult question is whether the expansion in police resources and changes in the way these were used were major causes of the decline in gun homicide in New York City. The temporal fit between policing changes and gun homicide declines is a good one. Gun homicides begin to decline in the Medical Examiner's count in 1991, but the declines were not

large prior to 1994. Because of the steep increase in the gun homicide rate through the late 1980s, some regression would be expected from peak rates in 1990. So the initial declines in gun killings could be put aside as probable regression leaving the 85% of the drop that happens after 1993 as gun homicide declines that could have been produced by changing patterns of policing in the city. We must also recall that police strength, though not tactics, began a measurable climb at the same time that firearm homicides began their decline. These colliding forces produced a decline of unprecedented proportions that continued through 1996 and beyond.

A. REGRESSION REVISITED

A little bit of regression might make the causal role of policing more likely, but regression is also the primary explanation for the large drops in gun homicide after 1993. In Part I of this analysis, the hypothesis that the total decline in New York City homicide was attributable to regression was all but rejected because the decline by 1996 was to a level much lower than the city's long-term average rate, and homicide rates were lower also than the lowest previous level experienced in the past two decades. More than regression must have been at work when the totality of the city's homicides are combined into a single trend.

But once nongun and gun homicide patterns are separated, the regression explanation for gun homicides is more difficult to reject. Figure 4.1 charts two decades of homicide volume in New York City.

INSERT FIGURE 4.1

To use a term introduced in Part I, the pattern of gun killings does rather resemble the shape of a rollercoaster, with an ascent through the late 1970s to a relatively low peak, a return to near the previous low point, a sharp increase to a high peak in 1990 and a precipitous drop thereafter. What makes the regression explanation harder to reject for gun cases is that the

1996 low point is not that far removed from 1978 and 1985 levels of gun homicide.

There is no rigorous method available to parse causal responsibility between law enforcement, social trends, and regression for the city's gun homicide record. All contributed to the decline, all were probably significant. What makes us reluctant to dismiss the law enforcement role is the sharp decline also noted in Part III in gun assault and gun robbery. These two offenses may also reflect cyclical regression but the broad pattern and similar magnitudes are consistent with a substantial environmental change. So while the entire gun homicide drop of 1991 to 1996 is within the boundaries of regression possibility, the more prudent view is to regard the convergence of cyclical variation, social trends in risk and exposure, and law enforcement changes as jointly responsible for a 60% decline in gun deaths in five years time. How much of the decline can be claimed by law enforcement alone simply cannot be determined.

Related to the problem of apportioning responsibility between regression, demography, and policing for the decline in homicide, a substantial variety of changes in policing are competing to claim credit for positive trends in New York's homicide prevalence: "broken windows" theories of aggressive enforcement, gun interventions, general increases in police enforcement resources, strategic targeting of police efforts through computer mapping, and precinct-level management accountability for crime trends. Was the police share in the happy story graffiti control, squeegee control, gun control, or simply more police?

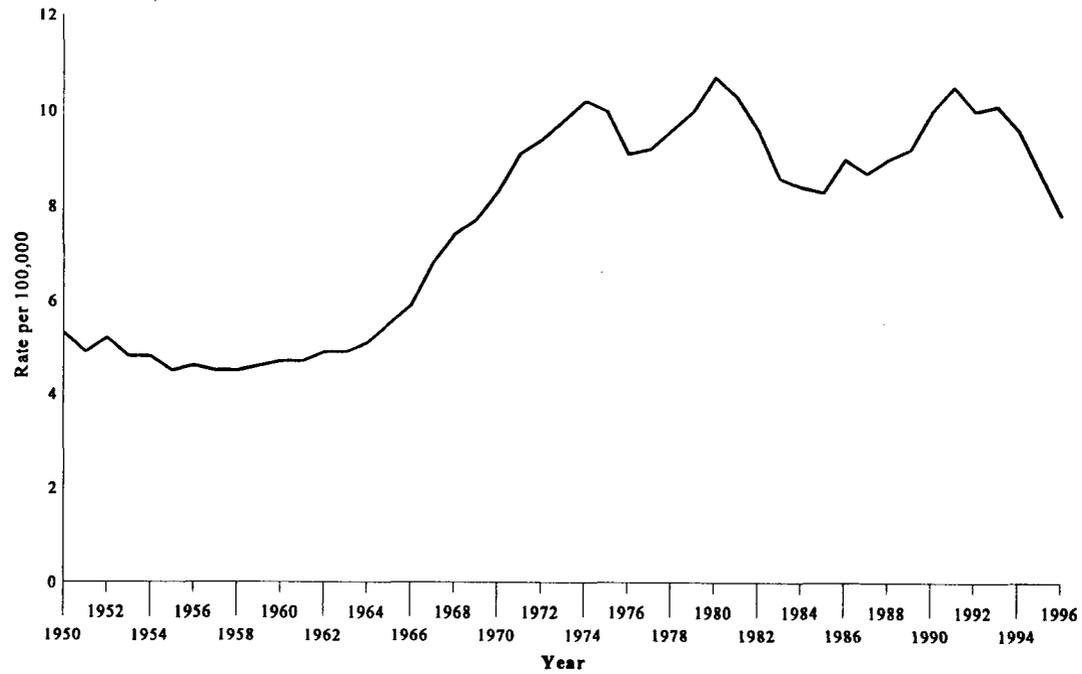
Because only gun homicide trends are in range to be attributed to police intervention, the case for gun-oriented policing strategies claiming credit is much stronger than for all other policies, but this inference is subject to two qualifications. First, a whole series of street enforcement tactics including stops justified on an order maintenance rationale can have gun-specific results if police use them to produce gun search opportunities. Second, we would also expect regression artifacts in New York City to be much larger for gun cases than nongun cases. So

more than the differential success of police gun programs might explain the concentration of trend change after 1992 in the gun cases. Still, the pattern in New York City is much more consistent with gun-oriented policing than with indiscriminate quality-of-life interventions as a cause of decline.

The nongun declines are in all probability not the consequence of policing changes or any other process that was not in effect until the 1990s. So one important part of the city's homicide decline was independent of the changes in the 1990s. If the origins of the nongun decline were better understood, perhaps we could be more confident about the behavioral explanations of the later gun homicide decline. But with this major reduction in nonfirearms homicide unexplained, there is no good reason to be confident in guessing about the specific causes of the decline in gun killings. The trend in nongun homicide for more than a decade remains a pleasant mystery that shrouds the whole explanation of variations in New York City homicide in fog.

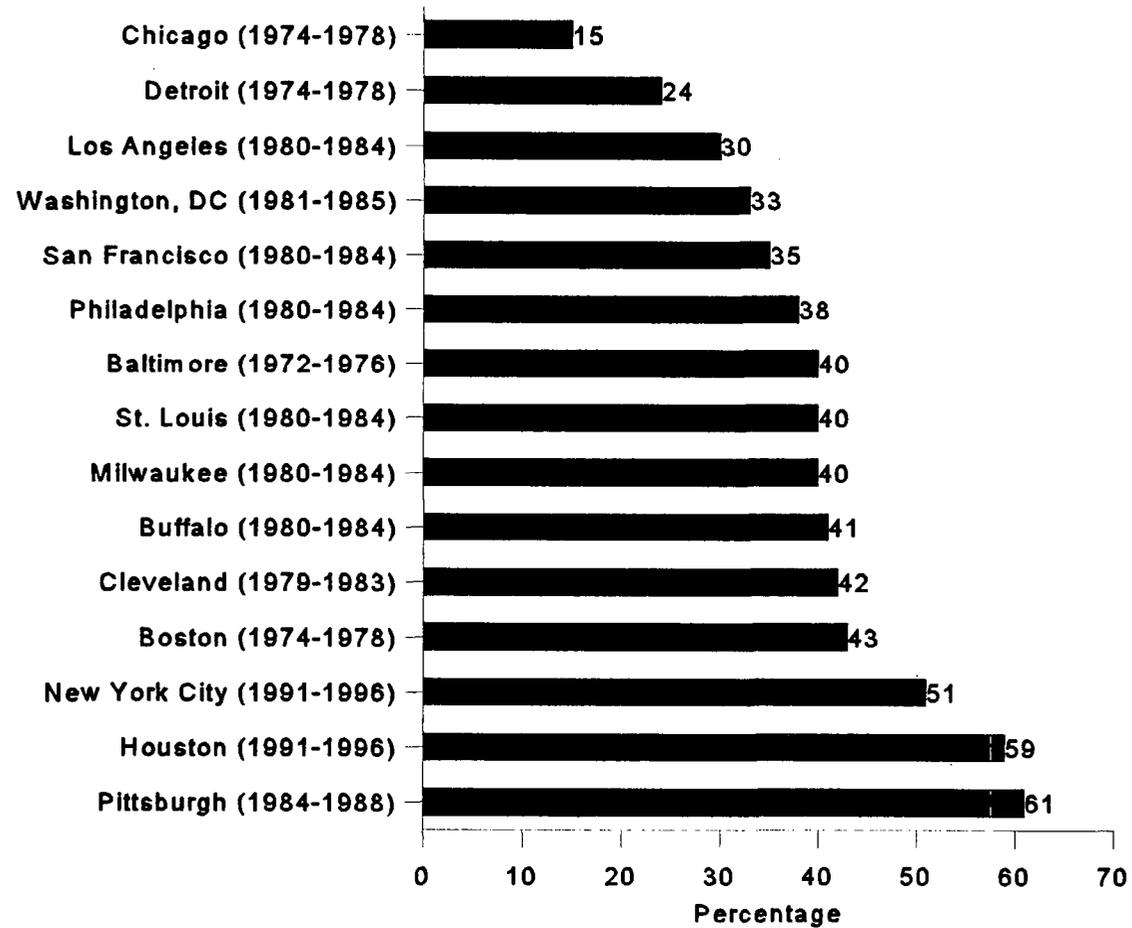
Attributing nongun homicide declines to law enforcement changes was premature and unjustified. Rather than risk more precipitous error in the interpretation of the city's homicide trends, our current understanding of the period from 1985 to 1996 suggests caution. If the downward trend in gun killings continues far past the 1978 and 1985 levels, the probable role of the mid-1990s changes will loom larger with each further decline. If the nongun homicides also continue in their post-1986 pattern, however, even the best statistical data on New York homicide will not yield easy answers on causation.

Figure 1.1. U.S. Homicide Rates, 1950-1996



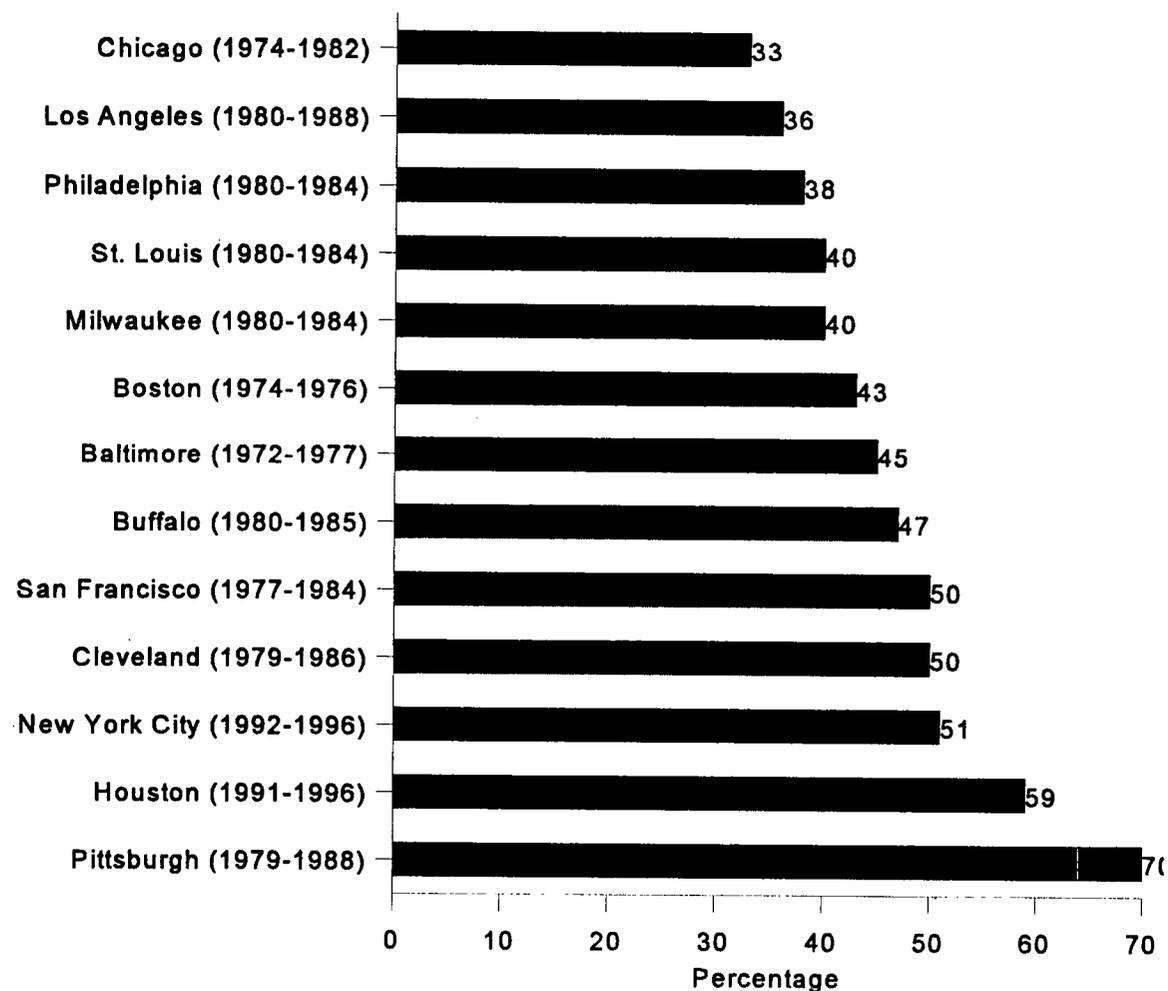
Source: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS, HISTORICAL STATISTICS OF THE UNITED STATES (1976); U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, VITAL STATISTICS OF THE UNITED STATES (1950-1996)

Figure 1.2. Biggest Five-Year Homicide Declines in the Fifteen Largest U.S. Cities, 1950-1996



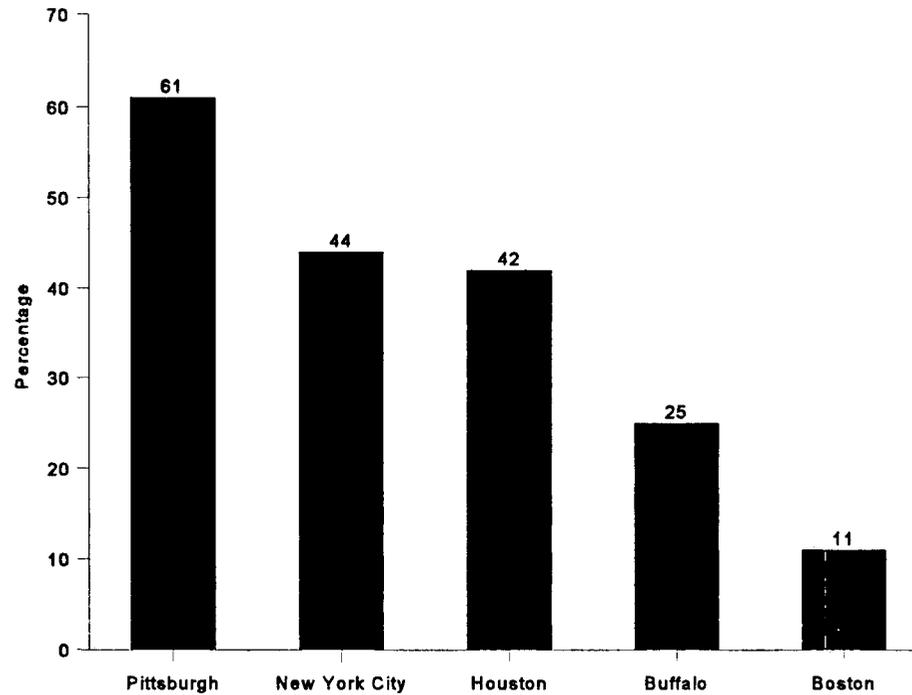
Source: U.S. DEPARTMENT OF JUSTICE, FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES (1950-1996).

Figure 1.3. Biggest Homicide Declines in Less than a Decade in the Thirteen Largest U.S. Cities, 1950-1996



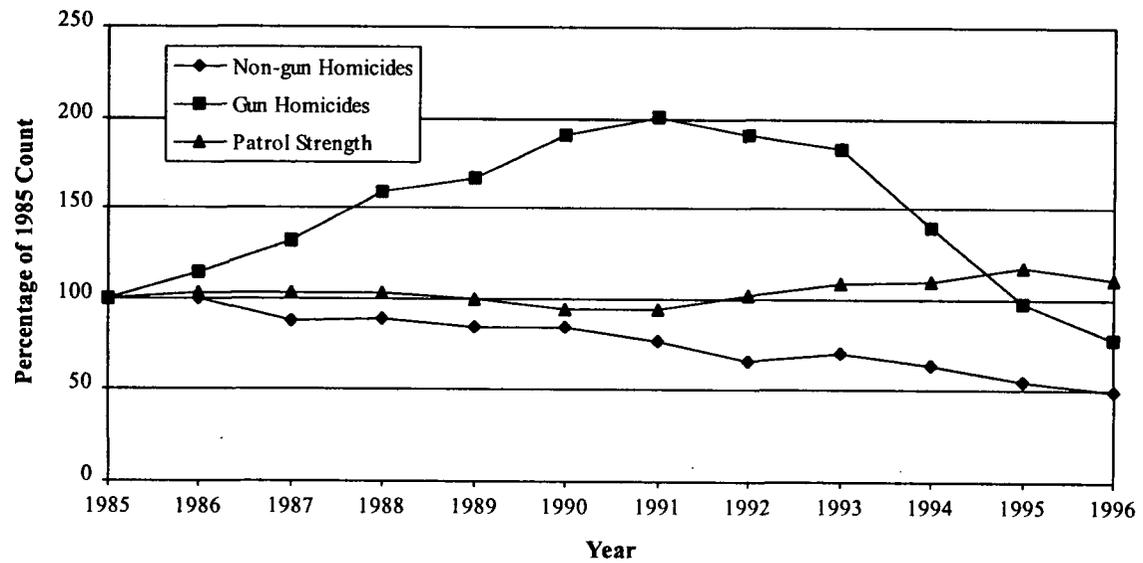
Source: U.S. DEPARTMENT OF JUSTICE, FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES (1950-1996)

Figure 1.4. Biggest Five-Year Declines from Mean Homicide Rates for Previous Fifteen Years



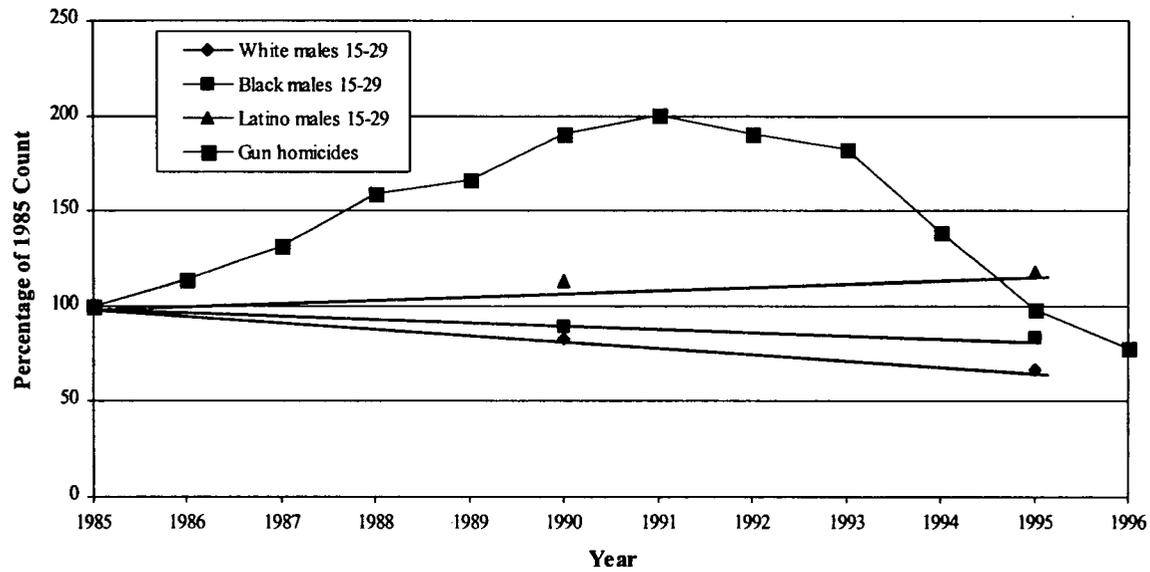
Source: U.S. DEPARTMENT OF JUSTICE, FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES (various years).

Figure 3.7 HOMICIDE AND POLICE PRESENCE, 1985-96



Source: Office of Vital Statistics and Epidemiology, New York City Department of Health; Mayor's Management Report, City of New York, various years.

Figure 3.6A GUN HOMICIDES AND POPULATION CHARACTERISTICS, 1985-96



Source: Current Population Survey, U.S. Bureau of the Census; Population Estimates; Regional Transportation Planning Board; Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health.

Figure 2

Trends in Age-Specific Murder Rate Trends for Individual Peak Ages

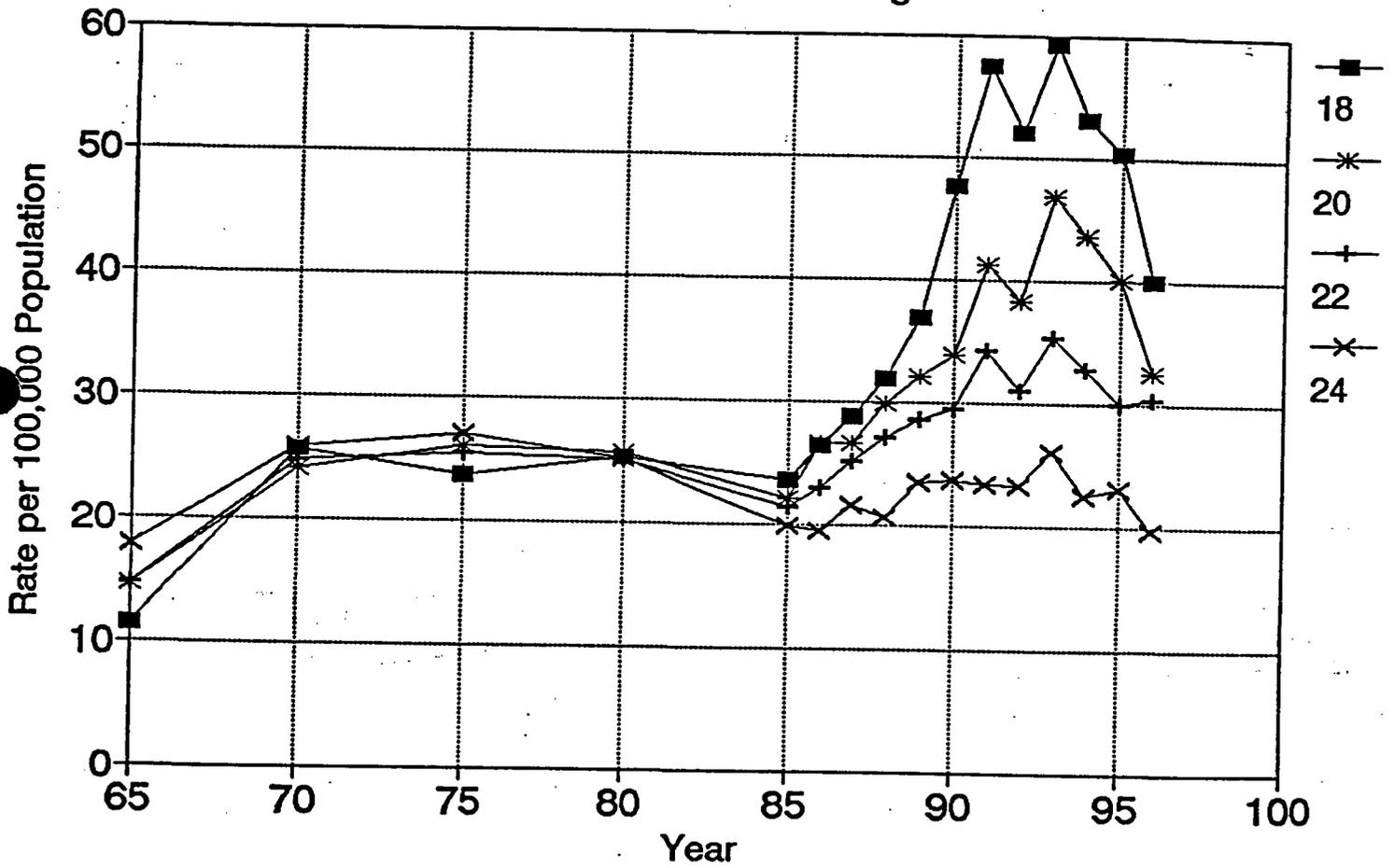


Figure 2 a

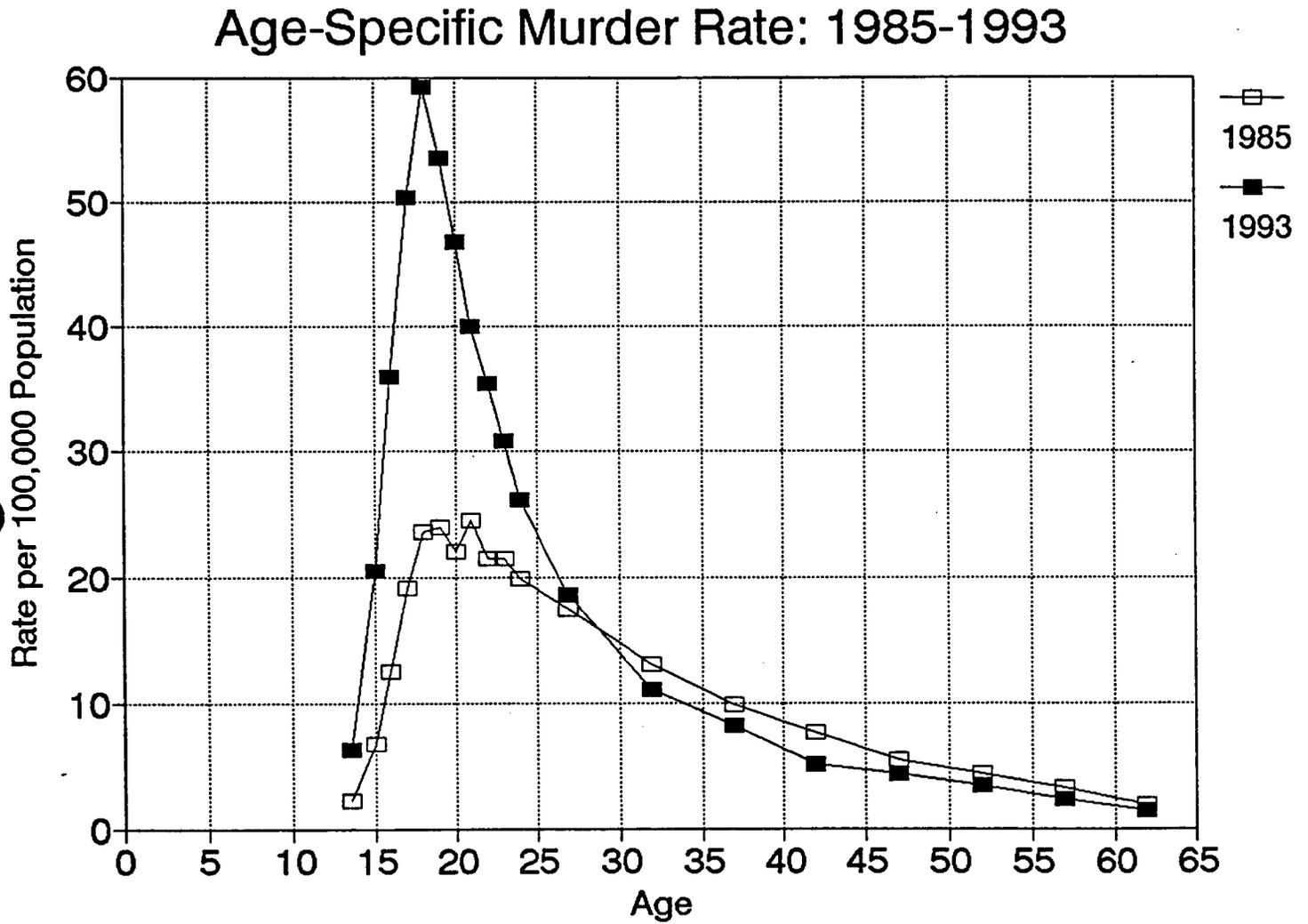


Figure 2 b

Age-Spec. Murder Arrest Rate: 1993-1997

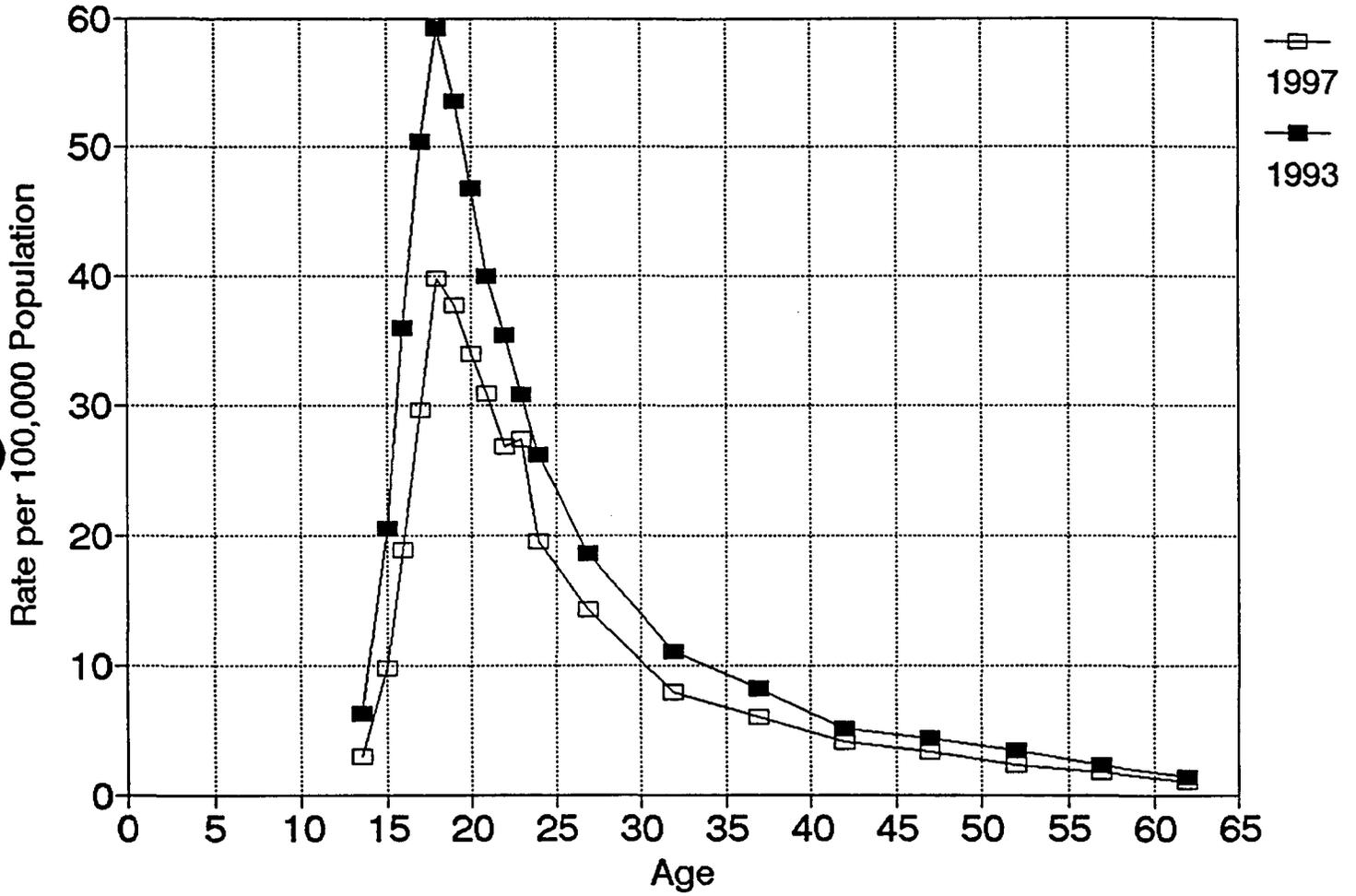


Figure 3

Trends in Age-Specific Murder Rate Trends for Individual Peak Ages

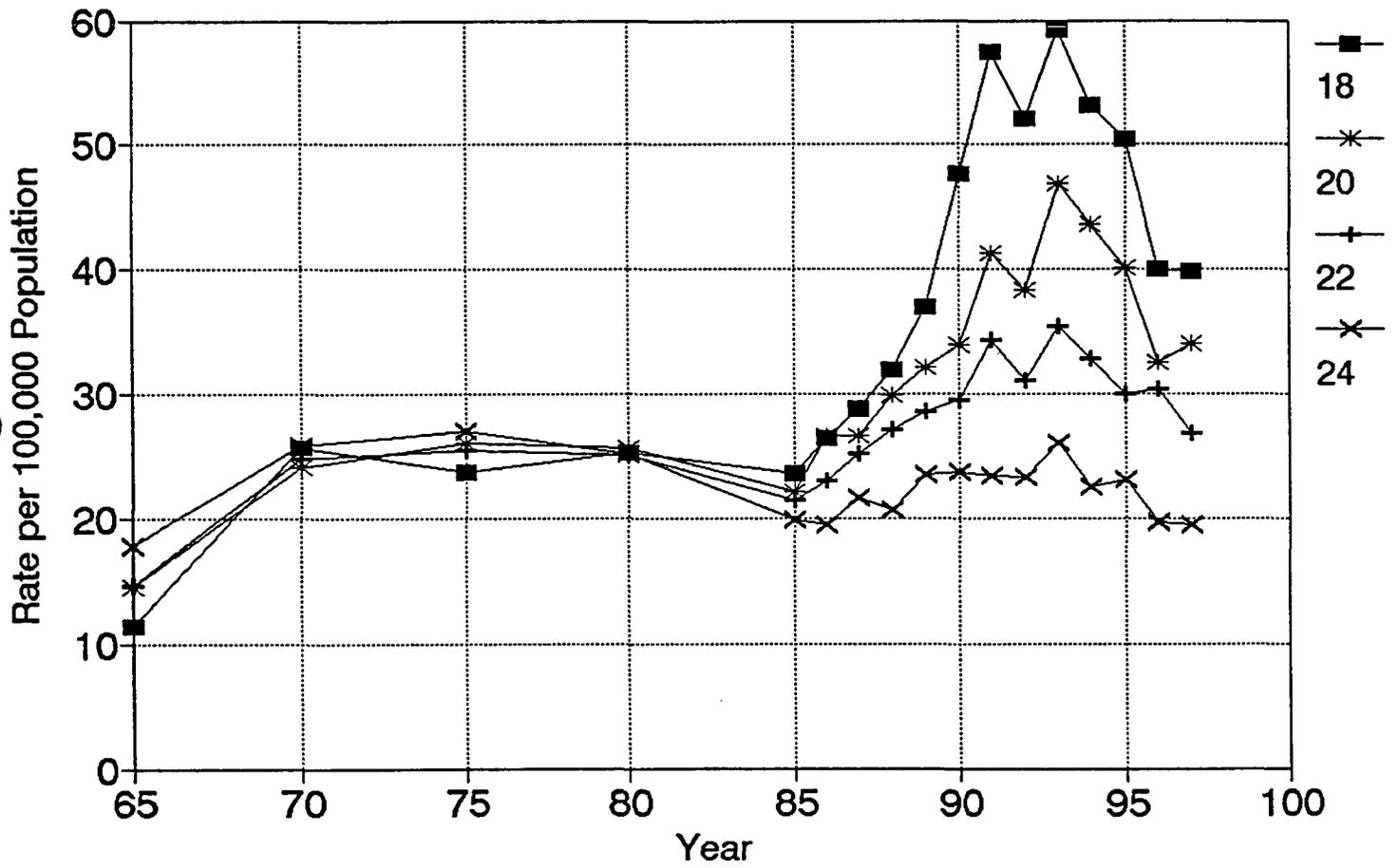


Figure 4

Ratios of Recent Age-Specific Rates 1993 and 1997 Murder Arrests re 1985

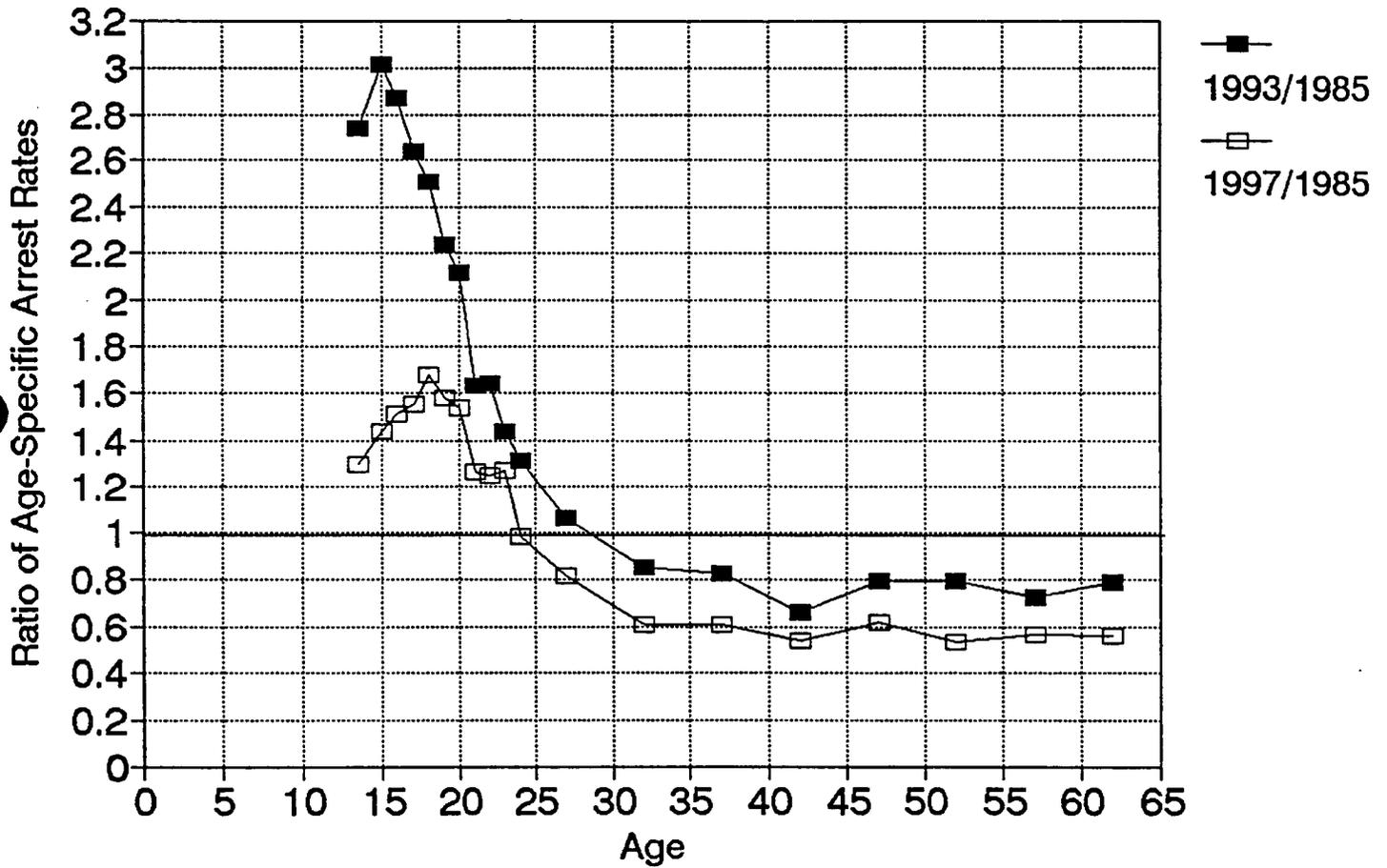


Figure 4a

Age Composition of US Population - 1998

No. of Persons at each Age



Figure 4b

Age of US Males by Race - 1998

No. of Persons of Each Race at Each Age

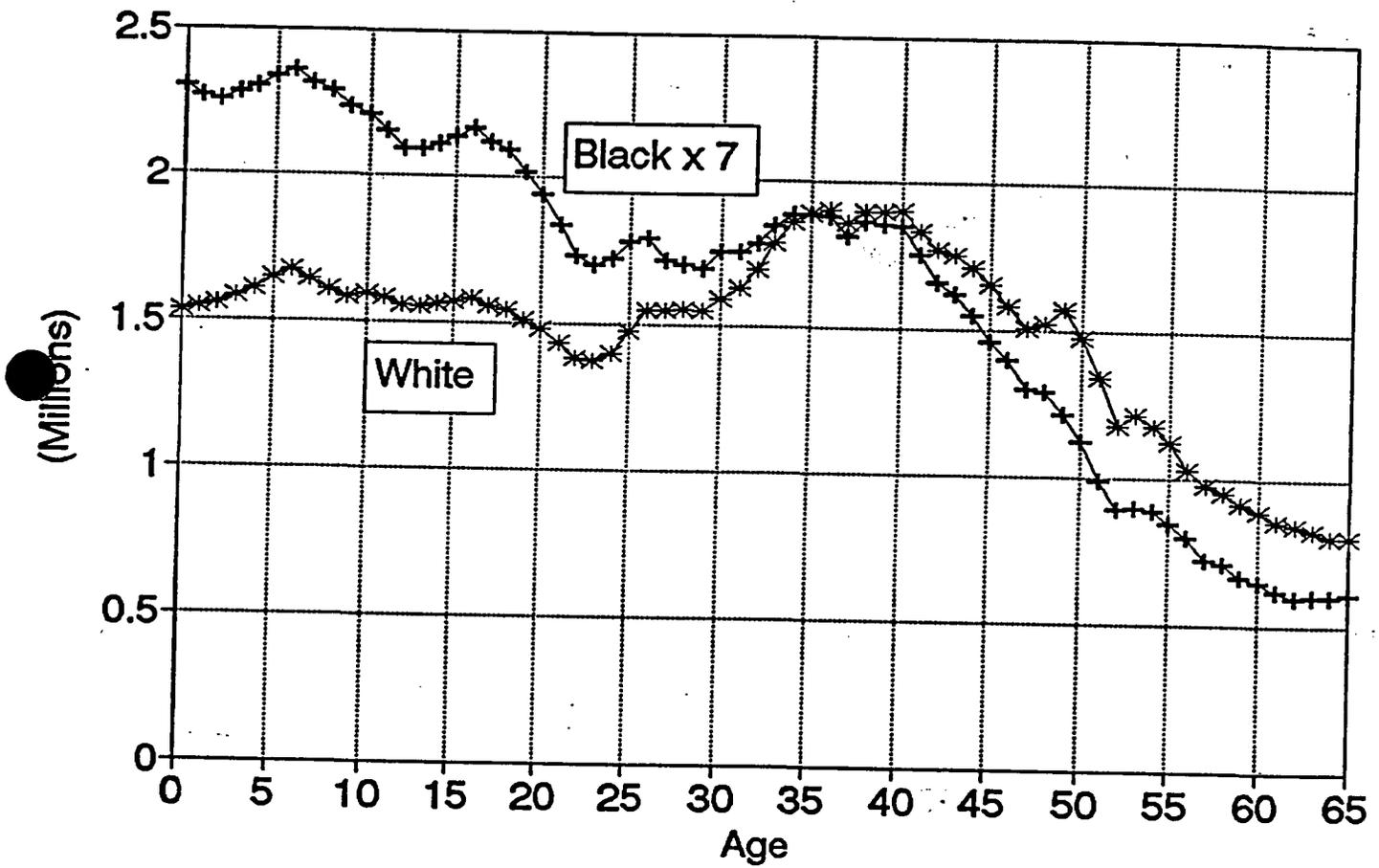


Figure 5 a

Age Composition of US Population - 1998

No. of Persons at each Age

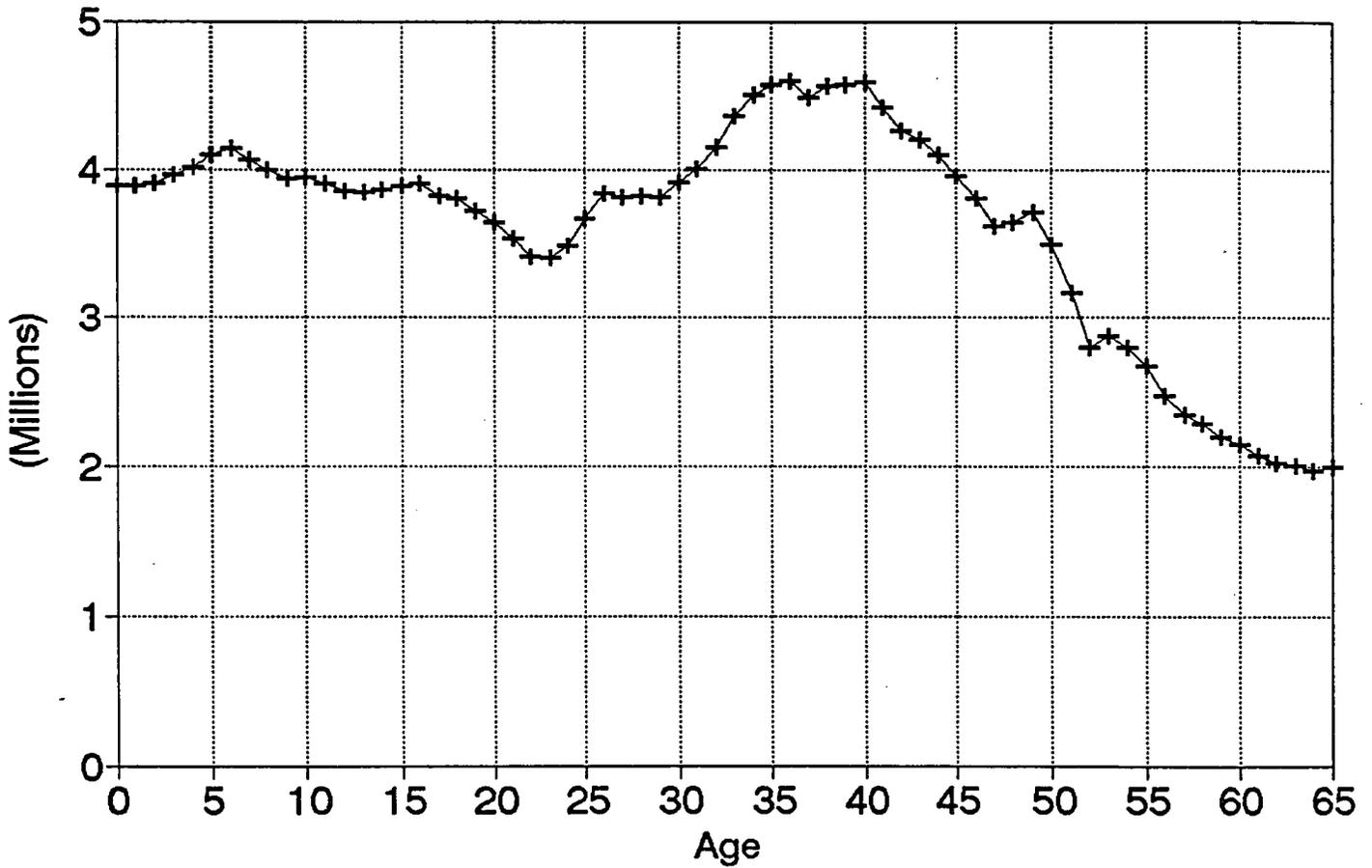


Figure 5 b

Age of US Males by Race - 1998

No. of Persons of Each Race at Each Age

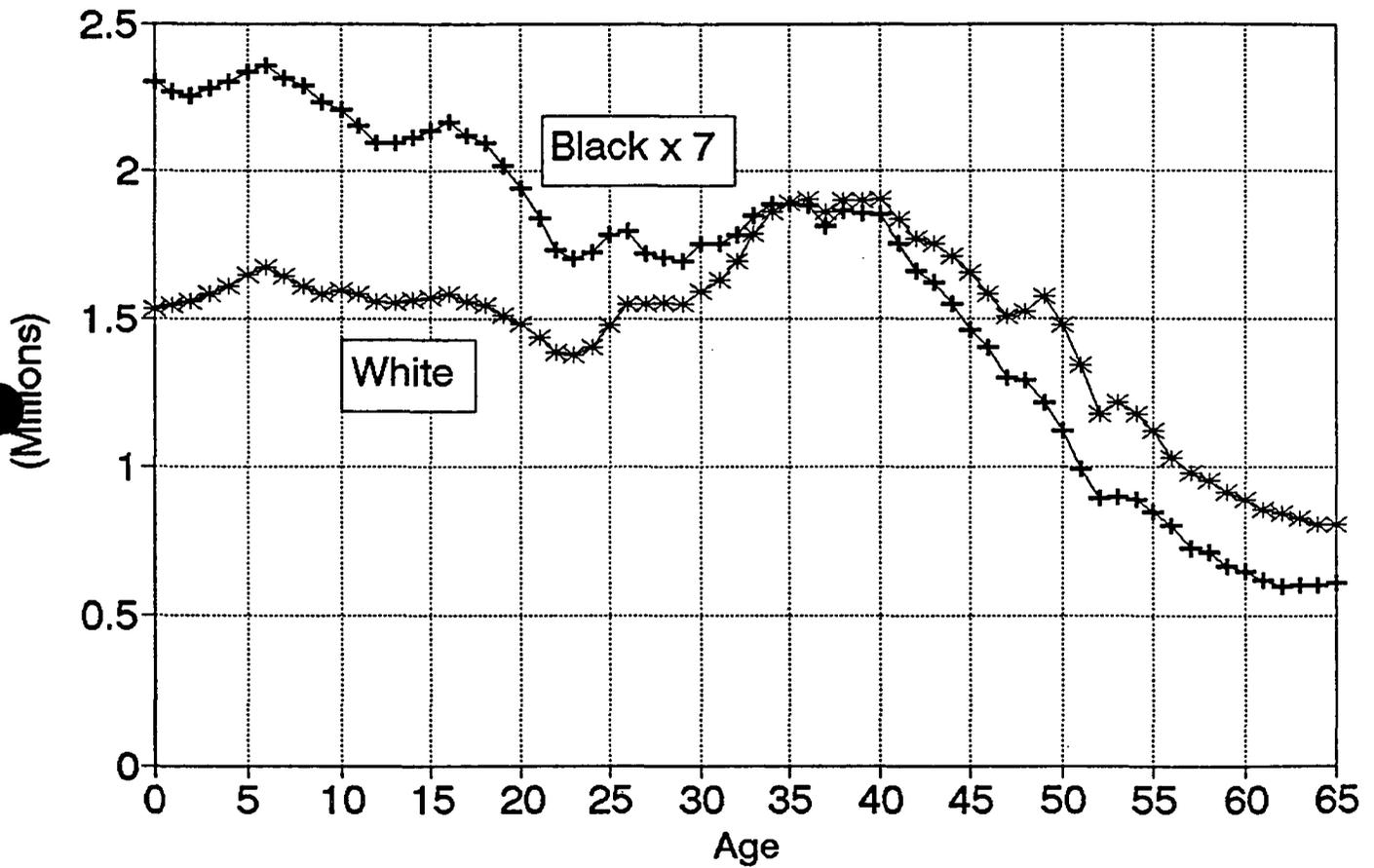


Figure 5c

Homicide Weapons by Kids (<18)

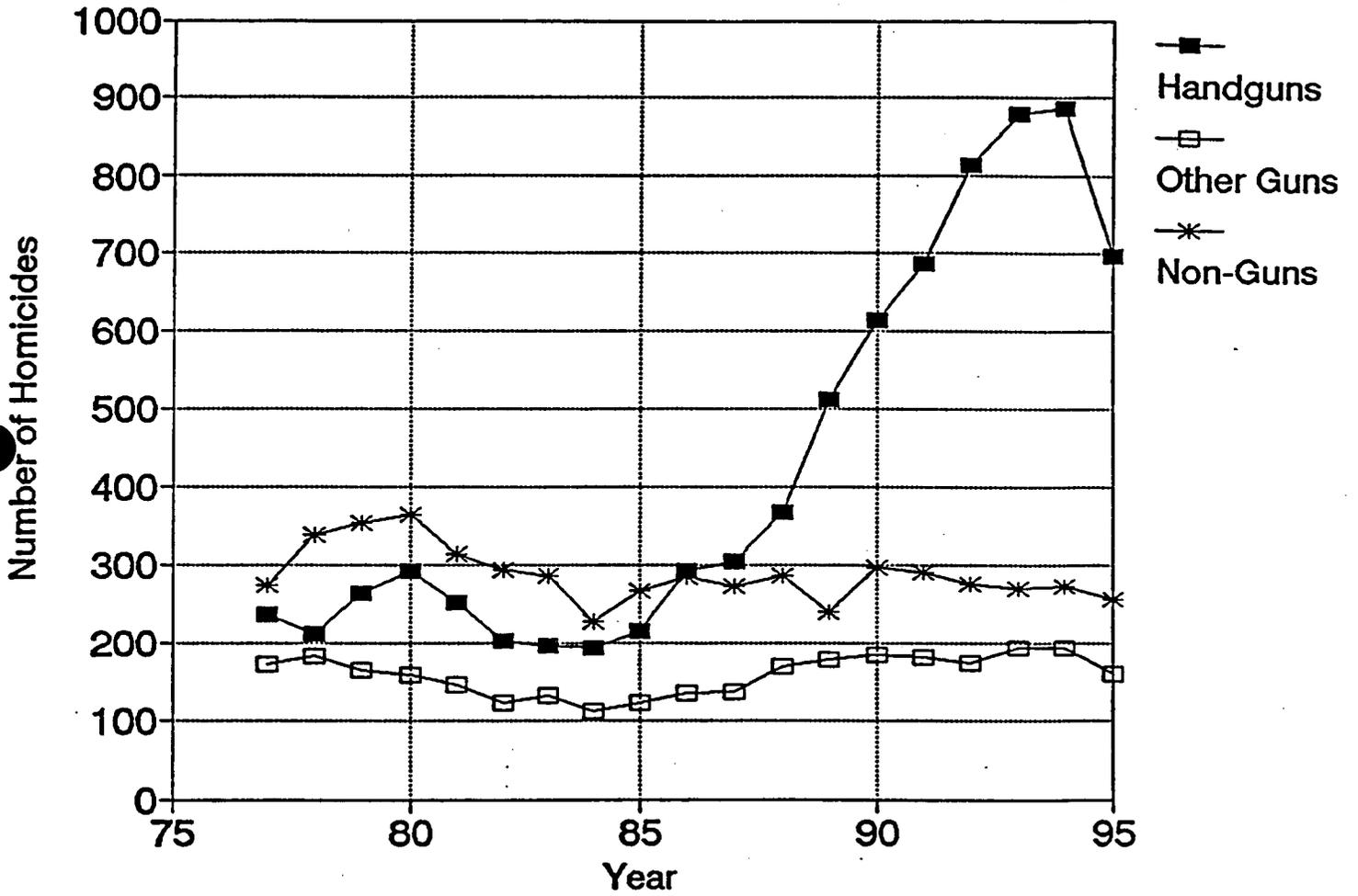


Figure 6

Homicides by Black Youth 18-24

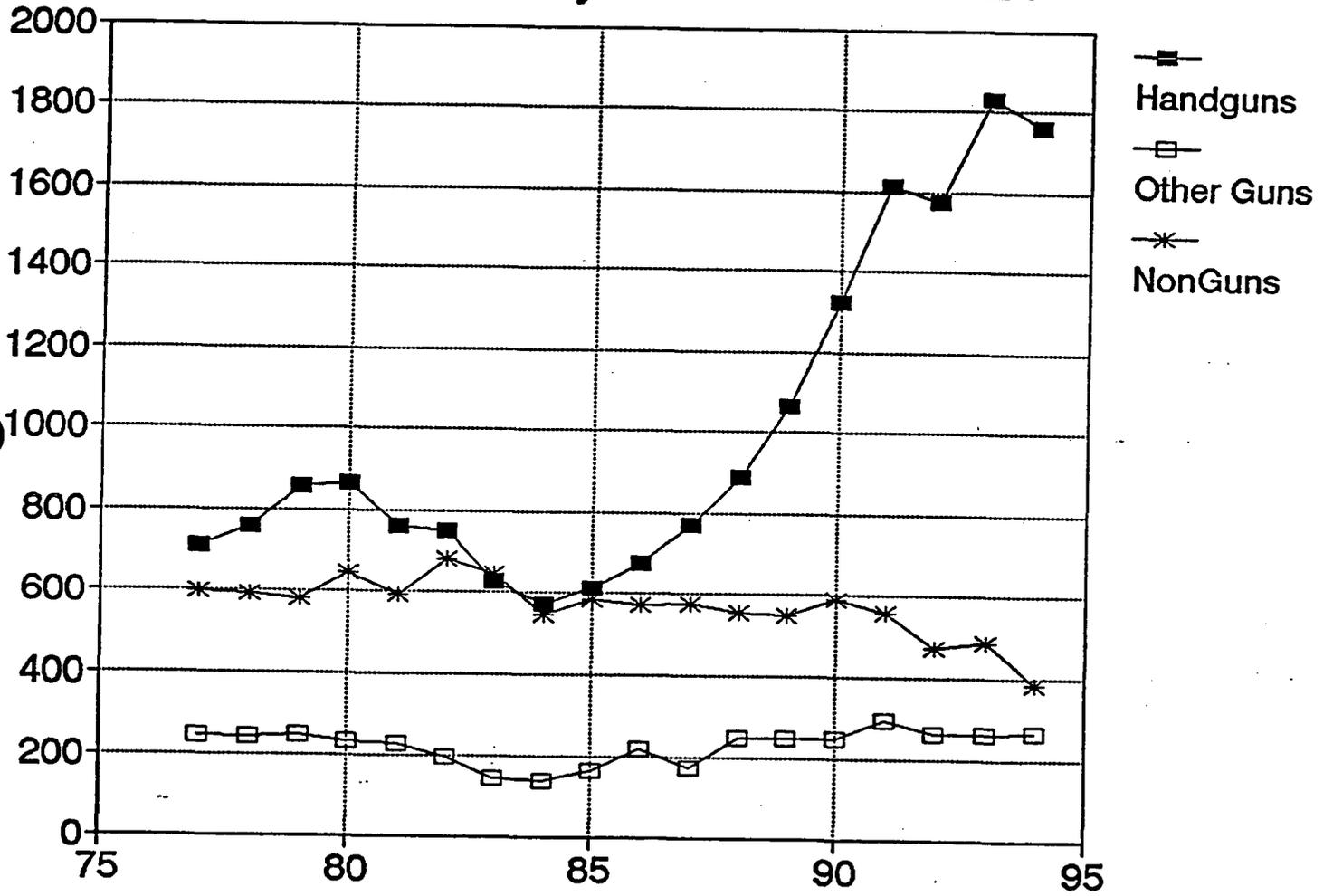


Figure 6 a

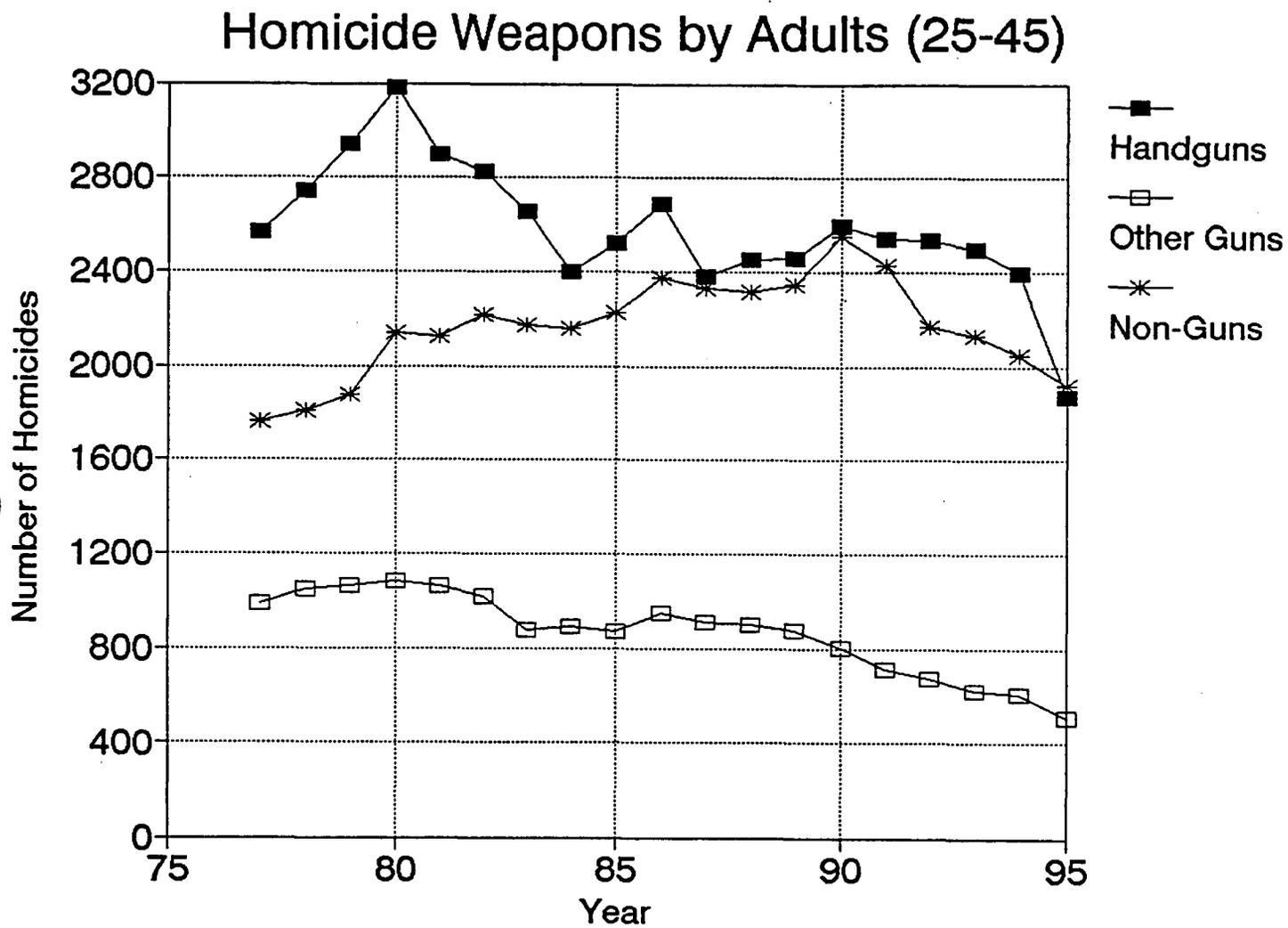


Figure 6 b



Figure 6 c



Figure 7

Homicides by Black Youth 18-24

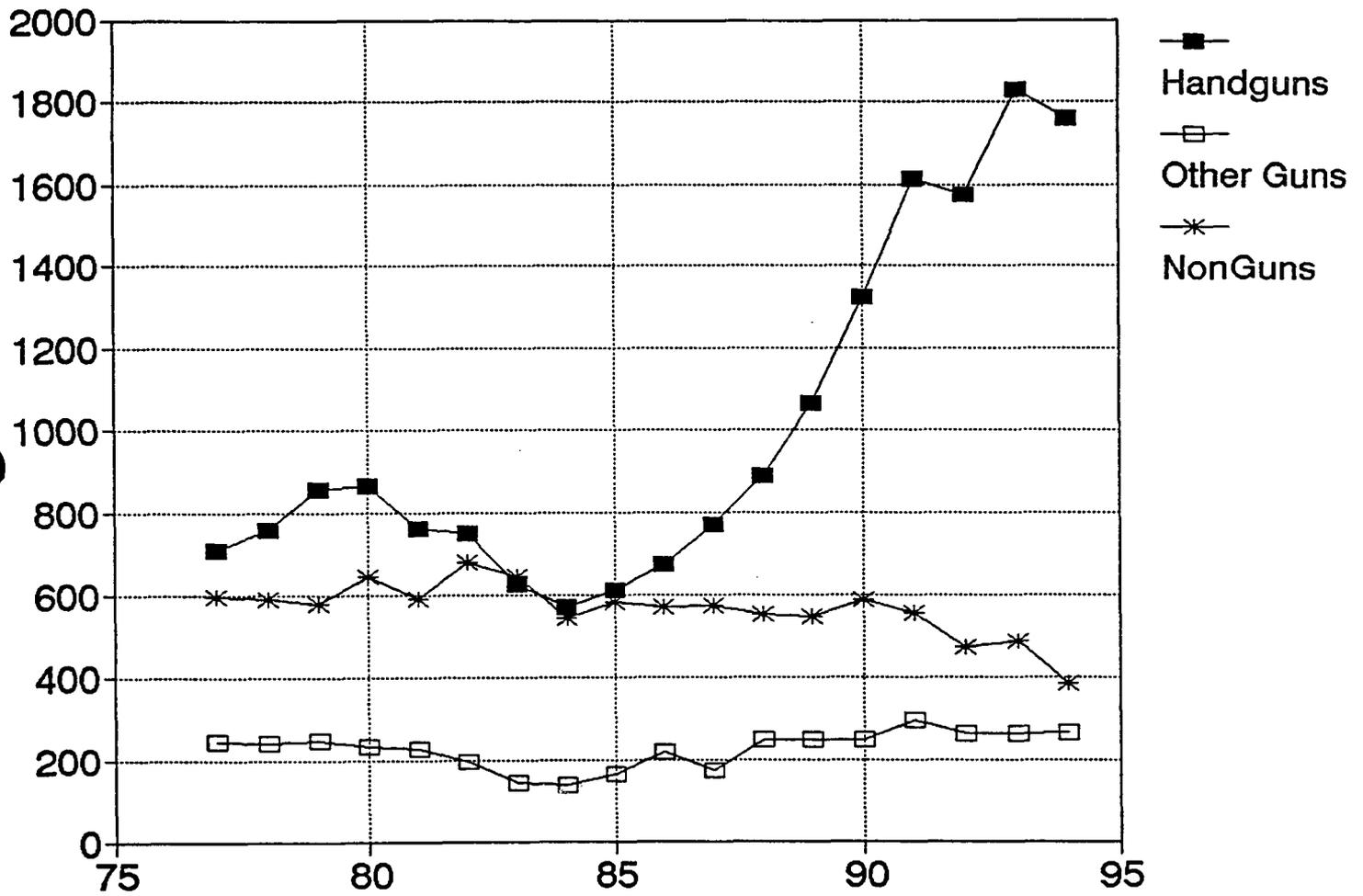


Figure 8

Handgun Homicide by Youth Cities over 100,000

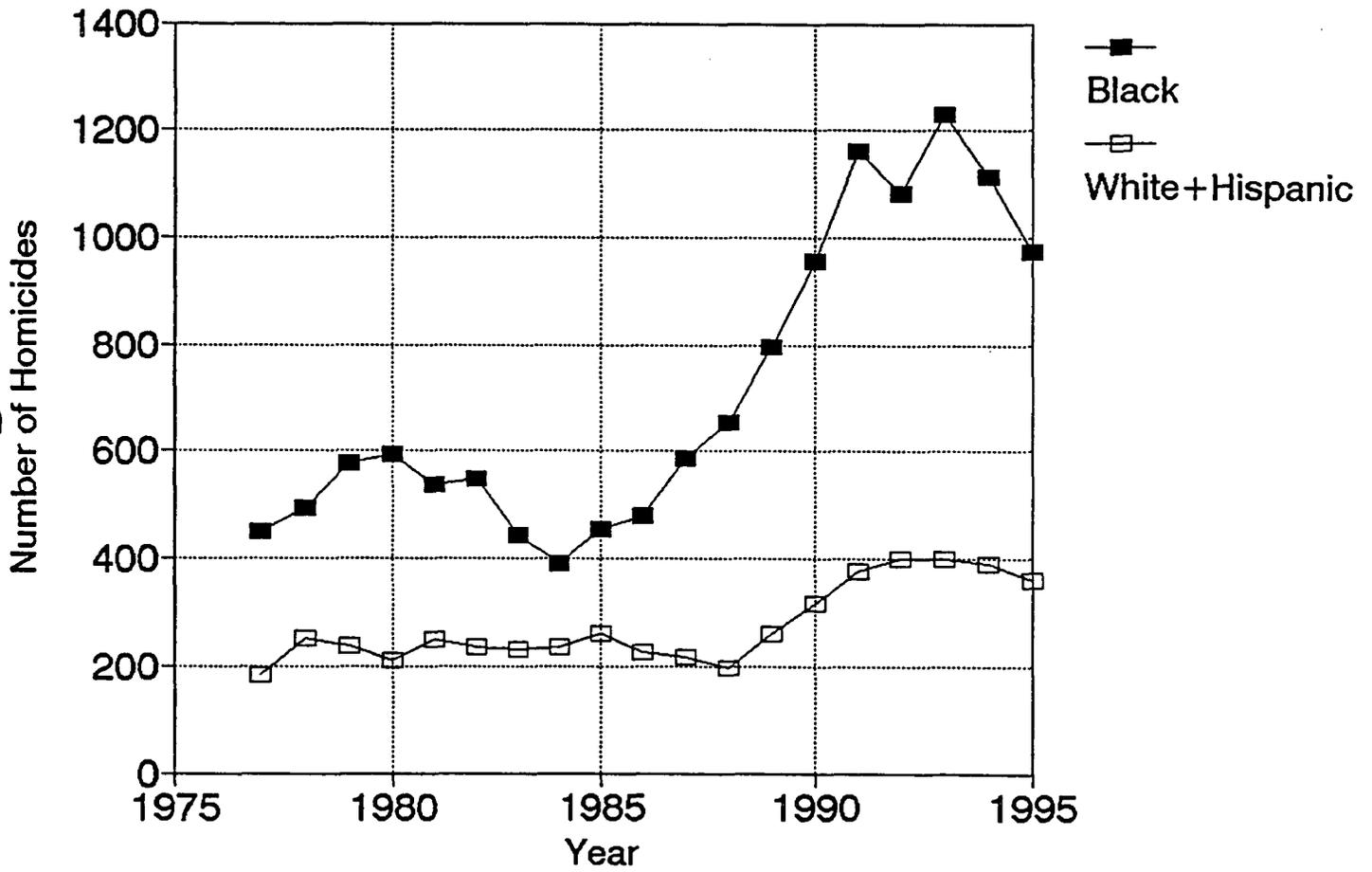


Figure 8a

Trends: Weapons Arrest Rate by Age

Trends for Individual Peak Ages

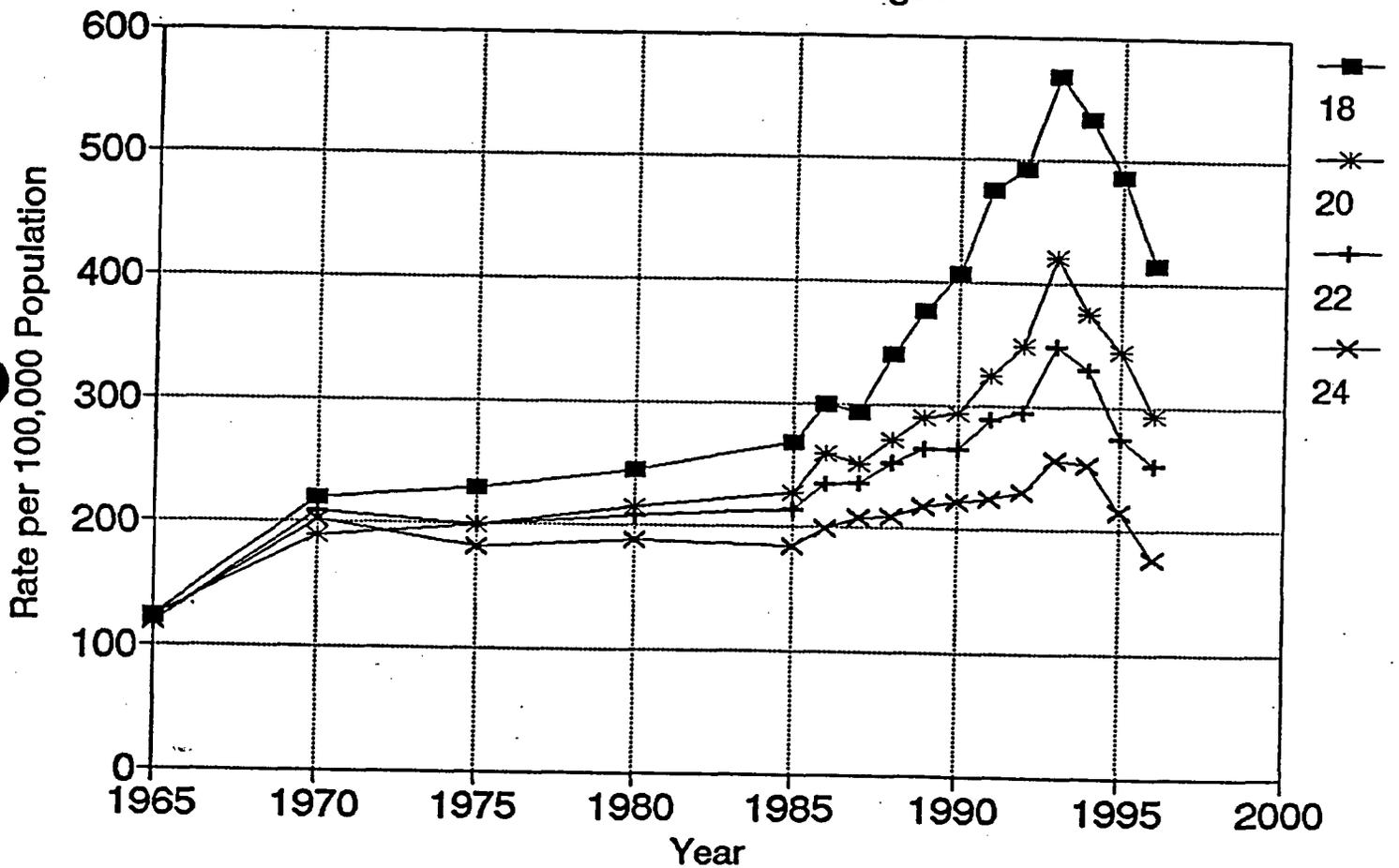


Figure 8b

Trends: Weapons Arrest Rate by Age
Trends for Individual Young Ages

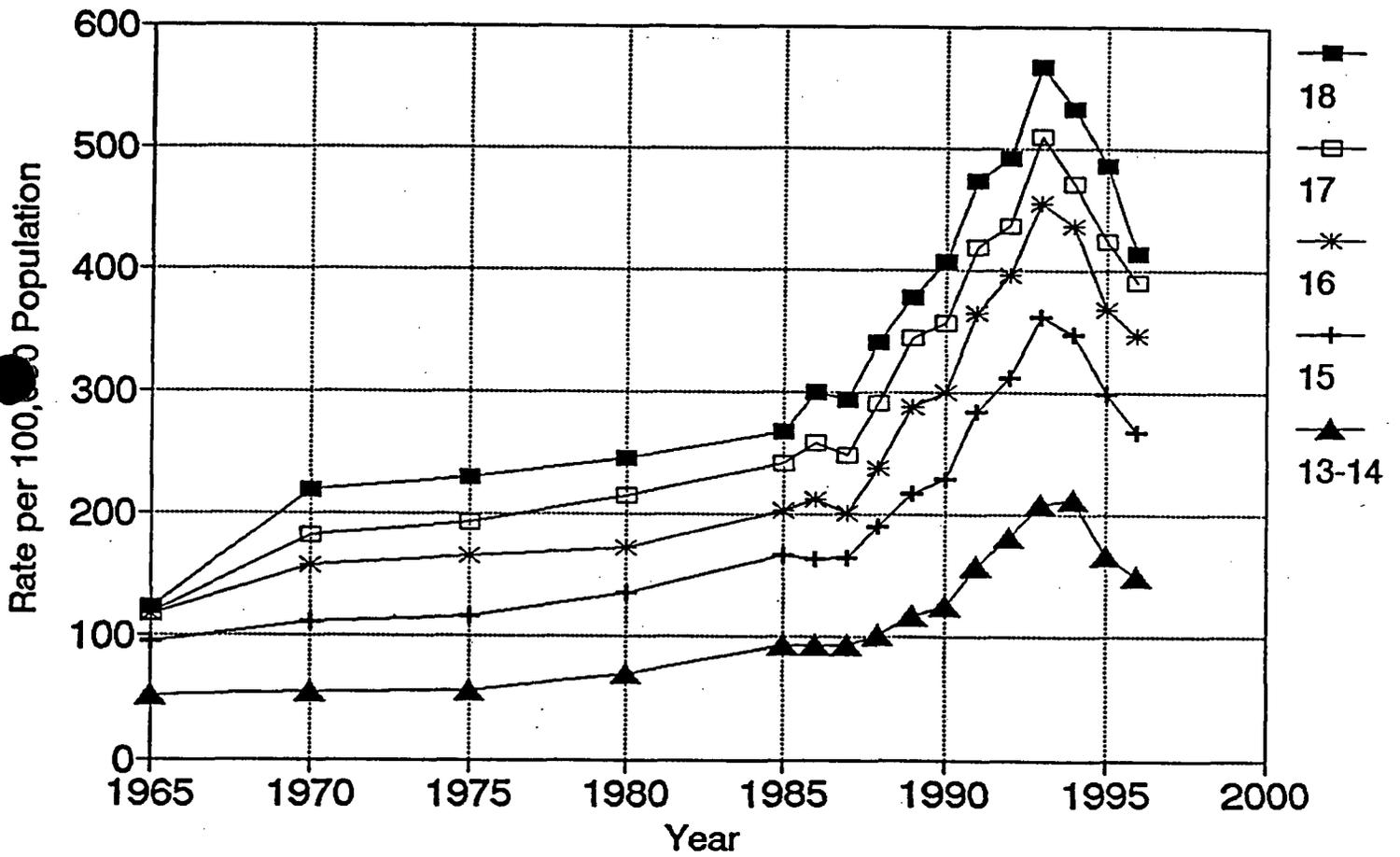


Figure 9 a

Trends: Weapons Arrest Rate by Age

Trends for Individual Ages. 18-24

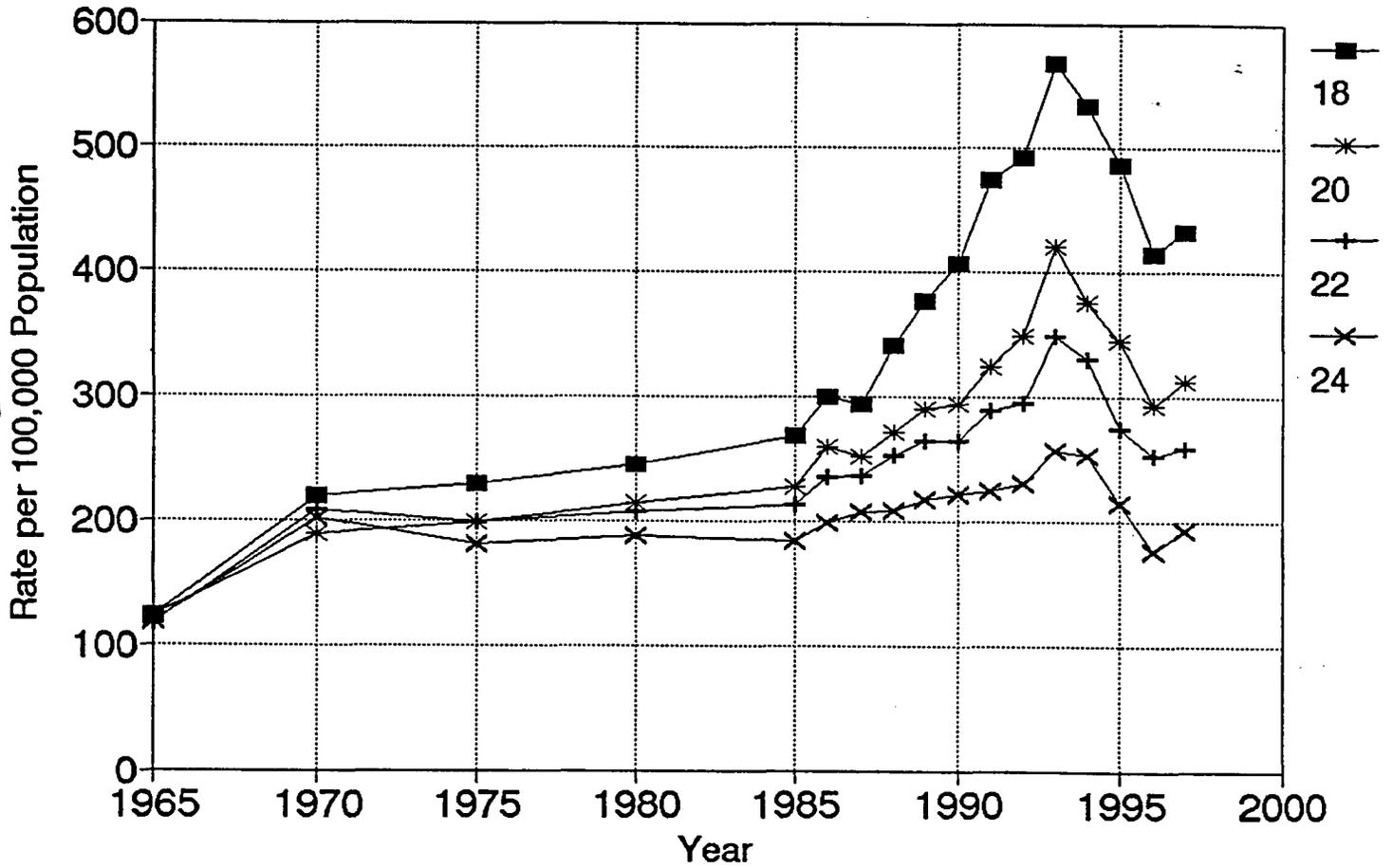


Figure 9 b

Trends: Weapons Arrest Rate by Age Trends for Individual Young Ages

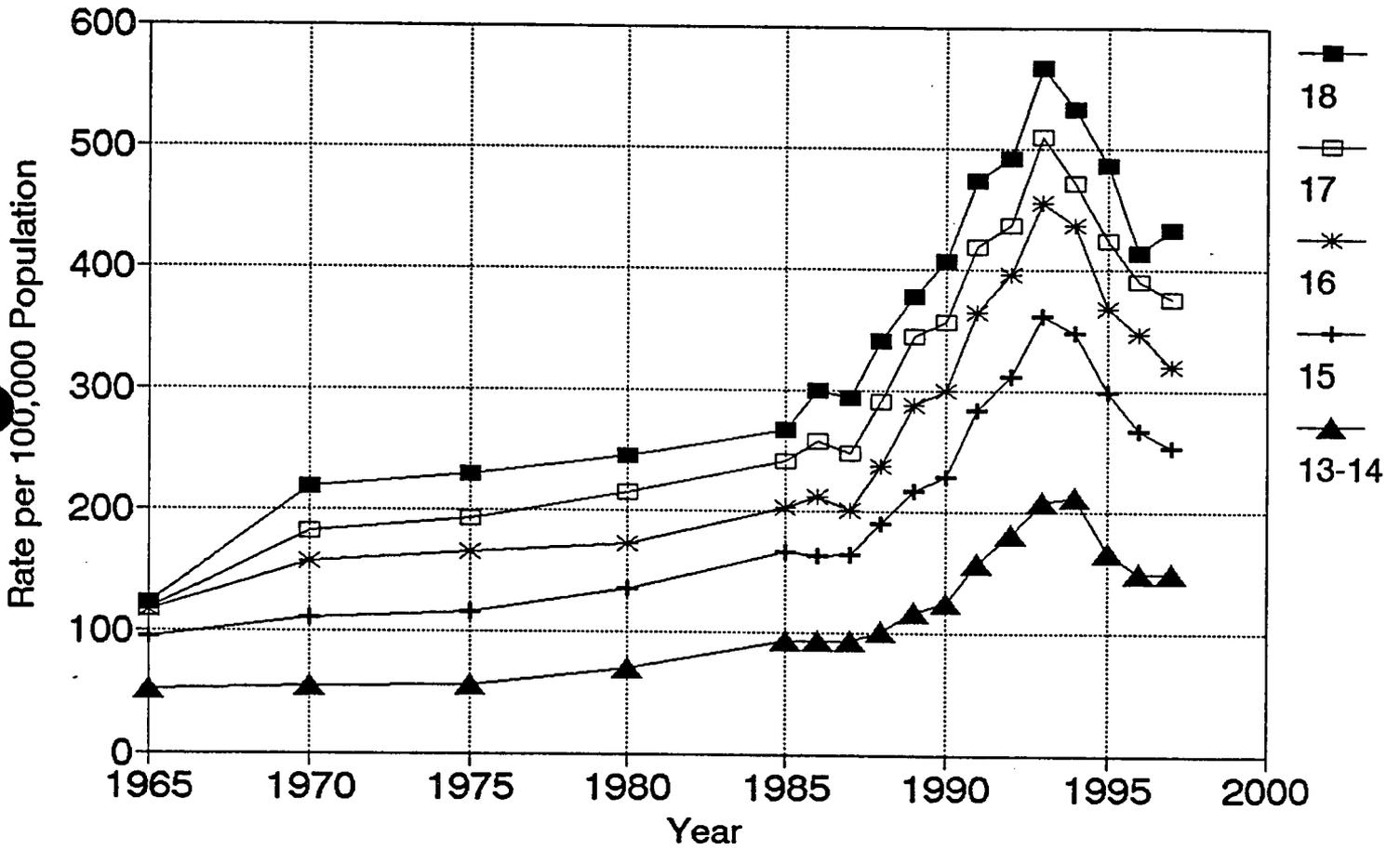
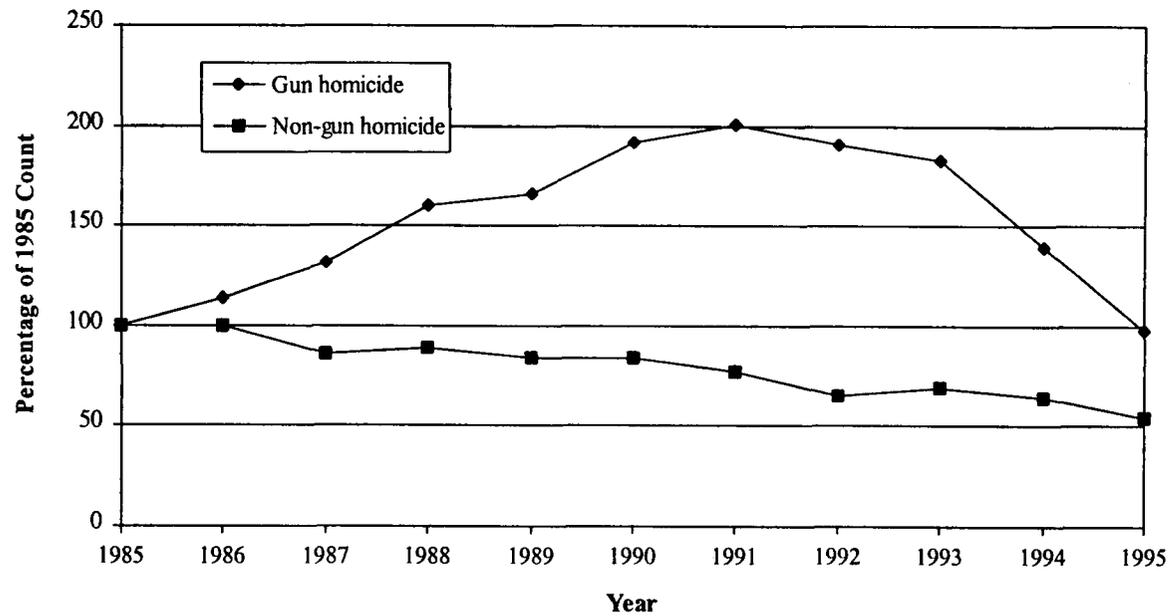


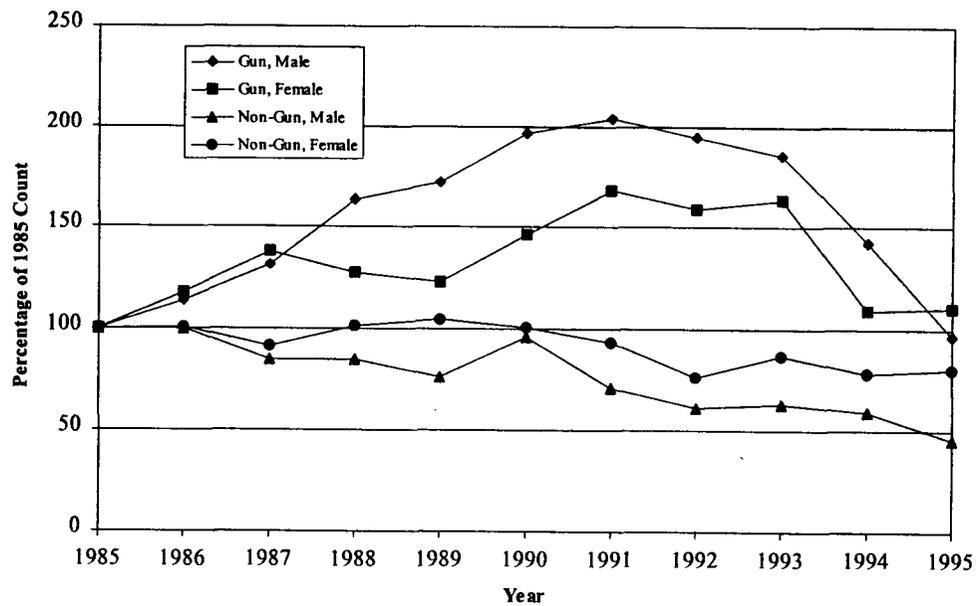
Figure 2.2 GUN AND NONGUN HOMICIDES, 1985-95



Note: Excludes Happyland deaths in 1990 (89 arson deaths)

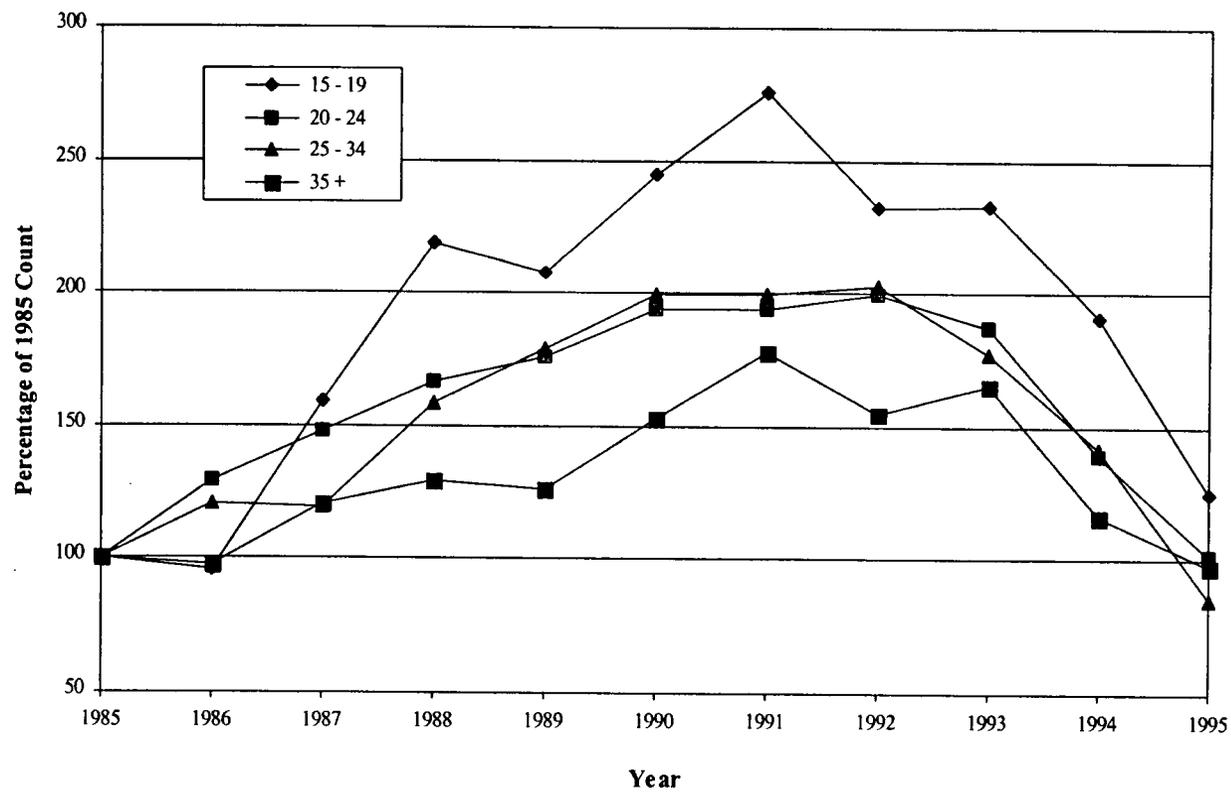
Source: Office of Vital Statistics and Epidemiology, New York City Department of Health, data archive

Figure 2.3 GUN AND NONGUN HOMICIDE BY SEX, 1985-95



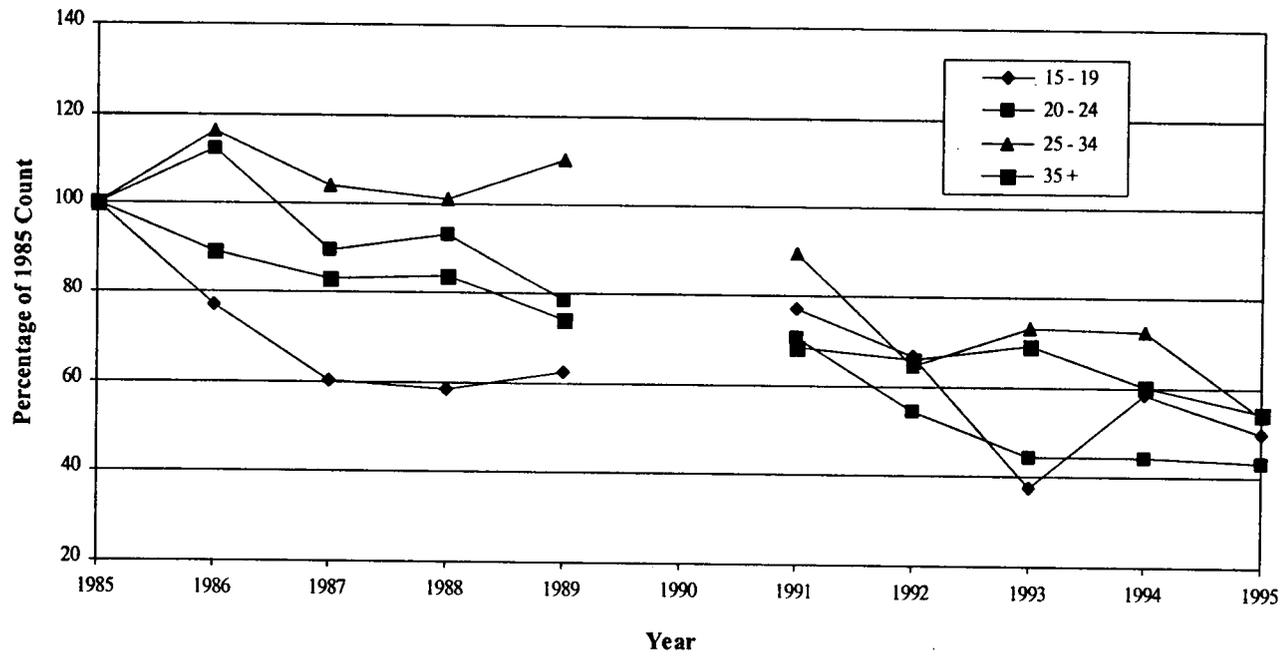
Source: Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health, various years.

Figure 2.4 GUN HOMICIDE BY AGE, 1985 - 95



Source: Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health, various years.

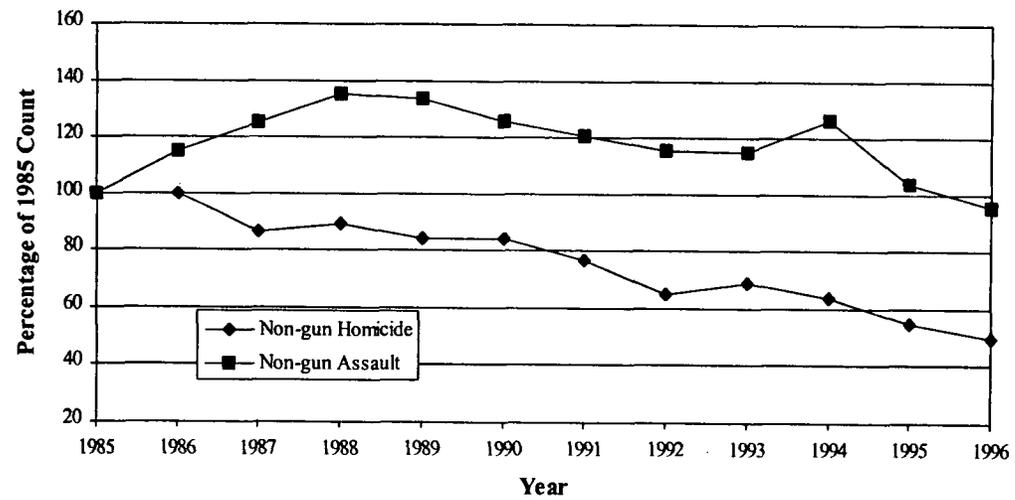
Figure 2.5 NONGUN HOMICIDE BY AGE, 1985-95



Note: 1990 data from Happyland Social Club fire not included since deaths could not be distributed by age of victim.

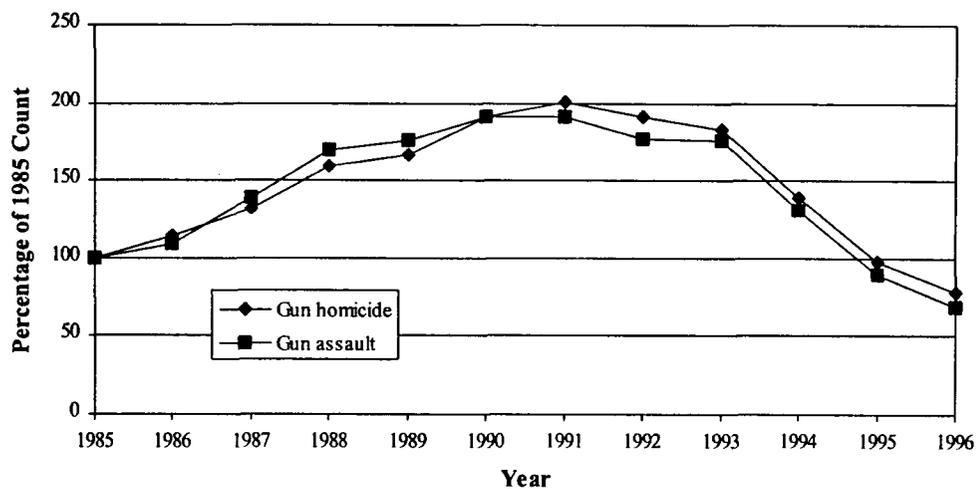
Source: Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health, various years.

Figure 3.1 Non -GUN HOMICIDE AND ASSAULT, 1985-96



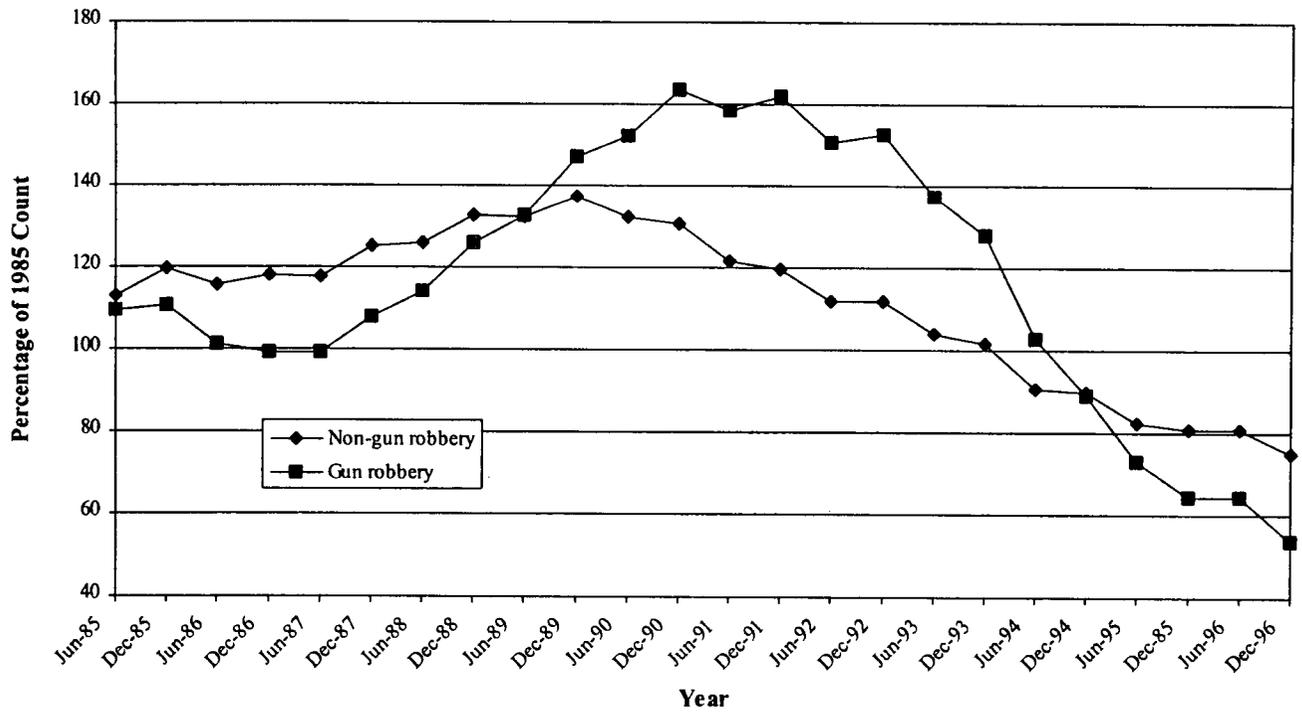
Source: Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health; Complaints and Arrests, New York City Police Department, various years.

Figure 3.2 GUN HOMICIDE AND ASSAULT, 1985-96



Source: Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health; Complaints and Arrests, New York City Police Department, various years.

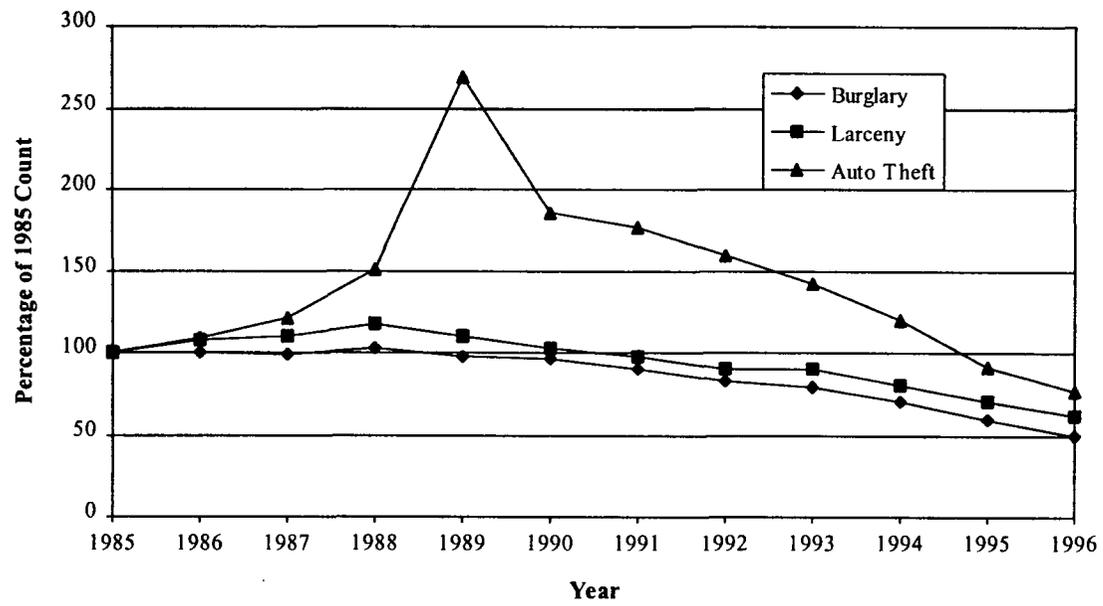
Figure 3.3 GUN AND NON-GUN ROBBERY, 1985-96



Note: Initial rate is greater than 100 due to smoothing 3 six-month reporting periods.

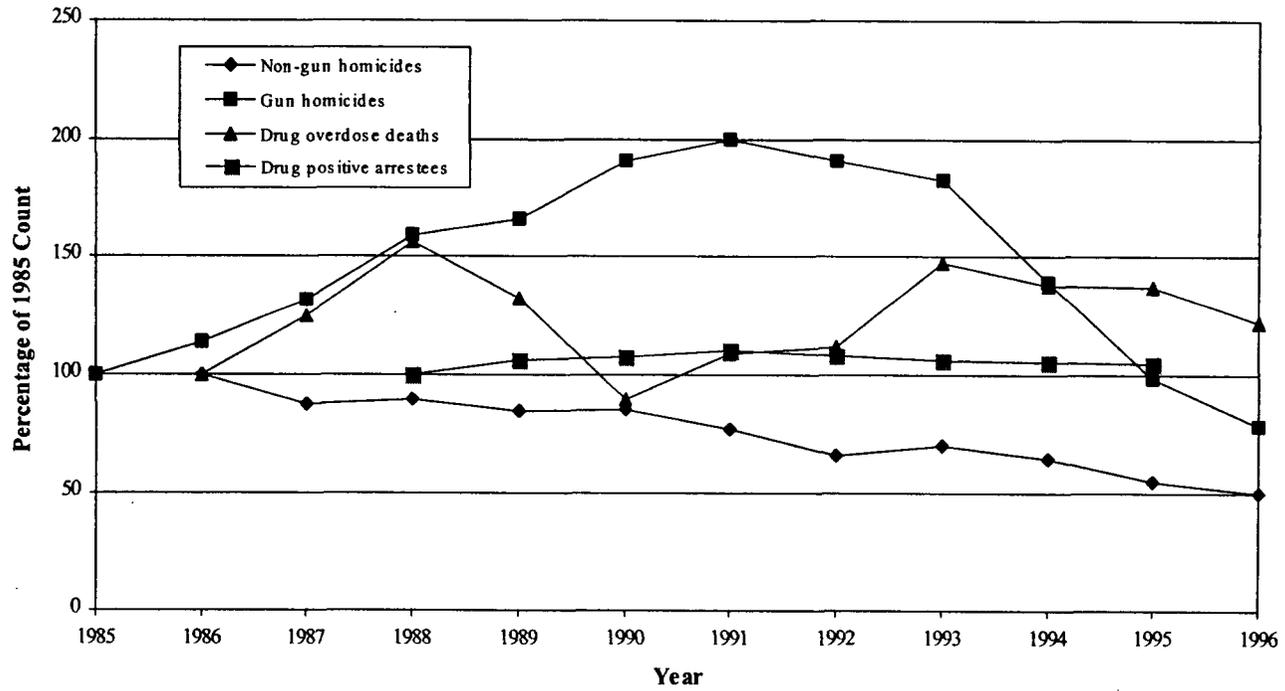
Source: New York City Police Department, Complaints and Arrests various years.

Figure 3.4 PROPERTY CRIMES, 1985-96



Source: New York City Police Department, Complaints and Arrests various years.

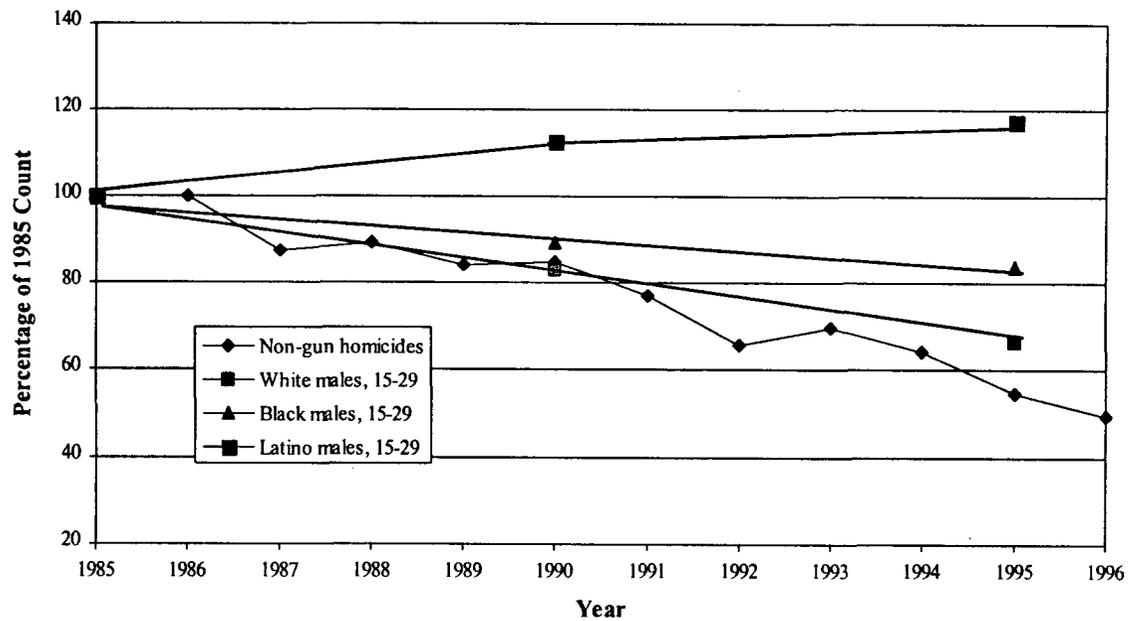
Figure 3.5 HOMICIDE AND DRUG ACTIVITY, 1985-96



Note: Drug arrests and drug deaths series based on first year of available data.

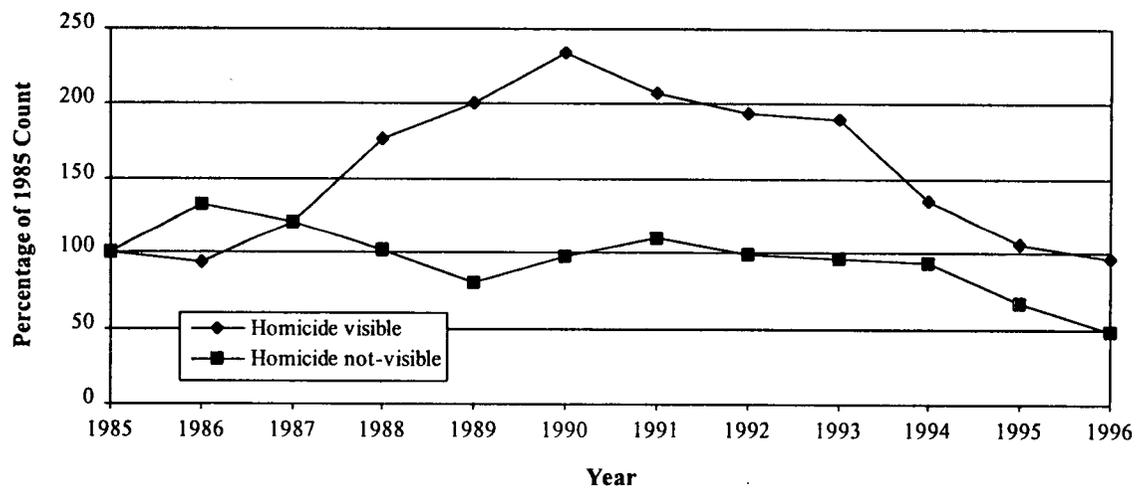
Source: Office of Vital Statistics and Epidemiology, New York City Department of Health; Drug Use Forecasting System, National Institute of Justice, various years.

Figure 3.6B NON-GUN HOMICIDES AND POPULATION CHARACTERISTICS, 1985-96



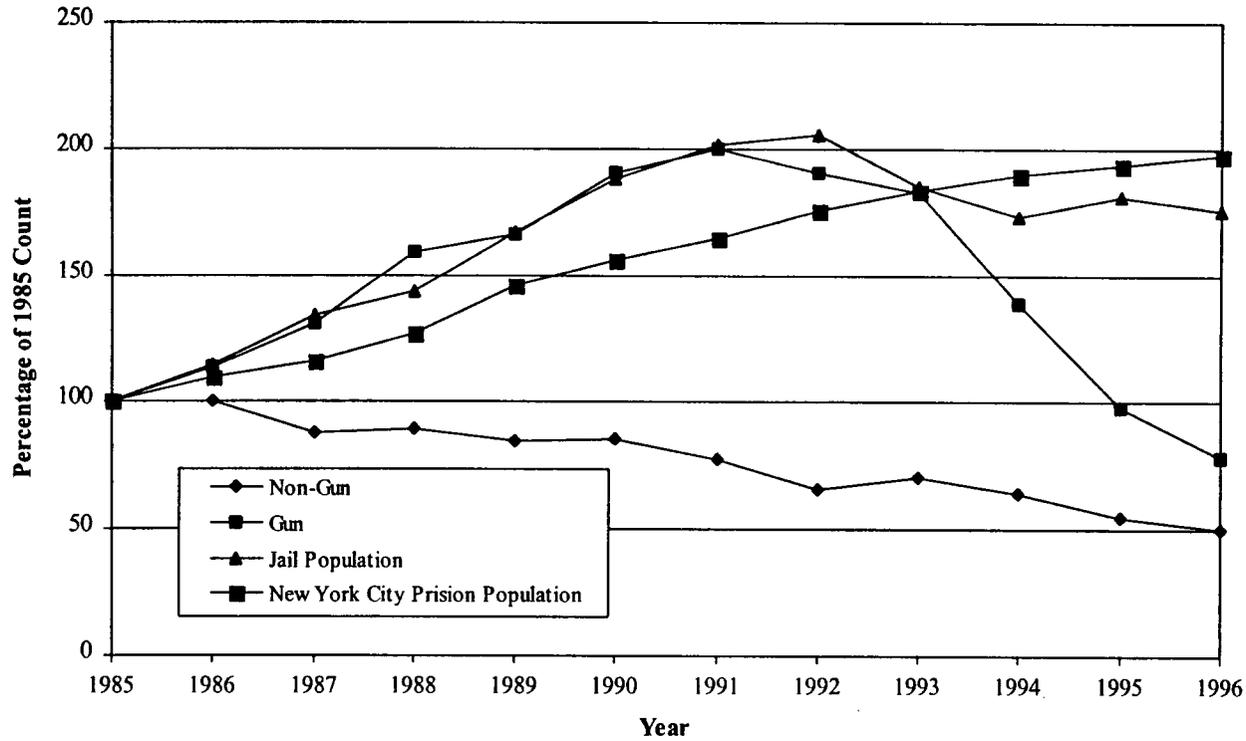
Source: Current Population Survey, U.S. Bureau of the Census; Population Estimates; Regional Transportation Planning Board; Causes of Death, Office of Vital Statistics and Epidemiology, New York City Department of Health.

Figure 3.8 HOMICIDES VISIBLE BY PATROL, 1985-96



Source: Complaints and arrests, New York City Police Department, various years; UCR "Return A" reports, New York Police Department, various years.

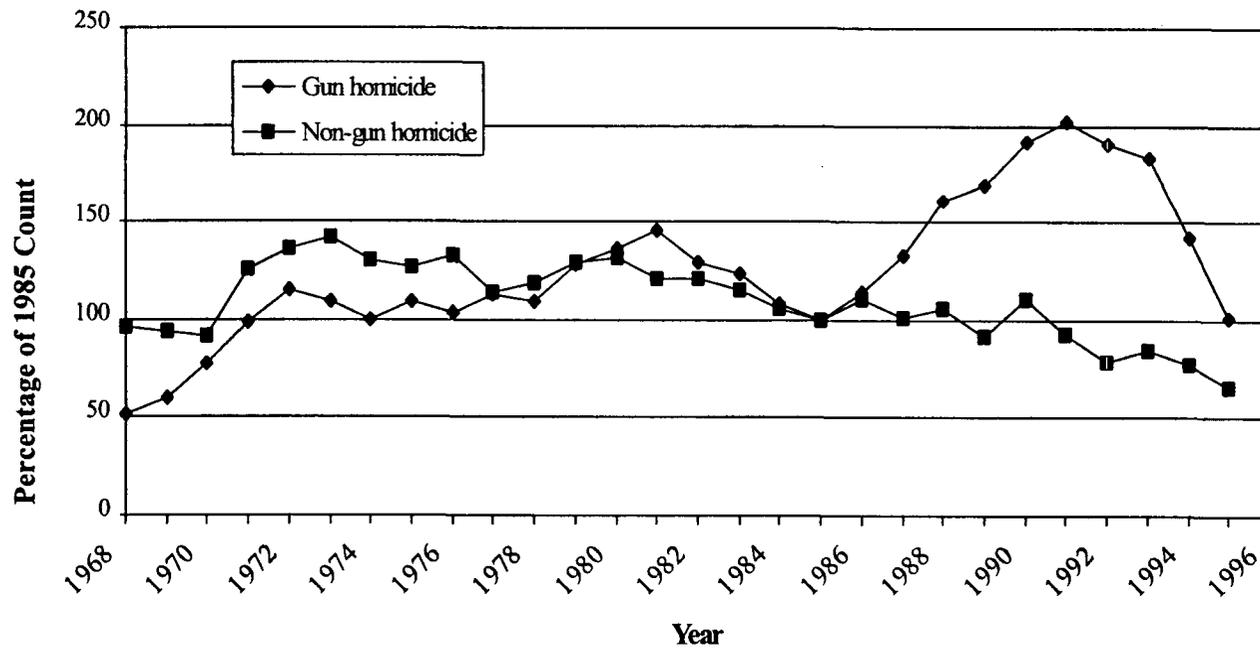
Figure 3.9 INCARCERATION AND HOMICIDE TRENDS, 1985-95



Note: Homicides exclude Happyland fire deaths. New York City inmates are 70% of the prison population.

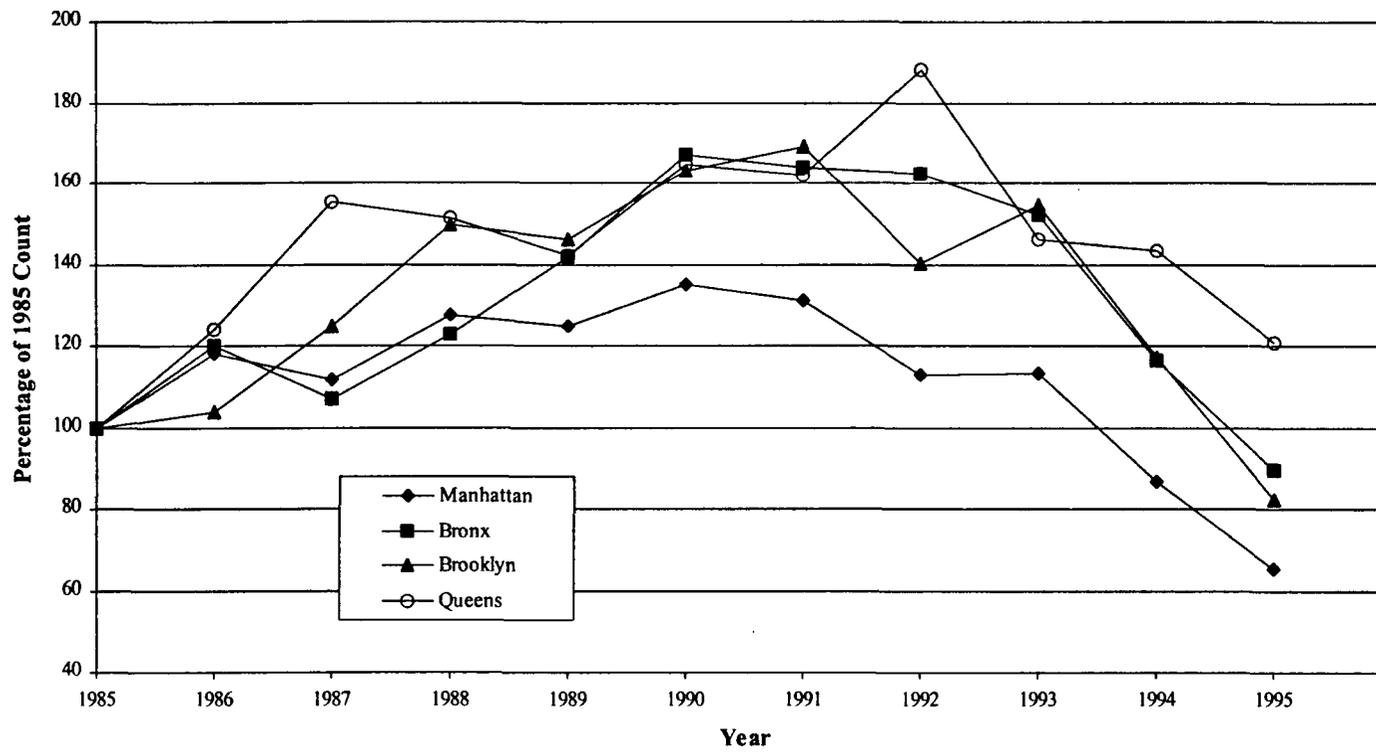
Source: New York City Department of Corrections; New York State Department of Correctional Services; Office of Vital Statistics and Epidemiology, New York City Department of Health.

Figure 4.1 GUN AND NON-GUN HOMICIDE, 1968-1995



Source: Mortality Data Files, 1968-1993; New York City Department of Health, Office of Vital Statistics, 1994-1995.

Figure 2.1 HOMICIDES BY NEW YORK CITY BOROUGH, 1985-95



Note: Bronx index excludes Happyland deaths in 1990 (89 deaths by arson). Staten Island cases excluded.

Source: Complaints and arrests, New York City Police Department, various years.

THE IMPROBABLE TRANSFORMATION OF INNER-CITY NEIGHBORHOODS: CRIME, VIOLENCE, DRUGS, AND YOUTH IN THE 1990s

RICHARD CURTIS*

I. INTRODUCTION

At the peak of the crack epidemic in many American cities—when people seemed ready to write off inner cities as hopelessly lost—a remarkable transformation began to take place. In a global economy where the gap between the haves and the have-nots continued to increase at an alarming rate, inner city neighborhoods defied nearly all expectations and with minimal outside intervention, mounted an improbable comeback.¹ The most visible and trumpeted manifestation of this rebirth was a plummeting crime rate which, in the latter half of the 1990s, fell to lows not seen in more than thirty years.² Incumbent politicians and law enforcement officials rushed to take credit, while the media and social scientists scrambled to explain how this seemingly unlikely turn of events could have happened in cities that had been unflinchingly described as being undermined and overrun by drugs, crime and violence.³

The reduction of crime was startling because it contradicted two powerful assumptions about life in the United States. The first was that cities were becoming progressively more dangerous places to live. In this formulation, not only were Americans more at risk for becoming victims of violent crime, they were also more likely to become perpetrators of crime as a result of the

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Principal Research Associate, National Development and Research Institutes, Inc.

¹ Kirk Johnson, *Washington Steps Back, and Cities Recover*, N.Y. TIMES, Nov. 16, 1997, § 4 at 5.

² Fox Butterfield, *Number of Victims of Crime Fell Again in '96, Study Says: Lowest Level Since Reports Began in 1973*, N.Y. TIMES, Nov. 16, 1997, at I18; Clifford Krauss, *New York Crime Rate Plummets to Levels Not Seen in 30 Years*, N.Y. TIMES, Dec. 20, 1996, at A1.

³ See, e. g., ELIJAH ANDERSON, *STREETWISE: RACE, CLASS, AND CHANGE IN AN URBAN COMMUNITY* 57-69 (1990); WILLIAM J. BENNETT ET AL., *BODY COUNT: MORAL POVERTY . . . AND HOW TO WIN AMERICA'S WAR AGAINST CRIME AND DRUGS* 18-25 (1996); DALE D. CHITWOOD ET AL., *THE AMERICAN PIPE DREAM: CRACK COCAINE AND THE INNER CITY* IX-XII (1996); FELIX PADILLA, *THE GANG AS AN AMERICAN ENTERPRISE* 1-10 (1992); Jeffrey Fagan, *The Social Organization of Drug Use and Drug Dealing Among Urban Gangs*, 27 *CRIMINOLOGY* 633, 659-62 (1989); Bruce D. Johnson et al., *Drug Abuse in the Inner City: Impact on Hard Drug Users and the Community*, in 13 *DRUGS AND CRIME* 9-11, (Michael Tonry & James Q. Wilson eds., 1990); Thomas Mieczkowski, *The Operational Styles of Crack Houses in Detroit*, in *DRUGS AND VIOLENCE: CAUSES, CORRELATES, AND CONSEQUENCES* 60-91 (NIDA Research Monograph 103) (Mario De La Rosa et al. eds., 1990); Wesley G. Skogan, *Social Change and the Future of Violent Crime*, in 1 *VIOLENCE IN AMERICA* 235, 235-50 (T.R. Gurr ed., 1989); Rodrick Wallace, *Urban Desertification, Public Health and Public Order: 'Planned Shrinkage,' Violent Death, Substance Abuse and AIDS in the Bronx*, 31 *SOCIAL SCIENCE & MEDICINE* 801, 801-13 (1990); Rodrick Wallace & Deborah Wallace, *Contagious Urban Decay and the Collapse of Public Health*, 21 *HEALTH/PAC BULLETIN* 13, 13-18 (1991). Cf. JAMES A. INCIARDI ET AL., *WOMEN AND CRACK-COCAINE* 11-12 (1993).

deterioration of civil society and greater exposure to violence and an unsavory environment.⁴ With great alarm, the media, social scientists and policy makers proclaimed that the hegemony enjoyed by white middle class culture was being steadily eroded by the insidious spread of an amoral lifestyle characterized by crime, violence and drug misuse that percolated out from inner city neighborhoods to infect suburbs and rural America.⁵ In the drive to overtake the hearts and minds of America's youth, this self-destructive city-born subculture violated the taboo boundaries of race/ethnicity, gender and age. The threat to mainstream America was no longer exclusively embodied by black urban males, but increasingly included whites, females, country folk, and, most disturbingly, children.⁶

The second assumption was that children, the least prepared to withstand the rigors of life in a postmodern world, were becoming more violent.⁷ Forced to grow up too soon, kids could no longer be kids and the critical period of adolescence was squeezed out as they transitioned directly into adulthood. Rushed along by care givers who force fed them in preparation for the working world or, alternatively, ignored by self-absorbed parents and left to fend for themselves, children experienced puberty at a much earlier age and the powerful hormonal cocktail that coursed through their bodies was left unregulated by the missing reins of moral reasoning or the calming influence of family and community. Bereft of guidance and safe passage to adulthood, children were increasingly cast adrift to define themselves in a hostile world.⁸ Many children

⁴ See, e.g., WILLIAM J. BENNETT ET AL., *supra* note 3, at 26-33; RICHARD CLOWARD & L. OHLIN, *DELINQUENCY AND OPPORTUNITY: A THEORY OF DELINQUENT GANGS* 146-49 (1960); Ramiro Martinez Jr., *Latinos and Lethal Violence: The Impact of Poverty and Inequality*, 43 SOC. PROBS. 131, 132 (1996); Walter Miller, *Lower Class Culture as a Generating Milieu of Gang Delinquency*, 14 J. SOC. ISSUES 5, 5-19 (1958); Cathy Spatz Widom, *Does Violence Beget Violence? A Critical Examination of the Literature*, 106 PSYCHOL. BULL. 3, 3-28 (1989).

⁵ See, e.g., JOHN HAGEDORN & PERRY MACON, *PEOPLE AND FOLKS: GANGS, CRIME, AND THE UNDERCLASS IN A RUSTBELT CITY* 150-63 (1988); MARVIN E. WOLFGANG & FRANCO FERRACUTI, *THE SUBCULTURE OF VIOLENCE: TOWARD AN INTEGRATED THEORY IN CRIMINOLOGY* 296-300 (1967); J. Gladstein et al., *A Comparison of Inner-City and Upper-Middle Class Youths' Exposure to Violence*, 13 J. ADOLESCENT HEALTH 275, 279 (1992).

⁶ See e.g., FREDA ADLER, *SISTERS IN CRIME: THE RISE OF THE NEW FEMALE CRIMINAL* 1-3 (1975); ANNE CAMPBELL, *THE GIRLS IN THE GANG: A REPORT FROM NEW YORK CITY* 4-32 (1984); INCIARDI ET AL., *supra* note 3, at 19-21; IRVING A. SPERGEL, *THE YOUTH GANG PROBLEM: A COMMUNITY APPROACH*, 10 (1995); D. KELLY WEISBERG, *CHILDREN OF THE NIGHT: A STUDY OF ADOLESCENT PROSTITUTION* 110 (1985); Deborah Baskin et al., *The Political Economy of Violent Female Street Crime*, 20 FORDHAM URB. L.J. 401, 401-403 (1993); Philippe Bourgois, *In Search of Horatio Alger: Culture and Ideology in the Crack Economy*, 16 CONTEMP. DRUG PROBS. 619, 643-45 (1989); Anne Campbell, *Female Participation in Gangs*, in *GANGS IN AMERICA* 163, 166-77 (Ronald Huff ed. 1990); Michelle Cooley-Quille et al., *Emotional Impact of Children's Exposure to Community Violence: A Preliminary Study*, 34 J. AM. ACAD. CHILD & ADOLESCENT PSYCHIATRY 1362, 1362-63 (1995); Richard Dembo et al., *The Relationship Between Cocaine Use, Drug Sales, and Other Delinquency Among a Cohort of High-Risk Youths Over Time*, in *DRUGS AND VIOLENCE: CAUSES, CORRELATES, AND CONSEQUENCES*, *supra* note 3, at 112-35 (NIDA Research Monograph 103) (Mario De La Rosa et al. eds., 1990); Malcolm W. Klein, *Offence Specialisation and Versatility Among Juveniles*, 24 BRIT. J. CRIMINOLOGY 185, 192 (1984); Clyde B. McCoy et al., *Youth Opiate Use*, in *YOUTH OPIATE USE: PROBLEMS, ISSUES, AND TREATMENT* 353, 358 (George M. Beshner & A.S. Friedman eds., 1979); Wayne S. Wooden, *Tagger Crews and Members of the Posse*, in *THE MODERN GANG READER* 67-68 (Malcolm W. Klein et al., eds. 1995); **Eloise Dunlap & Bruce D. Johnson: Who They Are and What They Do: Female Crack Dealers in New York City. Paper presented at the Annual Meeting of the American Society of Criminology, New Orleans, September 14, 1992, at 2 (unpublished manuscript, on file with ???).**

⁷ See, e.g., JAMES A. FOX, *TRENDS IN JUVENILE VIOLENCE: A REPORT TO THE UNITED STATES ATTORNEY GENERAL ON CURRENT AND FUTURE RATES OF JUVENILE OFFENDING* 1-3 (1996); MARVIN E. WOLFGANG ET AL., *FROM BOY TO MAN, FROM DELINQUENCY TO CRIME* 195-202 (1987); Alfred Blumstein, *Youth Violence, Guns, and the Illicit Drug Trade*, 86 J. CRIM. L. & CRIMINOLOGY 19, 19-20 (1995).

⁸ Mike Collison, *In Search of the High Life: Drugs, Crime, Masculinities and Consumption*, 36 BRIT. J. CRIMINOLOGY 428, 441 (1996); cf. ANTHONY GIDDENS, *MODERNITY AND SELF-IDENTITY* 152-53 (1991); DANIEL MILLER, *CAPITALISM: AN ETHNOGRAPHIC APPROACH* 224-26 (1997).

found that they must “pack guns instead of lunches”⁹ to fight their way out of childhood in an upward spiral of violence. **that ran incrementally from “fist, stick, knife, gun”¹⁰ to the latest in cyber-violence.** Some researchers maintained that the “concentration effect” of living in inner city environments greatly increased the likelihood of using violence to resolve disputes and that exposure to “deviant models” characteristic of inner city life invariably led to greater drug abuse, violence, alienation and apathy.¹¹ As Sullivan notes, however, very little research has been done on the impact of growing up in a violent environment and how it may contribute to greater or less violent behavior as an adolescent and later in life.¹² Clearly, social and/or environmental factors shape developmental trajectories, but increasingly, researchers are interested in what people do and the choices they make within the parameters that bound their everyday lives. Ethnographic research has shown that people, even drug users,¹³ have agency and possess the capacity to intervene meaningfully in their own lives, though not always in ways that they intend.¹⁴ Young people, in particular, are noted, on one hand, for their malleability and capacity to adapt in novel ways to their environment, but they have also been recognized as possessing the ability to alter the status quo.¹⁵

While the inner cities of many large metropolitan areas in the United States have experienced severe social and economic problems since at least the 1960s, case studies and comparative analyses—cornerstones of anthropological inquiry—have shown remarkable variation between cities and neighborhoods that are divided by race/ethnicity, class, immigrant status, housing patterns, crime, violence, employment opportunities, and many other factors, including the prevalence and tolerance of drug use and distribution.¹⁶ I examine neighborhoods and communities because they are, in addition to family contexts, where people learn to be human. They form the crucible where orientations, outlooks, behaviors, and lifestyles are forged.¹⁷ To understand neighborhood variation, as the substantivist school of economic anthropology insists,¹⁸

⁹ WILLIAM J. BENNETT ET AL., *supra* note 3, at 25.

¹⁰ **GEOFFREY CANADA, FIST, STICK, KNIFE, GUN: A PERSONAL HISTORY OF VIOLENCE IN AMERICA XI (1995).**

¹¹ See, e.g., WILLIAM J. WILSON, *THE TRULY DISADVANTAGED: THE INNER CITY, THE UNDERCLASS, AND PUBLIC POLICY* 58-62 (1987); Thomas J. Bernard, *Angry Aggression Among the “Truly Disadvantaged,”* 28 *CRIMINOLOGY* 73, 87-88 (1990); Bruce P. Dohrenwend et al., *Socioeconomic Status and Psychiatric Disorders: The Causation-Selection Issue*, 255 *SCI.* 946, 946-47 (1992); Kevin Fitzpatrick & Janet Boldizar, *The Prevalence and Consequences of Exposure to Violence Among African-American Youth*, 32 *J. AM. ACAD. CHILD & ADOLESCENT PSYCHIATRY* 424, 424-25 (1993); Joy Osofsky, *The Effects of Exposure to Violence on Young Children*, 50 *AM. PSYCHOLOGIST* 782, 783 (1995); Carmen N. Velez & Jane A. Ungemack, *Drug Use Among Puerto Rican Youth: An Exploration of Generational Status Differences*, 29 *SOC. SCI. & MED.* 779, 781 (1989).

¹² **Mercer Sullivan, *Violence in Early Adolescence: Events and Development*, paper presented at the Annual Meeting of the American Society of Criminology, Chicago, Ill. 1996, at 5 (unpublished manuscript, on file with ???).**

¹³ **Samuel R. Friedman et al., *Community Development as a Response to HIV among Drug Injectors*, 7 *AIDS* 92/93—A YEAR IN REVIEW 263, 267 (Supp. 1, 1993).**

¹⁴ See, e.g., LISA MAHER, *SEXED WORK: GENDER, RACE AND RESISTANCE IN A BROOKLYN DRUG MARKET* 201 (1997); PAUL E. WILLIS, *LEARNING TO LABOUR: HOW WORKING CLASS KIDS GET WORKING CLASS JOBS* 171-79 (1977).

¹⁵ See, e.g., DAVID FARBER, *CHICAGO* 68, 218-19 (1988).

¹⁶ See, e.g., Philippe Bourgois, *supra* note 6, at 619-46; Thomas Mieczkowski, *Geeking Up and Throwing Down: Heroin Street Life in Detroit*, 24 *CRIMINOLOGY* 645, 645-64 (1986); see also MAHER, *supra* note 14, at 83-87; MERCER SULLIVAN, *GETTING PAID: YOUTH CRIME AND WORK IN THE INNER CITY* 3-8 (1989); see generally PATRICIA A. ADLER, *WHEELING AND DEALING: AN ETHNOGRAPHY OF AN UPPER LEVEL DRUG DEALING AND SMUGGLING COMMUNITY* (1985); JOAN MOORE, *HOMEBOYS* (1978); TERRY WILLIAMS, *THE COCAINE KIDS: THE INSIDE STORY OF A TEENAGE DRUG RING* (1989).

¹⁷ Cf. CONRAD M. ARENSBERG & SOLON T. KIMBALL, *CULTURE AND COMMUNITY* 28-34 (1965).

¹⁸ See, e.g., George Dalton, *Theoretical Issues in Economic Anthropology*, 10 *CURRENT ANTHROPOLOGY* 63, 63-65 (1969); Karl Polanyi, *The Economy as Instituted Process*, in *TRADE AND MARKET IN EARLY EMPIRES* 243, 243-50 (Karl Polanyi, et al., eds. 1957).

economic behavior, indeed all behavior, must be situated in a local community which renders it intelligible. As Sullivan has pointed out with respect to crime, including drug dealing:

criminal economic activity is embedded in community context to a far greater extent than other kinds of economic activity. The risks of regular business activity depend primarily on markets and competition. The risks of criminal activity depend on these factors *and* on the relative positions of victims and offenders in the community.¹⁹

To understand how and why inner city life has changed in the 1990s and the relationship between drugs, crime, violence and youth development, it is helpful to examine specific examples. This paper, which focuses on two Brooklyn, New York, neighborhoods, seeks to add to our understanding of the local-level processes which contributed to the remarkable transformation of the inner city in the 1990s. Examining the lives of different groups of young people—a household sample, gang members, and drug dealers—will show that the urge to invest explanatory power in structural (e.g., demographic, economic) or institutional (e.g., police, courts) factors to explain the turnaround witnessed in inner city neighborhoods, especially plummeting crime rates, is tempered by a close examination of the lives of people who live there, the very people who have agency and must ultimately decide whether to use a drug, pick a fight, or commit a crime.

II. METHODS

This study is based upon ten years (1987-1997) of ethnographic fieldwork spanning nine different research projects conducted in several Brooklyn neighborhoods.²⁰ Though each of these projects focused on different topics and/or populations—for example, social networks among injecting drug users, crack markets, or the risk behaviors of local youth—the one enduring feature of each project was an attempt to situate the observed behavior of research subjects in the context of a wider community. As such, neighborhoods as a whole were examined, and the direct observation and analysis of behaviors and practices at both the individual and group level were thus able to be placed in the context of a community which gave them meaning. Research participants were observed in public and private domains, allowing for descriptions of the intimate, mundane or extraordinary details of their everyday lives, the social contexts which framed them, and the manner by which they comported themselves and constructed identities.

For example, in one project,²¹ hundreds of hours were spent observing injecting drug users (IDUs) in local settings where they interacted with each other. This included extended observations in shooting galleries, crack houses, shanties, shacks, street corner hangouts, abandoned

¹⁹ SULLIVAN, *supra* note 16, at 108.

²⁰ [THESE PROJECTS INCLUDE: COMMUNITY AIDS PREVENTION OUTREACH DEMONSTRATION (NATIONAL INSTITUTE ON DRUG ABUSE #DA06723), THE COMMUNITY EFFECTS OF STREET-LEVEL NARCOTICS ENFORCEMENT: A STUDY OF THE NEW YORK CITY POLICE DEPARTMENT'S TACTICAL NARCOTICS TEAMS (NATIONAL INSTITUTE OF JUSTICE), THE ECOLOGY OF CRIME AND DRUG USE IN AMERICAN CITIES: SOCIAL STRUCTURE AND NEIGHBORHOOD DYNAMICS (SOCIAL SCIENCE RESEARCH COUNCIL), SOCIAL FACTORS AND HIV RISK (NIDA #DA 06723), HIV RISK AMONG YOUTH (NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES #A134723), LATIN KINGS AND GANG VIOLENCE (HARRY FRANK GUGGENHEIM FOUNDATION), THE NATURAL HISTORY OF CRACK DISTRIBUTION (NIDA #DA05126-05), DRUG USE AND HIV RISK AMONG YOUTH (NIDA #DA10411) AND HEROIN IN THE 21ST CENTURY (NIDA #DA10105-02).] [AUTHOR'S FOOTNOTE]

²¹ Social Factors and HIV Risk (NIDA # 06723).

buildings, vacant lots, rooftops, cars, trucks, public parks, fast food restaurants, and apartments. Many hours were spent observing injection events and discussing the procedures and protocols surrounding those events with individuals and groups. Observations were also made of the interactions between IDUs and drug distributors, family members, neighborhood residents, and various types of law enforcement personnel, including beat officers, members of the Tactical Narcotics Team (TNT), and the Warrant Squad. After three years of ethnographic fieldwork, several hundred pages of observational notes had been written and more than 210 open-ended interviews with drug users in the neighborhood were conducted. In addition, formal interviews with 767 IDUs were completed in the project's storefront. Ethnographic interviews were designed to elicit information on a wide range of topics including demographics, childhood and family background, education and work history, drug use history, current drug use, social networks, knowledge of distribution and sales, income generation and expenditures, participation in criminal activity, impact of law enforcement, injecting practices, knowledge of HIV and other blood-borne viruses, and experiences of treatment and/or quitting.

Ethnography allows for the combination of different data sources and permits information to be cross-validated and targeted for follow up and/or clarification. For this research, the combination of data from several studies provided widely divergent outlooks and orientations toward such topics as crime, violence, and drugs, and helped strengthen the process of triangulation between individuals and groups. Space does not permit a review of each of the research projects which contributed to this paper, however, hopefully what has emerged from this synthesis is a more sophisticated understanding of the people who have so remarkably changed their lives.

III. DRUGS AND INNER CITY DETERIORATION

For many Americans, drug use by inner-city residents was responsible for the demise of once proud cities. Drugs, they said, devastated neighborhoods as swiftly and certainly as a wrecking ball and, in their wake, entire swaths of cities resembled "Dresden after the war."²² Drugs were also seen as a contagious virus which eroded the flesh of communities and turned domestic and communal spaces meant for sociability and recreation into danger zones which needed to be quarantined from uninfected areas.²³ Parks were transformed into drug bazaars rendering them unsuitable for children. Mothers feared pushing baby carriages along streets resembling **Serejevo's "sniper alley" [is this your analogy?]** where even the police would not drive. Local businesses were systematically driven out by mounting losses as goods mysteriously flew off shelves and landed on street corners. Others were co-opted by nefarious drug-lords who callously inverted once-legitimate enterprises into thinly-disguised shelters for drug profits, personnel, and product. Hearty entrepreneurs who attempted to defy the trend invested heavily in bulletproof glass, video cameras, industrial-strength locks, vicious dogs, and private security guards, but still found themselves losing the battle against thugs who encircled the neighborhood to intimidate customers and choke off commerce. Drugs were also said to deplete a neighborhood's human capital by ruining once-promising lives and forcing productive mem-

²² Please provide a cite for this quote.

²³ See, Jonathan Crane, *Effects of Neighborhoods on Dropping Out of School and Teenage Childbearing*, in **THE URBAN UNDERCLASS 317-18** (Christopher Jencks & Paul E. Peterson eds., 1991); Adele Harrell & Paul E. Peterson, *Introduction: Inner-City Isolation and Opportunity*, **DRUGS, CRIME AND SOCIAL ISOLATION: BARRIERS TO URBAN OPPORTUNITY 7** (Adele Harrell & Paul E. Peterson eds., 1992).

bers of the community to move elsewhere. As the social life of neighborhoods visibly constricted, public services also withered: garbage piled up uncollected as side streets became dumping grounds, firehouses were closed as beleaguered firefighters conceded to the arsonists and drug vultures who scavenged over the bones of abandoned buildings, public transportation lines were cut back as fewer people had reason to come to or leave the neighborhood, taxi sightings became as rare as spotting a bald eagle, ambulances careened through the potholed streets but traveled long distances further endangering lives, schools were neglected causing the staff to become demoralized and the children to fall further behind developmental milestones, after-school programs were curtailed, libraries fell into disrepair, and pools, basketball courts, and other recreational facilities were transformed into fortresses which did little to insulate residents from the encroaching urban jungle. Replacing these hallmarks of community viability and vitality were institutions which fed the ultra-violent, cancerous drug culture that spread like wildfire, consuming inner cities throughout the United States and, increasingly, in urban centers around the globe.

This focus on drugs as the root of the problem plaguing cities was a new, more clever variation on a decades-old theme of blaming the decline of aging industrial centers on newly arrived minority populations.²⁴ In the older version, the afflictions and miseries associated with inner-city life were said to be the outcome of a "culture of poverty" or a "deviant subculture" in which poor people sought out, enjoyed, and perpetuated destructive lifestyles.²⁵ The new, less overtly racist variation on this theme—that drugs and the weak-willed racial/ethnic minorities who cannot resist them are responsible for the decline of cities—is a conviction which the crack discourse planted deeply in the American consciousness during the 1980s. It exempted the socioeconomic mainstream from responsibility for multiple inner-city crises. Within the social sciences, variations on the "deviant subculture" theme sealed off the inner-city drug economy as if it were in a virtual vacuum, impervious to all forces from the surrounding local, national, and global economies. In this school of thought, such an environment produced "superpredators" who grew up surrounded by "deviant, delinquent, and criminal adults in a practically perfect criminogenic environment—that is, an environment that seems almost consciously designed to produce vicious, unrepentant predatory street criminals."²⁶ Even some drug researchers who make reference to the role of larger structural forces in recent urban decline rely uncritically upon the analytically specious idea of a "criminal underclass."²⁷ At its most extreme, this ideology of individual blame revived long-discredited theories of "genetic predisposition" as the cause of criminal activity.²⁸

Contrasting with those who blame the deterioration of the inner cities on the attitudes and norms of newly arrived minority populations or as a consequence of the drugs they used, another

²⁴ Susan D. Greenbaum, *Housing Abandonment in Inner-City Black Neighborhoods: A Case Study of the Effects of the Dual Housing Market*, in *THE CULTURAL MEANING OF URBAN SPACE* 139, 140 (Robert Rotenberg & Gary McDonogh eds., 1993).

²⁵ See, e.g., EDWARD C. BANFIELD, *THE UNHEAVENLY CITY: THE NATURE AND FUTURE OF OUR URBAN CRISIS* 53-54 (1970); GERALD SUTTLES, *SOCIAL ORDER OF THE SLUM: ETHNICITY AND TERRITORY IN THE INNER-CITY* 3-12 (1968); Oscar Lewis, *The Culture of Poverty*, 215 *SCI. AM.* 19, 21 (1966); see generally DOUGLAS G. GLASCOV, *THE BLACK UNDERCLASS: POVERTY, UNEMPLOYMENT, AND ENTRAPMENT OF GHETTO YOUTH* (1980).

²⁶ WILLIAM J. BENNETT ET AL., *supra* note 3, at 14.

²⁷ Johnson et al., *supra* note 3, at 10-11.

²⁸ JAMES Q. WILSON & RICHARD J. HERRNSTEIN, *CRIME AND HUMAN NATURE* 90-103 (1985); David C. Rowe & D. Wayne Osgood, *Heredity and Sociological Theories of Delinquency: A Reconsideration*, 49 *AM. SOC. REV.* 526, 537-38 (1984).

school of social scientists convincingly showed that structural factors played a decisive role in the degradation of inner city neighborhoods.²⁹ To these scholars, the destruction had far more to do with the absence of legitimate employment opportunities than with the presence of hard drugs. The major “destroyers” were those who, following the age-old pursuit of profit maximization and capital accumulation, made economic and political decisions in boardrooms and bedrooms far away from the inner city. The decline of the cities in the Northeast was the result of the regional de-industrialization of the 1960s, when manufacturing capital fled and relocated in the non-unionized South and West of the country, before moving on to Central and South America and the Pacific Rim.³⁰ Most of the loss of manufacturing jobs and the subsequent increase of inner city poverty was concentrated in four Northern “frostbelt” cities: New York, Philadelphia, Chicago and Detroit.³¹ Kasarda notes that “between 1967 and 1987, Chicago lost 60 percent of its manufacturing jobs, Detroit 51%, New York City 58%, and Philadelphia 64%.”³² The conjoined effect of these structural forces over three decades had affected the availability of housing, real estate values, and money flows, producing the neighborhood contexts for the sorts of drug-using and drug-selling markets found in inner-city neighborhoods, each of which was accompanied by a different set of psychosocial outcomes.³³ These studies demonstrated that the destructive behavior of inner-city residents did not simply result from their use of illegal drugs, but originated in social-structural conditions.

Explanations which draw attention to the structural conditions underlying urban decay are an important corrective to those which interpret the problem as one of “deviant” norms, attitudes, or lifestyles, but a macrostructural perspective suffers from at least two weaknesses: (1) it has difficulty accounting for neighborhood variation, and (2) people are afforded little agency in such formulations; they are seen as simply reacting in predictable ways to their misfortunes.³⁴ With the exception of neighborhoods that are gentrifying,³⁵ the structuralist’s portrayal of the conditions that serve to undermine inner-city life is unflinchingly bleak, and the expectation is that social conditions will follow suit. To adherents of this school of thought, the current drop in crime and drug use defies the logic of their model; they cannot adequately explain it. And yet, crime and hard drug use continued to decline, and, as of the end of 1997, had not bottomed out.³⁶

²⁹ See, e.g., SASKIA SASSEN-KOOB, *THE MOBILITY OF LABOR AND CAPITAL: A STUDY IN INTERNATIONAL INVESTMENT AND LABOR FLOW* 17-24 (1988); John D. Kasarda, *The Severely Distressed in Economically Transforming Cities*, in *DRUGS, CRIME AND SOCIAL ISOLATION: BARRIERS TO URBAN OPPORTUNITY*, *supra* note 21 at 65-74 (Adele D. Harrell & Paul E. Peterson eds., 1992); Paul E. Peterson, *The Urban Underclass and the Poverty Paradox*, in *THE URBAN UNDERCLASS*, *supra* note 21, at 15-25 (Christopher Jencks & Paul E. Peterson eds., 1991); Wallace, *supra* at note 3; Wallace & Wallace, *supra* note 3. Cf. ALEJANDRO PORTES, *THE NEW SECOND GENERATION* 5 (1996).

³⁰ Please provide a cite for this proposition.

³¹ Peterson & Harrell, *supra* note 21, at 5.

³² Kasarda, *supra* note 28, at 71.

³³ Jeffrey Fagan, *Drug Selling and Licit Income in Distressed Neighborhoods: The Economic Lives of Street-Level Drug Users and Dealers*, in *DRUGS, CRIME AND SOCIAL ISOLATION: BARRIERS TO URBAN OPPORTUNITY*, *supra* note 21, 99, 103; cf. SULLIVAN, *supra* note 16, at 214-15.

³⁴ J.D. Greenstone, *Culture, Rationality, and the Underclass*, in *THE URBAN UNDERCLASS*, *supra* note 21, at 403.

³⁵ Neil Smith & P. Williams, *GENTRIFICATION OF THE CITY* 112 (Neil Smith & P. Williams, eds. 1986); Peter Marcuse, *Abandonment, Gentrification, and Displacement: The Linkages in New York City*, in *GENTRIFICATION OF THE CITY* *supra* at 153-77.

³⁶ Fox Butterfield, *Reason for Dramatic Drop in Crime Puzzles the Experts*, N.Y. TIMES, Mar. 29, 1998, at 16.

IV. NORTHEAST BROOKLYN IN TRANSITION

In the early 1960s, many New York City neighborhoods experienced a radical transformation which originated in the period's restructuring of global, national, and regional socio-economic arrangements.³⁷ Neighborhoods which had once been populated by European-Americans were rapidly evacuated and repopulated by migrants from Latin America and the Caribbean, where U.S.-directed development programs had transformed indigenous economies, causing malintegration between economic sectors, unemployment, and new waves of migration.³⁸ But as European-Americans deserted the city, over 500,000 manufacturing jobs also fled the city, and as the city's tax base shrank, expenditure on public services was sharply reduced.³⁹ Although a few large manufacturers remained, the typical poor-neighborhood company in the 1980s and 1990s intermittently employed workers in non-union, low-skill, low-wage, and high-risk jobs. The economy had stopped guaranteeing economic prosperity and security and instead offered high unemployment and underemployment. Thus, a significant proportion of new immigrants arriving in U.S. cities were trapped in steadily deteriorating neighborhoods by unemployment and the lack of low-income housing.

The changes which took place in Northeast Brooklyn were, in many ways, typical of what happened elsewhere. In Williamsburg, reform, conservative, and orthodox Jews fled to the suburbs beginning in the late 1950s, abandoning apartment buildings on the Southside of the neighborhood.⁴⁰ The Italians on the Northside entrenched themselves, fiercely clinging to neighborhood traditions.⁴¹ Bushwick, an adjacent neighborhood to the southeast, emptied out in a rash of arson-related house fires as homeowners who could not sell attempted to collect insurance monies instead. Where there were once bustling, viable neighborhoods which thrived on stable manufacturing jobs nearby, there were now shuttered factories and block after block of abandoned buildings and empty lots.⁴² The section had become an urban wasteland whose charred, derelict landscape was matched by a frontier mentality where confrontation and violence were commonly used to impose order and resolve disputes.⁴³

³⁷ See, e.g., ERNEST MANDEL, *LATE CAPITALISM pinpoint* (rev. ed. 1975); DAVID W. McCULLOUGH, *BROOKLYN—AND HOW IT GOT THAT WAY* 217-19 (1983); ROBERT J.S. ROSS & KENT C. TRACHTER, *GLOBAL CAPITALISM: THE NEW LEVIATHAN* 157-69 (1990); cf. HARRY BRAVERMAN, *LABOR AND MONOPOLY CAPITAL: THE DEGRADATION OF WORK IN THE 20TH CENTURY* 24-39 (1974).

³⁸ See, e.g., Jeanne Koslofsky, *Migration's Motor: Postwar Modernization, in DRUGS AND DRUG ABUSE: A READER* 152 (Ansley Hamid ed. 1988); Saskia Sassen-Koob, *New York City's Informal Economy, in THE INFORMAL ECONOMY: STUDIES IN ADVANCED AND LESS DEVELOPED COUNTRIES* 60, 60-62 (Alejandro Portes et al. eds. 1989).

³⁹ Kasarda, *supra* note 28 at 72; John H. Mollenkopf & Manuel Castells, *Introduction to DUAL CITY: RESTRUCTURING NEW YORK* 3, 6-8 (John H. Mollenkopf & Manuel Castells, eds. 1991).

⁴⁰ Thomas W. Ennis, *Brooklyn Walkups Rehabilitated*, N.Y. TIMES, Sept. 22, 1965, at _____.

⁴¹ Guy Trebay, *The Giglio*, THE NEW YORKER, June 4, 1990, at 78, 87; Richard Curtis & Lisa Maher, *Highly Structured Crack Markets in the Southside of Williamsburg, Brooklyn*. Paper prepared for publication under contract with the Social Science Research Council and the Guggenheim Foundation Working Group on the Ecology of Crime and Drugs (1992)(unpublished manuscript, on file with ???).

⁴² Alan S. Oser, *The Quest for Shops Below Bushwick El*, N.Y. TIMES, Feb. 27, 1994, at E7; Martin Gottlieb, *In Bushwick, A Project Called Hope*, N.Y. TIMES, August 15, 1993, at 35; Pamela Newkirk & Manuel Perez-Rivas, *Fire in Their Eyes, Decay Gives Way to Despair*, N.Y. NEWSDAY, July 12, 1992, at 6.

⁴³ James C. McKinley, Jr., *Friendships and Fear Undermine a Will to Fight Drugs in Brooklyn*, N.Y. TIMES, Sept. 18, 1989, at B1; Mary B.W. Tabor, *The World of a Drug Bazaar, Where Hope Has Burned Out*, N.Y. TIMES, Oct. 1, 1992, at A1; Mary B.W. Tabor, *Where the Drug Culture Rules, Neighborhood Symbolizing City, State, and National Failure*, N.Y. TIMES, Oct. 2, 1992, at B1.

The high turnover of tenants and homeowners weakened voluntary associations, if they were not completely discontinued. Disinvestment in schools and community depleted PTAs, clubs, church groups, and grassroots political groupings. The informal controls which defined and protected neighborhoods were thus slackened, opening the door for organized drug distribution and a steadily increasing crime rate.⁴⁴ The former wife of a Puerto Rican drug distributor in Williamsburg described how, even by the 1960s, their neighborhood lacked structure and how the absence of formal organization among neighborhood residents was partially compensated for by the existence of family-based drug distribution networks:

We never had any block associations. No, not in this neighborhood. This neighborhood wasn't together. One reason, I think, is because a lot of these people had a son or somebody bringing in some type of [illegally earned] money. Even grandmothers used to be lookouts. Whole families used to be into selling drugs. Yeah, from the 70s on; when they started selling drugs in the streets, they needed lookouts. It was like a family affair.⁴⁵

These nascent organizations acted as springboards to political and/or economic power within the neighborhood. For newly arriving minority youths, aside from family connections, there were few enduring community ties to which they pledged loyalty. Lacking significant economic opportunity and entering an urban terrain where neighborhood conditions and controls were crumbling, many newcomers found themselves pulled into the orbit of drugs as distributors and/or users.⁴⁶ Drugs and the "fast" money circulating in drug markets proved more attractive to them than the seemingly bankrupt ideas of previous generations which believed it possible to climb the ladder to economic success and achieve the American dream through hard work.

A. DRUG MARKETS IN NORTHEAST BROOKLYN

An enduring theme of illegal drugs in New York City is that although distribution has been vertically organized since the prohibition of alcohol, control over it has shifted from one ethnic population to another. In Northeast Brooklyn, Puerto Rican freelance distributors and family businesses filled the vacuum left by the withdrawal of Italian retailers in the early 1960s. As the popularity of heroin skyrocketed in the mid 1960s, they quickly cornered street-level sales in many neighborhoods and their incipient organizations grew in size and complexity.⁴⁷ When the heroin epidemic ended in the 1970s, just a few Puerto Rican "owners" had consolidated the market and formed monolithic enterprises which tightly integrated wholesale, mid-level, and street-level markets. Located in selected Latino neighborhoods, these businesses remained an exclusively Puerto Rican enterprise. In Williamsburg, five Puerto Rican "owners" employed a street-level staff of exclusively Puerto Ricans.⁴⁸

When the popularity of crack skyrocketed in New York City in the mid-1980s, the owners of heroin and cocaine businesses in Williamsburg resisted adding crack to their menus despite in-

⁴⁴ See Curtis & Maher, *supra*, note 36, at 16-19; Wallace & Wallace, *supra* note 3, at 14-15.

⁴⁵ Interview with Carmela, conducted at the CAPOD Research storefront, Williamsburg Brooklyn, N.Y. (Aug. 14, 1988).

⁴⁶ Edward Preble & John J. Casey Jr., *Taking Care of Business: The Heroin User's Life on the Street*, 4 INT'L J. ADDICTIONS 1, 4-5 (1969); Curtis & Maher, *supra* note 36, at 35.

⁴⁷ See Randy Young Paul, *Where the Drugs Are*, SOHO WEEKLY NEWS, Oct. 7, 1976, at 4; Curtis & Maher, *supra* note 36 at 29-33; see generally Preble & Casey, *supra* note 46, at 8-14 (explaining the complexity of heroin distribution in New York City).

⁴⁸ Curtis & Maher, *supra* note 36 at 38-39.

creasing numbers of customers who were asking for it, and only grudgingly allowed fledgling (Dominican) crack distributors to operate on the edge of their turfs.⁴⁹ Even though crack eventually made inroads into Williamsburg in the late 1980s, the antipathy which heroin and cocaine distributors, shooting gallery operators and drug injectors held toward crack users initially kept the crack scene on the neighborhood fringe. But by passing up the opportunity to diversify their tightly controlled market, the owners of drug businesses in Williamsburg emboldened competitors who eventually usurped Puerto Rican dominance over the market.

Throughout the 1970s and most of the 1980s, Bushwick was a second-tier drug market in comparison with Williamsburg. Located immediately southeast of the latter and further into Brooklyn, Bushwick is more isolated and inconvenient for drug users from outside the neighborhood to reach via car or public transportation. In Bushwick, territory was much less rigidly controlled than in Williamsburg and crack, cocaine and heroin distributors, many of them newly arrived Dominicans, were able to make significant inroads into the neighborhood in the late 1980s.⁵⁰ By 1988, fueled by aggressive crack sales and offering an entire range of street-level drugs to consumers, drug markets in Bushwick began to rival those in Williamsburg.⁵¹ Still, their location was bad and many drug users continued to utilize Bushwick as a secondary market, a place they would go only when drugs could not be found elsewhere. But if Bushwick's location was inconvenient, Williamsburg's was good, too good. In the mid-1980s, gentrification in lower Manhattan began to drive many young artists and professionals to the outer boroughs and Williamsburg became an increasingly attractive option to many of them.⁵² A housing shortage in Williamsburg, which was already bad given rapidly expanding Latino and Hasidic communities,⁵³ was thus exacerbated by an influx of Manhattanites. Suddenly, buildings which had been abandoned since the early 1970s and were the sites of shooting galleries and hideouts for drug dealers were valuable property. They were sealed up, cleaned up, and completely transformed within the space of a few years. Many factory buildings near the waterfront, especially those with a view of Manhattan, were turned into lofts and sold for handsome profits. Apartment buildings were rehabilitated and rented out to local low- and middle-income families who waged spirited battles to gain entry.

For Bushwick, the citywide blackout of August 1977, when many businesses and homes were burned, represented a low point. Throughout the 1980s, like Williamsburg, Bushwick too began to experience renewal, though much more modest in scope.⁵⁴ Small industries reclaimed many vacant factories and New York City, in partnership with landlords, slowly began to rehabilitate some of the apartment buildings which had gone untended for many years. But when Williamsburg began to gentrify and the Tactical Narcotics Team cracked down on street-level

⁴⁹ *Id.* at 47.

⁵⁰ See RICHARD CURTIS & LISA MAHER, *IN SEARCH OF THE FEMALE GANGSTA*, 154-55 (year).

⁵¹ *Id.* at 155.

⁵² Lisa W. Foderaro, *A Metamorphosis for Old Williamsburg*, N.Y. TIMES, July 19, 1987).

⁵³ See Martin Gansberg, *Williamsburg Violence Reflects Tension in Area*, N.Y. TIMES, June 30, 1970, at ____; Margot Hornblower, *Cultures Clash*, LIBERTY, Mar./Apr. 1988, at 23, 23-25; Edmund Newton, *Tension in Williamsburg--Housing for Whom?*, N.Y. DAILY POST MAG., Dec. 22, 1976, at 27.

⁵⁴ Oser, *supra* note 42, at E7.

drug markets there, the drug markets were displaced to Bushwick.⁵⁵ Robert, a 41 year old African American from Newark, NJ, discussed his reasons for coming to Bushwick in 1990:

I started copping at Alphabet City [Manhattan's Lower East Side]. When [Operation] Pressure Point started [in 1983-84], the boys told me things had moved over to Williamsburg, South Second Street. Then they cracked down over there and unless you actually know someone or something like that, because of the new housing, the place is virtually cleaned except for a few bodegas up and down Broadway that you can buy cocaine from, and stuff like that. So then that whole scene closed down and I started coming down here.⁵⁶

Thus, the modest recovery mounted by Bushwick was promptly stalled by a steady increase in the amount of street-level crack, heroin, and cocaine trafficking which drew participants from throughout the New York metropolitan area.⁵⁷ By 1990, a street-level drug "supermarket" had formed in the northern tier of Bushwick and within a four block area, more than two dozen different "stamps" of heroin were aggressively hawked by street-level sellers who called out the name of their product like Coney Island carnival barkers. Between February 1991 and May 1992, the number of distributors and users at the largest street-level market in Bushwick doubled.⁵⁸

The police, and Tactical Narcotics Teams (TNT) in particular, enjoyed a great benefit from the contraction and concentration of street-level cocaine (crack) markets throughout New York City. They were able to focus their efforts on fewer precincts and still maintain the same high number of arrests (about 400 per month per unit) previously achieved within a much larger geographical area. For example, over 8,200 persons were arrested between 1988 and 1992 in Bushwick alone. A common joke was that Rikers Island, the city jail, had turned into "a Bushwick block party"⁵⁹ where young women and children sat in the waiting room exchanging gossip about recent arrests, sentences received, and mounting family pressures, while young men gathered on the other side of the bars in anticipation of visits by family and friends.

The citywide conversion of more decentralized drug markets into a few supermarkets in Bushwick, East Harlem, and a few other neighborhoods also precipitated greater tumult. Drug distributors have long commanded attention⁶⁰ for their unprecedented levels of and novel approaches to violence, including the infamous "Colombian necktie," the use of boxcutters to slash faces, and their promotion of the nine millimeter pistol to the status of cultural icon. Goldstein has noted that "systemic" violence accounts for the lion's share of incidents related to illegal

⁵⁵ Richard Curtis & Michelle Sviridoff, *The Social Organization of Street-Level Drug Markets and Its Impact on the Displacement Effect*, in *CRIME DISPLACEMENT: THE OTHER SIDE OF PREVENTION* 155, 160 (Robert P. McNamara ed., 1994).

⁵⁶ Interview with Robert, a heroin injector, conducted at the SFHR research storefront (May 31, 1991).

⁵⁷ Richard Curtis et al., *Street Level Drug Markets: Network Structure and HIV Risk*, 17 *SOC. NETWORKS* 229, 231-32 (1995).

⁵⁸ *Id.* at 231.

⁵⁹ RICHARD CURTIS & ANSLEY HAMID, *State-Sponsored Violence in New York City and Indigenous Attempts to Contain It: The Mediating Role of the Third Crown (Sergeant at Arms) of the Latin Kings*, in *INTEGRATING CULTURAL, OBSERVATIONAL, AND EPIDEMIOLOGICAL APPROACHES IN THE PREVENTION OF DRUG ABUSE AND HIV/AIDS: CURRENT STATUS AND PROSPECTS FIRST PAGE*, 5 (National Institute on Drug Abuse ed., forthcoming 1999).

⁶⁰ See JEROME H. SKOLNICK, *GANG ORGANIZATION AND MIGRATION: DRUGS, GANGS, AND LAW ENFORCEMENT* (1990); Paul J. Goldstein, *The Drugs/Violence Nexus: A Tripartite Conceptual Framework*, 15 *J. DRUG ISSUES* 493, 497-502 (1985); see generally Ansley Hamid, *From Ganja to Crack: Caribbean Participation in the Underground Economy in Brooklyn, 1976-1986, Part 2: Establishment of the Cocaine (and Crack) Economy*, 26 *INT'L J. ADDICTIONS* 729 (1991).

drugs,⁶¹ and nowhere was that more apparent than in Bushwick. While some markets earned reputations for controlling violence (e.g., Hamid's marijuana distributors⁶², Williams' crack dealers⁶³), distributors in Bushwick employed it regularly and systematically.⁶⁴ There, large corporate-like organizations effected street-level drug sales, and since institutional and neighborhood-level restraints had already vanished, they completely disregarded the sensibilities of residents in doing so. They also undermined the prosperity of the community which hosted them, just as their counterparts in the formal economy had done. While their sole benefit consisted of low-level, dead-end jobs for youths, the damages included plummeting property values, a greater incidence of drug misuse, and high rates of incarceration and AIDS. But their most crippling legacy was violence. As one college student from the neighborhood wrote in 1991, "Nights here are like the Fourth of July, but all year round. There are always guns being fired." Another noted that there were few public places that were safe any longer:

It was the summer of 1989 and I was together with my best friend from high school, Julio, and we were going to the park to play some ball and catch up on old times. All of a sudden we heard gun shots from an Uzi machine gun. I yelled, "get down," and took cover behind a tree. My friend, on the other hand, panicked and ran. I couldn't believe that I was witnessing an actual drug war over territory in my neighborhood. I was shocked and amazed. I wondered where and how my friend was doing. I looked and saw him lying on the ground, bleeding from his left leg. The whole thing must have lasted only a few minutes, but it seemed like forever. Today, I can no longer go to the park where I used to run track and field for fear of such episodes. I either drive to another track or just run through the neighborhood in the early morning, which can also be dangerous.⁶⁵

B. CORPORATE DISTRIBUTORS AND THE LEGACY OF VIOLENCE

By 1992, one Puerto Rican and three Dominican "owners" ruled over crack distribution at the northern end of the Bushwick. Each had a trademark, or the color of the "tops" of the crack vials they sold: white, blue, brown and pink. Dominican families monitored the day to day operations of the largest three. Younger family members and close non-kin "associates" directed street sales, while older family members, entirely removed from the street scene, were the "executives." When there were not enough family members, owners employed persons who shared a similar background. The practice earned them the resentment of street-level workers, particularly among the Puerto Ricans who had controlled distribution throughout the 1970s and early 1980s (and had similar policies), but were later toppled by the Dominicans in the late 1980s. The rivalry which had long existed between Puerto Ricans and Dominicans in New York City was thus sharpened in the drug business:

⁶¹ Goldstein, *supra* note 60, at 503.

⁶² Hamid, *supra* note 60, at 729.

⁶³ WILLIAMS, *supra* note 16, at 14-16.

⁶⁴ See MAHER, *supra* note 14 at 94-95; Lisa Maher & Richard Curtis, *Women on the Edge of Crime: Crack Cocaine and the Changing Contexts of Street-Level Sex Work in New York City*, 18 CRIME L. & SOC. CHANGE 221, 221-51 (1992); CURTIS & MAHER, *supra* note 41, at 48-50.

⁶⁵ Orlando, Title of Term Paper, pinpoint, (exact date) (unpublished manuscript, on file with author); Jose, Title of Term Paper, pinpoint, (exact date) (unpublished manuscript, on file with author). Both authors were students at John Jay College, who were writing about drugs in their neighborhoods, which for each was Bushwick, New York.

The Puerto Ricans and Dominicans are pretty separate. They got their own clubs, you know, their own crew. Some of them socialize, you know . . . people that are not in the drug business. They might work together in the same factory, same jobs. Some I could say they're tight. But when it comes to the drug business, they're not tight, you know. There's no trust whatsoever, you know; and it's always remorse and always backbitin' and they're always tryin' to get over on each other.⁶⁶

The supply of eligible Latino street-level dealers was depleted by arrests resulting from the war on drugs. African Americans, European Americans and heavy drug users, who were marginalized and victimized even more severely by these organizations, replaced them.⁶⁷ The gulf separating management from labor widened and their already contentious and adversarial relationships turned even more distrustful and violence-prone. Resenting their harsh and dangerous conditions of labor, and the disrespect their managers showed, many street-level sellers took every opportunity to abscond with the drugs. They fully expected physical punishment for the transgression.

I haven't been down here recently because well, 'cause I ain't got they money yet. And the last guy I seen that had got busted, or jettied, or whatever, he came back months later and he didn't have the money, and I seen them bat him down. They broke his ribs, they broke his lungs.⁶⁸

If they catch the people that are cuttin' out with their product they either make them work for nothing or they'll break their arm, or break their leg. Forget it, man. They hurt . . . they get a beating. They break their legs or an arm. But now if anyone hits you, they all hit you. They all hit you.⁶⁹

While brute force, or the threat of it, is the ultimate means distributors have to enforce rules, a business is ruined when it invites police attention too frequently. Accordingly, sensible or successful distributors avoided or minimized its use. But Bushwick's corporate "owners" were reckless. Violent acts were more common in their markets because of the divisions and animosities that rigidly separated different levels of the organizations, because the owners did not live in the neighborhood and did not have to witness or confront the aftermath of their deeds, and because they could easily relocate supplies to outlets they maintained in other neighborhoods. Indeed, owners regularly encouraged their managers to use public displays of force as a way of intimidating customers, untrustworthy employees, and to send the message that they should not be crossed. For example, one owner hired an "enforcer" who strolled around the neighborhood with a baseball bat on which he wrote the names of his targets. After punishing them, he rubbed off their names.

In the Bushwick of the early 1990s, "face to face" or "man to man" confrontations between individuals were replaced by humiliating group beatings, or "beatdowns." Their unrestrained

⁶⁶ Interview with Henry, Puerto Rican heroin seller, at the SFHR storefront in Bushwick, N.Y. (Mar. 20, 1992).

⁶⁷ **Lisa Maher & Richard Curtis, IN SEARCH OF THE FEMALE GANGSTA, *supra* note 1, at 156.**

⁶⁸ Interview with Doc, an African American heroin seller, at the SFHR storefront in Bushwick, N.Y. (Mar. 26, 1992).

⁶⁹ Interview with Jose, a Puerto Rican heroin seller, at the SFHR storefront in Bushwick, N.Y. (Jan. 21, 1992).

brutality affected local adolescents, who were its daily witnesses. Sometimes they too participated gratuitously in beatdowns and other bloody episodes in which they had no stake. They simply saw someone being chased and, with malicious smiles on their faces, picked up their baseball bats or bicycle chains and joined the chase. For them, "fun" was no longer spraying graffiti, playing ball, or dancing, it was the number and severity of beatdowns they administered daily, and the beatdowns became so frequent that the sight of blood stopped being a cause for alarm to researchers and local residents alike:

Looking out the storefront's picture window, I saw my old neighbor, George, this morning. He was all beaten up and his nose was all bloody. He said that some "dope fiends" had jumped him this morning and tried to take his money. I don't know whether this is true or not, but suspected that he might have been the one who tried to take someone's money. He came inside the storefront and wiped his face off with some paper towels. We hadn't seen him for several months, at least since New Year's. He said that today was the first time that he had come down here in a couple of months. So I asked him what he's selling out here today. He said he was going to be selling "brown tops" [crack]. Apparently, brown tops is an organization where somebody can just show up on their door step all beaten up and say, "yo, I want to sell for you today," and they will put him out there on the street, bloody nose and all.⁷⁰

Drug supermarkets made these atrocities an unremarkable commonplace feature of everyday life. While police operations which target street-level drug markets may anticipate the use of force as people resist being arrested or during their attempts to flee, some members of the New York City Police Department were innovative, and conceived many unusual applications which deeply alienated neighborhood residents. For example, when "sweeping" the main drug selling areas, the officers would cordon off both ends of a street and require everyone in between to lie down, regardless of who they were. While this tactic sometimes yielded a handsome number of arrests, it also obliged elderly grandmothers and young children to grovel on the asphalt while being roughly searched—and it enraged many residents.

When the police could not find drug distributors to arrest, they went to well-known shooting galleries. But officers loathed going into them. They believed that too many hiding places lurked in the dark and sometimes labyrinthine constructions and that they were an obstacle course of discarded HIV-infected syringes. Instead, to flush the drug users out, some officers used to throw large rocks through the windows. They were caught in the act by a prize-winning reporter for the Los Angeles Times, who had been interviewing heroin injectors when the projectiles whizzed by his head.⁷¹ Drug users also showed the research team large welts across their torsos which officers had inflicted with whips of thick television cable as they fled the galleries.

In the summer, local police officers mercilessly and systematically harassed drug users who loitered near the major drug selling locales. Early in the morning when they had fallen asleep on the sidewalk, foot patrol officers would routinely rouse them with kicks and order them to move. Sometimes the kick simply nudged the unfortunate awake, at other times it was meant to cause pain. So habituated were they to the past-time that the police officers continued it even when

⁷⁰ **AUTHORS NOTE: FIELDNOTES JULY 15, 1992. Interview with _____, conducted at _____ (date, year).**

⁷¹ Barry Bearak, *A Room for Heroin and HIV*, L.A. TIMES, Sept. 28, 1992, at A1.

video cameras were brought to photograph them. They also responded with an overwhelming show of force at almost any infraction by a drug user, dealer, or passerby.

A young Latino, about 25 or 30 years old and weighing about 120 pounds, was being arrested by two officers. They had him in a choke hold and he started bleeding through his nose. I informed the police officer that the guy was bleeding through his nose and he couldn't breathe. His reaction to me was, "hey, I can't breathe either." As the crowd got bigger, they started to notice the guy was bleeding through his nose, and people were saying things [addressing insults] to the cop. He sent some sort of message into his walkie-talkie, and within 30 seconds there were dozens of cops on the corner. They were all there to arrest one guy who apparently had attempted to steal a bicycle. It just looked ridiculous, but the situation could have easily gotten out of control.⁷²

By late summer 1992, the populace was close to insurrection and television and newspaper crews came to interview unruly crowds who were protesting the mounting number of police shootings and beatings of youths.⁷³ Police had responded in full riot gear, and other residents had pelted them from the rooftops with bottles, debris, and hateful epithets. Apparently thinking that beleaguered drug distributors were fomenting the neighborhood's growing hostility towards them, and immediately following a sensationalizing article in the *New York Times*,⁷⁴ the police mounted yet another major offensive against street-level drug markets in September, 1992.⁷⁵ They stationed a mobile trailer in a nearby park to serve as the base of operations for more than 300 additional uniformed officers. These were positioned around the park and on each corner of drug "hot spots." Mounted police trotted by to discourage trafficking or "loitering." Officers stopped and questioned all pedestrians and asked for their identification and destination. Non-residents were told to stay out. The heaviest drug trafficking streets were sealed with wooden barricades and police vans, and traffic was diverted to other streets. When evening came, they drove in large flatbed trucks with gas-powered generators and klieg lights which, parked at strategic corners, illuminated entire blocks. Police painted the street numbers of buildings on rooftops to enable helicopters to give additional support to officers pursuing suspects on foot. For the next 18 months, Bushwick was virtually occupied by a small army of police.

V. GROWING UP IN THE 1990s: VIOLENCE, CRIME AND DRUGS

For Bushwick youth, it would not have been unreasonable to expect that rates of crime and violence would continue to increase throughout the 1990s, and that it was only a matter of time before a new breed of superpredators made their ominous presence felt. Much evidence seemed to suggest that the dominant models of urban decay and worsening youth violence were correct. Many youth had grown up in dysfunctional multi-problem families, without positive role models, and were left unchecked by the informal controls which had defined and protected previous generations. The lack of structure worsened as youth turned into adolescents. There was typically a diffusion of responsibility for social control shifting away from parents and onto societal institu-

⁷² Interview with Pablo, at the SFHR storefront in Bushwick, N.Y. (July 24, 1991).

⁷³ Pamela Newkirk & Wendell Jamieson, *Street of Fury: Shooting Riles Brooklyn Crowd*, N.Y. *NEWSDAY*, May 24, 1992, at 3.

⁷⁴ Mary B.W. Tabor, *Police and Mourners Clash at Funeral Procession*, N.Y. *TIMES*, May 24, 1992, at 46.

⁷⁵ Please provide a cite for this.

tions, especially schools. In Bushwick, these societal checks had been largely missing and young adults had to forge their own solutions to problems.

The daily occurrences of violence and crime etched deep furrows on the bodies and psyches of Bushwick youth. A representative household sample of Bushwick youth aged eighteen to twenty-one conducted in 1994-95 noted the pervasiveness of violence:

Violence has been an important part of their lives: approximately 10% report having been physically abused by a police officer, 30% have been threatened or stabbed with a knife, 27% have been caught in a random shoot-out, 22% have been threatened or shot at with a gun, 33% have been mugged or robbed with a threat of violence, and 14% of the women and 5% of the men report having been sexually abused. Over half (51%) report having carried a weapon such as a knife, club or gun.⁷⁶

But rather than becoming superpredators as an outcome of this exposure, many youth withdrew from social life, afraid of lingering in public spaces for fear of violence. Violence had become so commonplace that they often listened in near disbelief to stories about when fighting was fair, and done for reasons that were righteous or virtuous. Walter (seventeen years old when interviewed in 1993) discussed his reasons for avoiding spending time on the street:

Like the stories I heard about when my uncles were growing up: if there was a problem between two gangs, those two gangs would kill each other. It's not like that anymore. They try to hit you . . . if there's ten people there, they're just gonna come and spray the whole block and whoever gets caught gets caught. They're not even aiming at you, they're just . . . that's the crowd, he's in there somewhere, let's knock everybody. It's crazy. And they don't care if there's children, older people. They don't even respect cops anymore. They don't respect anybody.⁷⁷

Many youth who were interviewed between 1993 and 1995 said that they were so fearful of random and/or police violence that they no longer spent much time in parks, playgrounds, stoops, or the other places where youths had traditionally "hung out." Indeed, the question, "where do you hang out?" seemed to offend them. When pushed to explain, one former cocaine and heroin dealer on Fishman Street who had renounced his violent past and tried to distance himself from peers who continued to commit crimes and sell drugs for corporate owners, said that hanging out was for "hoodlums." Harv (nineteen years old when first interviewed in 1993):

What makes one a hoodlum? It's a kid who runs around doing stupid, ignorant things, like hanging out late at night, getting drunk, startin fights, wanna do crime, steal...that's a hoodlum. Somebody who's always in the streets and he's very streetwise. It's someone who does vandalism like shooting in the air or breaking bottles in the street.⁷⁸

⁷⁶ Samuel R. Friedman et al., *Adolescents and HIV Risk Due to Drug Injection or Sex with Drug Injectors in the United States*, in AIDS AND ADOLESCENTS 107, 120 (Lorraine Sherr ed., 1997).

⁷⁷ Focus group with three teens from Bushwick, conducted at Intermediate School After School Program (Dec. 13, 1993).

⁷⁸ Focus group with four street level drug distributors, conducted at doctor's office, Bushwick Ave. (Nov. 18, 1993).

Javier (sixteen years old when first interviewed in 1993) grudgingly admitted that he sometimes spent time with age-mates who were involved with drugs, violence, and crime, but he preferred to avoid them in favor of a more mature crowd.

Some of the people I grew up with are getting killed, like about ten of them got killed. For me, I think I grew up ahead of time. I'm more of an adult than anything else. OK, I hang out. I chill out now and then with the young guys, but it's rare. Most of the time, during the week you find me with people like thirty, mid thirties, forty years old and I'm chilling with them. I feel safer, you know. I don't have to deal with what's going on in the street. Once in a while I'll hang out with one of the fellas I grew up with. Maybe if I bump into him. Like if I'm walking down the street, and I haven't seen him for a while or I'd see what he was doing and I was avoiding him. Maybe I'd hang with him for a couple of minutes, or at the most for an hour. But then, you try and draw back, 'cause you don't want to get caught up in what he's doing especially if the police are looking for him.⁷⁹

Violence and crime did not disappear overnight or entirely from the lives of this generation of youth, but in moving away from exposure to high-risk settings and the performance of violent acts in public spheres, the intimate contexts of private, and especially family, life became the arena where violent episodes found their expression. In the mid 1990s, social service providers throughout Bushwick reported significant increases in the amount of domestic violence cases that had gone, for the most part, unreported to the police and which there were precious few community resources to handle. The director of one social service program said that between 1995 and 1997, the number of phone calls, referrals, and cases of domestic violence they handled more than doubled, compelling the agency to hire a social worker who handled only such cases.⁸⁰

Many youth had intimate experience with the variety of problems that afflicted their elders as an outcome of involvement with cocaine, crack, or heroin, and they made a conscious attempt to avoid similar fates. Bubbler (seventeen years old in 1996), for example, had witnessed his mother's despair after two older, heroin-using brothers who worked for the corporate owners on Fishman Street became casualties of the war on drugs and were sentenced to lengthy prison terms. Bubbler smoked only marijuana, and though he had intermittently sold crack in his middle-teens, by seventeen, he had stopped selling, moved in with his girlfriend, attended high school regularly, and sought legitimate employment.

The impact of parental drug misuse on family life was deeply felt by many young Bushwick residents, often narrowing the parameters of their own drug use. Victoria (twenty-five years old in 1997) had extensive involvement with drug distributors and users as a child and a teenager, but she remained steadfastly abstinent, chastened by her mother's experience:

My mom used dope, crack and other drugs for many years. She used to make deliveries for big-time dealers. One guy was Puerto Rican and his partner was Colombian. Sometimes, she'd take dope and coke to Puerto Rico for them. They would strap the packages to her body. Somebody would come to the house and do it for her. She'd make these runs for them about once a month—to San Juan—and never got caught. I'm not sure how much money she

⁷⁹ Focus group with three teens from Bushwick, conducted at an Intermediate School After School Program (Dec. 13, 1993).

⁸⁰ **NEED MORE INFO IN CITE: [(PERSONAL COMMUNICATION, JOSE OLMO, DIRECTOR, FAMILY DYNAMICS)].**

made each time, but once, I know, she made \$15,000. She still sniffs and shoots dope mostly shoots it. She's a client of ADAPT's needle exchange.⁸¹

Victoria never divulged whether her mother had contracted HIV from her many years of injecting, but Bushwick had one of the highest rates of HIV and AIDS in New York City⁸²—double the rate of the city as a whole—and the threat of contracting the virus was never far from the minds of youth. Bolo, the owner of a crack business in the neighborhood,⁸³ shook his head in sorrow when talking about his mother's sister who lived next door, a forty-three year old drug injector and crack smoker who had been diagnosed with AIDS. Macho (born in 1978), an abstinent youth who occasionally sold crack to make money, talked about the the impact of AIDS on his life:

My mom, who's dead now, grew up on Knickerbocker Avenue in Bushwick. She died last year (1996), on June 12th, of AIDS. My little sister's father gave it to her and she died 3 months after she was diagnosed with the disease. He had the virus and never said anything to her. Eventually, she began to wonder why she was getting sick all the time and when we found out the truth, she was shocked.⁸⁴

Given the AIDS epidemic, a growing body count in the war on drugs, and the many adverse psychosocial outcomes that follow drug misuse, many African American youth throughout New York City began to avoid heroin and crack in the 1990s.⁸⁵ In Manhattan, for example, "the rate [of cocaine/crack use] among youthful arrestees went from 70% in 1988 down to 31% in 1991, where it remained through 1995. It declined further to 22% in 1996."⁸⁶ In place of hard drugs, they consumed only marijuana, and viewed even cigarettes and malt liquor, which had been aggressively marketed in their neighborhoods,⁸⁷ with disfavor. This generation of youth put tremendous pressure on their age mates to eschew stigmatized substances. "You don't get no respect [if you use drugs]. See, the in-thing is the weed or drinking, but if you start messing with the dope, that's bad, you're a crackhead now."⁸⁸

Bushwick youth were nearly unanimous in their opinion that their peers would not be proud of using heroin or crack. When asked where people their age might be using heroin or crack, one said, "Hiding somewhere on the down low. Probably in the bathroom. Only the oldtimers do those things where others can see them."⁸⁹ Another said that he knew only one peer who used heroin or cocaine:

⁸¹ Interview with Victoria, in her apartment, Bushwick, N.Y. (Feb. 16, 1997).

⁸² Curtis et al., *supra* note 57, at 230-31.

⁸³ See *infra*, Part VII.

⁸⁴ Interview with Macho, at friend's apartment on Stanhope Road, in Bushwick (Sept. 5, 1997).

⁸⁵ Ansley Hamid et al., *The Heroin Epidemic in New York City: Current Status and Prognoses*, 29 J. PSYCHOACTIVE DRUGS 375, 378 (1997).

⁸⁶ ANDREW L. GOLUB & BRUCE D. JOHNSON, CRACK'S DECLINE: SOME SURPRISES ACROSS U.S. CITIES. NATIONAL INSTITUTE OF JUSTICE: RESEARCH IN BRIEF 6 (July 1997).

⁸⁷ See Michel Marriott, *For Minority Youths, 40 Ounces of Trouble*, N.Y. TIMES, Apr. 16, 1993, at A1; Barty Meier, *Among Girls, Blacks Smoke Much Less*, N.Y. TIMES, Dec. 10, 1997, at A22.

⁸⁸ Interview with Walter, during focus group at Intermediate School, in Bushwick (Dec. 13, 1993).

⁸⁹ Interview with Harv, Focus group with four street level distributors, Bushwick (Nov. 18, 1993).

The reason I found out [a friend was using drugs] was by accident. I'm walking in the back of the building in the dark and I just happened to . . . oops. But now, he has to keep it on the hush-hush, you know. Its not something that [he's] proud of.⁹⁰

In a neighborhood which had become nearly resigned to the presence of brazen street-level drug markets, successive generations of youth who participated in them, and high rates of HIV/AIDS,⁹¹ it initially came as a surprise when Friedman et al discovered that less than 3% of their sample of youth said that they had used heroin, only 9% said that they had ever used cocaine, and none were infected with HIV, syphilis, or HTLV-2.⁹² After all, most models of adolescent development had suggested that inner-city youth were at progressively greater risk of drug abuse and contracting pathogens like HIV.⁹³ Even worse, models of the likely progression of the AIDS epidemic had predicted that the virus would increasingly spread via heterosexual contact—the province of sexually active youngsters.⁹⁴ But clearly, this generation was not using hard drugs at rates characteristic of earlier generations. Given the low rates of HIV and other markers of risk that were discovered, Friedman et al. concluded that their drug use and sexual networks overlapped little with those already infected.⁹⁵ Even the handful of young people we interviewed in Bushwick who admitted that they had used heroin confessed that they were terrified to try it. For example, Boo (born in 1971, interviewed in 1997) had sniffed heroin, but said that the drug had taken a terrible toll on her family and she was petrified of becoming addicted:

In '95, I tried dope for the first time. I was in my mom's house. I had recently moved back there after having broken up with an abusive boyfriend. Anyway, I was there and feeling achey. I have a bad hip from an accident long ago, and it was paining me on this day. A guy friend (he was around 29) said that he had something that would take the pain away. When he told me that it was dope, I didn't want to do it because I was afraid of becoming addicted and had seen what it did to some of my older brothers and sisters. But he talked me into it,

⁹⁰ Interview with Fila, Focus group with four street level distributors, Bushwick (Nov. 18, 1993).

⁹¹ Benny Jose, et al., *Syringe-Mediated Drug-Sharing (Backloading): A New Risk Factor for HIV Among Injecting Drug-Users*, 7 AIDS 1653, 1655-57 (1993).

⁹² Samuel R. Friedman et al., *Sex, Drugs, and Infections Among Youth: Parenterally and Sexually Transmitted Diseases in a High-Risk Neighborhood*, 24 SEXUALLY TRANSMITTED DISEASES 322, 323-24 (1997).

⁹³ See, e.g., Sevgi O. Aral et al., *Demographic and Societal Factors Influencing Risk Behaviors*, in RESEARCH ISSUES IN HUMAN BEHAVIOR AND SEXUALLY TRANSMITTED DISEASES IN THE AIDS ERA 161, 162-64 (Judith N. Wasserheit et al. eds. 1991); Jonathan M. Ellen et al., *Socioeconomic Differences in Sexually Transmitted Disease Rates Among Black and White Adolescents*, 85 AM. J. PUB. HEALTH 1546, 1547 (1995); Robert T. Rolfs et al., *Risk Factors for Syphilis: Cocaine Use and Prostitution*, 80 AM. J. PUB. HEALTH 853, 855-56 (1990); cf. Denise B. Kandel & Kazuo Yamaguchi, *From Beer to Crack: Developmental Patterns of Drug Involvement*, 83 AM. J. PUB. HEALTH 853, 855-56 (1990).

⁹⁴ See Nancy J. Alexander, *Sexual Spread of HIV Infection*, 1 J. BRIT. FERTILITY SOC'Y 111, 111, supplement to 11 HUM. REPROD. (1996); Suzanne Bowler et al., *HIV and AIDS Among Adolescents in the United States: Increasing Risk in the 1990s*, 15 J. ADOLESCENCE 345, 347-48 (1992); Centers for Disease Control, *CDC Update: Trends in AIDS Incidence-United States, 1996*, 46 MORTALITY & MOBILITY WEEKLY REVIEW 861, 866 (1997); Helene D. Gayle & Lawrence J. D'Angelo, *Epidemiology of Acquired Immunodeficiency Syndrome and Human Immunodeficiency Virus Infection in Adolescents*, 10 THE PEDIATRIC INFECTIOUS DISEASE JOURNAL 322, 322 (1991); Steven E. Keller et al., *HIV-Relevant Sexual Behavior Among a Healthy Inner-City Heterosexual Adolescent Population in an Endemic Area of HIV*, 12 J. ADOLESCENT HEALTH 44, 44 (1991); Janneke H. H. M. Van De Wijgert & Nancy S. Padian, *Heterosexual Transmission of HIV, in AIDS AND THE HETEROSEXUAL POPULATION 1* (Lorraine Sherr, ed., 1993); Heather J. Walter et al., *Factors Associated with AIDS Risk Behaviors Among High School Students in an AIDS Epicenter*, 82 AM. J. PUB. HEALTH 528, 530-31 (1992).

⁹⁵ Friedman et al., *supra* note 75, at 119-20.

saying that a little bit wouldn't get me addicted. I did a "two and two" [two sniffs up each nostril] and threw up all over the place.⁹⁶

The widely reported drop in crack and other hard drug use among inner city youth in the 1990s⁹⁷ was, on one hand, an outcome of the natural progression of drug eras,⁹⁸ but changes in drug preferences coincided with and were deepened by more fundamental changes in youth culture. Where crack in the 1980s had emptied out the inner city and left neighborhoods and their residents looking like skeletons, the anti-crack/heroin generation of the 1990s sought to fill out their bodies. They visually displayed this attitude in the too-large designer clothing they wore, and through the language of "living large" where everything good was "phat" (fat) and "butter." Still, their style was very much muted, devoid of the garish clothing and gaudy accessories that characterized the crack-era "gangsta" persona.

VI. THE SIGNIFICANCE OF GANGS IN THE 1990S

Rather than fulfilling the prophesy of becoming addicted and remorseless "superpredators," the overwhelming majority of kids who grew up in Bushwick in the late 1980s and early 1990s responded to the multiple threats of violence, crime, AIDS and addiction—as most Americans would likely do—by withdrawing from the danger and opting for the relative safety of family, home, church, and other sheltering institutions which persevered during the most difficult years.⁹⁹ However, not all youths were scared into avoiding public spaces and hiding behind closed doors. As an unintended consequence of the war on drugs, gang life of a type never encountered before revived among a population of convicted drug distributors and users after a long dormancy. Following the massive police initiative that began in September 1992 in which hundreds of neighborhood youth were jailed, sizable chapters of the Latin Kings and Ñetas formed and asserted their control over some blocks, especially those where there had been large street-level drug markets and unchecked violence. Predominantly of Puerto Rican descent, they reported that they had experienced a genuine rebirth, and in attempting to reconstitute their lives, their new goal was to "uplift the Latino community."¹⁰⁰ As former street-level drug workers who had suffered at the hands of their Dominican bosses and the police, they were disillusioned. Though they had long realized their limitations in American society, the sweeping arrests had also taught them the shallowness of the drug distribution organizations which had employed them but had ultimately harmed their families and neighborhoods. The Dominican "owners" did not bail them out of jail, hire lawyers, look after family, or compensate them for the time in prison. They remained indifferent to Puerto Rican sensibilities, although mainly Puerto Ricans suffered the brunt of the war on drugs.

Ariel (1995):

⁹⁶ Interview with Boo, at John Jay College (May 2, 1997).

⁹⁷ Golub & Johnson, *supra* note 85, at 3.

⁹⁸ See Ansley Hamid, *The Development Cycle of a Drug Epidemic: The Cocaine Smoking Epidemic of 1981-1991*, 24 J. PSYCHOACTIVE DRUGS 337, 345 (1992); Bruce D. Johnson et al., *Emerging Models of Crack Distribution*, in DRUGS CRIME AND SOCIAL POLICY 56-78 (Thomas M. Mieczkowski ed., 1992).

⁹⁹ Cf. Friedman et al., *supra* note 91, at 325.

¹⁰⁰ **Curtis & Hamid, *supra* note 59, at 10.**

During my time on Rikers Island, I was going to court. My bail was only \$5,000. My foster mother spoke to the [Dominican] owner and asked if he could bail me out. At that time, I had \$10,000 out there in the streets that different people owed me. He said, "well, whoever works for me and gets arrested has got to be a man. Do the crime, do the time." That right there pissed me off. Eventually, I came home. I wanted to get even with this guy 'cause he played me. All that time, I could have been at home. I could have fought the case outside. Five thousand dollars, you're telling me that you couldn't bail me out? I don't want to hear that.¹⁰¹

For many former street-level drug distributors like Ariel, going to jail—Rikers Island—capped many years of frustration, victimization, and abuse. In jail, membership in the Latin Kings offered them repudiation of the past and redemption.

Ariel (1995):

Before I was a King, I was a knucklehead. My temper got me kicked out of school. I used to fight a lot with teachers. I used to sell drugs a lot inside school. During my time on Rikers Island, I was in the position of changing myself: stop selling drugs. I started seeing the light more and wanted to follow a more spiritual path. It's not all about selling drugs anymore. It's not all about taking. It's all about giving back to the community. I took so much, now, it's time to give back. I want to stay in the young tribe to help my younger brothers, to let them know that gang banging is not the way of life. Believe me, I experienced it, I know it, I lived it, and it's time for another path. I tried that path and I failed. Now let me try this one.

¹⁰²

The Latin Kings solved many of the difficulties of young Puerto Rican men and women who were incarcerated. The most pressing problem was protection from other inmates. For a first-time arrestee, membership in an organization which applied blanket protection throughout the prison system was a blessing. It bestowed status and prestige, prevented victimization, and allowed disputes with other members to be arbitrated peacefully.

Gang membership was also advantageous on return to civilian life. Where many members' households were chaotic, the gang functioned as an alternative family which prescribed rules and justifications for behavior, thereby bringing order and structure into potentially unmanageable social and emotional situations. The gangs imposed organization, government, and order on marginalized individuals. To break the hold which drug distributors and their lifestyle had held on local youth for so long, the leadership provided realistic alternatives and a strong social support network. Clave, a leader of the Ñetas, spoke about the lure of drugs on local youth:

Like myself, I sold, I used. We recognize the difficulty that some people have had and what leads them to these things. So, before they go and fall, we go and pick them up as quick as possible. In order to help somebody, you've got to be more than concerned.¹⁰³

¹⁰¹ Interview with Ariel, John Jay College (Feb. 28, 1996).

¹⁰² *Id.*

¹⁰³ Interview with Clave, conducted in Maria Hernandez Park, Bushwick, N.Y. (Aug. 23, 1996).

Tapping into the overwhelming sense of chaos, powerlessness, and fear which had gripped neighborhood youth, Latin Kings and Ñetas projected an unabashedly Puerto Rican image and solution to the problem. The organizations became the rage among Bushwick youth in 1993-94 and membership soared, even among those who had not been front-line participants or victims of the war on drugs. Youth who did not embrace the Latino cause as feverently as Latin Kings and Ñetas still found themselves attracted to the nationalist symbolism and ideas that percolated through the neighborhood, especially those regarding the importance of family and community, and the long-term destructive effects of violence and drugs. Not coincidentally, the summer of 1993 marked the appearance of the Puerto Rican flag necklace (made from plastic beads) as the must-have clothing accessory among local youth throughout the city. Teaching youths a relatively safe passage through neighborhood mine fields, organizations like the Latin Kings and Ñetas may well have lowered the level of violence that might have existed in their absence. Paul, a leader of the Ñetas, explained how they kept members in check.

Whatever the problem is, I'll talk with them and after that they'll say, "you're right, it's not worth it" and they'll leave. And I feel like I've done my job, I've stopped a brother from making a wrong decision and probably end up hurting somebody and going to jail because he forgot for a moment that he's a Ñeta, that there's other ways to handle things. This is what we're taught. We're taught to avoid problems at all costs. If someone is going to hurt you, then you have a right to defend yourself. 'Cause that's all we are, we're just people like everybody else. But the way we fight is with our mouths. We talk our way out of situations. 'Cause that's not what we're about, we're about living in peace and harmony and improving our lives.¹⁰⁴

In these forms of grass roots socio-cultural and political organizing, lower class/"underclass" youths adapted progressively and more or less composedly to pressures of adolescent development, alterations of family structure and in legal/illegal labor markets.¹⁰⁵ Latin Kings and Ñetas set new standards of behavior for many neighborhood youth, but with swarms of adolescents clamoring for entry, the organizations had become too popular and unwieldy, and in 1995, they took steps to limit membership.

Clave (1996):

Ñetas became very popular out here a few years ago and a lot of young people joined at that time. But a lot of them got taken out of the association because they were too young. Others got taken out because they weren't up to our standards. There's still great interest in the community in becoming a Ñeta. A lot of people want to join. Every day, about 10 or 20 people ask me about it. We deny a lot of people entry. Because first we have to find out about them. We first find out where they live, we go and investigate, we watch them, we see the things that they do, we see if they go to school. If they're young, they've got to go to school. We don't accept any youth who's not in school. If they're not in school, they've got to get into school. Just like an adult, you've got to work. You have to do something. Because if he's not doing it, we know that sooner or later he's going to be fucking up. And he's

¹⁰⁴ Interview with Paul, conducted in Bushwick, N.Y. (May 27, 1995).

¹⁰⁵ See MICHAEL BRAKE, *COMPARATIVE YOUTH CULTURES* 189-90 (1985); Dwight Conquergood, *On Reppin' and Rhetoric: Gang Representations 22-24* (paper presented at the Philosophy and Rhetoric of Inquiry Seminar, University of Iowa) (April 8, 1992) (Unpublished manuscript, on file with author).

going to be getting into drug selling or whatever. If a member loses his job and become unemployed, we help him look for a job. We're all over the place, so usually we bump into opportunities, job openings and stuff like that.¹⁰⁶

Despite the stated goals of Latin Kings and Ñetas to uplift the community and transform the lives of young people, violence continued to be an integral part of neighborhood life for many youth, and selling drugs remained one of the only ways to earn money. But even those who continued to sell drugs found that their routines had been dramatically transformed by an altered neighborhood terrain; drug markets were now much more integrated into the community and less violent.

VII. THE NEW DRUG DISTRIBUTORS: BOLO'S BLOCK:

Attacked by the occupying army of police in September 1992, drug business "owners" initially responded by simply replacing low-level workers who were arrested, but greater business losses and violence followed as antagonism between Dominican management and Puerto Rican labor worsened. Most disbanded, while the remainder downsized and moved off the street. New distributors were soon challenging them. As one of the latter commented:

The police made my business. They created it. Before, there was a line of people standing on the street waiting to cop out of the door of a building, look-outs up and down the block. Who'd bother to call me on the beeper? Wouldn't have to. You could buy it like it was a supermarket. [But when the police destroyed them] they created my business.¹⁰⁷

Many of the new drug selling organizations which formed or flourished when the monopoly enjoyed by the corporate owners was broken were not simply smaller, more discreet versions of the supermarket vendors, they were qualitatively different. Characterized by transactions that were dependent upon familiarity and trust between participants, undercover police were less able to make drug buys and were forced into tedious surveillance of suspected street-level drug markets (from rooftops, apartment windows or parked vehicles) in the hope of witnessing a sale.

One such new business was run by Bolo, a thirty year old Puerto Rican who grew up in Bushwick and ran a crack selling operation from 1990 to 1996 on the corner of his block, located about six blocks from the main drug supermarket discussed earlier. His business, which employed about twenty-five people, generated about \$5,000 per day in sales--average sized by Bushwick standards. Bolo's business had both local and drive-through customers, most of whom were quickly recognized by the workers. The business operated seven days a week, from around 10:00 A.M. until 1:00 or 2:00 A.M. or whenever business got slow, but not around the clock as was the case with corporate sellers.

Bolo and his "associates" were well aware that their business was quite different from the corporate sellers who had dominated street-level sales several blocks to the north. Below, he characterizes the corporate distributors:

Fishman [Street] is the only international spot where they have Blacks, Puerto Ricans, and whites, where everybody's working. Other areas they do not. The guys who run Fishman are

¹⁰⁶ Interview with Clave, conducted in his apartment, Bushwick, N.Y. (Aug. 23, 1996).

¹⁰⁷ Interview with Rico, conducted in a friend's apartment, Williamsburg, N.Y. (June 24, 1997).

good, but they're sloppy. So many of those guys are in prison from Fishman. Nobody with a mind [works there]. All they care is "hey, fuck the workers. As long as my money comes . . ." that kind of attitude.¹⁰⁸

Several of Bolo's associates had formerly worked for the corporate "owners" on Fishman Street. For EZ, a father of five young children, it had been an embittering experience:

I came home [from prison] about a month ago. While I was gone, my wife survived with the help of her mother and stepfather. She was also on public assistance. The guys who I worked for had said that if I got locked up that they'd look out for her, but they never even gave her a quarter for her to call me. They never helped her with anything. She struggled on her own until I got home. It's lucky that I put money away to allow her to cope with the first few months. If not, we'd probably be living in the street right now. As soon as I came home they asked if I wanted to work. I told them that I didn't want to work and that since they hadn't helped me while I was in prison I knew that they wouldn't help me if I got locked up again.¹⁰⁹

Cibo, a manager for Bolo's business, talked with regret about his prior experience working in the area dominated by corporate sellers. The violence and fear that were part and parcel of that arena had turned him into a person that his wife and family scarcely recognized:

Too many people started coming on that block. The block, you know, the street was changing. It wasn't fun anymore. It was getting too dangerous. I got stopped twice. I didn't want nobody hanging out in front of the spot. I didn't want the police there ever again. You got to protect what is yours, man. I had a big disagreement with the Dominicans, so I ran upstairs and pulled out a .30-.30, a Winchester, and chased them out to, what is the name of that club again? . . . I got shot right in front of it. It went through my leg. If it wasn't for my daughter's Godfather to jump on top of me and cover me, they would have fucked me up. I left. I went to Puerto Rico, for like two weeks. I came back, and I started staying home. My wife wouldn't let me go out.¹¹⁰

Bolo and his associates were careful to be respectful of neighborhood residents, acutely aware that the success of their business was dependent upon their integration into the neighborhood rather than their alienation from it as was the case with the corporate distributors. As Bolo noted:

This is the suburbs. That's [Fishman St.] like New York, and this is the suburbs, do you know what I'm saying? It is quiet, it's peaceful. You got people walking . . . people who do not buy drugs. I mean, you have people walking, you know, shopping. Just mind your business, stay clean, and you are okay. So, you don't see no bums or burnt down houses or shit like that over here like you do over there. Yeah, you get beautiful girls over here. You have to dress nice because you want to pick up girls. You've got nice guys, they park their cars here. They go to work over there, and you see the block. There is not that many abandoned

¹⁰⁸ Interview with Bolo, conducted on Stanhope, Bushwick, N.Y. (Aug. 23, 1996).

¹⁰⁹ Interview with EZ, conducted in Bolo's apartment, Bushwick, N.Y. (May 23, 1996).

¹¹⁰ Interview with Cibo, conducted on the corner of Stanhope St. and Irving Ave., Bushwick, N.Y. (Sept. 27, 1995).

cars here. This is the suburbs, and that is like a pile of shit down there. And, you know, this is like this because I maintain it like this. I demand this to be like this. I don't want my workers fucking around with people. Do you notice how many people walk by, and not one of these people called the police on my guys? You don't disrespect nobody. My guys don't make sales in front of kids or wives. You stop, let the customer wait, let the pedestrian pass by, make sure it is clear, and then you make your sale. Respect. That is all it is. You have to respect people, especially when you are in a dirty game. You have to. There is no if, or buts or maybes. Work with me, you have to respect, if not, go work for [the owners on] Fishman St. and go to jail.¹¹¹

While corporate distributors had specialized in public displays of violence to keep workers in line, Bolo never used it to reprimand employees. He felt that such dramas were unnecessary because he knew his workers so well (including their families) that it was nearly impossible for them to run away with drugs or money. In addition, public violence had the effect of attracting the police and instilling fear rather than building respect among other residents on the block. Below, he describes how he handled problems with workers:

When Cibo ran off with the profits the other day, I understood why he did it. But that's ok. You got to learn to accept it and just carry on. You can't get mad. You can never show people you get upset. I tell people, "hey, what do you want to do now? You had a good time, and now its time to pay, right?" He said "yeah, yeah." "Are you going to come Friday?" "Yeah, I'll be here." He's there. He was a little embarrassed, but he's got to do what he's got to do. Better to be embarrassed than dead. That is a very ugly word. Being dead is an ugly word. You only get one chance to die.¹¹²

Unlike corporate owners, Bolo cared about his workers and the neighborhood. He hired only people who lived in the area with their families and carefully scrutinized their motives for wanting to join his organization. He made a conscious effort to stay away from young drug sellers who publicly announced their intention to use drug profits to buy fancy clothes, jewelry, or expensive cars:

Most of the fellows who work for me need the money. I mean, I'll be honest with you, I'm not going to bring in a kid who just needs money to buy a pair of sneakers. I will bring a guy with me that has to support his family in one way or another. I mean, I told everybody, "nobody is here getting rich. All we are doing is surviving. If you know how to save and cut corners, you can have all the money to save."¹¹³

In interviews with his street-level workers, they all voiced similar motivations for working—and none of them sported flashy clothing, jewelry, or other consumer display items which many people thought were characteristic of drug dealers. For example, Robert (nineteen years old in 1995) cited the need to support his mother who lived on welfare as his primary purpose for working:

¹¹¹ Interview with Bolo, conducted on Stanhope St., Bushwick, N.Y. (Aug. 24, 1997).

¹¹² Interview with Bolo, conducted in his apartment, Bushwick, N.Y. (Nov. 16, 1995).

¹¹³ Interview with Bolo, conducted in his apartment, Bushwick, N.Y. (Aug. 24, 1995).

It's fucked up because I'm the one . . . I knew that my brother really wasn't going to take care of my family, you understand, take care of my mom and my father. It's that, damn, you know, if she fuckin' put food in your mouth, fuckin' fourteen, fifteen, sixteen, seventeen, eighteen years—that's your mother! She brought you into this world. You're supposed to help her when she needs it. He doesn't help her; that's my brother and everything, he's a selfish bastard! He only thinks of himself.¹¹⁴

An eighteen-year-old worker, Mano, also contributed heavily to his family's household income. His unemployed father, Manuel, feared for Mano's safety and often sat nearby whenever Mano worked to "watch his back."

I live in an apartment in this building with my wife and two kids. I seen 'em grow here. Two boys, fifteen and eighteen. You interviewed the eighteen year old. He gets hung up with all this (pointing to the street). I try to keep my eye on him. They don't steal it from nobody, that's one thing. It's [dealing drugs] still bad, you know. The only thing I say [to the police is], "take him if he's done something wrong." But you don't have to beat on him, knock him all silly.

The guys that work out here work hard in a way, but it's still wrong. I got my own opinions. Nobody puts a gun to nobody to use drugs. But the law says that's a law . . . I just say not to mistreat them, that's all. That's the only thing that gets to me, the hitting, the way they treat them. If they've got them, put the handcuffs on them and take them away and do what you have to do. But why abuse them, start punching on them, kicking them on the floor? I don't know what to do. I'm here (sitting on the stoop) because of him. I know they're gonna take him on me, sooner or later.¹¹⁵

By 1996, with crack sales continuing to decline throughout the neighborhood, Bolo decided to get out of the drug business. With a wife and eighteen month old son, he wanted a life for his family that did not include the constant threat of arrest or violent confrontation in the street. His wife found an office job in Manhattan and he found a security job in the neighborhood. Giving up his claim to the corner, he advised his younger associates to get out of the business and pursue legitimate jobs or complete their education. When Dominican crack dealers moved in to assert control over his once-lucrative spot, several of Bolo's workers signed on with them for a short period of time. Frenchy was arrested within one week and plea-bargained a sentence of two to four years in prison. After getting arrested and spending a short time in jail, Robert found a job as a messenger on Wall Street and then shocked his friends by falling into a well-paying job at a brokerage house. Mano, after one arrest, and under pressure from his parents, girlfriend, and probation officer, gave up dealing drugs and began to spend increasing amounts of time inside the house, watching TV and listening to music. Cibo moved out of the neighborhood and took a construction job. Twin, a beefy seventeen year old, had sold part-time for Bolo when he was laid off from his job as a stockboy in a shoe store on Grand Street in Williamsburg, but when Bolo quit, Twin went back to searching for legitimate employment.

¹¹⁴ Interview with Robert, conducted as he sold crack on Stanhope St., Bushwick, N.Y. (Sept. 25, 1995).

¹¹⁵ Interview with Manuel, conducted on the stoop of his apartment building on Irving Avenue, Bushwick, N.Y. (Aug. 19, 1996).

Even after they quit the business, Bolo and several former associates continued to get arrested. The decline in crime in New York City had not been accompanied by fewer arrests, but paradoxically, by more arrests.¹¹⁶ After having built up armies of specialized squads in the last decade, the police had an empire to maintain, and with fewer criminals to apprehend they nevertheless continued to manufacture "statistics" at an unprecedented rate. Following Kelling and Cole's advice,¹¹⁷ the NYPD began concentrating on low-level offenses as "a means of restraining 'wannabes,' the less-dedicated-to-crime friends and associates of repeat offenders. Many in this group, if pressured, or if schools and police pressure their parents, ultimately will change their behavior to conform to more appropriate and decent standards."

But by arresting Bolo and his former associates, the police locked up the converted, the "had-beens" rather than the "wannabes," and thereby endangered the very transformation they sought to achieve.

In summary, the reconfiguration of drug markets in the mid-1990s appreciably reduced the level of neighborhood violence. As distribution retired indoors, turf battles were eliminated. Since organizers of drug businesses hired a few trusted friends rather than easily replaceable workers, there was less conflict between them. Distributors were robbed by users less frequently because they were more protected selling indoors to known customers. Like other neighborhood residents, drug distributors and users had also adapted and contributed to dramatic changes in neighborhood conditions.

VIII. CONCLUSION

The future of inner-cities in the global economy of the approaching millennium does not appear particularly bright. The residents of inner city neighborhoods did not share equally in the fruits of the economic revitalization of the 1990s which created new (though less secure and rewarding) jobs and low unemployment, and led to an optimism not seen since the post-WWII economy of the 1950s. For inner city residents, the economy did not promise prosperity, security, or upward mobility, but rather, more unemployment, underemployment and substantially less help from local, state, and federal agencies to combat poverty and its effects. But in spite of their marginalized status and bleak prospects, many inner city residents not only forestalled their expected slide into economic ruin and social disintegration, but also confounded the schools of economic, cultural, and genetic determinism that had predicted a steady march toward oblivion. They showed a new vitality, graphically illustrated by precipitous drops in crime and violence.

Yet many scholars, journalists, and policy makers continue to believe that poor people are incapable of helping themselves much less their communities, and the urge to explain their turnaround on external factors is great. The most popular of these unidimensional explanations is that innovations in policing (especially in the area of technology) are driving the extraordinary transformation of inner city neighborhoods.¹¹⁸ With great fanfare Mayor Giuliani and the New York City Police Department introduced their "quality of life" campaign as the keystone ingredient in turning the city around. They hammered this message home to the public and the media,

¹¹⁶ Michael Cooper, *You're Under Arrest*, N.Y. TIMES, Dec. 1, 1996, § 13, at 1.

¹¹⁷ GEORGE L. KELLING & CATHERINE M. COLES, *FIXING BROKEN WINDOWS: RESTORING ORDER AND REDUCING CRIME IN OUR COMMUNITIES* 248 (1996).

¹¹⁸ See, e.g., David C. Anderson, *Crime Stoppers*, N.Y. TIMES, Feb. 6, 1997 § 6 at 47; George L. Kelling and William J. Bratton, *Declining Crime Rates: Insiders' Views of the New York City Story*, 88 J. CRIM. LAW & CRIMINOLOGY --- (1998).

but most urgently, to rank and file police officers who were instructed to aggressively pursue even the most petty offense, like jaywalking, riding bicycles on sidewalks, loitering, trespassing, or drinking beer in public. They contended that by concentrating on the "little things, the big things will take care of themselves," but with fewer serious crimes occurring and drug distributors more difficult to catch, police were simply left with the lesser ones. As one journalist had noted, "Statistically speaking, you are more likely to be arrested these days. Although major crimes are down in the city, arrests are up, way up. Under Mayor Giuliani's crackdown on 'quality of life' crimes, the police have arrested 21 percent [sic] more people this year than last year. Mostly for the little things."¹¹⁹ While aggressive policing certainly resulted in a reluctance by many people to linger in public spaces, including the reviled "obstreperous youth" who were said to spoil neighborhood civility,¹²⁰ it can hardly account for the profound changes which occurred in the daily lives of inner city residents.

The combination of factors which precipitated inner-city change vary from city to city and neighborhood to neighborhood. In New York City, for example, rapidly declining rates of crime and violence, the hallmarks of this urban renaissance, have been observed in every neighborhood, not simply those where conditions had become intolerable. To disentangle and account for the multiple influences which frame behavior and the choices people make, it is useful to examine the intimate contexts where people learn to become human and construct their lives—families, social networks, workplaces and communities. Regardless of the constellation of variables which precipitated the startling turnaround observed in inner-city neighborhoods, the capacity of people to alter their everyday lives and confound the "experts" has been highlighted in the current period. After being socially, culturally, economically, politically, and physically stripped, demolished, and deconstructed for more than thirty years, Northeast Brooklyn was ripe for rebuilding in the 1990s. In Bushwick, where neighborhood conditions had become intolerable, young people were at the forefront of this effort. They responded to the multiple threats against their daily lives and futures by repudiating those elements which endangered them: unchecked street-level drug markets, out-of-control violence, and hard drugs. The palpable change which washed over the neighborhood beginning in 1993 was initiated and carried through by young residents who, though far from uniform in their responses to those dangers, shared a conviction that they would not succumb to the same fate that nearly erased the preceding generation. In altering their own lives, they shattered the myth that they were powerless against a "criminogenic" environment which was said to mass-produce superpredators, and threw into question the canon that violence must beget violence.

Life in the postmodern global economy is one in which identity formation is less dependent upon the influence of family, neighborhood, race/ethnicity, nationality and history,¹²¹ and more than anywhere else, the inner-city is an empty canvas, an urban frontier where new structures, institutions and conventions are waiting to be built. Where the unprecedented changes that the current generation have begun are going and whether they can be sustained is uncertain, but the outcome is by no means predetermined. In the face of the many obstacles which inner-city residents must still overcome, our failure to recognize and reward their struggle to build a better world may yet prove the naysayers right.

¹¹⁹ Cooper, *supra* note 115, at 1.

¹²⁰ KELLING & COLES, *supra* note 117, at 247-48.

¹²¹ See generally GIDDENS, *supra* note 8, at; MILLER, *supra* note 8.

ASYMMETRICAL CAUSATION AND CRIMINAL DESISTANCE

CHRISTOPHER UGGEN^{*} AND IRVING PILIAVIN^{**}

Although criminologists have long been concerned with desistance or cessation from crime,¹ tests of theory are typically based on etiological investigations.² Desistance studies, in contrast, have historically been used for program evaluations, undertaken by professionals in social work, clinical psychology, and corrections. We argue that theory and research on desistance is absolutely critical to advancing scientific and policy goals. We do not attempt to break new theoretical or empirical ground in this paper, but instead present a systematic explication of the argument for desistance research.

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¹ See SHELDON GLUECK & ELEANOR T. GLUECK, 500 CRIMINAL CAREERS 257 (1930) [hereinafter GLUECK & GLUECK, 500 CRIMINAL CAREERS]; SHELDON GLUECK & ELEANOR T. GLUECK, LATER CRIMINAL CAREERS 98 (1937) [hereinafter GLUECK & GLUECK, LATER CRIMINAL CAREERS]; EDWIN S. SUTHERLAND, PRINCIPLES OF CRIMINOLOGY 357-58 (3rd ed. 1939).

² For exceptions, see Liliana E. Pezzin, *Earnings Prospects, Matching Effects, and the Decision to Terminate a Criminal Career*, 11 J. OF QUANTITATIVE CRIMINOLOGY 29, 29-30 (1995); Neil Shover & Carol Y. Thompson, *Age, Differential Expectations, and Crime Desistance*, 30 CRIMINOLOGY 89, 89-90 (1992); Thomas Meisenhelder, *An Exploratory Study of Exiting from Criminal Careers*, 15 CRIMINOLOGY 319, 319-20 (1977); Thomas Meisenhelder, *Becoming Normal: Certification as a Stage in Exiting from Crime*, 3 DEVIANT BEHAVIOR 137, 146-47 (1982).

I. CAUSAL ASYMMETRY, CRIME, AND DESISTANCE

A. THE GROWING UNIVERSE OF POTENTIAL DESISTERS

Though ex-offenders are socially marginalized in America, they are no longer a statistically marginal group. As of December 31, 1997, American state and federal prisons held 1,244,554 prisoners, with over 500,000 additional inmates held in local jails.³ Despite recent increases in mandatory minimum and mandatory life sentences, almost all of these prisoners will eventually rejoin civil society.⁴ Each year, several hundred thousand releasees pour into the general population, with over 400,000 entering parole in 1997.⁵ In fact, over the past twenty-five years the trends in prison release closely mirror rising incarceration rates. Figure 1 plots the number of U.S. prisoners incarcerated and the number of prisoners released each year.⁶ As the figure indicates, the two data series are correlated quite closely ($r=.98$). In fact, more prisoners were released in 1996 than were incarcerated in 1986 and more than twice as many were released in 1996 as were incarcerated in 1976. Some of these released prisoners will resume crime and others will desist from crime—they will temporarily or permanently cease offending—yet little is known about the desistance process. This paper argues that a research program to identify the causes of desistance will advance both scientific and policy concerns.

[FIGURE 1 ABOUT HERE.]

Despite a longstanding concern within the discipline, criminologists today devote relatively little attention to deriving

³ Darrell K. Gilliard & Allen J. Beck, *Prisoners in 1997*, in BUREAU OF JUSTICE STATISTICS BULLETIN 1 (1998).

⁴ JOHN IRWIN & JAMES AUSTIN, *IT'S ABOUT TIME: AMERICA'S IMPRISONMENT BINGE* 161 (2d ed. 1997).

⁵ THOMAS P. BONCZAR, U.S. DEP'T OF JUSTICE, PROBATION AND PAROLE POPULATIONS 4 (1998).

⁶ The data in Figure 1 are taken from SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS 1995 560 (1996) published by the U.S. Department of Justice Bureau of Justice Statistics for the years 1973-1996. These data may also be found in the Bureau of Justice Statistics series CORRECTIONAL POPULATIONS IN THE UNITED STATES 76 (1996).

theoretical understanding of the desistance process. This is because criminological theory and research are primarily concerned with questions of etiology, or the causes of crime. Discipline-based criminologists such as sociologists, psychologists, and economists have focused their attention on etiological research addressing individual involvement in crime or community crime rates. Unfortunately, the study of these phenomena is conceptually complex, fraught with daunting methodological barriers, and in many (though not all) ways, without policy relevance. Desistance research may prove more rewarding for theory and policy, in part because it is more manageable conceptually and methodologically.

In this paper, we are less concerned with why people commit crime than with the conditions promoting social reintegration and desistance from crime. We make the following assertions: (1) that the causes of desistance likely differ from the causes of crime; (2) that knowledge of the true causes of desistance will be easier to obtain than knowledge of the true causes of crime; and (3) that it will be possible to translate scientific knowledge about desistance into specific policy interventions. We begin with a general discussion of crime and causality, then present the case for and against desistance research.

B. CRIMINOLOGICAL PROBLEMS POSED BY THE RUBIN/HOLLAND CAUSAL MODEL

As social scientists researching crime and conformity, we often set out to make causal inferences. Temporal order, statistical association, and lack of spuriousness are generally accepted as minimal criteria for establishing causality in the social sciences,⁷ though these standards are rarely approached in practice. In the study of delinquency, for example, we continue to debate the putative causes: are delinquent friends causes or consequences of involvement in crime? Does family alienation

⁷ See Paul F. Lazarsfeld, *Foreword to* HERBERT HYMAN, *SURVEY DESIGN AND ANALYSIS* at xiv (1955); TRAVIS HIRSCHI & HANAN C. SELVIN, *DELINQUENCY RESEARCH: AN APPRAISAL OF ANALYTIC METHODS* 52-53 (1967); but see Margaret Mooney Marini & Burton Singer, *Causality in the Social Sciences*, in *Sociological Methodology* 347, 376-79 (Clifford C. Clogg ed., 1988) and Huw Price, *Agency and Causal Asymmetry*, 101 *MIND* 501, 511 (1992), on temporal order.

precede or follow from one's involvement with delinquent peers? Definitive answers to such questions are elusive because of both conceptual confusion over the meaning of causality and operational difficulties implementing critical tests of theoretical propositions.

Rubin⁸ and Holland⁹ offer a statistical model of causal inference that lays bare the obstacles to establishing causation in criminology. The Rubin/Holland model highlights the difficulties in establishing the causes of crime and illustrates the potential for desistance research. The central prescription of the model is to seek the effects of manipulable causes rather than to trace the causes of observed effects. They arrive at this conclusion in the following manner:

Holland defines a true causal effect of some factor T on response variable Y for individual unit U as

$$Y_T(U) - Y_C(U)^{10}$$

This difference implies that the effect of any cause T must always be assessed in relation to some other cause, the counterfactual condition *not-T* or C. The fundamental problem of causal inference, in criminological research as elsewhere, is that it is *impossible* to observe the value of $Y_T(U)$ and $Y_C(U)$ on the same individual person or "unit." If a respondent is employed at age fifteen and commits delinquency at age sixteen, for example, we cannot determine whether she *would have committed* delinquency had she not been working. Because we can only observe one condition per unit, we face a missing data problem for the counter-factual condition. Holland distinguishes between scientific and statistical solutions to this problem. Both have been applied in criminological research.

1. Scientific Solutions

Among the scientific solutions, one can attempt to assure (or simply assume) that each individual unit is identical (assum-

⁸ Donald B. Rubin, *Estimating Causal Effects of Treatments in Randomized and Non-randomized Studies*, 66 J. EDUC. PSYCHOL. 688, 689-690 (1974).

⁹ Paul W. Holland, *Statistics and Causal Inference*, 81 J. AM. STAT. ASS'N 945, 946 (1986).

¹⁰ *Id.* at 947.

ing *unit homogeneity*) and submit unit one to treatment T and unit two to treatment C. If so, then the true causal effect is easily obtained as:

$$Y_T(U_1) - Y_C(U_2)$$

Alternatively, if it is reasonable to believe that prior exposure does not affect subsequent response, the scientist could expose the *same* unit to each treatment in succession (assuming *temporal stability* and *causal transience*).

$$Y_{T(\text{TIME}2)}(U_1) - Y_{C(\text{TIME}1)}(U_1)$$

Although such assumptions may be reasonable in laboratory work, they are rarely justified in criminological research: humans are not identical in all relevant respects, and human responses are neither constant over time nor unaffected by previous exposures. To continue the previous example, we cannot assume that a working teen is identical in all relevant respects to a non-working teen, for workers may be more ambitious, less impulsive, or more opportunistic than non-workers. Nor can we assume that exposure to work in eighth grade will have the same effects as exposure to work in tenth grade, or, for that matter, that working in eighth grade will not affect one's response to non-work in tenth grade. Therefore, as social scientists we must often rely on a statistical solution to the inference problem.

2. Statistical Solutions

The Rubin/Holland statistical solution is to find the expected value (E) of the *average* causal effect T, of T (relative to C) over a population U, or

$$E(Y_T - Y_C) = T$$

which can be expressed as

$$T = E(Y_T) - E(Y_C)$$

To continue the earlier example, one could deviate the average number of crimes (or the proportion committing a crime) among workers from the average number of crimes among non-workers. This replaces the unobservable causal effect of T on a specific unit with an estimate of the average causal effect of T over a population of units. Unfortunately, this ap-

proach breaks down in practice because an important assumption is unlikely to hold.

3. The Mean Independence Assumption

For the statistical solution to hold, we must assume *mean independence*: the mean values on Y for the T group and the C group must be independent of the selection or assignment mechanism (S) that determines whether Y_T or Y_C is observed for any given unit. In general, mean independence fails in criminology and other social sciences and the observed average treatment effect $T_{(obs)}$ is not equivalent to the true treatment effect T .¹¹

$$T_{(obs)} = E(Y_T|S=T) - E(Y_C|S=C)$$

The mean independence assumption for groups is thus analogous to the unit homogeneity assumption for units. Both allow the comparison of observed quantities with latent or unobserved quantities. Only when Y_T and Y_C are both mean independent of S , however, does

$$E(Y_T) = E(Y_T|S=T) \quad \text{and} \quad E(Y_C) = E(Y_C|S=C)$$

So that

$$T = T_{(obs)} = E(Y_T) - E(Y_C)$$

In short, the two conditional means $E(Y_T|S=T)$ and $E(Y_C|S=C)$ must be independent for them both to equal the unconditional mean $E(Y_T)$.¹² If the selection mechanism S is ran-

¹¹ Holland distinguishes between a "prima facie" cause $T_{\#}$ and the true average causal effect T . *Id.* at 949.

¹² This point becomes clear when expressed in terms of conditional probabilities. The expected value for the treatment group is composed of two parts, the mean if assigned to treatment and the mean if assigned to control. The first quantity is the product of the expected value of the mean for the treatment group and the probability of selection into that group. The second quantity is the unobserved mean for the counterfactual (the mean the controls would have had, were they assigned to treatment) multiplied by the probability of selection into the counterfactual, or control status.

$$E(Y_T) = E(Y_T|S=T)P(S=T) + E(Y_T|S=C)P(S=C)$$

Similarly, the expected value for the control group is:

$$E(Y_C) = E(Y_C|S=C)P(S=C) + E(Y_C|S=T)P(S=T)$$

The expected values for both treatment and control groups are thus weighted averages of the observed and counterfactual conditions (the latter shown in italics). By substituting these quantities into the expression $T = E(Y_T) - E(Y_C)$, we obtain

$$T = E(Y_T|S=T)P(S=T) + [E(Y_T|S=C)P(S=C)] - E(Y_C|S=C)P(S=C) - [E(Y_C|S=T)P(S=T)]$$

domized assignment to employment, this is a reasonable assumption for the work and crime example above. If S is *self* selection, however, this assumption is invalid: those that self-select into employment are likely to have lower crime means than those that self-select out of employment. If selection is partially determined by "ambition" and ambition is associated with crime, for example, the conditional distributions are unequal and the mean independence assumption breaks down. This is simply one important variant of the more general omitted variable problem that biases parameter estimates. Criminology is particularly vulnerable to violations of mean independence, however, because the selection processes into levels of our independent and dependent variables are so poorly understood.

4. Selection Mechanisms and Strong Ignorability

When researchers cannot control the assignment mechanism (S), as in observational studies of delinquency, causal inference requires "strong ignorability" to assure mean independence.¹³ For a selection mechanism to be strongly ignorable: (1) all factors related to both the treatment and non-treatment condition must be included as covariates; (2) all units must have a non-zero probability of assignment to treatment and non-treatment conditions; and (3) a unit's response to treatment must not be affected by either the assignment mechanism or the treatments other units receive.¹⁴ These con-

Of course, we only observe Y_t when a unit selects into the treatment condition and we only observe Y_c when a unit selects into the control condition, computing $T_{(obs)}$ as follows:

$$T_{(obs)} = E(Y_t|S=T) - E(Y_c|S=C)$$

To determine the true rather than the observed causal effect, we need information about the unknown (and unknowable) counterfactual conditions. If the mean of Y is independent of the assignment mechanism S , however, then

$$E(Y_t|S=T) = E(Y_t|S=C) = E(Y_t) \text{ and } E(Y_c|S=C) = E(Y_c|S=T) = E(Y_c) ,$$

so that

$$T = T_{(obs)} = E(Y_t) - E(Y_c)$$

¹³ Paul R. Rosenbaum & Donald B. Rubin, *Reducing Bias in Observation Studies Using Subclassification on the Propensity Score*, 79 J. AM. STAT. ASS'N. 516, 522 (1984).

¹⁴ Richard A. Berk, *Causal Inference for Sociological Data*, in HANDBOOK OF SOCIOLOGY 155, 161 (Neil J. Smelser ed., 1988).

ditions require much more exhaustive data and much more painstaking analysis than are usually conducted in etiological studies of crime and delinquency. *Each* variable of causal interest must be fastidiously examined. In the example above, we would have to pay at least as much attention to the process by which young people find jobs as we would to the effects of jobs on crime. We would also need theory and data regarding factors such as peer associates, success or failure in school, parental supervision, and myriad other indicators likely to be related to both processes. In sum, Berk's contention that strong ignorability may be a "pipe dream" in observational research is particularly true for the study of crime.¹⁵

II. IMPLICATIONS FOR THEORY AND POLICY ON CRIME

To determine causality, then, the model requires at minimum a random or strongly ignorable assignment mechanism and treatments that can (at least in principle) be manipulated. We argue that these conditions are unlikely to hold in etiological research on crime. In desistance analysis, however, both random selection mechanisms and manipulable interventions are much more feasible: a researcher can randomly assign to (or deny from) offenders a range of treatment modalities—a range of putative causes. She then can observe the effects of these causes relative to some other cause, presumably assignment to a control condition.

A. DISADVANTAGES OF NON-EXPERIMENTAL ETIOLOGICAL RESEARCH

In nonexperimental social research, we typically attempt to assure mean independence using covariate adjustment for factors likely to be related to both the putative cause and the selection process. As Sobel points out, if researchers can "name and measure the covariates that account for assignment" to a condition, then its conditional average effects are estimable from the data.¹⁶ Unfortunately, we often do not know which factors must

¹⁵ *Id.* at 165.

¹⁶ Michael E. Sobel, *An Introduction to Causal Inference*, 24 *SOC. METHODS & RESEARCH* 353, 367 (1996).

be statistically controlled to render the selection mechanism strongly ignorable. Even when we can identify such variables, they are subject to measurement error. Until we have much more refined conceptual models of selection into our *independent* variables, a safer alternative is to manipulate them as part of the research design.

As regards the *dependent* variables, there remains confusion over the appropriate domain of behavior in etiological research: how do we compare studies of involvement in minor crime with those investigating more serious, sustained, or socially harmful criminal behavior? How can we make causal interpretations when studies fail to distinguish entrance from continuation in crime, particularly since entrance appears to be virtually universal? The primary problem is one of endogeneity—isolating the true effects of factors that cannot be manipulated by the researcher.

1. Accounting for Selection

How can criminologists account for the selection mechanism and make causal interpretations when etiological studies of crime are beset by endogeneity? Perhaps the most promising approach is to examine within-person changes in offending.¹⁷ Still, even models that purport to control for individual differences can only account for *stable* within-unit differences. For example, it is common in econometrics to adjust for unobserved heterogeneity in pooled time-series analysis with fixed-effects models in which each variable is expressed as a deviation from its mean value. Unfortunately, such estimators are inappropriate when crime is not exogenously determined or a reciprocal causal relationship is suspected.¹⁸ If the past level of the dependent variable (crime) has a causal effect on subsequent levels of the independent variable (employment), this violates the

¹⁷ See Julie Horney et al., *Criminal Careers in the Short-term: Intra-Individual Variability in Crime and its Relation to Local Life Circumstances*, 60 AM. SOC. REV. 655, 657 (1995).

¹⁸ David R. Johnson, *Alternative Methods for the Quantitative Analysis of Panel Data in Family Research: Pooled Time-Series Models*, 57 J. MARRIAGE & FAM. 1065, 1071 (1994).

assumption of "strict exogeneity."¹⁹ Therefore, although good longitudinal data and analytic techniques enable researchers to statistically control for unmeasured stable differences, these models only correct for selectivity and omitted variable biases to the extent that the relevant unobservables are person-specific and fixed over time. Ethnographic and interview data, however, suggest that this assumption may be mistaken: offenders' perceptions and normative orientations evolve with age and life-course transitions, as does the social and historical context in which they find themselves.²⁰

2. Manipulable Treatments

Although etiological studies have led to elegant tests of criminological theory,²¹ their implications suggest interventions that are often unworkable for public policy. Neither the researcher nor the state has the ethical or constitutional license to radically alter, say, the personality, parental background, neighborhood, or associates of youth identified as "pre-delinquent"²² who have yet to violate the law. In light of these problems, programs aiming to prevent the onset of delinquency have been excoriated in the evaluation literature.²³ There are few strong treatments that a researcher can administer in good conscience, leaving little room for bold experimentation among such a vul-

¹⁹ *Id.* at 1071; see also Michael P. Keane & David E. Runkle, *On the Estimation of Panel-Data Models With Serial Correlation When Instruments Are Not Strictly Exogenous*, 10 J. BUS. & ECON. STAT. 1, 3 (1992).

²⁰ See NEIL SHOVER, *GREAT PRETENDERS: PURSUITS AND CAREERS OF PERSISTENT THIEVES* 124 (1996).

²¹ See, e.g., John Hagan et al., *Class in the Household: A Power-Control Theory of Gender and Delinquency*, 92 AM. J. OF SOC. 788 (1987); Allen E. Liska & Mark D. Reed, *Ties to Conventional Institutions and Delinquency: Estimating Reciprocal Effects*, 50 AM. SOC. REV. 547 (1985); Ross L. Matsueda, *Testing Control Theory and Differential Association: A Causal Modeling Approach*, 47 AM. SOC. REV. 489 (1982).

²² SHELDON GLUECK & ELEANOR T. GLUECK, *IDENTIFICATION OF PREDELINQUENTS: VALIDATION STUDIES AND SOME SUGGESTED USES OF THE GLUECK TABLE 1*, 9 (Sheldon Glueck & Eleanor T. Glueck eds., 1972).

²³ One otherwise evenhanded review of programs to prevent or control delinquency concludes that "Prevention projects don't work and they waste money, violate the rights of juveniles and their families, inspire bizarre suggestions and programs, and fail to affect the known correlates of urban delinquency." RICHARD J. LUNDMAN, *PREVENTION AND CONTROL OF JUVENILE DELINQUENCY* 245 (1993).

nerable population. Even well-intentioned efforts to increase opportunities for youth in high-risk groups may have unintended stigmatizing or otherwise deleterious consequences.²⁴

3. Causal Asymmetry

Etiological research has provided many well-established empirical generalizations, such as the relation between law violation and gender, age, urban residence, mobility, parental attachment, school success, and moral beliefs.²⁵ Unfortunately, these findings do not translate neatly into a set of causal maxims or concrete policy prescriptions to prevent the onset of delinquency or crime. Moreover, we have little reason to believe that manipulating these factors will *alter* offending behavior once it has begun. The failure of programs as wide-ranging as family therapy, remedial education, reference group alteration, and psychological counseling suggests that either the presumed cause is misidentified or that symmetrical causation does not apply. Of course, the failure of particular policies does not rule out the possibility that more intensive, more costly, more focused, or more invasive treatments may indeed have the intended prophylactic result. Therefore, we must continue seeking innovative and creative policy interventions. This paper argues, however, that we must simultaneously begin a more systematic investigation of the causes of desistance.

4. Manipulating Initial Conditions

We currently lack the information to determine whether the causes of crime and desistance are symmetrical. The situation is analogous to the apparent temporal asymmetry in radiative phenomena observed by Popper: we understand why a stone tossed into a still pond will produce outgoing concentric waves on the water's surface, and yet it would strike us as remarkable to witness a confluence of *incoming* concentric waves arriving at

²⁴ See HOWARD BECKER, *OUTSIDERS* 35 (1963); LARRY L. ORR ET AL., *DOES TRAINING FOR THE DISADVANTAGED WORK?* 131-133 (1996).

²⁵ For reviews of this literature see JOHN BRAITHWAITE, *CRIME, SHAME, AND REINTEGRATION* 54-97 (1989); MICHAEL GOTTFREDSON & TRAVIS HIRSCHI, *A GENERAL THEORY OF CRIME* 123-153 (1990); JAMES Q. WILSON & RICHARD J. HERNSTEIN, *CRIME AND HUMAN NATURE* (1985).

just the right moment to launch a stone out of the pond and into one's hand.²⁶ This could signal some asymmetry in the laws of thermodynamics *or* it could simply reflect our relative capacity to manipulate the initial conditions that give rise to each phenomenon. That is, in the existing world it is much easier to toss a rock into a pond than to engineer the sort of elaborate experiment necessary to reverse the process.²⁷ For the study of crime and desistance, the situation is analogous: as we argue below, the conditions likely to engender desistance are much more amenable to manipulation than the conditions likely to cause crime.

B. ADVANTAGES OF DESISTANCE ANALYSIS

Desistance studies—of drug use, welfare receipt, retirement, and other phenomena in addition to crime—are much better situated to guide social policy than etiological studies. The primary advantage of desistance analysis stems from the ability to randomly assign a target group to a truly exogenous treatment. Experimental evaluations examining desistance or recidivism outcomes may provide results that directly translate into policy prescriptions.²⁸ Moreover, when interventions are tightly linked to theory, desistance analysis can provide the sort of critical tests of criminological theory that have eluded etiological researchers.

1. Temporal Order

Why is this best accomplished in a study of desistance? First, and perhaps most importantly, the desistance researcher works in concert with time rather than against it. Although twentieth-century physics have challenged traditional conceptions of temporal order in causality,²⁹ the arrow of causation typically re-

²⁶ See Karl R. Popper, *The Arrow of Time*, 177 NATURE 538 (1956).

²⁷ See Price, *supra* note 7, at 504-505.

²⁸ PETER H. ROSSI ET AL., MONEY, WORK, AND CRIME: EXPERIMENTAL EVIDENCE 277 (1980); JUDITH M. GUERON & EDWARD PAULY, FROM WELFARE TO WORK 29 (1991); Larry L. Orr et al., *Does Training for the Disadvantaged Work?* Evidence from the Nat'l JTPA Study 131, 211 (1996).

²⁹ Price, *supra* note 7, at 512.

mains aligned with the arrow of time in the social sciences. In terms of the Rubin/Holland model, desistance research seeks the effects of manipulable causes—interventions in the hands of the researcher—rather than seeking to reconstruct the putative causes of observed effects. Too often, criminological researchers attempt to enumerate *all* possible causes of crime in a fruitless attempt to statistically deconstruct naturally occurring assignment mechanisms. By “controlling for” myriad causes, the argument goes, researchers hope to render selection strongly ignorable and get clean estimates of all of them. Instead, we believe with Holland³⁰ and Sobel³¹ that we should carefully examine the effect of *particular* causes by consciously manipulating them.

2. A License to Intervene

The difficulties in etiological research are a matter of both logical and pragmatic considerations—of both causal sequencing and the authority to act. Where and how (and *when*) can we best craft and apply an intervention so that we may examine its consequences? Our ability to isolate the true causal effect of critical etiological factors such as parents, schools, and neighborhoods is constrained by our inability to manipulate the selection mechanisms guiding their allocation. For both social scientific research and for policy purposes, manipulation of these factors is unacceptably invasive in a democratic society. The researcher conducting a desistance study has a more legitimate and expansive *license to intervene* in the lives of participants. This means that she can provide, or perhaps more importantly, deny a particular program to a treatment and a control group. Of course constitutional and ethical concerns do not disappear in desistance programs; some inmates may be falsely accused and imprisoned, the victims of an imperfect criminal justice system. Nevertheless, participants have all been convicted of crimes, or in the case of juveniles, adjudicated delinquent. We may certainly provide or deny employment, for example. Although we do not advocate random assignment to

³⁰ Holland, *supra* note 9 at 959 (1986).

³¹ Sobel, *supra* note 16, at 373.

marriage, we can certainly manipulate causal interventions that are designed to enhance marital quality or stability through financial, psychological, or behavioral counseling and support.

3. *Target Efficiency*

Finally, desistance strategies are better able to concentrate resources on specific target groups likely to benefit from them. Primary prevention programs, in contrast, must cast a much wider net that is liable to include a large number of non-offenders (or offenders who commit only trivial offenses). For policy, this means that programs designed to foster desistance may bring a greater return to investments in released offenders—a greater potential to reduce the social harm associated with recidivism. For science, this means that desistance analysis offers potentially greater efficiencies in design and statistical analysis.

C. REAL AND IMAGINED DISADVANTAGES OF DESISTANCE ANALYSIS

1. *Devising Theoretically Relevant Interventions*

In our view, the major weakness in existing desistance research has been the lack of theoretically derived interventions. Typically researchers assess the effects of a program, such as juvenile probation, without sufficient attention to the *mechanisms* thought to link that program with criminal behavior. Such a program could be based on deterrence theory, in which supervision and sanctions play a large role. Alternatively, it could be based on modeling or learning theory, in which the affective ties between the caseworker and the probationer are emphasized. Moreover, policymakers and practitioners generally prefer to individualize rather than standardize treatments—to do whatever appears to work without regard to theory.³² The result of such interventions is often uninterpretable. It is also difficult, though not impossible, to make valid inferences about the effects of mediating social-psychological processes that occur after

³² DAVID J. ROTHMAN, CONSCIENCE AND CONVENIENCE: THE ASYLUM AND ITS ALTERNATIVES IN PROGRESSIVE AMERICA 43-81 (1980).

randomization.³³ Despite these barriers, it is certainly possible to structure theoretically derived interventions and to distinguish between such disparate theories as those found in the labeling, deterrence, differential association, and social control traditions.

2. *External Validity*

The primary weakness of previous desistance analyses for policy purposes has been external validity or generalizability. Many interventions and evaluations have been based on pilot programs that drew subjects from rather narrow officially-defined offender subgroups, such as heroin users in New York City.³⁴ Nevertheless, this difficulty is neither unique to nor inherent in investigations of desistance. A well-designed employment program and a long-term follow-up on a national probability sample of prison releases, for example, would certainly constitute a viable research project. The results of this type of study would generalize to a broad population of interest and could offer specific policy recommendations.

3. *Secret Deviance*

The desistance researcher must typically rely on officially-defined deviant populations. Yet prison populations clearly represent a subset of all law violators and the desistance process may differ for those who have never been formally labeled. One might speculate, for example, that the effects of adult social bonds to work and family differ among those formally labeled in comparison to those not stigmatized by official deviant status.

III. PAST, PRESENT, AND FUTURE DESISTANCE ANALYSIS

A. EARLY DESISTANCE MODELS

We are not the first to make these points: criminologists have long suspected that the causes of crime and the causes of

³³ Sobel, *supra* note 16, at 373.

³⁴ LUCY FRIEDMAN, U.S. DEP'T. HEALTH, EDUC., & WELFARE, THE WILDCAT EXPERIMENT: AN EARLY TEST OF SUPPORTED WORK IN DRUG ABUSE REHABILITATION (1978).

desistance may be asymmetrical. In tracing the history of theory and research on desistance, the first task is to arrive at a meaningful definition. The concept has a long lineage in criminology, though few theorists or researchers used the term until the 1970s.³⁵ Sheldon and Eleanor Glueck spoke of "maturation," "cessation," or "reformation" as a process quite different from the genesis of delinquency or criminality.³⁶ Sutherland used the term "reformation" as well,³⁷ both as a putative justification for punishment³⁸ and as a constructive process of character reorganization.³⁹ The latter process, Sutherland argued, could be explained by his differential association theory of crime and his group conflict theory of the criminal code. Reformation for Sutherland results when the offender assimilates the values and culture of the group responsible for the laws, or when that group "assimilates the criminal."⁴⁰

Though David Matza's theory of delinquency and drift⁴¹ was never intended to explain the behavior of the "compulsive or committed delinquent,"⁴² much less the adult criminal, it provides conceptual tools that generalize to the study of desistance among these groups.⁴³ "Maturational reform," Matza's term for the age-graded desistance process, connotes a life-course explanation of crime and desistance.⁴⁴ Matza's "drift" theory is founded on an episodic view of crime: "delinquency is a status and delinquents are incumbents who *intermittently* act out a role".⁴⁵ Most delinquent youth spend long periods of time in a state of desistance that is only occasionally punctuated by delinquent activities. Over time, with age and increasing work and

³⁵ MARVIN WOLFGANG ET AL., *DELINQUENCY IN A BIRTH COHORT* 44 (1972).

³⁶ GLUECK & GLUECK, *500 CRIMINAL CAREERS*, *supra* note 1, at 257; GLUECK & GLUECK, *LATER CRIMINAL CAREERS*, *supra* note 1, at 98, 106.

³⁷ SUTHERLAND, *supra* note 1, at 357.

³⁸ *Id.*

³⁹ *Id.* at 363-64.

⁴⁰ *Id.* at 364.

⁴¹ DAVID MATZA, *DELINQUENCY AND DRIFT* 27 (1964).

⁴² *Id.* at 30.

⁴³ *Id.* at 81.

⁴⁴ *Id.* at 22-26.

⁴⁵ *Id.* at 26.

family responsibilities, most will eventually enter a permanent state of desistance.⁴⁶

More recently new models of desistance have been developed based on economic choice,⁴⁷ or choice plus a combination of sociological and social-psychological indicators.⁴⁸ In these models, situational factors such as negative criminal experiences and life events such as marriage cause offenders to re-evaluate their readiness to commit crime. Although these theories are usually tested with observational data, many of the mechanisms might easily be translated into manipulable interventions such as financial aid to releasees.

B. THE CAREER PARADIGM

Today, the concept of desistance from crime is most commonly associated with the study of "chronic offenders,"⁴⁹ "career criminals," and the criminal career perspective more generally.⁵⁰ The career paradigm suggests that criminal activities follow distinct patterns and introduces concepts such as age of "onset," "persistence," and "desistance" to describe these patterns.⁵¹

The career concept has provoked a rancorous debate surrounding desistance. As Wolfgang et al. acknowledge,⁵² and Hirschi and Gottfredson criticize,⁵³ the concept of desistance appears to imply a criminal career. For Hirschi and Gottfred-

⁴⁶ ROBERT J. SAMPSON & JOHN H. LAUB, *CRIME IN THE MAKING: PATHWAYS AND TURNING POINTS THROUGH LIFE* 217-30 (1993); NEAL SHOVER, *GREAT PRETENDERS* 119, 125 (1996).

⁴⁷ See Pezzin, *supra* note 2, at 33.

⁴⁸ Ronald V. Clark & Derek B. Cornish, *Modeling Offenders' Decisions: A Framework for Research and Policy*, in 6 *CRIME AND JUSTICE: AN ANNUAL REVIEW OF RESEARCH* 147, 168 (M. Tonry & N. Morris eds., 1985); Maurice Cusson & Pierre Pinsonneault, *The Decision to Give Up Crime*, in *THE REASONING CRIMINAL* 72, 74 (D.B. Cornish & R.V. Clarke eds., 1986); Neal Shover & Carol Y. Thompson, *Age Differential Expectations and Crime Desistance*, 30 *CRIMINOLOGY* 89, 93 (1992).

⁴⁹ WOLFGANG ET AL., *supra* note 34 at 88.

⁵⁰ Alfred Blumstein et al., *Criminal Career Research: Its Value for Criminology*, 26 *CRIMINOLOGY* 1, 1-36 (1988).

⁵¹ Michael Gottfredson & Travis Hirschi, *Science, Public Policy, and the Career Paradigm*, 26 *CRIMINOLOGY* 37, 40 (1988).

⁵² WOLFGANG ET AL., *supra* note 34, at 251.

⁵³ Travis Hirschi & Michael Gottfredson, *Age and the Explanation of Crime*, 89 *AM. J. SOCIOLOGY* 552-84 (1983).

son, the term "career" connotes specialization in particular offenses and escalation in offense severity over time.⁵⁴ Since empirical research generally reveals versatility rather than specialization in offending⁵⁵ and decreasing severity rather than escalation with age,⁵⁶ Hirschi, Gottfredson, and other critics of the paradigm argue that no new insights are gained by conceiving of crime as a career.⁵⁷ Proponents of the career perspective, in contrast, maintain that no escalation in seriousness or specialization is implied by the term "career" and that the predictors of participation differ empirically from the predictors of onset and desistance.⁵⁸

This paper does not engage the criminal career debate, except insofar as it bears on the question of symmetric causation. If crime is conceptualized as a social event in the life course,⁵⁹ desistance can be conceptualized in a number of ways: (1) as simple non-crime, a behavioral state of indeterminate duration characterized by the absence of criminal events; (2) as non-crime conditional on prior commission of crime (e.g. one must first offend in order to desist); or, (3) as non-crime forever, a more-or-less permanent behavioral state characterized by the absence of criminal events. In this paper we have been primarily concerned with the latter two conceptions of desistance.

⁵⁴ *Id.* at 574-78.

⁵⁵ Michael J. Hindelang, *Age, Sex, and the Versatility of Delinquent Involvements*, 18 SOC. PROBS. 522,522 (1971); Malcolm W. Klein, *Offence Specialisation and Versatility among Juveniles*, 24 BRIT. J. CRIMINOLOGY 185, 185 (1984).

⁵⁶ SHELDON GLUECK & ELEANOR T. GLUECK, *JUVENILE DELINQUENTS GROWN UP* 89 (1940).

⁵⁷ GOTTFREDSON & HIRSCHI, *supra* note 25, at 241 (1990).

⁵⁸ Alfred Blumstein et al., *Longitudinal and Criminal Career Research: Further Clarifications*, 26 CRIMINOLOGY 57, 60 (1988).

⁵⁹ John Hagan & Alberto Palloni, *Crimes as Social Events in the Life Course: Reconciling a Criminological Controversy*, 26 CRIMINOLOGY 87, 87-100 (1988).

C. FUTURE DESISTANCE ANALYSIS

1. *Randomized Experimentation*

We have already learned a great deal from the few controlled experiments conducted with ex-offenders,⁶⁰ though such studies have historically examined rather circumscribed economic questions. To unravel the causes of desistance, further randomized experimentation for both juvenile and adult offenders is crucial. We therefore conclude on a programmatic note. We need not think of desistance programs as narrowly limited to existing correctional practices or evaluation research at the individual level. Desistance research can reasonably and profitably examine a diverse range of questions at the situational, group, or even the societal level of analysis.

2. *Comparative Work*

Comparative research on desistance is prompted by empirical differences across nations in factors such as the relation between age and desistance. In Japan, for example, the peak age of offending is earlier in adolescence and the decline in the late teen years is steeper than in the United States.⁶¹ The rationale for comparative analysis stems from potential American exceptionalism with regard to deviant behavior. The United States is clearly the most punitive of the advanced Western societies,⁶² with an incarceration rate that exceeds Germany's rate by a factor of seven and Japan's rate by a factor of sixteen.⁶³ This creates disproportionately large officially-defined deviant populations. Yet the United States lacks institutional mechanisms for inte-

⁶⁰ KENNETH J. LENIHAN, WHEN MONEY COUNTS: AN EXPERIMENTAL STUDY OF PROVIDING FINANCIAL AID AND JOB PLACEMENT SERVICES TO RELEASED PRISONERS 1 (1976); IRVING PILIAVIN & ROSEMARY GARTNER, THE IMPACT OF SUPPORTED WORK ON EX-OFFENDERS 132 (1981); PETER H. ROSSI ET AL., MONEY, WORK AND CRIME: EXPERIMENTAL EVIDENCE 277-83 (Academic Press 1st ed. 1980).

⁶¹ Yutaka Harada, *Adjustment to School, Life Course Transitions, and Changes in Delinquent Behavior in Japan*, in 4 CURRENT PERSPECTIVES ON AGING AND THE LIFE CYCLE 35, 37 (Z.S. Blau & John Hagan eds., 1995).

⁶² NILS CHRISTIE, CRIME CONTROL AS INDUSTRY 30-31 (Routledge 2d ed. 1994); ELLIOTT CURRIE, CONFRONTING CRIME: AN AMERICAN CHALLENGE 28-29 (1985).

⁶³ Marc Mauer, AMERICANS BEHIND BARS: THE INTERNATIONAL USE OF INCARCERATION 1995, at 4 tbl.1 (1997).

grating delinquents and reintegrating adult offenders into the social and economic fabric of civil society.⁶⁴ Many attribute Japan's low crime rates to cultural traditions of shaming and apology,⁶⁵ but quite apart from Japanese culture, a more rationalized school-to-work transition facilitates the integration of youth into adult society.⁶⁶ Experimental (or quasi-experimental) pilot programs in U.S. communities that are modeled on German or Japanese structures might better isolate their causal effects, as well as the residual effects of enduring cultural differences. Comparative analysis may also qualify, extend, or refine generalizations based on the American case.

IV. CONCLUSION

The goal of this paper has been to examine desistance among criminal offenders, rather than to plumb the limits of desistance research more generally. We believe that the same principles underlying desistance research on crime are likely to hold true for a wide range of deviant role-exits, such as substance use, homelessness, welfare receipt, non-traditional careers, perhaps even social-physiological phenomena such as eating disorders.

We have motivated this discussion of desistance with the Rubin/Holland causal model to highlight the extraordinary barriers to causal inference in etiological investigations. We believe it is virtually impossible to *assure* mean independence in observational work on the causes of crime, despite the often brilliant methodological work-arounds devised by criminologists. If mean independence fails and we cannot account for selection into levels of our most critical independent variables, then the assumption of "strong ignorability" also fails. Under these conditions, any statistical solution to the fundamental problem of causal inference is unwarranted. Thus, we remain skeptical of the findings of etiological investigations.

⁶⁴ JOHN BRAITHWAITE, *CRIME, SHAME AND REINTEGRATION* 105, 117, 179 (1989).

⁶⁵ *Id.* at 61-65.

⁶⁶ James E. Rosenbaum et al., *Market and Network Theories of the Transition from High School to Work: Their Application to Industrialized Societies*, 16 *ANNUAL REV. OF SOCIOLOGY* 263, 282-85 (1990).

As an alternative, we outline a case for increased theoretical and empirical work on the problem of cessation or desistance from crime. Desistance research better accounts for selectivity because the treatment is more often within the hands of the researcher. Moreover, we have greater ethical and constitutional license to intervene among admitted or convicted offenders and are thus able to administer stronger treatments to target groups. Among the challenges to learning more from desistance research are devising theoretically meaningful interventions and expanding and ensuring external validity. Our intent is not to discourage efforts for juveniles, but simply to acknowledge that we currently lack effective technologies for this population. More optimistically, desistance research could offer critical tests of existing theory, the potential for new breakthroughs, and concrete policy guidance.

Clearly, our advocacy of desistance research is not intended to suggest that it has yet to be undertaken. Rather the problem is that most such efforts are seriously flawed in terms of research design, sampling strategy, and theoretical justifications for the interventions being assessed.⁶⁷ Such investigations may be valuable for the administration of correctional or social services but are essentially without any implication for desistance theory or policy.

On the other hand, there are several desistance-oriented interventions whose evaluations have documented their content, suggested their crime control potential and, in some cases, specified the offenders for whom the interventions might be most effective. A partial list of these programs includes the National Supported Work Demonstration,⁶⁸ the Baltimore Life Study,⁶⁹ the multisystemic therapy program,⁷⁰ and the "Restoring

⁶⁷ See Ted Palmer's excellent review of this literature and suggestions for future research in *A PROFILE OF CORRECTIONAL EFFECTIVENESS AND NEW DIRECTIONS FOR RESEARCH* 10-21, 67-178 (1994).

⁶⁸ MANPOWER DEMONSTRATION RESEARCH CORP., *SUMMARY AND FINDINGS OF THE NATIONAL SUPPORTED WORK DEMONSTRATION* 133 (1980).

⁶⁹ Charles Mallar & Craig Thornton, *Transitional Aid for Released Prisoners: Evidence from the LIFE Experiment*, 13 *J. HUM. RESOURCES*, Spring 1978, at 208, 233.

⁷⁰ SCOTT HENGGELER & CHARLES BORDUIN, *FAMILY THERAPY AND BEYOND* 55 (1990).

Broken Windows" police intervention.⁷¹ There are also a few studies (and specifications of theories) that imply the desistance possibilities of yet-to-be implemented crime control interventions. Among these are the recent investigations of Rosenbaum and Popkin⁷² (suggesting possible desistance effects of residential change and its attendant opportunities) and Sampson and Laub (addressing the impact of the GI Bill on the criminal behavior of its beneficiaries).⁷³

That the degree of effectiveness of these interventions has not yet been definitively established is not surprising since, with few exceptions, they have received little systematic study following their initial exploration. This has been particularly true of interventions providing offenders with material assistance, training, or opportunities.⁷⁴ Though the reasons for this apparent neglect have received little discussion, two considerations seem relevant. Such interventions are likely to be expensive and politically sensitive, the latter a consequence of the potential costs as well as the reluctance of citizens and politicians to "reward" those who prey upon society's conventional members. Thus, if these programs are shown to increase the probability of desistance from crime among offenders, policy makers face a potential dilemma. Should they support full implementation of these programs they may face accusations that they reward the unworthy for their criminal behavior; conversely, should they oppose implementation, they may be criticized for withholding proven crime control measures. Given the alternatives, policy makers may turn to the evaluation of more politically acceptable experiments based on such factors as increased police manpower, greater use of arrest, and longer prison sentences. Although the merits of these policy measures cannot be dismissed out-of-

⁷¹ GEORGE KELLING & CATHERINE COLES, *FIXING BROKEN WINDOWS* 23 (1996).

⁷² James Rosenbaum & Susan Popkin, *ECONOMIC AND SOCIAL IMPACTS OF HOUSING INTEGRATION* 1 (1990).

⁷³ Robert Sampson and John Laub, *Socioeconomic Achievement in the Life Course of Disadvantaged Men: Military Service as a Turning Point, Circa 1940-1965*, 61 *AM. SOC. REV.* 347, 363 (1996).

⁷⁴ More punitive interventions, such as mandatory arrest for domestic abusers, are frequently replicated. Lawrence W. Sherman & Richard A. Berk, *The Specific Deterrent Effects of Arrest for Domestic Assault*, 49 *AM. SOC. REV.* 261, 268 (1984).

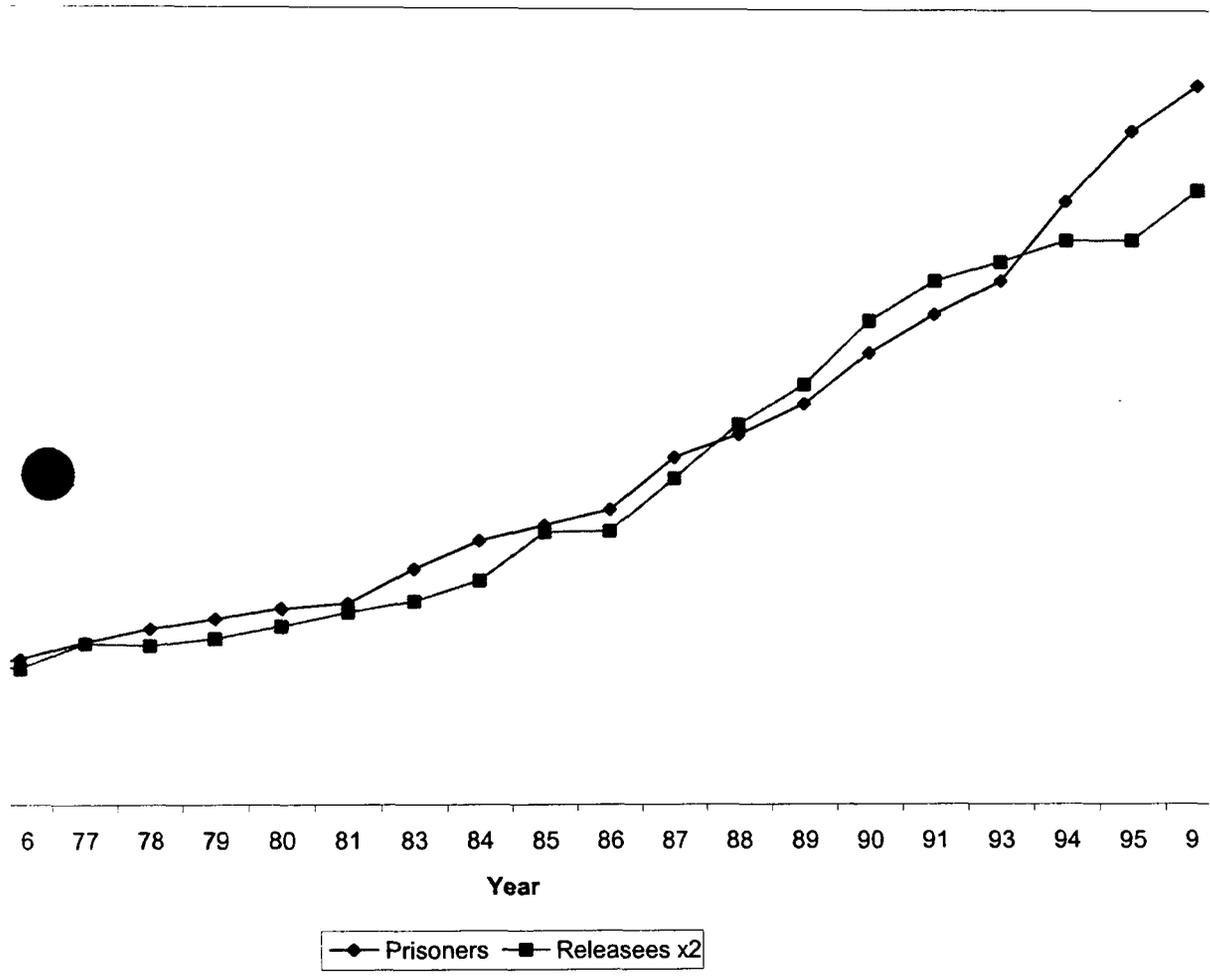
hand, their promise seems no greater than and their costs no less than the desistance strategy we suggest.

The merits of a desistance strategy apply as well to the advancement of academic knowledge as they do to urgent policy imperatives. Perhaps the most fundamental asymmetry in the study of crime and desistance is in our ability to intervene and thus isolate the respective causes of these phenomena. If so, desistance research could further John Dewey's goal of moving social science from a "passive and accumulative" stance to an active and productive one.⁷⁵ For Dewey, as for Rubin and Holland, "As far as we intentionally do and make, we shall know."⁷⁶

⁷⁵ John Dewey, *Social Science and Social Control*, THE NEW REPUBLIC, July 29, 1931, at 276.

⁷⁶ *Id.* at 277.

Figure 1: Prisoners and Releaseesx2 by Year



SOCIAL INSTITUTIONS AND THE CRIME “BUST” OF THE 1990s

GARY LAFREE*

I. INTRODUCTION

While scarcely visible behind the wave of media attention devoted to crime, beginning in the early 1990s, researchers began to observe declining rates in violent and other serious forms of crime in the United States. In this article, I begin by evaluating the size of these declines and comparing crime trends in the 1990s to crime trends in the U.S. since World War II. I also examine trends for different crime types and data sources, and for large cities. My review shows that crime rates in the 1990s have dropped rapidly and that declines have been sweeping, affecting all of the street crimes that are routinely tracked by the two major sources of crime data in the United States (the Uniform Crime Reports and the National Crime Victimization Survey). In short, the period from 1990 to 1996 represents the closest thing to a sustained decline in crime, or a “crime bust” that the United States has experienced in more than fifty years.

In a recently published book, I argue that changes in the legitimacy of social institutions provide the most promising explanation for the rapid changes in street crime trends observed in America after World War II.¹ In particular, I argue that American crime rates surged in the 1960s as a result of increasing distrust of political institutions, increasing stress produced by economic institutions, and declining strength of family institutions.² American society countered this growing legitimacy crisis by investing more in other institutions, most notably

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¹ GARY LAFREE, *LOSING LEGITIMACY: STREET CRIME AND THE DECLINE OF SOCIAL INSTITUTIONS IN AMERICA* (1998).

² *Id.*

criminal justice, education, and welfare. Stabilization in the legitimacy of political, economic, and family institutions, and investments in criminal justice, education, and welfare eventually produced downward pressure on crime rates. In this essay, I consider the applicability of these arguments for the declines in U.S. crime rates that have occurred during the first seven years of the 1990s.

I concentrate here on the group of offenses popularly known as "street crimes." While the term is imprecise, it has generally come to include the familiar crimes of murder, robbery, rape, aggravated assault, burglary, and larceny. Glaser calls these crimes "predatory" because they all involve offenders who "prey" on other persons or their property, while contrasting these offenses with nonpredatory crimes like prostitution and gambling.³ Predatory crimes are especially worthy of attention because they generally evoke the greatest popular fear and concern and draw the most universal condemnation from society. Probably as a consequence of these characteristics, we have more complete information on predatory crimes than on any other crime types.

II. STREET CRIME TRENDS IN THE UNITED STATES

Street crimes are all similar in that they each consist of an offender, a victim, and at least for the crimes that are reported or discovered, the involvement of police and other legal agents. This, in turn, defines the crime data that may be collected: "official" data collected by legal agents, "self report" data collected from offenders, and "victimization" data collected from crime victims. Because self report data are likely to be most reliably collected for the least serious crimes,⁴ they are of less value for the street crimes examined here, leaving us to rely almost exclusively on either official or victimization data. Moreover, national crime victimization survey data in the United States have only been collected on an annual basis since 1973. In the next

³ DANIEL GLASER, *CRIME IN OUR CHANGING SOCIETY* 6 (1978).

⁴ ROBERT O'BRIEN, *CRIME AND VICTIMIZATION DATA* 78 (1985).

section, I examine street crime trends from official data and victimization survey data for the 1990s.

A. STREET CRIME IN THE 1990S

The most comprehensive official data on street crime in the United States come from the Uniform Crime Reports (UCR), collected annually by the Federal Bureau of Investigation since 1930. Table 1 shows rates for the seven street crimes on which data is most reliably compiled by the UCR, as well as totals for violent crimes, and crimes to property, as well as all crimes, for 1990 and 1996.⁵ The percentage change column indicates sizeable decreases in all seven crimes. The greatest percentage declines are for burglary, murder, robbery, and motor vehicle theft—all registered at least a 20% drop in the first seven years of the 1990s. Percentage declines for rape, aggravated assault and larceny have been somewhat less, but still sizeable. Taken together, these seven crimes logged a 12.7% drop from 1990 to 1996.

Table 1 about here

National Crime Victimization Survey (NCVS) data have been collected annually by the Bureau of Justice Statistics since 1973.⁶ The NCVS includes the same street crimes as the UCR with two exceptions: NCVS data do not report murders, and NCVS data distinguish between aggravated and simple assaults. Table 2 shows rates for seven street crimes collected by the NCVS for 1990 and 1996. Although there are substantial differ-

⁵ UCR data includes only murders that are intentional—as opposed to unintentional killings, such as those resulting from negligence. The UCR includes robberies in which property was seized from another person by violence or intimidation. UCR rape cases include crimes of unlawful, nonconsensual sexual intercourse. Aggravated assaults in the UCR include cases in which individuals confront others with the intention of causing them serious physical injury. They are “aggravated” if they are accompanied by a deadly weapon or with an intent to kill, rob or rape. Burglaries in the UCR include cases in which individuals break into someone's home with the intention of committing a crime, most commonly, theft. Thefts in the UCR refer simply to stealing someone else's property.

⁶ MICHAEL R. RAND ET AL., U.S. DEP'T OF JUSTICE, CRIMINAL VICTIMIZATION, 1973-95 (1997).

ences by crime type, the NCVS data, like the UCR data, show declines in all seven street crimes reported. Declines from the NCVS data are greatest for the three property crimes—all showing more than a 20% drop. Among violent crimes, rape rates show the greatest percentage decline 17.6%. Simple assaults show the least change, declining by only a little more than 1%.

Table 2 about here

To assess how broad-gauged declines in national street crime rates in the 1990s have been, I next examined changes in crime rates for ten of the nation's largest cities from 1990 to 1995. Using UCR data, I calculated crime rates per 100,000 citizens for the seven crimes reported in Table 1 for Boston, Chicago, Dallas, Detroit, Houston, Los Angeles, New York, Philadelphia, Phoenix, and San Diego. Crime rates for the seven crimes in these ten cities produced a total of sixty-nine contrasts between 1990 and 1995.⁷ Of these sixty-nine contrasts, sixty (87.0%) showed that crime rates had decreased. The size of decreases were typically much greater than the size of increases. For example, from 1990 to 1995, burglary rates declined by 51.0% in Dallas, 45.7% in Houston, and 40.7% in San Diego. By contrast, for the one city that recorded increases in robbery from 1990 to 1995 (Philadelphia), rates increased by 10.2%.⁸

For all seven crimes, a majority of cities reported declining crime rates from 1990 to 1995. Thus, all ten cities reported declining murder and burglary rates, nine cities reported declining robbery and motor vehicle theft rates, eight cities reported declining rape rates, and seven cities reported declining aggravated assault and larceny rates.

Taken together, data from both the UCR and the NCVS strongly support the conclusion that there have been substan-

⁷ Data on rape cases were missing for Chicago.

⁸ The biggest exception to these general trends was for homicide rates in Phoenix. In 1990, with a population of 983,403, Phoenix reported 128 homicide and non-negligent manslaughter cases. In 1995, with a population of 1,085,706, Phoenix reported 214 homicide and non-negligent manslaughter cases—an increase of 51.5%.

tial, broad-based declines in street crime rates during the first half of the 1990s. The UCR national data suggest that the declines have been greatest for burglary, murder, and robbery while the NCVS data show the largest decreases for motor vehicle theft, burglary, and larceny. City-level data from the UCR confirm that declines can also be observed in most cases for the nation's largest cities, especially for murder, robbery, rape, burglary, and motor vehicle theft. I will now consider how the magnitude of the recent crime decreases compares to earlier crime trends in the post-World War II United States.

B. PUTTING THE RECENT DOWNTURNS INTO CONTEXT

NCVS data allow us to examine annual trends only from 1973 to 1996. I use UCR data to examine street crime trends from 1946 to 1996.

1. NCVS Data, 1973-1996

Figure 1 shows trends for the four violent crimes tracked by the NCVS from 1973 to 1996. Trends for these four crimes provide considerable but not total support for the idea of a crime "bust" during the 1990s. The best case for a rapid decline in the 1990s can be made for rape cases and aggravated assault cases. Rape rates declined by 36.4% from 1991 to 1996 and aggravated assault rates declined by 27.3% from 1993 to 1996. These were the steepest declines in the years included in the NCVS data. Similarly, from 1994 to 1996, simple assault rates exhibited the greatest three-year decline (14.5%) since data collection began in 1973—although simple assault rates were only slightly lower in 1996 (26.6) than they had been in 1990 (26.9).

Although robbery rates fell considerably during the 1990s, they declined even more rapidly during the 1980s.

Figure 1 about here

Taken together, rates for robbery and aggravated assault were lower in 1996 than at any other point spanned by the twenty-four years of NCVS data. The lowest level of reported rapes was recorded in 1995. While the lowest NCVS level of

simple assaults occurred in 1986 (25.3), the levels were similar to those recorded for simple assaults in 1996 (26.6).

Figure 2 shows trends in the three property crimes included in the NCVS data from 1973 to 1996. Data on property crimes are consistently supportive of a 1990s crime bust. In fact, for burglaries, the declines began well before the 1990s, starting in about 1981. Altogether, burglary rates from NCVS data dropped by 55.4% from 1981 to 1996—with about half of this decline occurring in the decade of the 1990s. Similarly, theft rates began to drop consistently in the late 1970s, declining by more than 50.0% from 1979 to 1996. The case of motor vehicle theft is more complex: motor vehicle theft rates declined slowly from 1973 to 1985, increased substantially from 1986 to 1991, and then began to decline again in 1992, reaching their lowest level in 1996. All three of the property crimes included in the NCVS were lower in 1996 than they had been at any time since the NCVS started collecting annual data in 1973.

Figure 2 about here

2. UCR Data, 1946 to 1996

To put crime trends for the 1990s in a broader historical context, I next present post-World War II trends (1946-1996) based on UCR data for the violent crimes of murder, rape, robbery, and aggravated assault; and for the property crimes of burglary, theft, and motor vehicle theft. Figure 3 shows trends for the four violent crimes tracked by the UCR.

Figure 3 about here

As we saw in Table 1 above, all four of these violent crimes declined during the 1990s. In this section, I compare the recent declines in these crimes to earlier postwar trends.

U.S. murder rates in 1996 were at their lowest level since 1969. From 1990 to 1996, murder rates declined by 21.3%. The only other period in postwar U.S. history with comparable declines in murder rates happened from 1980 to 1984 (a 22.5%

drop). But so far at least, murder rates in the 1990s are not decreasing as fast as they increased in the 1960s. For example, in the four years from 1966 to 1969, murder rates increased by 30.4%.

U.S. robbery rates in 1996 were at their lowest level since 1978. From 1990 to 1996, robbery rates fell by 21.2%. There was a similar decline in robbery rates only once during the postwar period: the five years from 1981 to 1984 witnessed a 20.6% decline. As with murder rates, robbery rates so far have not declined as rapidly in the 1990s as they increased in the 1960s and early 1970s. Thus, from 1963 to 1975, robbery rates increased by an incredible 257.0%.

Figure 3 shows that while recent decreases in rape and aggravated assault rates are less than those for murder and robbery rates, they are still substantial. In fact, declines in rates of rape and aggravated assault in the 1990s represent the largest declines in UCR rates for these crimes thus far recorded during the postwar period.

Figure 4 shows UCR trends for three property crimes from 1946 to 1996. The clearest downward trend is for burglaries. Burglary rates in 1996 have not been lower since 1968. Since reaching a peak in 1980, burglary rates have declined by 44.0%. The declines from 1990 to 1996 (26.8%) were somewhat greater than those recorded from 1980 to 1986 (20.2%). Percentage declines for burglary in the 1990s have still been somewhat less than percentage increases in the 1970s. In just three years, from 1972 to 1975, burglary rates increased by 34.3%.

Figure 4 about here

Motor vehicle theft has also shown substantial declines during the 1990s (20.0% from 1990 to 1996). This represents the largest percentage decline in motor vehicle theft observed during the past fifty years. Still, these declines are not as large as the increases in motor vehicle theft witnessed during the 1960s. Thus, from 1961 to 1967 rates of motor vehicle theft increased by 82.0%.

Of the street crimes tracked by the UCR, rates of larceny have declined the least during the 1990s. In percentage terms, the greatest recorded postwar decline in larceny happened from 1980 to 1984 (an 11.9% drop). Moreover, larceny rates in the 1990s are not declining as quickly as they increased throughout most of the 1960s and 1970s.

Two main conclusions about crime trends in the 1990s are supported by the UCR data. First, the declines in crime recorded from 1990 to 1996 have been substantial. Thus far, the 1990s have witnessed the greatest recorded percentage drop of the postwar period for the violent street crimes of rape, robbery, and aggravated assault, and the property crime of motor vehicle theft. Compared to the 1990s decline, postwar murder, burglary, and larceny rates fell faster during only one earlier period: the early 1980s.

Second, thus far at least, the pace of recent decreases in these seven street crimes has not been as great as the speed at which they increased during the 1960s and 1970s. Nevertheless, 1990s trends already represent the closest thing to a crime bust that the U.S. has witnessed since the end of World War II. Moreover, we do not yet know how great the declines in these crimes eventually will be. As this article was being prepared, the Federal Bureau of Investigation released UCR data showing that during the first six months of 1997, violent crime in the United States fell by another 5.0% and property crime by another 4.0%.⁹

3. Explaining the 1990s Crime Bust

Taken together, these postwar street crime trends provide us with at least three important clues about the 1990s decline in crime rates. First, substantial decreases have happened in a relatively short period. During the first seven years of the 1990s, UCR rates of murder, robbery, burglary, and motor vehicle theft all fell by more than 20.0%. Total UCR violent crimes fell by 13.3% and total property crimes fell by 12.6%. During the same period, NCVS data show more than a 20.0% drop in rates of

⁹ Federal Bureau of Investigation Press Release (Nov. 23, 1997) (on file with the *Journal of Criminal Law and Criminology*). [request from author]

burglary, larceny, and motor vehicle theft, and more than a 10.0% drop in rates of rape and aggravated assault. Thus, we are looking for crime explanations that are capable of accounting for rapid change.

Second, while there is considerable variation across crime types, the declines are extremely broad-based. Thus, there have been measurable declines in the 1990s for all seven crimes reported by the UCR and for all seven crimes reported by the NCVS. These patterns suggest that we are looking for a general explanation that has implications for many different types of street crime.

And finally, the recent declines in crime are clearly time specific; that is, all of the street crimes tracked by the UCR and the NCVS have registered declines in the 1990s. In fact, for several of these crimes, the declines during the 1990s have been the largest observed during the past fifty years. Therefore, we must ask what it is about the 1990s that encouraged declining crime rates. In the remainder of this paper, I concentrate on the role played by institutional legitimacy in bringing about the recent decreases in crime rates.

III. CRIME AND SOCIAL INSTITUTIONS IN THE 1990S

As used here, institutions are the patterned, mutually shared ways that people develop for living together.¹⁰ These patterns include the norms, values, statuses, roles, and organizations that define and regulate human conduct. Institutions encompass proper, lawful, expected modes of behavior.¹¹ They are guides to how we should live and conduct our affairs; daily reminders of the conduct that we hold to be either acceptable or unacceptable.¹² Legitimacy refers to the ease or difficulty with

¹⁰ LAFREE, *supra* note 1, at 70-90 (1998); *see also* ROBERT BELLAH, ET AL., *THE GOOD SOCIETY* 4 (1991).

¹¹ *See generally* Talcott Parsons, *The Motivation of Economic Activities*, *CANADIAN J. ECON. & POL. SCI.* 187-203 (1940).

¹² ROBERT N. BELLAH ET AL., *THE GOOD SOCIETY* 12 (1991).

which institutions are able to get societal members to follow mutually shared rules, laws, and norms.¹³

Institutions are arguably the most important of all human creations. They allow societies to endure over time as individuals join or are replaced by new members. Thus, institutions for humans serve the same purpose as instincts do for other species: they channel our behavior into forms that help us satisfy basic collective and individual needs.¹⁴ In fact, because humans have relatively underdeveloped instincts, they are especially dependent on institutions for survival.¹⁵ Instead of relying on messages genetically transmitted from the past, humans are guided in large part by institutional rules that are passed from one generation to the next.¹⁶

This dependence on institutions has important implications for all human behavior, including crime. On the one hand, it allows behavior to change rapidly in response to environmental changes. But because institutions are little more than socially constructed agreements, they are fragile, at least compared to the "hard wired" responses produced by biological instincts.

A. HOW INSTITUTIONS REGULATE CRIME

In general, institutions control crime in three interrelated ways: by reducing individual motivation to commit crime, by supplying effective controls to curb criminal behavior, and by providing individuals with protection against the criminal behavior of others.¹⁷ Because institutions are primarily responsible for teaching children moral behavior, they have a direct linkage to our motivation to commit crime. The most obvious institutional connection here is the family. Through socialization,

¹³ This definition of legitimacy follows Max Weber [MAX WEBER, *THE THEORY OF SOCIAL AND ECONOMIC ORGANIZATIONS* 324-63 (1947)], who points out that while legitimacy may be grounded in moral validity, individuals may also attribute legitimacy to institutional rules for other reasons, including fear of punishment, respect for tradition, religious beliefs, or simple expediency.

¹⁴ PETER L. BERGER, *INVITATION TO SOCIOLOGY: A HUMANISTIC PERSPECTIVE* 87-91 (1963).

¹⁵ *Id.*

¹⁶ PETER BLAU, *EXCHANGE AND POWER IN SOCIAL LIFE* 277 (1964).

¹⁷ See generally LAFREE, *supra* note 1, at 70-90.

families teach children the differences between appropriate and inappropriate conduct. These lessons are enforced by social sanctions, both positive and negative. For example, families reinforce acceptable behavior with praise, love, and support, while punishing unacceptable behavior with criticism, ostracism, and expulsion.

The impact of institutions on reducing criminal motivation is not limited to families. In industrialized nations such as the U.S., educational institutions are increasingly important in this regard. Moreover, economic and political institutions may reduce individual motivation to commit crime simply by convincing individuals that they are fair, just, and worthy of respect.

Institutions also regulate behavior by providing social control. As used here, social control refers to the mechanisms aimed at compelling individuals to adhere to institutional rules.¹⁸ Social control is extremely broad and far reaching in its effects.¹⁹ It tells us what crime is, how we are to respond to it, and what is right and wrong about it.

Social control further can be divided into informal and formal sources.²⁰ Informal social control refers to sanctions imposed by individuals or groups who are not acting directly on behalf of official political agencies, and includes especially the influence of family, friends, and neighborhood residents. By contrast, formal social control refers to the control of individuals that are acting on behalf of official legal and political agencies, including especially police, judges, prison guards, and prosecutors.

Granovetter uses the term "embeddedness" to describe the social relations that link individuals to institutions and thereby regulate their behavior.²¹ Embeddedness provides a useful

¹⁸ Robert J. Sampson et al., *Neighborhoods and Violent Crime. A Multilevel Study of Collective Efficacy*, 277 *SCI.* 918 (1997).

¹⁹ Locations, types, and forms of social control have generated a complex research literature. See generally DAVID H. BAYLEY, *SOCIAL CONTROL AND POLITICAL CHANGE* 16 (1985).

²⁰ While this distinction is useful for my purposes, it is not without difficulties. For a discussion of these, see *id.* at 18-20.

²¹ Mark Granovetter, *Economic Action and Social Structure. The Problem of Embeddedness*, 91 *AM. J. SOC.* 481 (1985).

metaphor for how social control works. Most individuals are embedded in a complex web of social connections that will either make them think long and hard before engaging in crime, or simply provide enough surveillance to make criminal behavior more difficult. For most people, the first social hurdles to crime are informal: the potential embarrassment they will face when their misdeeds become known to their families—spouse, children, parents, and other relatives. Beyond the family, there is the shame associated with those with whom they work or attend school, members of their church or military company, civic or fraternal organizations to which they belong, and so on. Finally, in addition to all of these informal sources of social control, there is the formal legal system itself, with its threats of arrest, legal processing, and punishment. Most individuals, then, are embedded in social networks that usually serve to channel their behavior down noncriminal paths.

In addition to regulating the motivation to commit crime and surrounding individuals with social controls, institutions also reduce crime by directly protecting individuals from criminal victimization. Families, communities, businesses, and schools play an important role in terms of guarding their individual members from the criminal behavior of others. Likewise, criminal justice institutions, especially the police, are justified in large part by their ability to protect citizens from crime.

In general, then, institutions suppress crime by enmeshing individuals in social systems that reduce their motivation to commit crime, by increasing the effectiveness of those who are informally or formally expected to regulate their criminal behavior, and by protecting individuals from the criminal behavior of others. In a smoothly functioning society, these elements are inextricably related. Thus, individuals who are well socialized in effect serve as their own social control agents. Strong social control reduces motivation and the need for protection; weak motivation makes social control and protection less important; strong guardianship may compensate in part for high levels of motivation and ineffective social control. Succinctly stated, as institutions lose their ability to regulate their members, more individuals will be more motivated to behave as they please, and

their behavior will be less successfully controlled by others, and institutions will be less effective in protecting their members from others who are behaving as they please.

B. IDENTIFYING THE MOST IMPORTANT INSTITUTIONS FOR CRIME CONTROL

If we think of institutions as nothing more than shared rules that regulate human conduct in recurrent situations, we may conclude that there are thousands (or even millions) of institutions in any given society. But obviously, some institutions are more important than others in terms of controlling criminal behavior. The three institutions that probably have been linked to crime most frequently by researchers and policy makers are political, economic, and familial.²²

Political institutions are primarily responsible for mobilizing and distributing resources for collective goals.²³ They include the entire governmental apparatus: the legislature, the judiciary, the military establishment, and the administrative agencies that implement governmental decisions. Political institutions have direct responsibility for crime control and the lawful resolution of conflicts. They are also responsible for maintaining social order, providing channels for resolving conflicts, and protecting citizens from foreign invasion.

Economic institutions are responsible for societal adaptation to the environment.²⁴ Economic institutions include those organized around the production and distribution of goods and services.²⁵ The economy is responsible for satisfying the basic material requirements for human survival: food, clothing, and shelter. Economic institutions also include a stratification system that ranks individuals in a social hierarchy of rewards and responsibilities.

²² While I concentrate here on three institutions that frequently have been linked to crime by others, I do not argue that they are the only relevant institutions in controlling crime. For example, religion, neighborhood and community organizations, voluntary associations, and media and mass communication have all been suggested as important determinants of crime trends. See LAFREE, *supra* note 1, at 70-90.

²³ See BLAU, *supra* note 16, at 279; TALCOTT PARSONS, *THE SOCIAL SYSTEM* (1951).

²⁴ BLAU, *supra* note 16, at 278.

²⁵ STEVEN F. MESSNER & RICHARD ROSENFELD, *CRIME AND THE AMERICAN DREAM* 73 (1994).

For centuries, families in human societies have been chiefly responsible for the socialization of children. Coleman describes family institutions as "primordial" because, unlike other institutions, they are based in part on a social organization that develops through birth and blood ties.²⁶ In addition, the family has traditionally had primary responsibility for regulating the sexual activity of its members, caring for and nurturing children, and seeing to the needs of the infirm and the elderly.²⁷

Because they are human creations, institutions are constantly evolving and changing, and newer institutions are being created and expanded to support or supplant older ones. Postwar America has responded to the declining legitimacy of political, economic, and familial institutions in part by strengthening support for newer institutions. In particular, to shore up political institutions, American society has funded major increases in criminal justice spending; to reduce the deleterious consequences of a rapidly changing economy, American society has spent more on welfare; and to help support declining family institutions, American society has invested heavily in education.²⁸ All three of these institutional responses have important implications for crime rates.

C. INSTITUTIONS AND CRIME IN THE 1990S

In the remainder of this paper, I briefly consider the links between street crime declines in the 1990s, three traditional institutions²⁹ (political, economic, and familial), and three institutions (criminal justice, education, and welfare) that have become increasingly important during the postwar years. In my earlier book, I argued that the postwar American crime boom occurred as a result of an institutional legitimacy crisis charac-

²⁶ James S. Coleman, *The Rational Reconstruction of Society*, 58 AM. SOC. REV. 1, 2 (1993).

²⁷ BLAU, *supra* note 16, at 278.

²⁸ It would of course be simplistic to argue that these institutional responses were narrow reactions to a single type of institutional decline. For example, welfare spending is justified not only in terms of reducing economic stress, but also in terms of supporting the family and increasing trust in political institutions.

²⁹ I use "traditional" here in the very limited sense of indicating institutions that have customarily been thought to control or regulate crime.

terized by (1) growing distrust of political institutions, (2) rising economic stress, and (3) increasing disintegration of the family.³⁰ American society responded to this crisis by providing greater support for criminal justice, education, and welfare institutions.³¹ If these same arguments hold for the 1990s, then the crime bust should be accompanied by evidence of increasing trust in political institutions, declining economic stress, and growing stability of families, as well as increasing support for criminal justice, education, and welfare institutions.

In Figure 5, I summarize these expectations. I do not assume that all of these institutional effects are equally important, that all must be present to the same extent for crime rates to decline, or that all must be absent to the same extent for crime rates to increase. Rather, these six expectations can be seen as characteristics of a hypothetical society experiencing declining crime rates.

Figure 5 about here

The extent to which major institutions in the U.S. in the 1990s approximate this hypothetical society bears consideration. I examine these six institutions in pairs, considering each of the three traditional institutions along with each of the three major corresponding institutional responses to the legitimacy crisis experienced by the traditional institution: political-criminal justice, economic-welfare, family-education. In each section, I first consider general connections between these institutions and crime, and then examine postwar trends in the legitimacy of each institution and how these trends have changed since 1990.

1. Political and Criminal Justice Institutions

The declining legitimacy of political institutions increases crime in three main ways. First, individuals who perceive political institutions to be unjust or unfair will be less motivated to follow rules and laws. Second, individuals in societies with

³⁰ LAFREE, *supra* note 1, at 70-90.

³¹ *Id.* at 85-86.

weaker political legitimacy will be less vigilant about controlling the criminal and deviant behavior of others. And finally, societies with little political legitimacy will be less effective at protecting their citizens from the criminal behavior of others. The connections between political institutions and crime in the postwar United States are most directly linked to the trust Americans have had in their political institutions.³² Major increases in support for formal criminal justice institutions have reduced crime rates in the 1990s.

At the end of World War II, the U.S. entered a period in which its citizens reported unprecedented levels of trust in the honesty, fairness, and integrity of American political institutions.³³ There was widespread support for the war effort, high levels of respect for politicians and judges, and enough popular support to carry General Dwight D. Eisenhower, a military hero, into the presidency in 1952.³⁴ As a result of the low crime rates associated with this high level of trust in government, *per capita* spending on criminal justice institutions was lower in the years following World War II than it would be for the next half century.³⁵

Levels of trust in political institutions began to erode substantially in the late 1950s and early 1960s.³⁶ The civil rights movement led the way by exposing long-standing racial injustices in American society. Further erosion accompanied the divisive war in Vietnam, a series of widely publicized political scandals, and the rights-based revolution that followed in the wake of the civil rights movement.³⁷ Moreover, because political institutions are chiefly responsible for crime control, rising

³² I use trust here in the usual sense of level of reliance on the equity, justice or evenhandedness of others. See TRUST: MAKING AND BREAKING COOPERATIVE RELATIONS (Diego Gambetta ed., 1988).

³³ ERIC GOLDMAN, THE CRUCIAL DECADE AND AFTER: AMERICA, 1945-1960 [need page #, ch. 3].

³⁴ *Id.* at 236.

³⁵ U.S. BUREAU OF THE CENSUS, HISTORICAL STATISTICS ON GOVERNMENTAL FINANCE AND EMPLOYMENT 26-28 (1985).

³⁶ JOHN MORTON BLUM, YEARS OF DISCORD: AMERICAN POLITICS AND SOCIETY, 1961-1974 3-21 (1991).

³⁷ FRANCIS FUKUYAMA, TRUST: THE SOCIAL VIRTUES AND THE CREATION OF PROSPERITY 314-315 (1995); *Id.* at 50.

crime rates themselves further undermined political legitimacy.³⁸

By the 1990s, the free fall in levels of political trust had ended; in fact, there was some evidence of stability in the legitimacy of American political institutions.³⁹ While a full treatment of these issues is beyond the scope of this paper, three developments are especially important here. First, there are important signs that overall levels of trust in government, while very low compared to the early postwar period, have nevertheless been stable and perhaps even improving during the 1990s.⁴⁰ Since 1958, a national election survey has collected biennial information on American attitudes toward government.⁴¹ For example, for the past forty years, this survey has asked respondents, "How much of the time can you trust the U.S. government to do what is right?" The proportion of Americans answering "most of the time or just about always" peaked in 1964 at just under 80%.⁴² The percentage who expressed confidence in the federal government then declined rapidly during the 1960s and 1970s, scoring just over 25% in 1980.⁴³ But since 1980, the percentage who express trust in the federal government has held steady and even begun to rise a bit.⁴⁴ In fact, levels of trust tapped by this measure were slightly higher in 1996 than in 1980.⁴⁵ Other measures of public confidence in government tracked by the national election survey data provide similar evidence.⁴⁶

Second, the rapid increase in crime rates in the early 1960s coincided in large part with the rise of collective political action associated especially with the civil rights movement and later,

³⁸ LAFREE, *supra* note 1, at 88.

³⁹ WARREN E. MILLER, AMERICAN NATIONAL ELECTION STUDIES CUMULATIVE DATA FILE, 1952-1996 (1996).

⁴⁰ LAFREE, *supra* note 1, at 113.

⁴¹ MILLER, *supra* note 39.

⁴² LAFREE, *supra* note 1, at 102.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.* at 104.

protests against the Vietnam War.⁴⁷ For example, the total annual number of race-related riots in America reached a postwar zenith of 287 in 1968.⁴⁸ Similarly, protests against the Vietnam War became increasingly violent in the late 1960s. By contrast, in the 1990s, there was no organized collective political action that remotely resembled the scope of the civil rights movement or the anti-war protests of the early and middle postwar periods.

And finally, as the legitimacy of political institutions declined during the 1960s, the U.S. began to rely increasingly on formal criminal justice institutions to maintain law and order. Directly following World War II, Americans spent only \$255 a year (in inflation adjusted dollars) on all levels of federal, state, and local law enforcement.⁴⁹ They spent a little over \$100 a year at all governmental levels for corrections.⁵⁰ By the early 1990s, *per capita* spending on police had increased seven-fold and *per capita* spending on corrections had increased nearly twelve-fold.⁵¹

The impact of these developments is perhaps clearest with regard to incarceration rates. From the end of World War II until the mid-1970s, imprisonment rates in the United States hovered around one hundred prisoners per 100,000 U.S. residents.⁵² In fact, imprisonment rates in 1973 were about the same as they had been in 1946.⁵³ But these rates began to change rapidly thereafter. From 1974 to 1996, U.S. imprisonment rates more than quadrupled, reaching a century high of 427 per 100,000 residents.⁵⁴ These increases have been particu-

⁴⁷ Gary LaFree & Kriss A. Drass, *African American Collective Action and Crime, 1955-91*, 75 SOC. FORCES 835 (1997).

⁴⁸ LAFREE, *supra* note 1, at 110.

⁴⁹ U.S. BUREAU OF THE CENSUS, No. GC77(6)-4, HISTORICAL STATISTICS ON GOVERNMENTAL FINANCE AND EMPLOYMENT 29 (1979).

⁵⁰ *Id.*

⁵¹ U.S. BUREAU OF THE CENSUS, SERIES GF/92-5, SUMMARY 1, GOVERNMENT FINANCES: 1991-92 (1996).

⁵² U.S. BUREAU OF JUSTICE STATISTICS, SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS 1996 518 (1997).

⁵³ LAFREE, *supra* note 1, at 166.

⁵⁴ U.S. BUREAU OF JUSTICE STATISTICS, PRISONERS IN 1996 1 (1997).

larly sharp in the 1990s. From 1990 to 1996 alone, imprisonment rates increased by 43.8%.⁵⁵

By 1995, an estimated 5.4 million Americans were under correctional supervision, including 1.1 million in prisons, one-half million in jails, 700,000 on parole, and more than 3 million on probation.⁵⁶ Freeman provides the startling conclusion that by 1995, the number of American men under the supervision of corrections had surpassed the total number of unemployed men.⁵⁷ While much research confirms that informal social control is generally more effective than formal controls such as imprisonment in reducing crime,⁵⁸ nevertheless, increases in formal sanctions of this magnitude have undoubtedly dampened U.S. crime rates in the 1990s.⁵⁹

2. *Economic and Welfare Institutions and Crime*

Declining economic legitimacy increases street crime rates in two main ways: raising the motivation of potential offenders to commit crime, and reducing the effectiveness of social control aimed at crime prevention and punishment. Conversely, spending on social welfare programs should reduce the motivation of potential offenders to commit crime and more generally, improve the effectiveness of social control mechanisms.

Perhaps the most obvious connection between economic legitimacy and criminal motivation is captured by the prosaic observation that compared to the more well-to-do, those with less property and wealth simply have more to gain by committing crime. The idea that economic deprivation increases criminal motivation has long been central to strain theories in

⁵⁵ *Id.*

⁵⁶ U.S. BUREAU OF JUSTICE STATISTICS, CORRECTIONAL POPULATIONS IN THE UNITED STATES, 1995, 5 (1997).

⁵⁷ Richard B. Freeman, *The Labor Market*, in CRIME 172 (J.Q. Wilson & J. Petersilia eds., 1995).

⁵⁸ For a classic statement, see generally JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 134-36 (The Athlone Press 1970) (1789).

⁵⁹ For a comprehensive review of the empirical literature, see Thomas B. Marvell & Carlisle E. Moody, *The Impact of Prison Growth on Homicide*, 1 HOMICIDE STUD. 205 (1997).

criminology.⁶⁰ A large number of studies confirm that, compared to the wealthy, the economically disadvantaged are more likely to commit street crimes of every type.⁶¹

While most criminology research on the link between economic legitimacy and crime has focussed on its impact on the offender's motivation, the declining legitimacy of economic institutions may also reduce the effectiveness of informal and formal social control. Those who believe that economic institutions are unfair or unjust might be reasonably expected to have less interest in helping to control or regulate the criminal behavior of others.

I argue that the growing strains the economy imposed on Americans directly weakened the legitimacy of economic institutions in the postwar U.S.⁶² These strains were increasingly shaped by global economic trends. At the end of World War II, the U.S. entered an era of unprecedented economic prosperity.⁶³ The war jolted the U.S. economy out of a devastating depression and matched the undamaged industrial plants of the U.S. against the war-torn factories of Europe and Japan. America became a supermarket to the world.

But the economic picture had changed considerably by the late 1960s. Basic industrial production dominated by the United States following World War II was among the first areas to suffer—the United States' lead in textiles, iron, steel, and chemicals greatly diminished.⁶⁴ Seeking higher profits and less competition, U.S. companies increasingly “outsourced” high-

⁶⁰ RICHARD CLOWARD & LLOYD OHLIN, *DELINQUENCY AND OPPORTUNITY: A THEORY OF DELINQUENT GANGS* (1961); ROBERT K. MERTON, *SOCIAL THEORY AND SOCIAL STRUCTURE* (1957).

⁶¹ See JOHN BRAITHWAITE, *INEQUALITY, CRIME AND PUBLIC POLICY* (1979); JOHN P. HEWITT, *SOCIAL STRATIFICATION AND DEVIANT BEHAVIOR* (1970); ROGER HOOD & RICHARD SPARKS, *KEY ISSUES IN CRIMINOLOGY* (1970). *But see*, Charles R. Tittle et al., *The Myth of Social Class and Criminality: An Empirical Assessment of the Empirical Evidence*, 43 *AM. SOC. REV.* 643-56 (1978).

⁶² LAFREE, *supra* note 1, at 114-34; Gary LaFree & Kriss A. Drass, *The Effect of Changes in Intra-racial Income Inequality and Educational Attainment on Changes in Arrest Rates for African Americans and Whites, 1957 to 1990*, 61 *AM. SOC. REV.* 614, 615-17 (1996).

⁶³ See FRANK LEVY, *DOLLARS AND DREAMS* (1987); IMMANUEL WALLERSTEIN, *AFTER LIBERALISM* (1995).

⁶⁴ DENNY BRAUN, *THE RICH GET RICHER: THE RISE OF INCOME INEQUALITY IN THE UNITED STATES AND THE WORLD* (1991).

paying industrial jobs in these areas to lower-wage nations.⁶⁵ As economic changes accelerated, the influence of labor unions steadily declined, and the high wages associated with unions also eroded.⁶⁶ Changes that began in traditional manufacturing and production areas eventually spread to other parts of the economy. The U.S. encountered increasingly stiff competition even in newer, high technology industries that it once virtually monopolized, like robotics, aerospace, and computers.⁶⁷ During the 1960s and 1970s, economic inequality grew substantially, inflation reached new heights, and corporate downsizing resulted in thousands of closures and firings.⁶⁸

The U.S. responded in part to these growing economic strains by investing more in welfare support. In 1948, total welfare spending amounted to \$83 *per capita* (in 1995 dollars).⁶⁹ Spending rates increased only slightly during the early postwar period, reaching \$116 *per capita* in 1960.⁷⁰ But from the mid-1960s to the late 1970s, increases in welfare spending were rapid. From 1964 to 1978 alone, total *per capita* welfare spending (again, in 1995 dollars) more than quadrupled—from \$121 per year to \$551 dollars per year.⁷¹

To fit my arguments about the connections between crime and social institutions, I am looking for evidence that both economic well-being and the support of welfare institutions increased during the 1990s. Indeed, the economic situation for the United States has shown unmistakable signs of improvement in the last decade of the twentieth century. In 1996, the federal

⁶⁵ See BARRY BLUESTONE & BENNETT HARRISON, *THE DEINDUSTRIALIZATION OF AMERICA* (1982).

⁶⁶ See generally SAMUEL BOWLES ET AL., *AFTER THE WASTELAND: A DEMOCRATIC ECONOMICS FOR THE YEAR 2000* (1990); MIKE DAVIS, *PRISONERS OF THE AMERICAN DREAM: POLITICS AND ECONOMY IN THE HISTORY OF THE U.S. WORKING CLASS* (1986).

⁶⁷ See generally EAMONN FINGLETON, *BLINDSIDE: WHY JAPAN IS STILL ON TRACK TO OVERTAKE THE U.S. BY THE YEAR 2000 [need exact page #s of chapter 2]* (1995).

⁶⁸ BLUESTONE & HARRISON, *supra* note 65.

⁶⁹ U.S. BUREAU OF THE CENSUS, *HISTORICAL STATISTICS ON GOVERNMENTAL FINANCE AND EMPLOYMENT* 26-28 (1985).

⁷⁰ *Id.*

⁷¹ U.S. BUREAU OF THE CENSUS, *GOVERNMENT FINANCES: 1984-1992, Series GF/92-5 1* (1996).

spending deficit reached its lowest level since 1979.⁷² In 1994, the poverty rate began to fall for the first time in five years and income inequality began a modest decline.⁷³ In 1997, unemployment reached its lowest level since 1973.⁷⁴ After reaching double digits in the 1970s and early 1980s, inflation cooled off again during the 1990s, remaining under 3.0% from 1990 to 1996.⁷⁵

Changes in the welfare laws may at first seem to contradict the argument that the 1990s' downturn in crime in the U.S. is related in part to higher levels of welfare spending. Thus, in 1996, Congress replaced the Aid to Families with Dependent Children (AFDC) and several other long-established programs with the Temporary Assistance for Needy Families (TANF) program.⁷⁶ The new law sets up a system of block grants to the states, mandates that federal funding for TANF programs be capped at \$16.4 billion annually through the year 2002, and stipulates that recipients can only receive TANF benefits for a maximum of five years.⁷⁷ However, because of the way these changes are being phased in, it is still too early to tell what impact if any they will have on street crime rates. Program caps and limits on participation may not have major effects on recipients for several years. Moreover, as noted above, recent changes in the welfare system have been implemented during a period when the economy has been relatively strong.

3. *Family and Educational Institutions and Crime*

As with political and economic institutions, family institutions can reduce crime by regulating the motivation of offenders and by providing social control. In addition, the family can play a special role in protecting its members from the criminal activity of others. Throughout human history, families have

⁷² U.S. ECONOMIC REPORT TO THE PRESIDENT 20 (1997).

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Jerry Watts, *The End of Work and the End of Welfare*, 26 CONTEMP. SOC. [need first page #], 409-12 (1997).

⁷⁷ *Id.*

been the primary institution for passing social rules and values from one generation to the next.⁷⁸ With few exceptions, children have more frequent and longer contacts with family members than with others, and family contacts are generally earlier and more emotionally intense than other contacts.⁷⁹ The family has long been the institution with major responsibility for teaching children right from wrong, instilling moral values, and emphasizing the importance of law-abiding behavior. This socialization role of the family means that it is critical for training children to respect and abide by criminal laws.

Families also control crime by directly regulating the behavior of their members. Families may limit the delinquent behavior of their children by restricting their activities, maintaining actual physical surveillance over them, and knowing their whereabouts when they are out of sight.⁸⁰ But perhaps even more importantly, families often control the behavior of children simply by commanding their love and respect. A good deal of research confirms that children who care about their families will be more likely to avoid behavior that they know may result in shame, embarrassment, or inconvenience for family members.⁸¹

Families are also an important crime-reducing agent in terms of the guardianship that they provide their members. Thus, families may reduce the criminal victimization of family members by protecting them from property crimes such as burglary and theft, and also by shielding them from the potential physical harm of unwanted suitors, and would-be molesters, muggers, and rapists.⁸²

Beginning especially in the 1960s, there were major declines in the legitimacy of the traditional two-parent, male-dominated family in America. Two related processes were especially impor-

⁷⁸ KINGSLEY DAVIS, *HUMAN SOCIETY* 395 (1948).

⁷⁹ James S. Coleman, *The Rational Reconstruction of Society*, 58 *AM. SOC. REV.* 2 (1993).

⁸⁰ Travis Hirschi, *The Family*, in *CRIME, CRIME* 128 (J.Q. Wilson & J. Petersilia eds., 1995).

⁸¹ See, e.g. Hirschi, *supra* note 80, at 128; JOHN BRAITHWAITE, *CRIME, SHAME AND REINTEGRATION* 48 (1989).

⁸² Hirschi, *supra* note 80, at 129.

tant. The first was a growing challenge to the traditional form of the family.⁸³ As the feminist movement gained momentum in the 1960s, an increasing number of people came to regard the traditional two-parent family as a bastion of male oppression and dominance.⁸⁴ Occurring almost simultaneously and related in complex ways was a growing movement toward greater sexual freedom and experimentation outside of marriage.⁸⁵ In response to these developments, there was an explosion of alternatives to traditional family living arrangements.

Although it is important not to overstate the homogeneity of the American family directly following World War II,⁸⁶ the aggregate changes were nevertheless substantial. In the 1950s, divorce rates were lower than they would be for the next fifty years and the proportion of American households containing individuals with no family connections hovered around 10.0%.⁸⁷ After the 1960s, rates of divorce, children born to unmarried parents, and single-parent families rapidly increased and the total number of Americans living entirely outside of families skyrocketed.⁸⁸

Revolutionary changes in the economy also contributed to the declining legitimacy of the traditional American family. Three developments are especially important here: First, the steady movement of men away from agricultural labor at home to positions in the paid labor force, which had already begun in earnest during the industrial revolution, continued to gain momentum during the postwar period.⁸⁹ Second, women joined the paid labor force in record numbers during the post-

⁸³ See, e.g., DAVID POPENOE, *DISTURBING THE NEST: FAMILY CHANGE AND DECLINE IN MODERN SOCIETY* 51 (1988).

⁸⁴ For the classic statement of this view, see BETTY FRIEDAN, *THE FEMININE MYSTIQUE* (1963); see also KATE MILLET, *SEXUAL POLITICS* (1970).

⁸⁵ For a general discussion, see LAWRENCE M. FRIEDMAN, *THE REPUBLIC OF CHOICE: LAW, AUTHORITY AND CULTURE* (1990).

⁸⁶ For a discussion of stereotypical thinking about the past forms of families, see STEPHANIE COONTZ, *THE WAY WE NEVER WERE: AMERICAN FAMILIES AND THE NOSTALGIA TRAP* (1992).

⁸⁷ LAFREE, *supra* note 1, at 141-44.

⁸⁸ *Id.*

⁸⁹ COLEMAN, *supra* note 79, at 3.

war years.⁹⁰ And finally, the amount of time children and young adults spent in schools rapidly accelerated.⁹¹ These changes have totally restructured the American family.

To summarize, the institutionalized model of a two-parent family with a husband working for pay and a wife running the household became far less common in America during the postwar period. These changes have been complex and can be measured in a variety of ways. However, they all lead to the same general conclusion: during the postwar period, the legitimacy of the traditional family declined enormously. Moreover, the new forms of family and nonfamily living that increasingly replaced it have thus far not developed the same levels of legitimacy that the traditional family enjoyed during the early postwar period.

However, at least two developments in the 1990s may be changing the long-term relationship between declining family institutions and crime rates. First, nearly three decades have now passed since the most rapid changes in family organization began. Blended, dual career, male household manager, single parent, and even gay family forms are becoming increasingly institutionalized. As these alternatives to the traditional family become routinized, their ability to prevent crime and deviance should increase.

Second, as the legitimacy of traditional family institutions continues to decline in the U.S., Americans have relied increasingly on educational institutions to perform responsibilities that were once performed by families. These changes have been nothing short of revolutionary. From 1990 to 1995 alone, the proportion of three and four year olds enrolled in public, parochial or other private schools jumped from 44.0% to nearly 49.0%.⁹² During the same period, the proportion of fourteen- to seventeen-year-olds enrolled in school topped 96.0%, the proportion of eighteen and nineteen-year-olds in school

⁹⁰ SHIRLEY P. BURGGRAF, *THE FEMININE ECONOMY AND ECONOMIC MAN: REVIVING THE ROLE OF FAMILY IN THE POST-INDUSTRIAL AGE* 18 (1997).

⁹¹ COLEMAN, *supra* note 79, at 6-7.

⁹² NATIONAL CTR. FOR EDUC. STATISTICS, U.S. DEP'T OF EDUC., *DIGEST OF EDUCATION STATISTICS* 1996, 15 (1997).

reached 59.4%, and the total proportion of young adults twenty to twenty-four-years-old reached 31.5%.⁹³

Schools, like families, can discourage crime by reducing criminal motivation, by increasing the effectiveness of social control, and, in principle at least, by protecting students from the criminal behavior of others. There is a well-known tendency for offenders to be drawn from those with low levels of educational attainment.⁹⁴ There is also evidence that juveniles who accept the legitimacy of education and who have high educational aspirations and long term educational goals are less likely to engage in delinquency.⁹⁵ Schools can reduce crime by effectively monitoring and supervising the behavior of children under their custody.⁹⁶ More generally, research also shows that juveniles are less likely to commit crime when they are strongly attached to school⁹⁷ and when their performance in school is strong.⁹⁸

Educational institutions have obviously not replaced family functions in America. Indeed, we could argue that educational institutions have steadfastly resisted expanding their responsibilities from the relatively narrow role of education established in the Nineteenth Century.⁹⁹ Nevertheless, a growing proportion of infants, children, young adults, and even adults are spending much of their waking hours in schools. Taken together, this growing participation in educational institutions should put downward pressure on crime rates.

⁹³ *Id.*

⁹⁴ See DELBERT S. ELLIOTT & HARWIN L. VOSS, *DELINQUENCY AND DROPOUT* 119 (1974).

⁹⁵ See, e.g., Josefina Figueira-McDonough, *Feminism and Delinquency*, 24 *BRIT. J. OF CRIMINOLOGY* 325 (1984); Allen E. Liska, *Aspirations, Expectations and Delinquency: Stress and Additive Models*, 12 *SOC. Q.* 99 (1971).

⁹⁶ Jackson Toby, *The Schools*, in *CRIME* 152-58 (J.Q. Wilson & J. Petersilia eds., 1995).

⁹⁷ See generally BRAITHWAITE, *supra* note 81, at 28-29.

⁹⁸ See, e.g., Robert Agnew, *A Revised Strain Theory of Delinquency*, 64 *SOC. FORCES* 151 (1985).

⁹⁹ LAFREE, *supra* note 1, at 185-86.

IV. CONCLUSIONS

U.S. street crime trends in the 1990s can be accurately described as a bust. It is possible that the recent declines in crime were related to the renewed legitimacy of three traditional, and the growing support for three newer, social institutions during the last decade of the twentieth century. Declining crime rates in the 1990s may have been produced by increasing trust in political institutions, increasing economic well-being, and growing institutionalization of alternatives to the traditional two parent American family. Increasing support for criminal justice, welfare, and educational institutions in the 1990s has also put downward pressure on crime rates.

Among the roles of social science, prediction is among the most precarious. If crime rates continue to drop during the last few years of the twentieth century, then history will likely interpret the 1990s as a period of major crime declines in the United States. If, on the other hand, crime rates again begin to increase over the next few years, the first half of the 1990s will more closely resemble the early 1980s—a period when most street crime rates faltered before heading upward again. Still, taken together, the evidence suggests that the U.S. is currently experiencing the most broad-gauged and extensive drop in street crime rates in the past half century.

How reliable is the evidence that these recent crime declines are related to the growing strength of the six institutions described here? The evidence is strongest for a connection between declining crime rates in the 1990s and increased support for criminal justice institutions, increased economic well-being, and increased support for educational institutions. Rates of criminal justice spending, imprisonment, and other forms of punishments have never been higher and much of this increase has happened in the 1990s. The economic condition of the country appears to be more favorable in the mid 1990s than it has been at any time since the oil embargo of 1973. And school enrollments and education-related spending have continued to increase unabated throughout the 1990s.

The connections between recent crime declines and political, welfare, and family institutions must be regarded as some-

what more tentative. Still, there is good evidence that public trust in political institutions is not experiencing the rapid declines that were common in the 1960s and 1970s. And it is clearly the case that there are currently no political protest movements in the U.S. with anything close to the level of intensity or commitment reached by the civil rights movement or the anti-Vietnam War protests. Changes in welfare support in 1996 may prove to be consequential, but their effects on crime rates can reasonably be expected to occur later, when automatic spending limitations are encountered. While there are few signs that family institutions are returning to the form they took in the 1950s, there are clear indications that family arrangements that would have been regarded with horror in the years directly following World War II, have now gathered much greater acceptance.

While any firm conclusions about the exact relations between these institutions and crime trends in the 1990s must await a far more detailed empirical analysis, institutions such as those examined here do seem to provide promising leads in our ongoing efforts to understand the crime bust of the 1990s.

TABLE 1. STREET CRIME RATES PER 100,000 U.S. INHABITANTS, 1990 AND 1996, UCR DATA.

Crime	1990	1996	Percent Change
Murder	9.4	7.4	-21.3
Rape	41.2	36.1	-12.4
Robbery	257.0	202.4	-21.2
Aggravated Assault	424.1	388.2	-8.5
Violent Crimes	731.7	634.1	-13.3
Burglary	1,235.9	943.0	-23.7
Larceny	3,194.8	2,975.9	-6.8
Motor Vehicle Theft	657.8	525.9	-20.0
Property Crimes	5,088.5	4,444.8	-12.6
Total Crimes	5,820.2	5,078.9	-12.7

Note: Data from U.S. Federal Bureau of Investigation, Uniform Crime Reports, Crime in the United States 1990, 1996. Washington, D.C. Government Printing Office, 1991, 1997.

TABLE 2. STREET CRIME RATES PER 1,000 POPULATION, AGE 12 AND OVER, 1990 AND 1996, NCVS DATA.

Crime	1990	1996	Percent Change
Rape	1.7	1.4	-17.6
Robbery	5.7	5.2	-8.8
Aggravated Assault	9.8	8.8	-10.2
Simple Assault	26.9	26.6	-1.1
Total Violent Crime	44.1	42.0	-4.8
Burglary	64.5	47.2	-26.8
Larceny	263.8	205.7	-22.0
Motor Vehicle Theft	20.6	13.5	-34.5
Total Property Crime	348.9	266.3	-23.7

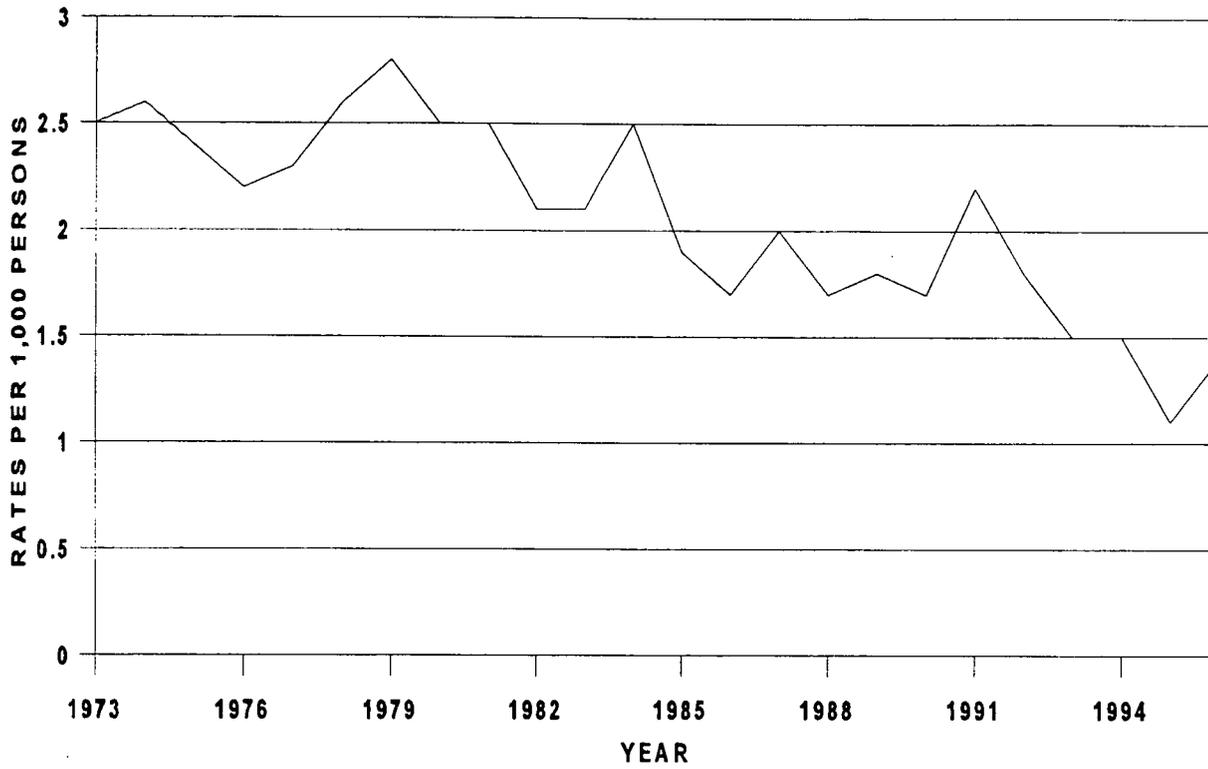
Note: Data for 1990 from M.R. Rand, J.P. Lynch, and D. Cantor, Criminal Victimization 1973 - 95 (1997); data for 1996 from C. Ringel, Criminal Victimization 1996 (1997).

FIGURE 5. EXPECTED LINKS BETWEEN INSTITUTIONAL LEGITIMACY AND DECREASING CRIME RATES.

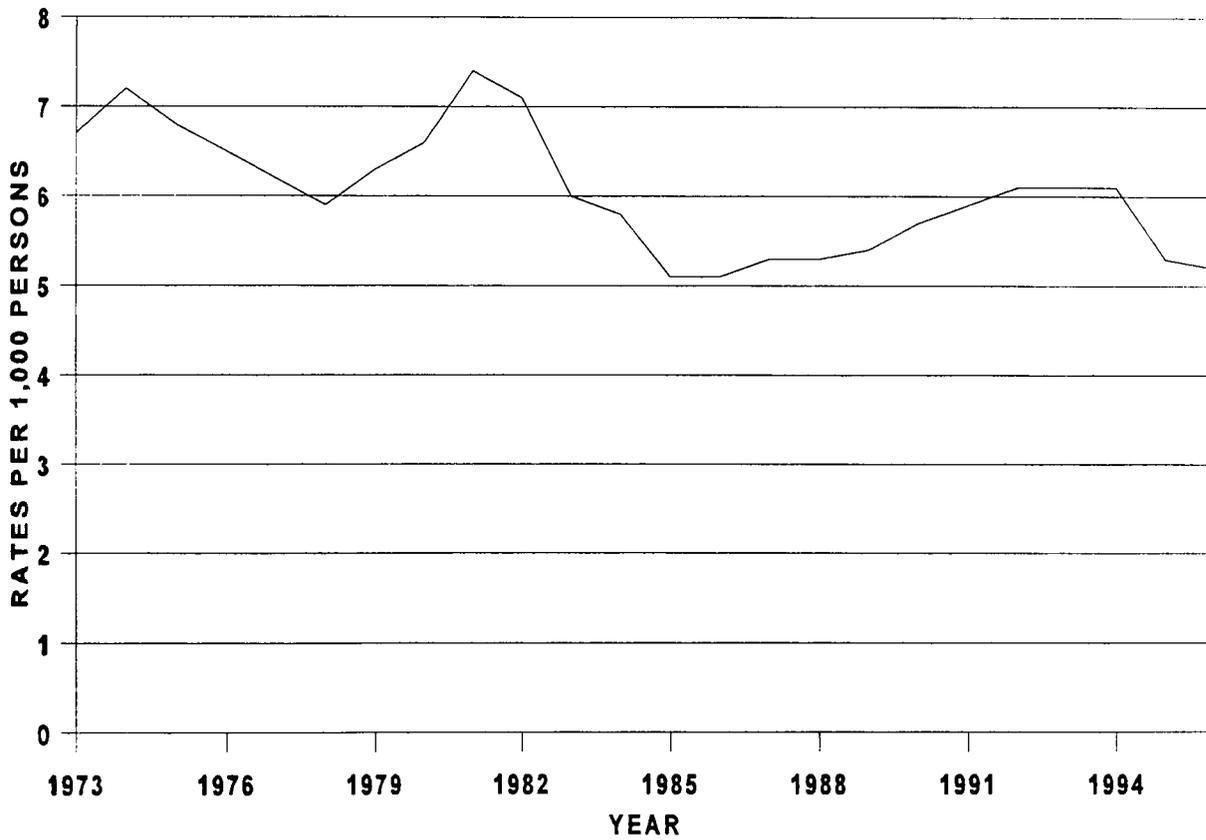
Political trust	Increasing
Criminal justice support	Increasing
Economic well being	Increasing
Welfare support	Increasing
Family organization	Increasing
Educational support	Increasing

FIGURE 1. VIOLENT VICTIMIZATION RATES PERSONS 12 AND OLDER, 1973-1996.

RAPE



ROBBERY



AGGRAVATED ASSAULT

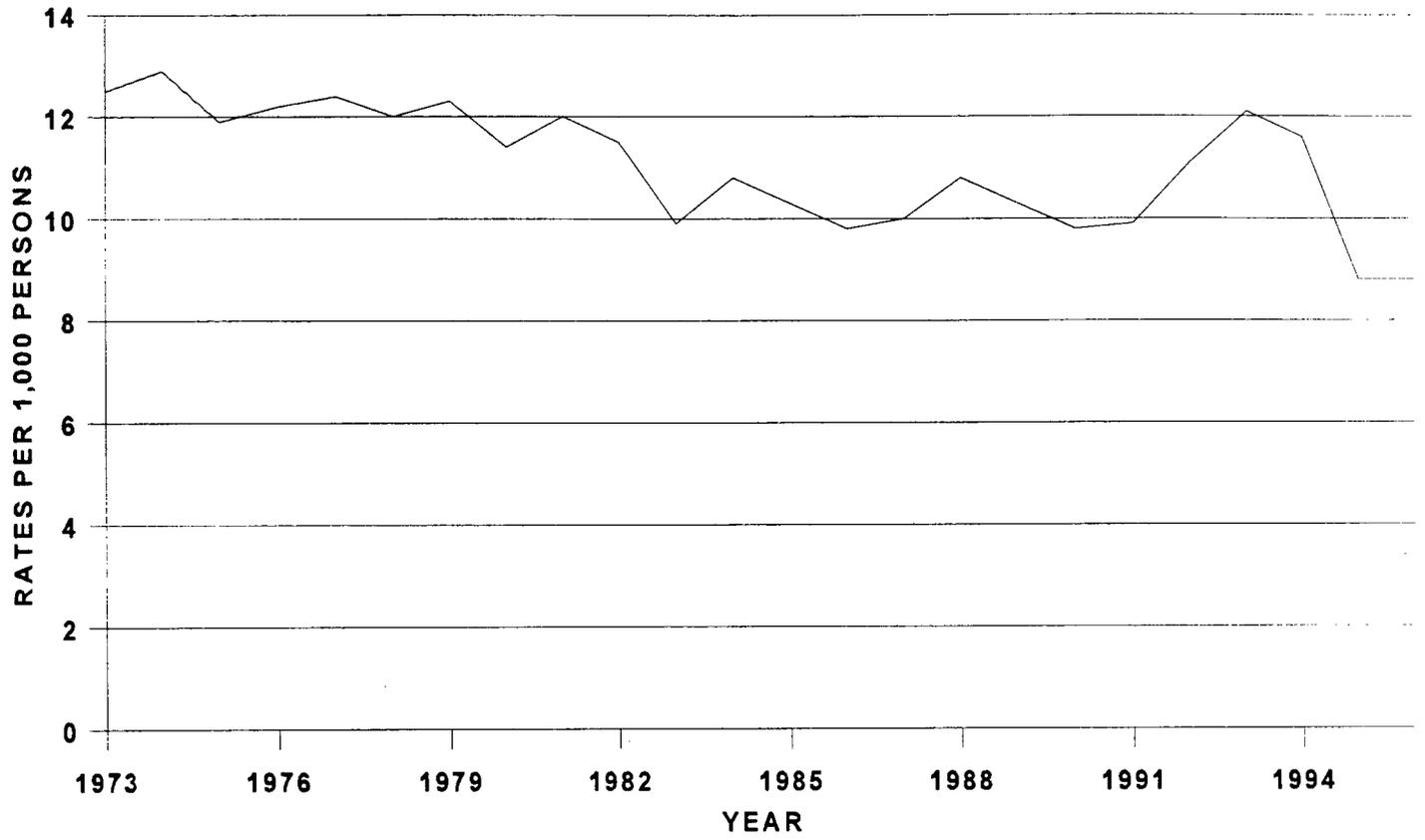
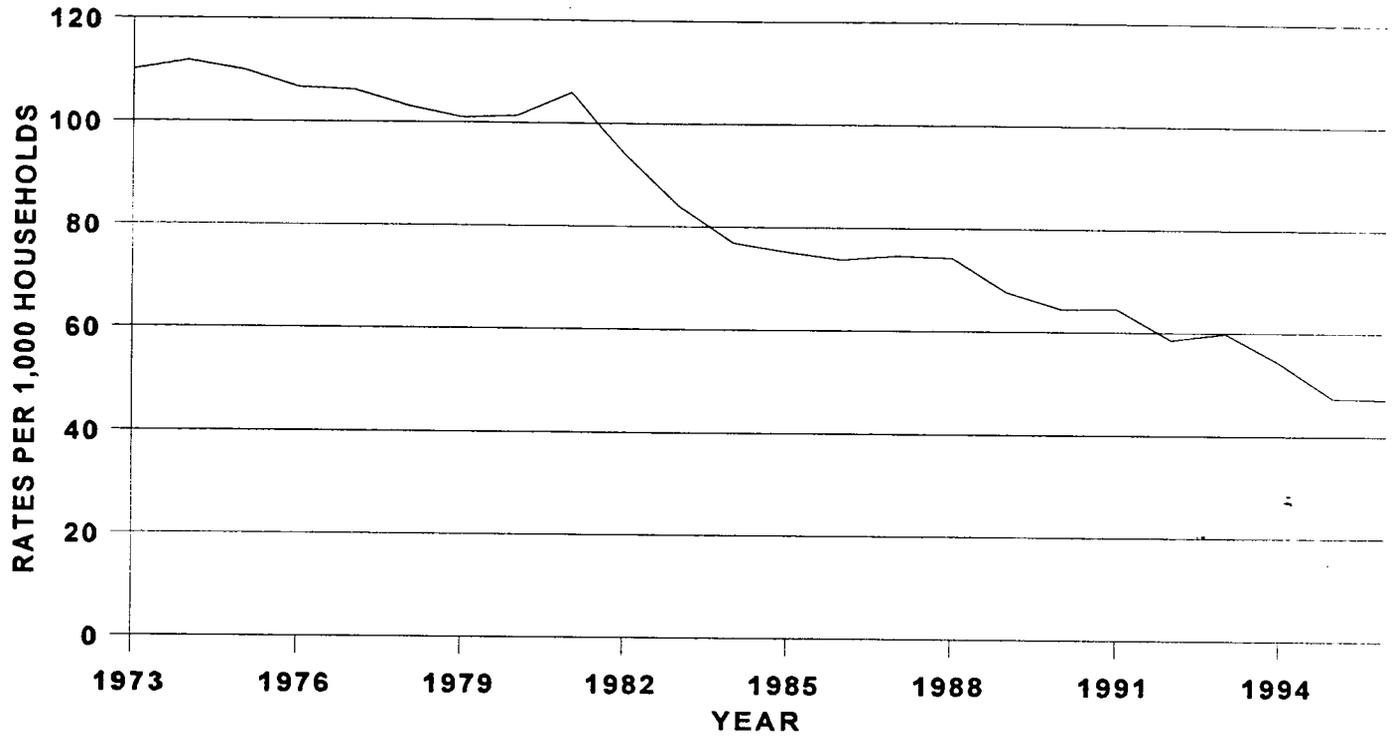
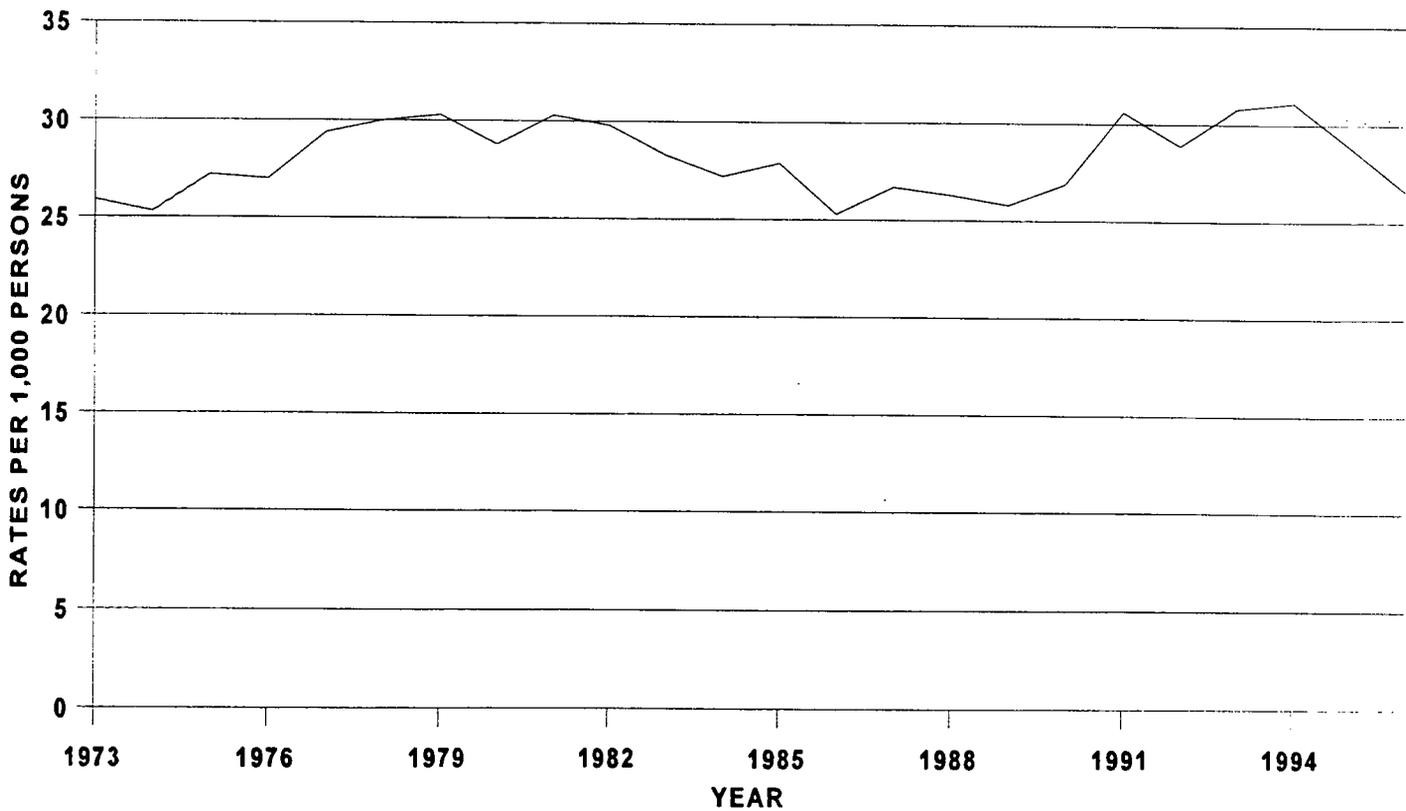


FIGURE 2. PROPERTY VICTIMIZATION RATES, 1973-1996.

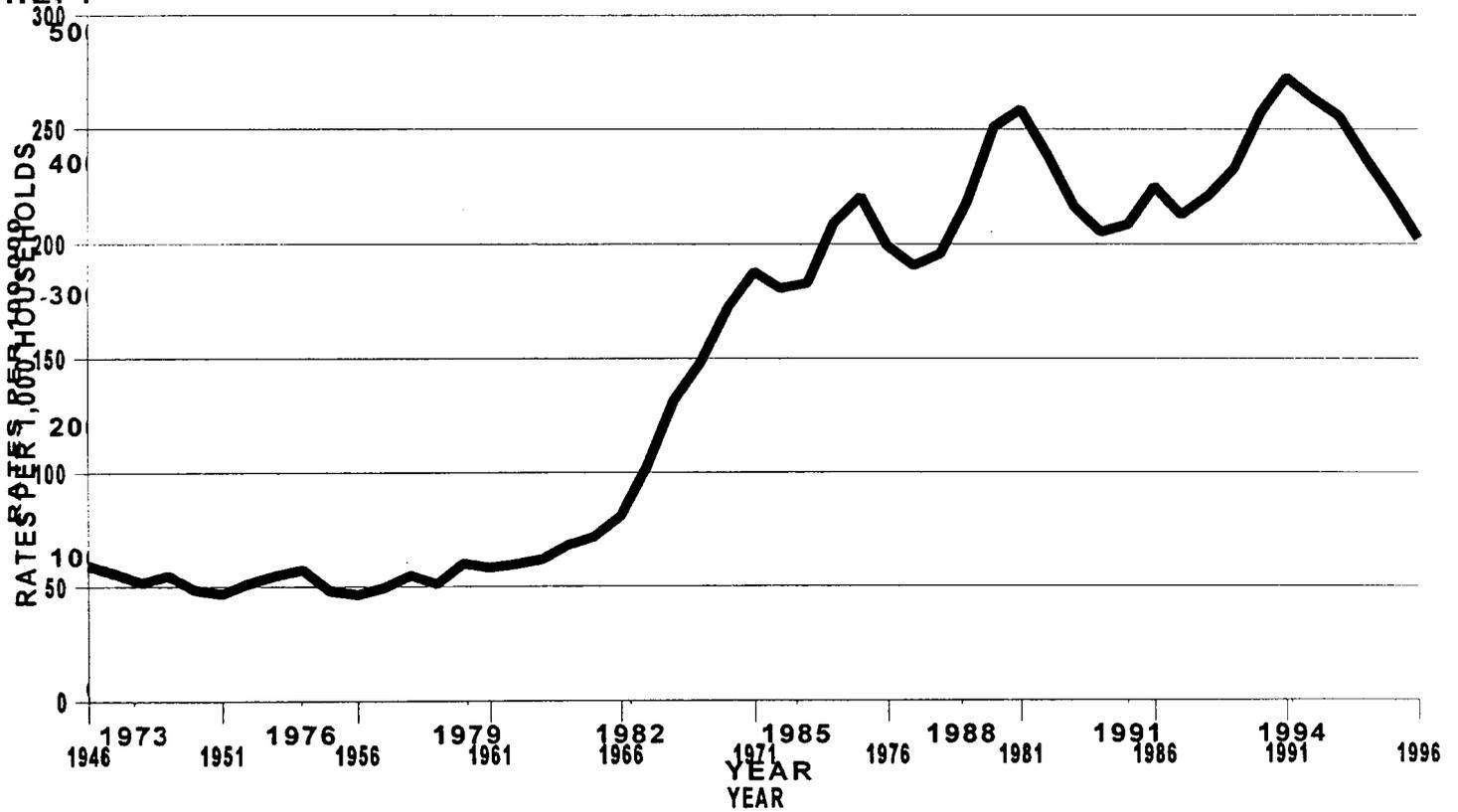
BURGLARY



SIMPLE ASSAULT



ROBBERY
THEFT



MOTOR VEHICLE THEFT

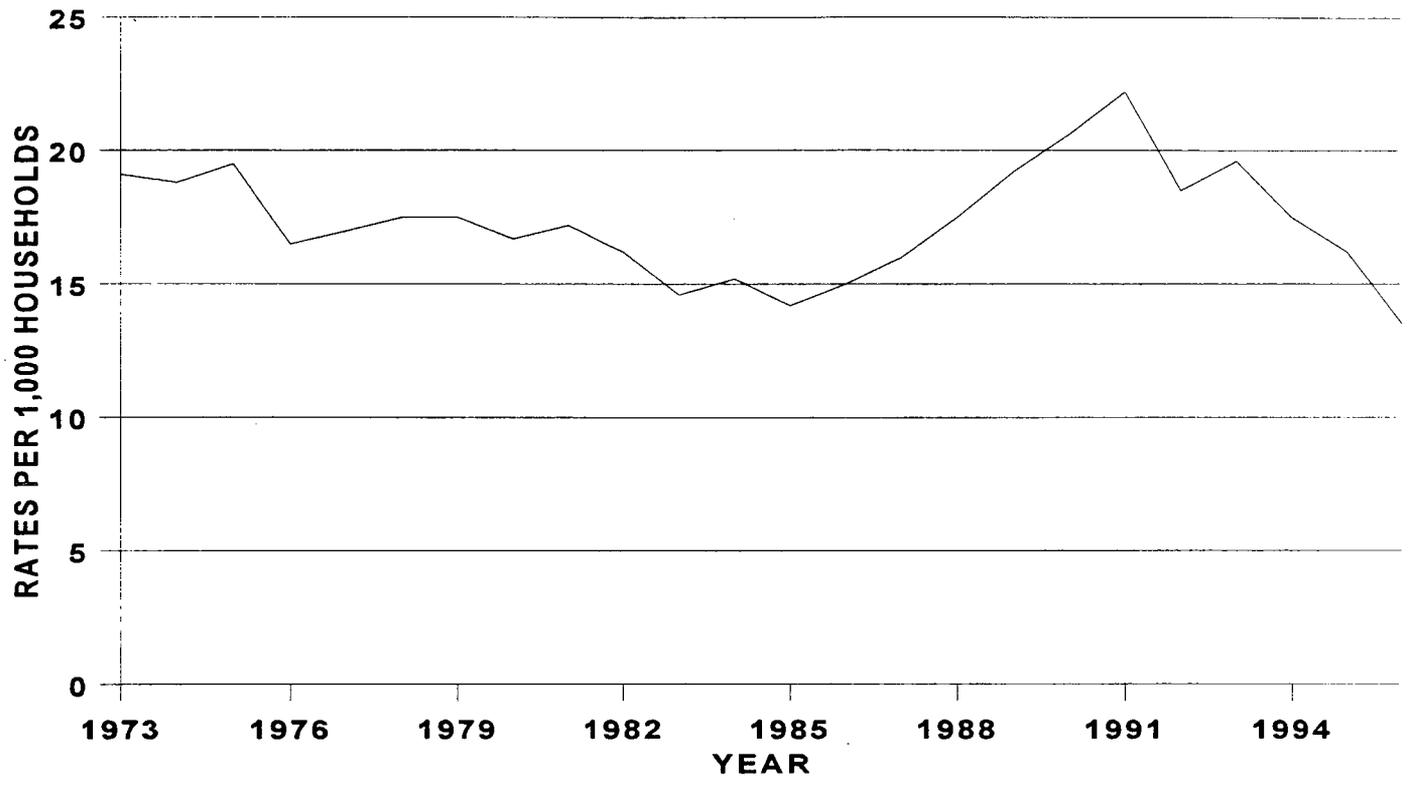
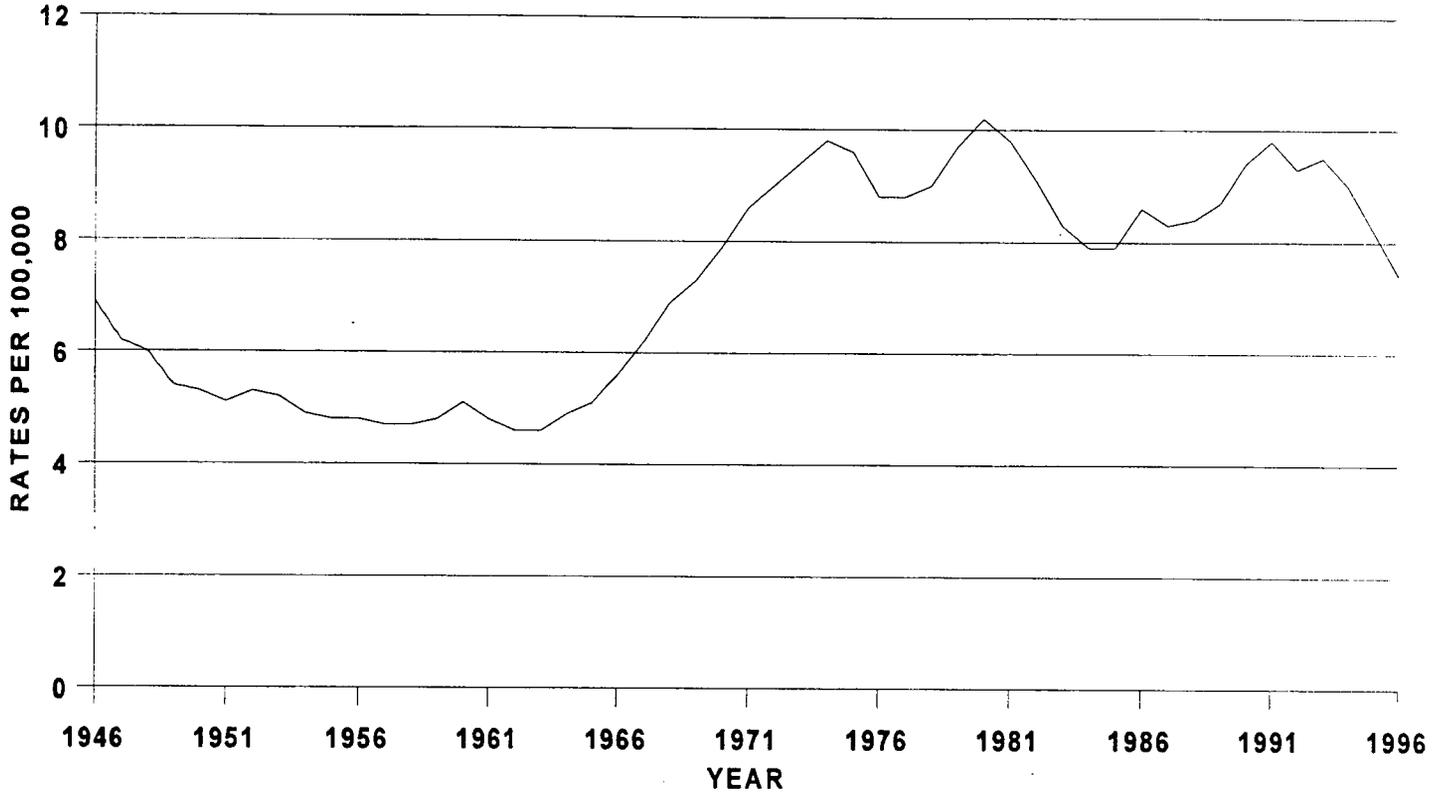
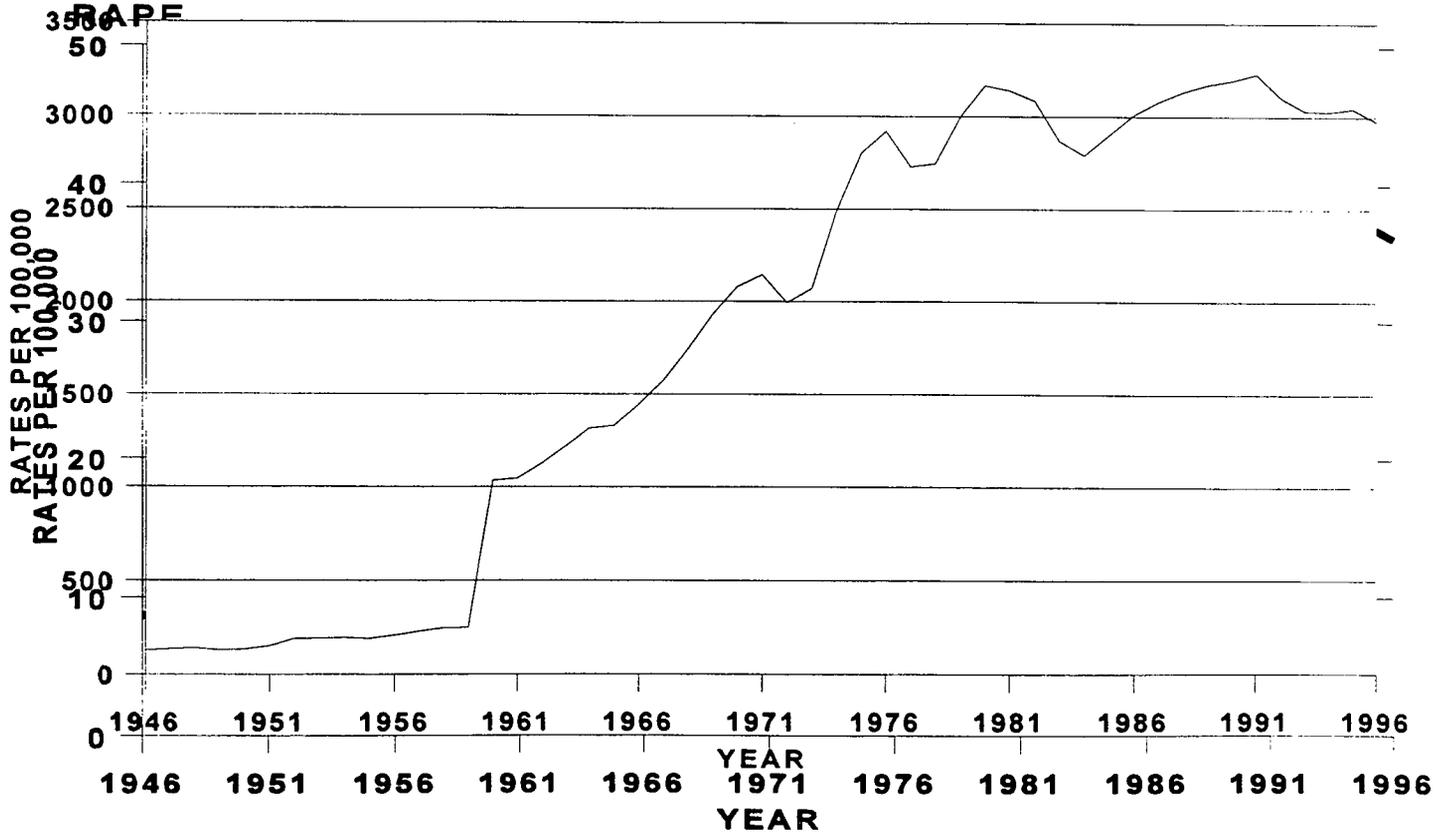


FIGURE 3. VIOLENT CRIME RATES, UCR, 1946-1996.

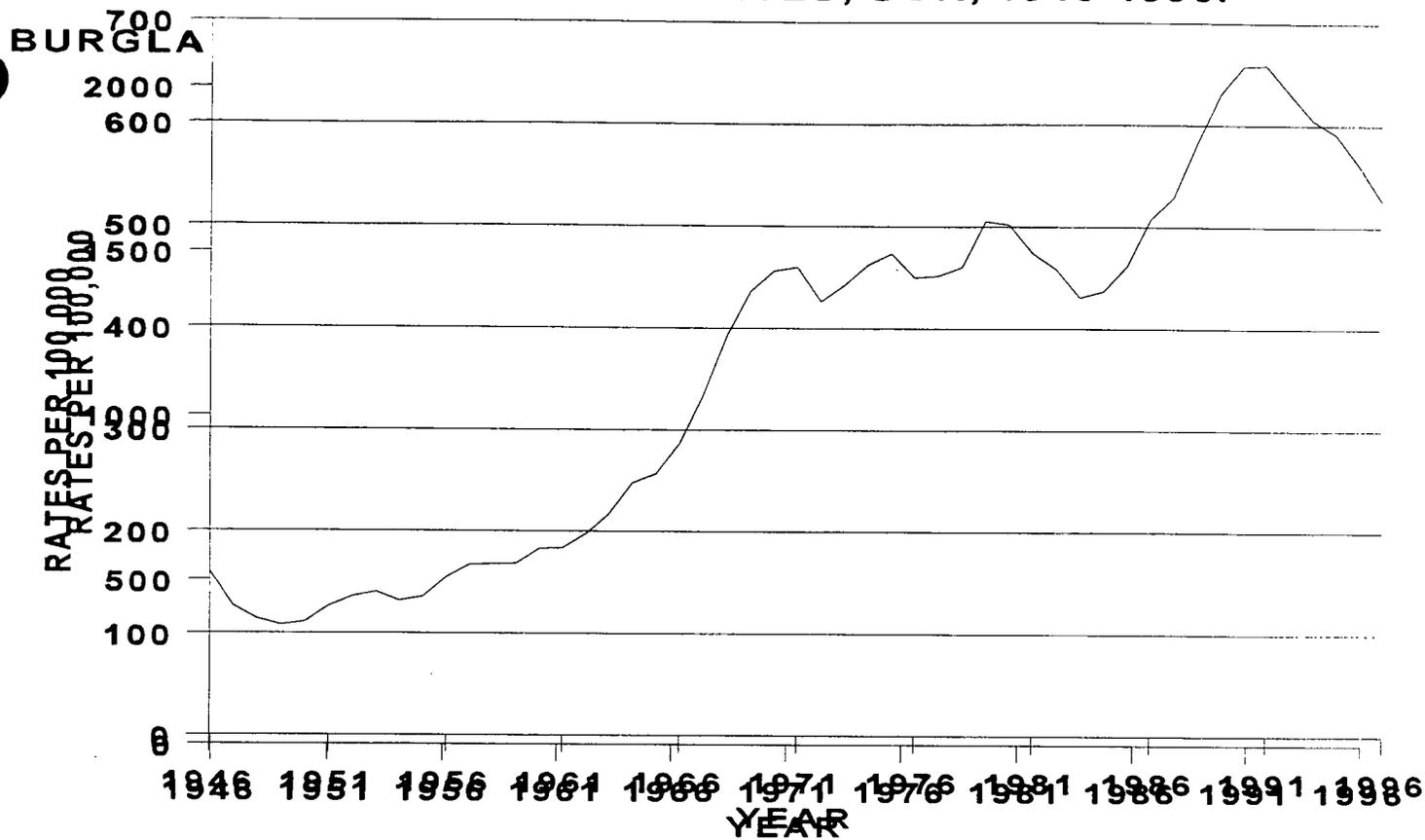
MURDER



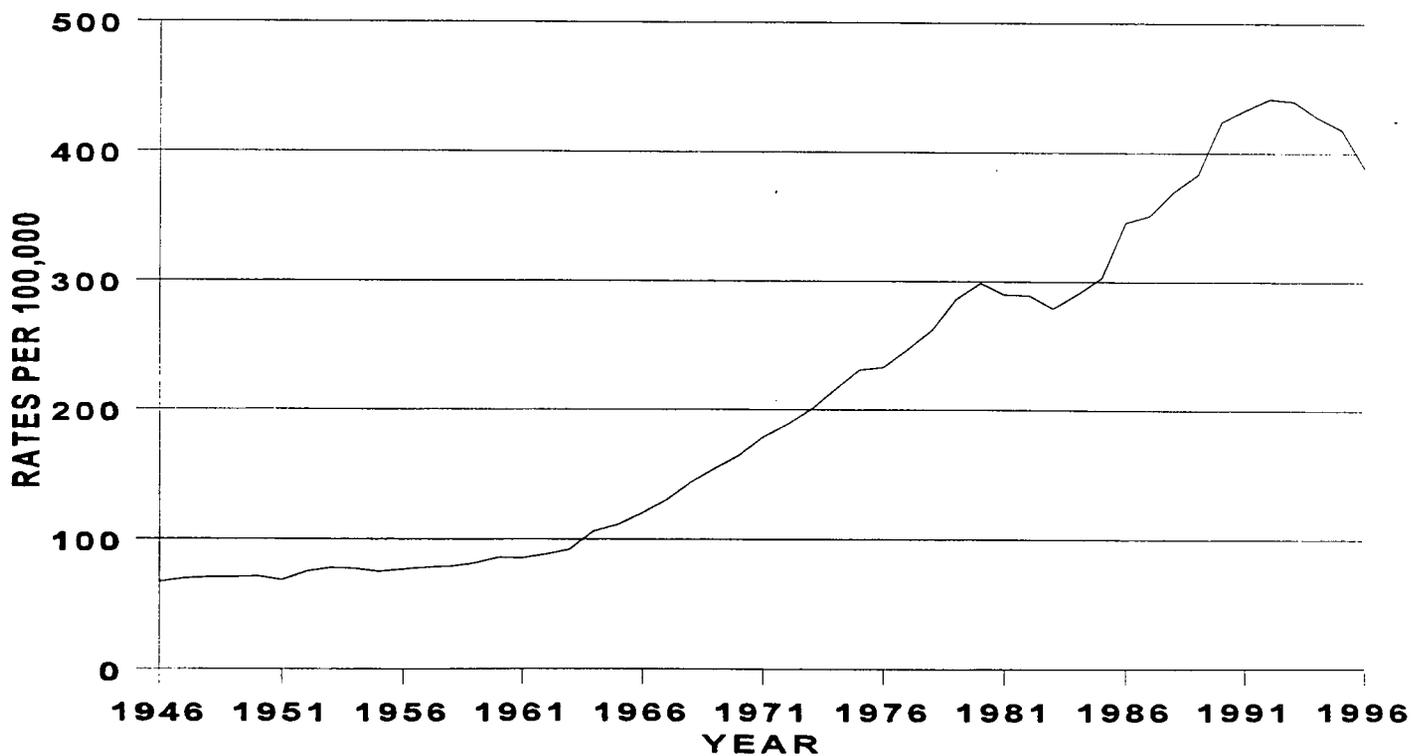
LARCENY



MOTOR VEHICLE THEFT
FIGURE 4 PROPERTY CRIME RATES, UCR, 1946-1996.



AGGRAVATED ASSAULT



UNDERSTANDING THE TIME PATH OF CRIME

JOHN J. DONOHUE*

With all of the random factors that influence the amount of criminal conduct, it is virtually impossible to fully explain or precisely predict the crime rate at any point in time. If the World Trade Center bombers had succeeded in their goal of toppling the massive towers, tens of thousands could have died in New York that one day in 1993. The nation's annual murder rate would have doubled or tripled from one incident. Fortunately, such extreme catastrophes are rare—the comparatively minor but still horrific killing of 168 residents of Oklahoma city in 1995 was too small against the background of 21,600 murders across the nation to have a pronounced effect on the U.S. murder rate in that year.¹ There will always be random events that escalate the rate of crime, such as innovations in illegal drug markets, and, similarly, random events that tend to depress it, such as bad weather (it keeps the criminals at home), charismatic religious leaders, or widespread reductions in enthusiasm for illegal drugs.

The primary goal then, in understanding the long-run trends in crime and what is likely to happen in the future, is to take one's focus off the short-term fluctuations so one can identify the stable long-run patterns. Distinguishing stable trends from temporary fluctuations is essential to understanding how crime is affected by changes in criminal justice policy, as well as

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¹ BUREAU OF JUSTICE STATISTICS, U.S. DEP'T JUSTICE, SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS, at 106, tbl. 3 (1996) [hereinafter SOURCEBOOK].

by varying social, economic, and demographic influences. If we confuse fluctuations with trends, our predictions of where crime is headed can be wildly inaccurate, and our search for causal explanations of recent patterns can be very misleading. For example, as we reflect upon the exciting and salutary recent sharp drops in crime, it makes a huge difference whether these are just temporary improvements varying around a long-term unchanged trend or the signal of a precipitous and sustained improvement from the previous pattern of slow decline that has been operating for two decades. Similarly, in trying to explain the very recent sharp drops in crime, one must exercise care in attributing causal significance to forces, such as the sharply rising rate of incarceration, that have been operating relentlessly for a quarter of a century.

This paper, then, will attempt to sort out the long-term trends in crime over the last 50 years from the short-term fluctuations around those trends. As we will see, there have been two clear long-run trends in crime over the last half century: one involving sharply rising crime until the late 1970s, followed by the second, a period of slow decline over the next two decades. As one might expect, there have been considerable short-term fluctuations around the two long-run trends, and indeed, the later period has experienced greater variability in crime around the long-term declining trend than had been the case during the initial period of the rising secular, or long-term, trend in crime.² Section I documents these broad patterns, and discusses how they illuminate the issues of why crime has fallen and where it is likely to be headed in the future. Section II builds upon this discussion to show that increased levels of incarceration and favorable demographic shifts contributed to the slow decline in crime over the last two decades, but cannot explain the sudden drop in crime in the mid-1990s after the abrupt increases in crime of the late 1980s. The reasons for the

² No one appears to have commented on the increase in the variability of crime over the last twenty years. Conceivably, the policy of massive incarceration could have been a destabilizing influence that leaves a community more vulnerable to pernicious influences such as the crack epidemic. Perhaps, too, there is some factor that makes crime less variable when it is rising rapidly, as it did prior to 1977.

short-term fluctuations are probed and various positions that were advocated during the conference are evaluated. Section III concludes by noting that the growing cost of incarceration suggests that, at some point, the public will call for an end to further *increases* in the number of prison inmates. Since increasing incarceration, more police, and favorable demographics have been modestly offsetting the influences pushing towards higher crime, when the increases stop and the demographic trends turn unfriendly (as they now have), crime will begin a slow secular rise for the first time in two decades, unless some other force (better policing strategies, effective social programs) controls crime or the unknown long-term criminogenic forces in society (the breakdown in the family, pernicious media influences, declining schools, growing drug use and drug markets?) abate.

I. THE PATTERN OF HOMICIDES OVER THE LAST HALF CENTURY

A. DISTINGUISHING LONG-TERM TRENDS AND SHORT-TERM FLUCTUATIONS

Because of the poor quality of the data published by the FBI over the last half century, it is very hard to provide a comprehensive and accurate assessment of the long-run patterns of all aspects of crime. It is possible, though, to focus on the one crime—murder—that is well measured, and for which a reliable long-term time series can be created. While homicide data may not be perfectly reflective of the time trend in all crimes, it does seem to follow the pattern of most other street crimes fairly well during the recent periods when more accurate data is available for these other crimes.³ Thus, while murder may not be a per-

³ Blumstein and Rosenfeld show that murder and robbery rates (as measured by the Uniform Crime Reports (UCR)) track each other quite closely over the last two decades. Alfred Blumstein & Richard Rosenfeld, *Explaining Recent Trends in U.S. Homicide Rates*, 88 J. CRIM. L. & CRIMINOLOGY [page], [pinpoint] fig. [#] (1998). Gary LaFree also finds that the recent decline in murder rates has also been replicated for other crimes. He concludes that "data from the UCR and the National Crime Violence Statistics (NCVS) strongly support the conclusion that there have been substan-

fect proxy for crime, it is simply the best we have. For the rest of this paper, then, I will rely on murder data to define and explain the broad patterns in crime over the last five decades. Figure 1 plots the national homicide rates from 1950 through 1997.

FIGURE 1 GOES ABOUT HERE

National crime patterns can be thought of as being composed of long-term trends and short-term fluctuations around these long-term trends. Figure 1 also plots two trend lines (the predicted murder rates), which reveal that from 1950 to 1977 the murder rate rose at an annual rate of 4.4%, and from 1977 through 1995 it fell at a rate of roughly 0.6%.⁴ At the same time, there has been substantial deviation around the trend. Over this forty-eight year period, the two predicted homicide trend lines explain almost two-thirds of the variation around the mean national murder rate of 7.32 per 100,000. Thus, analysts need to find explanations for both the two long-term trends—one strongly adverse for the period before 1977, and one mildly benign for the subsequent period—as well as for the variations above and below these trends.

This descriptive scheme aids in the process of explanation since it clarifies the need to find long-term explanations for the steady long-term trends in crime, and more episodic and variable explanations for the short-term variations about the long-term trends. For example, if one is trying to explain the post-1977 downward trend in crime, the sustained increase in incarceration rates over this period is certainly part of the explana-

tial, broad-based declines in street crime rates during the 1990's." Gary LaFree, *Social Institutions and the Crime "Bust" of the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY [page], [pinpoint] (1998).

⁴ The two trend lines, or predicted murder rate lines, were calculated by regressing the natural logarithm of the murder rate on two time trends. The highest adjusted R-squared value was obtained when the break in the time series came in 1977. The regressions were performed using the Hildreth-Lu correction for serial correlation. (When ordinary least squares regression was used, the break in the series came in 1978.)

tion. At the same time, this steady increase in incarceration is not a reasonable explanation for the sharp drop in crime that has occurred since 1993.⁵

B. WE CAN'T KNOW WHERE CRIME IS HEADING WITHOUT KNOWING WHY IT HAS FALLEN

Perhaps the most important lesson from Figure 1, though, is that the excitement over the prospect of a sustained sharply lower crime rate may be premature. Posit, for a moment, that the post-1977 linear predicted homicide rate truly represents the current long-run trend in crime. In this event, we can obviously be happy that crime is headed downward, but the euphoria of the last few years must be tempered by the realization that the slope of the long-term downward trend is obviously much more gradual than that of the recent drop. We would achieve an enormous public policy victory if we could engineer a return to the low crime rates of the 1950s and early 1960s. But if the post-1977 linear time trend shown in Figure 1 accurately reflects the long-run trend in homicide, then it will be a very long time before that goal will be reached.⁶

I do not mean to be pessimistic, and I would love to think that we have entered a third phase in the post-World War II pattern of homicide, in which homicide rates will now be falling more sharply into the future. There are certainly reasons why any trend in crime tends to gain momentum.⁷ But as I look at

⁵ Of course, one could tell a tipping story in which the relentless pressure on criminals imposed by the steadily climbing rates of incarceration finally led to a shift away from criminal behavior. The evidence seems to suggest, however, that most effects on crime from more punitive forms of criminal justice come relatively quickly (although one must also concede that it is more difficult to tease out more delayed effects of policy from the imperfect data). See Steve Levitt, *Juvenile Crime and Punishment*, J. POL. ECON. (forthcoming Dec. 1998) (showing that a drop in crime comes immediately at the age of majority, in response to the greater severity of punishment).

⁶ The murder rate in 1965 was 5.1 per 100,000. If the post-1977 linear trend were to continue, the murder rate would not fall to this level until the year 2084.

⁷ If crime is decreasing, one would expect, at least over some period of time, there would be an increasing rate of police presence per unit of crime, which would increase the likelihood that criminals would be caught. Moreover, those criminals who are convicted might well face a greater likelihood of receiving a long prison sentence, since the prison cells are already built and might as well be used. Moreover, many

Figure 1, I cannot rule out the possibility that the last five years are similar to the first five years of the 1980s. If so, then we would expect that the present period of rapidly declining murder rates will be followed by an increase, as the national homicide rate returns to its more gradual long-run pattern of decline. In a few years, of course, we will have a better answer to this question: if the crime rate continues to fall at its current rate, then it will likely mean that there has been some shift in the fundamentals of homicide, instead of a benign short-term variation about the unchanged post-1977 long-run trend.⁸

1. Alternative Time Paths of Crime

Of course, there is nothing set in stone about the way that I have modeled the last half century of homicide rates as having an upward trend before 1977 and a downward trend thereafter. I simply allowed the data to have one break in the series, and then found the line of best fit across all possible years in which the break could occur. Thus, the statistical data indicate that if there is to be only a single break in the time trend, this break occurred in 1977. But two qualifications should be mentioned. First, it is conceivable—as some commented at the conference—that homicide rates over the last fifty years are better explained by a single curvilinear trend rather than by the two linear trends shown in Figure 1. Figure 2 graphs just such a quadratic equation.

FIGURE TWO GOES ABOUT HERE

If Figure 2 depicts the true core pattern of homicides, then it is apparent that homicide rates will be restored to the low levels of the early 1960s fairly quickly. In fact, the Figure 2 predicted the homicide rate would fall to the 1965 level within five

individuals decide what practices to engage in by observing the behavior of others. If fewer people are committing crimes, there will be fewer negative role models and perhaps a greater social disapproval of crime in general. See Dan Kahan, *Social Meaning and the Economic Analysis of Crime*, J. LEGAL STUD. (forthcoming 1998).

⁸ Note, also, that our estimate of the post-1977 trend itself would be affected by additional drops in the crime rate. In other words, if crime drops for another few years, the estimated long-run decline would be steeper than we believe today.

years.⁹ The reason for this sharply different prediction is that the predicted homicide-rate curve in Figure 2 gives far greater weight to the observed sharply downward trend in crime over the last few years. But visual inspection suggests that the predicted homicide-rate curve in Figure 2 does not conform to the data nearly as well as the predicted homicide-rate curve in Figure 1. In fact, the adjusted R-squared value of the Figure 2 curve is less than half the value of the predicted homicide-rate curve in Figure 1, which suggests that the Figure 1 curve is far more reliable.

2. *Has a Third Linear Trend in Crime Emerged?*

We have just concluded on the basis of statistical grounds that the pattern of homicides over the last half century is better explained by two linear time trends than by a single quadratic equation. But two other options should also be considered. The Figure 1 analysis implicitly assumes that there is a fundamental trend in crime and then some random variation about that long-term trend. In this view, the recent drop in crime is simply a benign movement around the long-term trend, which means that one should expect a return to the long-term path of crime in the next few years. Nonetheless, it is also possible that the fundamental trend in crime itself has been altered (as it was once before in the last fifty years—in the late 1970s). In this event, an additional break in the post-1977 linear trend reflecting a much faster downward movement in crime would have recently emerged. The explanation for any such fundamental shift must then come from some *recent* change in the circumstances that influence crime. Accordingly, any explanation based on a factor that has operated for decades—such as increasing incarceration or gradual long-term changes in major social institutions—cannot be the source of such a recent shift (barring some tipping model story that the sustained pressure “broke the back of crime”). One candidate that conceivably could explain the benign fundamental shift is that the police have recently discovered and implemented a more effective ap-

⁹ This equation predicts that in the year 2002, the murder rate would fall to 5.1 per 100,000, which was the level in 1965.

proach to law enforcement. This is frequently offered as an explanation behind the dramatic recent drops in crime in New York.¹⁰ If such an improvement has occurred, the spreading of these crime-fighting approaches to other jurisdictions could enable further sharp drops in crime to be achieved.

But even if a third more sharply declining long-term trend has begun, it would not "confirm widely reported evidence of a dramatic reversal in the nation's long-term trends in crime."¹¹ Rather, it would show that the two-decade-long slow reduction in crime had been replaced by a faster decline at the same time that a short-term spike in crime was being reversed.

3. *A Discontinuous Drop in Crime?*

Another possibility, however, is that the slope of the long-term trend in homicide has *not* changed but that crime has suddenly dropped down to a lower level by virtue of some one-time but continuing benign influence. In this event, the homicide rate would continue to decline at the roughly 0.6% rate per year shown in Figure 1, but this slow decline would start from the actual 1997 below-previous-trend level of 6.7 per 100,000 (rather than the predicted level of 8.4 per 100,000). This discontinuous drop in crime that starts around 1993 conceivably could be caused by a sudden event such as a sharp increase in the number of police. Such an increase could induce a drop in crime, but would probably not cause crime to continue falling at the same unusually precipitous rate of the last few years. This is of course a more optimistic story than the one suggesting that regression to the long-term trend will lead to crime increases in the next few years, but it still implies that we are a long way off from the lower-crime days of the 1950s and early 1960s. Indeed, if this were the truth path of crime, then the homicide rate would still not reach the 1965 level of 5.1 per 100,000 for 48 years.

While it is possible that we have just experienced a discontinuous drop in crime, it is not clear that an increase in police

¹⁰ See, e.g. George L. Kelling and William J. Bratton, *Declining Crime Rates: Insiders' views of the New York City Story*, 88 J. CRIM. L. & CRIMINOLOGY —, — (1998).

¹¹ James Risen, *U.S. Violent Crime Drops Record 7%*, L.A. TIMES, June 2, 1997, at A1.

numbers is what caused the drop. The annual increases in the number of police do not seem to be large enough to generate a sharp drop after 1993. At least as far as one can tell from the FBI data, the rate of officers per 1000 residents in American cities was 2.2 in 1990, did not reach 2.3 until 1995, and was at 2.4 per 1000 as of Oct. 31, 1996 (the last date for which data are available).¹² These increases in the national counts of police seem too small to spur an abrupt recent drop in crime, although perhaps more recent data will better elucidate this issue. Conversely, in New York City, the increase in police in recent years was substantial enough and linked closely enough to the drop in crime to encourage the view that the increased number of police really did play a substantial role in New York City's dramatic crime reduction.¹³

C. SUMMARY

Based on this broad, initial assessment of Figure 1, the three most likely predictions about crime over the next decade, which I order from most pessimistic to most optimistic, are:

The Post-1977 Trend Continues: This is the most parsimonious story to emerge from Figure 1. If, in fact, nothing fundamental has changed, the long-run rate of homicides will continue to be dictated by the post-1977 linear trend line. In this scenario, crime is currently below its long-term trend rate, so one would expect that it will rise to return to the original trend line, with continuing oscillations around the slow downward trend. Consequently, the best estimate is that crime in ten years will be *higher* than it is today. The Figure 1 regression would predict that the homicide rate in 2007 would equal 7.9 per 100,000 inhabitants, while the actual value in 1997 was 6.7. Although the

¹² This data, which come from the Uniform Crime Reports, are problematic in that it is not recent enough to fully document the latest trend and it counts full-time police department officers for only those cities that report, which is not a constant sample over time.

¹³ Over the period from 1992 through 1996, the number of New York City police officers grew from roughly 28,000 to 37,000. This 31% increase in its police force was sizeable enough to be expected to have played a major role in the 51% decline in homicides over this same period. FBI UNIFORM CRIME REPORTS (1991-1996). See note 24, *infra*.

long-run trend in crime would be downward, it would continue falling at such a slow pace that the prospect of a return to the low crime rates of the early 1960s would be very distant.¹⁴

The Post-1997 Trend Continues Following the Discontinuous Drop in Crime. In this scenario, there has been a recent one-time jolt to the system that has dropped crime down to a lower-but-parallel trend path to that shown for the post-1977 period in Figure 1. In this event, the best estimate of the murder rate in ten years is 6.4 per 100,000 (down from the 1997 value of 6.7), but without further change in the trend, the country would not be restored to the 1965 level of 5.1 per 100,000 until the year 2037.

A New Long-Term Trend: In this final scenario, the crime reductions of the last few years have signaled a new benign trend, and crime will continue falling. Presumably, the drop would level off in the next five to ten years at about the level of four to five per 100,000 that we saw in the 1950s and early 1960s, which would imply that further substantial drops in crime await us in the next few years.

As we will see in Part II A below, there may be reasons to add to this list of plausible outcomes another, more pessimistic scenario, in which the future long-term trend will change, but for the worse.

II. APPLYING THE FRAMEWORK TO EVALUATE CAUSAL EXPLANATIONS FOR THE DROP IN CRIME

The framework developed in Section I can be usefully applied in evaluating some of the competing explanations that have been offered for the run up in crime in the late 1980s and the recent sharp drops in crime. The excellent papers by Alfred Blumstein and Richard Rosenfeld and by Jeffrey Fagan, Frank Zimring, and June Kim document two important findings that correspond closely with the Figure 1 story of a long-term post-1977 decline in homicide with substantial short-term fluctua-

¹⁴ The projected return to the 1965 level would be in the year 2084, which is so far off that the likelihood that the trend would continued unchanged for that long seems extremely remote. See *supra* note 5 and accompanying text.

tions around this trend.¹⁵ First, there has been a steady drop in non-gun homicides and homicides by adults.¹⁶ Second, beginning in the mid-1980s, gun homicides by juveniles skyrocketed, and after about 1993, they fell sharply.¹⁷ The first of these findings corresponds with the long-term post-1977 decline in homicides depicted in Figure 1, and the second of these findings explains the sharp run up in homicides in the late 1980s and then the sharp run down in the mid to late 1990s.

A. THE EFFECTS OF INCARCERATION AND DEMOGRAPHICS ON THE LONG-TERM TRENDS IN HOMICIDE

These facts can guide our understanding of the causal patterns of the post-1977 trend and the short-term fluctuations in homicides. As we saw in Figure 1, crime was rising at a robust level starting in the mid-1950s, but for almost two decades there was virtually no increase in incarceration in response to this higher level of crime.

FIGURE THREE GOES ABOUT HERE

Indeed, as Figure 3 reveals, from 1967 through 1973 the rates of incarceration were below 100 per 100,000 for the only time in the last half century. The strong anti-incarceration sentiment in the late 1960s and early 1970s succeeded for a time in reducing the prison population at a time of enormous growth in crime.¹⁸ Beginning in 1974, however, a sharp and unrelenting upturn in incarceration began, and we are now at a historically unprecedented level of roughly 450 inmates for every 100,000 individuals in the country.

Within a few years after 1977, the aging of the baby boom cohort also contributed to the slow long-term decline in homi-

¹⁵ Blumstein & Rosenfeld, *supra* note 3; Jeffrey Fagan et al., *Declining Homicide in New York City: A Tale of Two Trends*, 88 J. CRIM. L. & CRIMINOLOGY [page] (1998).

¹⁶ Blumstein & Rosenfeld, *supra* note 3.

¹⁷ *Id.*

¹⁸ Figure 3 documents the reduced reliance on incarceration at a time when Figure 1 shows crime was rising sharply.

cides.¹⁹ Today, the cohort aged thirty-six to forty is the most plentiful five-year age span in America.²⁰ If one thinks of the five-year span from age eighteen to twenty-two as the peak years of crime, then it was eighteen years ago that demographics started to operate in favor of crime reduction. Steve Levitt notes that after twenty years of adverse demographic influences, murder rates between 1980 and 1995 fell 8% due to the changing age structure of the U.S. population (when the total decline in murder rates was 20%).²¹ But the benefit of a roughly 0.5% per year drop in murder rates owing to demographic shifts has now ended. From 1995 through 2010, demographics should play little role in aggregate U.S. homicide rates.²²

The basic story then is that sharply increasing incarceration rates that lagged the sharp growth in crime succeeded by the late 1970s in altering the trend path of crime, and that the resulting new slow downward trend was sustained by continuing sharp increases in incarceration and benign demographic shifts. With the prison population rising at roughly 6.6% per year since 1974, crime might be expected to fall by roughly 1% per year.²³ These facts suggest that the prediction that the slow post-1977 downward trend will continue may be somewhat optimistic. Given the high expense and diminishing marginal returns of

¹⁹ Steve Levitt, *The Limited Role of Changing Age Structure in Explaining Aggregate Crime Changes*, CRIMINOLOGY (forthcoming 1999).

²⁰ *Id.*

²¹ From 1960 through 1980, the murder rate grew by 20% owing to the changing age structure (when the total increase in murder rates was 101%). *Id.*

²² The reason for this result is that while the proportion of Americans aged 15-24 will be rising, the proportion aged 25-39 will be declining and the proportion of elderly Americans will grow. The net effect of these conflicting influences on crime will be roughly zero. *Id.* at 10. It is possible that the effect of the changing age structure could be modestly worse than Levitt suspects since he does not separately analyze the influence of race. At present, the increase in the size of the highest-crime age cohort is roughly 1% per year for whites, but almost double that for African-Americans (who have far higher murder rates than whites). See Blumstein & Rosenfeld, *supra* note 3, at [page].

²³ I estimated the growth of the prison population in the same fashion that I estimated the growth in the homicide rate. See *supra* note 3. The prediction that the increasing incarceration reduced crime by about 1% per year assumes that the elasticity of crime with respect to incarceration is roughly 15%. See John J. Donohue III & Peter Siegelman, *Allocating Resources Among Prisons and Social Programs in the Battle against Crime*, 27 J. LEGAL STUD. 1, 13 (1998).

increased incarceration at this point, it is hard to imagine that the prison population will grow much further in the future. Moreover, the roughly 0.5% per year downward pressure on crime from the baby bust is now over. Certainly, if the two major long-term influences acting to depress crime over the last two decades are removed without the introduction of other crime-reducing influences to replace them, then even the modest long-term downward trend is threatened. Recall that this post-1977 downward long-term trend has been roughly 0.6% per year.²⁴ When increasing incarceration was dampening crime by roughly 1% per year and demographics were dampening crime by another 0.5% per year, crime was only falling at 0.6%.²⁵ If the *increase* in incarceration were to stop during a period in which demographics are no longer diminishing crime (and possibly increasing it), it would not be surprising that even the slow, post-1977, downward trend in crime would be imperiled.

B. EXPLAINING THE FLUCTUATIONS OF THE LATE 1980S AND 1990S

1. *The Rise of the Late 1980s*

Section A above showed how increasing levels of incarceration and favorable demographic trends contributed to the slow, post-1977, secular decline in crime. These fairly steady influences cannot explain the sharp run up in crime that begins in the second half of the 1980s or the equally sharp decline that begins around 1993. It seems fairly likely that the introduction of crack cocaine and the ensuing battle for control over its distribution during a period of strong anti-drug law enforcement explain the crime increase starting in 1986. Indeed, in retrospect, it seems clear that the pattern of increasing juvenile crime

²⁴ See *supra* text accompanying note 4.

²⁵ Note that in the post-1977 period, increasing incarceration, increasing police forces, and favorable demographic shifts all operated to reduce crime. The first of these three effects *alone* is predicted to have reduced crime by roughly 1% per year, while overall crime fell at only 0.6%. This implies that other long-term factors must have been operating to *increase* crime. It is also worth speculating whether the estimated effectiveness of incarceration as a crime control strategy has been diminishing over time as the percentage of the prison population made up of drug offenders and older prisoners (as a result of longer sentences) has risen.

and gun violence was the direct result of these factors. The introduction of a highly lucrative illegal product required the development of a vast distribution network involving hundreds of thousands of sales workers. At a time when intense incarcerative pressure was being applied to adult offenders and a booming economy was creating a relative labor shortage, it was not surprising that the group with the fewest options in the legitimate economy and the least to lose from the criminal justice system—young, inner-city African-American males—would be drawn into the drug trade. Moreover, the recruitment of vast numbers of young drug sellers, coupled with a great need for continuing replacement as the prisons swelled with those convicted on drug charges, together contributed to an environment where the growth of gun violence was entirely predictable. Young boys carrying large sums of illegally obtained cash need to find some way to protect themselves from older predators (and each other), and handguns are simply the logical answer.

In the late 1980s, the magnitude of the cocaine market was estimated to be as high as \$60 billion per year.²⁶ Reasonable assumptions about the relative sizes of the shares of capital and labor in this industry suggest that the need for workers in such a large industry would be substantial.²⁷ Between 1987 and 1991, the number of adults in jail or prison grew by roughly 400,000, of which approximately 220,000 were African-American and

²⁶ See Figure 4.

²⁷ A reasonable estimate of the labor share of output for a legitimate business might be 75%, which, if applicable to an illegal industry, would mean that roughly \$45 billion could be labor's share of the drug market. Even if the illegal nature of the industry would lead to highly skewed earnings and only half of this amount was paid to workers, the total number of drug workers would still be very high. To get a crude sense of how many workers this might entail, one might estimate the average earnings of a full-time drug worker to be about \$24,000 per year. (The best study on this issue estimates that full-time drug dealers earn about \$2,000 per month, on average. PETER REUTER, ROBERT MACCOUN, AND PATRICK MURPHY, *MONEY FROM CRIME: A STUDY OF THE ECONOMICS OF DRUG DEALING IN WASHINGTON, D.C.*, 49 (Rand 1990). This would imply that the number of full-time workers in the cocaine trade would be close to one million workers. Of course, some of these workers were involved in the production phase of the cocaine trade outside the United States, and some were involved with the existing powder cocaine trade prior to the introduction of crack. But since many of the workers involved in crack distribution did not work full time, it is apparent that there was a huge increase in demand for low-skilled labor in urban areas to work in the illegal crack trade. *Id.* at xii.

150,000 were white.²⁸ Moreover, from 1985-1990, the booming economy led to a shrinkage of almost 500,000 in the number of whites aged sixteen to twenty-four who did not have legitimate jobs.²⁹ With the growing crack trade needing literally hundreds of thousands of workers, almost 400,000 adult drug dealers or possible recruits hauled off to prison or jail, and 500,000 previously unemployed young whites now employed in legitimate activities, it is not surprising that a significant percentage of the roughly 1.3 million African-American males aged fifteen to nineteen were pulled into the crack trade.³⁰ Once juveniles had a strong need for guns, the guns came, and the rest of the story is quite predictable—juvenile gun deaths soared, particularly among African-Americans.³¹

2. *The Recent Fall in Crime*

While we can tell a plausible story about why crime rose in the late 1980s, it is much more difficult to explain why it suddenly started back down. We have already seen that incarceration, demographics, and greater numbers of police are not likely to be important elements of the story. This leaves us with the following array of explanations for the crime reduction of the 1990s: a shrinking drug trade; increased police effectiveness; declining alcohol use; or improving social/economic forces, such as the booming economy (since 1992), increased trust in government, or strengthened community institutions. We will discuss these issues in turn.

a. *Shrinking Illegal Markets for Drugs*

Figure 4 shows that the size of the cocaine and heroin markets, as measured by total expenditures on these drugs, has fallen sharply since the peak years of the late 1980s.

²⁸ SOURCEBOOK, *supra* note 1, at tbl. 6.12.

²⁹ U.S. BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES: 1997, tbl. 652 (117th ed. 1997).

³⁰ In 1990, the number of African American males aged 15-19 was 1.326 million. *Id.* Crack was the great inner-city jobs program of the late 1980's.

³¹ Alfred Blumstein, *Youth Violence, Guns, and the Illicit-Drug Industry*, 86 J. CRIM. L. & CRIMINOLOGY 10, 26-32 (1995).

FIGURE FOUR GOES ABOUT HERE

This suggests a neat story in which the burgeoning crack trade increased crime in the late 1980s and the subsequent decline in this trade led to the subsequent drop in crime. But there are two problems with the story. First, the drop in total expenditures on cocaine started too early for this factor to explain the sharp downturn in crime that started in 1993. Most of the decline in the crack trade came before 1993. Second, while total expenditures on cocaine have fallen, Figure 5 shows that the actual volume of cocaine used has been steady from 1990 through 1995.

FIGURE FIVE GOES ABOUT HERE

The declining price at a time when total consumption is steady suggests that the supply and demand curves have both shifted in the direction of lowered price (*i.e.*, they both shifted down) with the offsetting effect being that the quantity consumed remained steady. The outward shift in the supply curve seems most plausibly to have resulted from the rationalization of the distribution system. Perhaps the gangs were able to divide the territory in a way that reduced warfare and facilitated lower costs of production.³² The reduced demand would likely be the

³² Richard Curtis states that "The configuration of the drug markets in the mid-1990s appreciably reduced the level of neighborhood violence. As distribution retired indoors, turf battles were eliminated, and since organizers of drug businesses hired a few trusted friends rather than easily replaceable workers, there was less conflict between them. Distributors were robbed by users less frequently because they were more protected selling indoors to known customers." Richard Curtis, *The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs and Youth in the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY [page, pinpoint (about 38 pages in)] (1998). One factor that could have allowed these cheaper modes of operation for drug dealers was the declining number of occasional users of cocaine. The Office of National

product of learning about the harmful effects of the drug, as well as various policy measures designed to discourage consumption. While admittedly the data about the drug trade may be too inaccurate to rely upon, it doesn't provide a simple story that coincides nicely with the *drop* in crime (even though the expanding drug trade and the consequent arming of urban juveniles does explain the initial increase in the second half of the 1980s).³³

Note, too, that if the drug data is to be believed, the drop in violence is not the result of police pressure driving up the price of crack. If this were the case, consumption would fall and prices would rise. But, at least since 1990, prices have fallen and consumption has stayed constant. Thus, as we think about the possible influence of more or more effective police, it appears that any such effects were not more effectively focused in the 1990s on drug *dealers*, since *supply* seems to have *increased* (although police actions directed at drug *users* may have cut *demand*).

b. More and Better Police?

We have previously expressed some doubt (based on limited data) concerning the argument that increasing numbers of police can explain the drop in crime, but there is much discussion of the improved quality of policing. Temporally, the story that the New York police made a breakthrough in police strategy and that others have emulated these practices does have some support. William Bratton, who is widely regarded as having in-

Drug Control Policy reports that from 1988-1995, the number of estimated occasional users of cocaine (including crack) fell from six million to three million. WILLIAM RHODES ET AL., OFFICE OF NATIONAL DRUG CONTROL POLICY, WHAT AMERICA'S USERS SPEND ON ILLEGAL DRUGS, 1988-1995 8 tbl. 1 (1997). This means that the crack distribution networks could retrench with this decline in the number of occasional users, who are less known to the dealers, and therefore more costly to service.

³³ The reason for the stabilization of the drug market is unclear, especially since frequent arrests (and ultimate release) of major drug dealers would continue to provoke new battles over turf. Perhaps the stabilization merely reflects the time it takes a newly created illegal market to mature. Or perhaps the falling price of cocaine reduced the vigor of turf battles and diminished the amount of robbery and burglary to which users were forced to resort.

roduced the new police strategies first as the head of the Transit Police and then more broadly upon becoming Commissioner, assumed full command beginning in 1994, about the time of the sharpest crime reductions in New York City.³⁴ The ideas that he embraced were certainly in the air at the time, and perhaps the other cities that have experienced similar reductions in crime, such as Houston, were implementing them as well.³⁵ On the other hand, the cities of Los Angeles and Washington, D.C. did not change policing strategies and crime fell considerably in both cities as well—buttressing the view that a decline in crack-associated violence has caused the crime decline.³⁶

c. Declining Alcohol Use

Robert Parker and Randi Cartmill have compiled a large set of findings in support of the view that decreasing alcohol use is one of the factors contributing to the recent drop in crime.³⁷ There is certainly enough suggestive evidence of a link between alcohol and violence to make this inquiry worth pursuing in detail, and Parker and Cartmill have done an excellent job in can-

³⁴ The story in New York is confounded by the fact that the *number* of police was growing sharply at the time crime fell, so it is unclear whether the increased police presence or the different policing strategy caused the crime reduction. See *supra* note 11. See also *supra* note 10.

³⁵ Between 1991 and 1996, the number of murders in Houston dropped by 59%, while between 1992 and 1996, murders in New York City fell by 51%. Fagan et al., *supra* note 15, at [page] fig. 1.3.

³⁶ See Fox Butterfield, *Drop in Homicide Rate Linked to Crack's Decline*, N.Y. TIMES, Oct. 27, 1997, at A12 (noting that a Justice Department study found that "the close link between crack and homicide may be a fundamental dynamic that explains why homicide rates have declined not only in cities like New York, which have instituted aggressive police strategies, but also in cities like Los Angeles, where the police have been demoralized or have not adopted new methods"); Risen, *supra* note 11, at A1 ("Violent crime in the United States dropped 7% in 1996, the fifth straight annual decline . . . Los Angeles reflected the national trend . . . All categories of serious crime, as measured by the FBI's overall crime index, fell by 11.6% in Los Angeles last year [1996]"). See also *Defeating the Bad Guys*, ECONOMIST, Oct. 3, 1998, at XX (noting that "crime in Washington, D.C., has fallen as fast as anywhere, although the police department has been corrupt and hopeless").

³⁷ Robert Nash Parker & Randi S. Cartmill, *Alcohol and Homicide in the United States: 1934-1995—Or One Reason Why U.S. Rates of Violence May Be Going Down*, 88 J. CRIM. L. & CRIMINOLOGY [page] (1998).

vassing the work in this area to which they have contributed significantly. Figure 1 of their paper suggests that per capita alcohol consumption began declining at roughly the time that crime peaked, which may suggest that the decline in drinking was part of the long-term decline in crime that we have referred to as the post-1977 trend. Of course, the difficult question that must always be confronted in exploring such issues is whether the observed link between alcohol consumption and crime is causal or purely correlational. For example, Parker and Cartmill cite a finding that the density of liquor stores in a city was a significant predictor of the change in homicide rates.³⁸ But one could imagine that the liquor stores are an indicator of the degree of social decay, and that when random malign events strike, such as the emergence of the crack trade, the degree of social decay predicts the magnitude of the increase in homicide. If liquor stores are just serving as a proxy for social decay, then other measures of social decay might show a similar correlation with murder, even though no causal link would be apparent. For example, the number of potholes on the street, the presence of a methadone clinic, or the number of check-cashing stores might all correlate with homicides without causing crime. The possibility of such a problem is reflected in Parker and Cartmill's finding that wine consumption is associated with *less* crime, which they note "probably reflects the social class position of wine drinkers rather than any preventive effect of wine consumption for white homicide."³⁹ While I agree with their specific conclusion, it could also be the case that other findings of a positive link between alcohol and homicide are similarly the product of the social class of the drinkers.

While teasing out the causal influence of alcohol on crime is quite difficult, Parker and Cartmill note that a growing array of different studies across time and in different geographic areas buttress their conclusion that there is such a causal link.⁴⁰ My

³⁸ *Id.* at [page (6th page of art.)].

³⁹ *Id.* at [page (17th page of art.)].

⁴⁰ One potentially significant counterexample to their contention is that when Prohibition was repealed, consumption of alcohol soared according to their Figure 1, but crime dropped sharply. This finding may not be fatal to their case, however. First, it is possible that, when Prohibition ended, the *measured* consumption of alcohol

own sense is that the social costs of alcohol consumption are enormous—indeed the social costs of the deaths caused by drunk driving may outweigh the social costs of murder.⁴¹ Therefore, steps to reduce alcohol consumption are likely to be very worthwhile, even if the link between street crime and alcohol is not definitively established. In light of the framework that I have advanced in this paper, it is also worth noting that while the post-1977 secular decline in crime was highly variable, the decline in alcohol consumption has been steady.⁴² This suggests that any influence of the decline in alcohol consumption on crime reduction is more likely to contribute to the slow secular decline in crime rather than to the sharp decline in crime of the last few years.

d. Social and Economic Forces

The improved economy is another possible explanation that corresponds at least roughly with the post-1993 downturn in crime.⁴³ This factor has probably played somewhat of a positive role, but it seems unlikely that a shift of the magnitude that we have experienced could result from this source alone.

In his interesting paper for this conference, Gary LaFree advances the broad thesis that “the postwar American crime boom occurred as a result of an institutional legitimacy crisis

rose more sharply than did *actual* consumption. Sales of illegal spirits could well have been widely undercounted. Second, one lesson of the late 1980s is that illegal drug markets can contribute mightily to increased crime, and it is possible that the end of Prohibition reduced crime greatly by virtue of the elimination of the illegal market even as it stimulated crime to a lesser degree through the increase in alcohol consumption.

Perhaps a useful technique for isolating the effect of alcohol consumption on crime would be to explore the effect of sharp increases in alcohol taxes, which might generate exogenous decreases in alcohol consumption, thereby making the causal link between alcohol consumption and crime more direct.

⁴¹ In 1995, the last year for which we have data, the number of deaths caused by drunk driving was 17,596 while the number of murders equaled 21,600. SOURCEBOOK, *supra* note 1, at tbl. 3.95. If many of the murder victims are themselves criminals/drug dealers, then it is conceivable that society loses more from the potentially random deaths inflicted by drunk drivers than from murders, which might be disproportionately targeted at criminals.

⁴² See Parker, Figure 1.

⁴³ The unemployment rate fell from 6.9% in 1993 to 5.4% in 1997. U.S. BUREAU OF THE CENSUS, *supra* note 28, at tbl. 652.

characterized by (1) growing distrust of political institutions, (2) rising economic stress and (3) increasing disintegration of the family. . . . If these same arguments hold for the 1990s, then the crime bust should be accompanied by evidence of increasing trust in political institutions, declining economic stress, and growing stability of families, as well as increasing support for criminal justice, education, and welfare institutions."⁴⁴

While I found LaFree's hypothesis quite intriguing, I have argued above that the recent run up in crime in the second half of the 1980s, and possibly the subsequent fall during the 1990s, is closely related to changes in illegal drug markets—a topic that LaFree does not mention. Indeed, many of the factors that LaFree focuses on as possible explanations for the recent drop of the 1990s are probably much more plausible factors for the slow secular decline since 1977 that we see in the predicted crime line of Figure 1. The long-term social trends that LaFree focuses on are unlikely to explain the post-1993 sharp drop in crime anymore than they can explain the roughly similar drop in crime in the early 1980s (or the subsequent *increase* in crime in the late 1980s).⁴⁵ Finally, the greater trust of institutions that LaFree mentions as a cause *of* the recent drops in crime is probably at least as much caused *by* the reduction in crime—consider the benefits accruing to Mayor Rudolf Guiliani from the good news about crime in New York City.

III. CONCLUSION

This paper has argued that over the last half century there have been two long term trends in homicide rates: an increase of roughly 4.4% per year from the mid-1950s through the late 1970s, and a modest downward trend of about 0.6% per year since then. If long-term trends told the whole story about crime, then the big story about crime occurred in the late 1970s when the sharp increase in crime was brought to a halt. Since then the slow long-term decline in homicides has been pleasant

⁴⁴ LaFree, *supra* note 3, at [page (aprx. 21st page of art.)].

⁴⁵ Again, factors that change gradually over thirty years would not seem to be likely candidates for explaining a recent abrupt change in crime over the last five or six years.

but not dramatically good news.⁴⁶ But long-term trends are only part of the story. There are also large short-term variations around the long-term trends. In fact, because the short-term run up in crime owing to the consequences of the rise of the crack trade and the arming of juvenile drug dealers and their confederates was so large, the retreat from that run up has been great. Furthermore, with the memory of the high-crime period so fresh in our minds, the recent continuing drop in crime that has taken us below the level predicted by the long-term trend seems even more dramatic. It is really this last drop below trend which is the surprise, and we must watch during the next few years to see whether it merely represents some short-term favorable news or the start of a new trend.

Even though one can tell a story that increased police effectiveness of the kind alleged in New York City⁴⁷ or a general shift away from lawlessness has improved our long-term prospects (perhaps because the unyielding pressure of increasing incarceration has finally taken its toll), at this moment there is not enough information to refute the view that we are currently experiencing a benign short-term fluctuation around the long-term trend in crime. In fact, since some of the most important factors that led to the long-term post-1977 downward trend—increased incarceration and favorable demographic changes—are likely not to be present in the future, there may be as much reason to believe that the trend in crime over the next ten years will be upward (perhaps at the rate of 1 to 1.5% per year) as there is reason to believe that more and better policing have ushered in a new era of lower crime.⁴⁸

⁴⁶ The slow downward trend in homicide rates is dramatically good relative to the previous upward trend, but since the reversal came two decades ago, it is no longer *news*.

⁴⁷ See, e.g., Kelling & Bratton, *supra* note 10, at XX.

⁴⁸ In the post-1977 period when crime was dropping at 0.6% per year, incarceration and demographics combined would have generated a 1.5% per year drop. This implies that some other long-term phenomena were causing crime to rise by 0.9% per year (and perhaps more if the growth of public and private police were factored in). Therefore, if nothing else changed and the effect of incarceration and demographics were removed, one would expect crime to rise by 0.9% per year. If the effect of demographics proves to be somewhat pernicious in the future and if increases in the numbers of police come to an end, crime might rise by 1 to 1.5% per year. Moreover,

In any event, it should be clear that, while massive increases in incarceration undoubtedly contributed to the reversal in the late 1970s of two decades of sharply rising crime, they have had only a small effect on homicide relative to the magnitude of the short-term fluctuations we have experienced over the last two decades. Our policy tools are weak relative to the influences on crime that can operate very powerfully in the short term, as the experience of the sudden emergence of crack in the late 1980s showed. Even a substantial 50% increase in the total prison population is likely to induce only a roughly 7.5% decrease in homicides—which is almost certainly below the public's threshold of perception.⁴⁹ Furthermore, while the gains from incarceration when aggregated over many years can be large, the attendant costs are constantly rising. Doubling the prison population from 250,000 to 500,000 cost roughly \$9 billion extra per year to generate a roughly 15% drop in crime.⁵⁰ The next doubling of the prison population from 500,000 to 1 million has cost us an extra \$18 billion per year to generate another 15% drop in crime. Importantly, that second doubling cost twice as much as the first, with no sign of greater benefit! We are now incarcerating over 1.5 million prisoners, and a further doubling would cost about \$55 billion. My concern is that either we will continue to rely on increasing levels of incarceration as the primary policy instrument to control crime, in which case the costs will soon rise to untenable levels, or we will desist without seeking alternative crime control strategies and crime will start rising. In the late 1960s, the country turned away from reliance on incarceration, without providing effective crime control strategies to replace it (although many ineffectual social pro-

as *The Economist* recently observed, "by 1999 the first generation of babies born when their mothers were addicted to crack will start to reach puberty. By 2000, three-fifths of black youths turning 15 will have been born to single mothers." *ECONOMIST*, *supra* note 36, at XX.

⁴⁹ It has frequently been true that in years of declining or stable crime, the public has been convinced that crime is rising. Marc Miller, *Cells vs. Cops vs. Classrooms*, in *THE CRIME CONUNDRUM* 127, 134-35 (Lawrence Friedman & George Fisher, eds., 1997). The public's inability to sense modest declines in crime, coupled with the presence of large short-term variations in crime, can make the policy of incarceration look utterly feckless, even when it provides modest benefits.

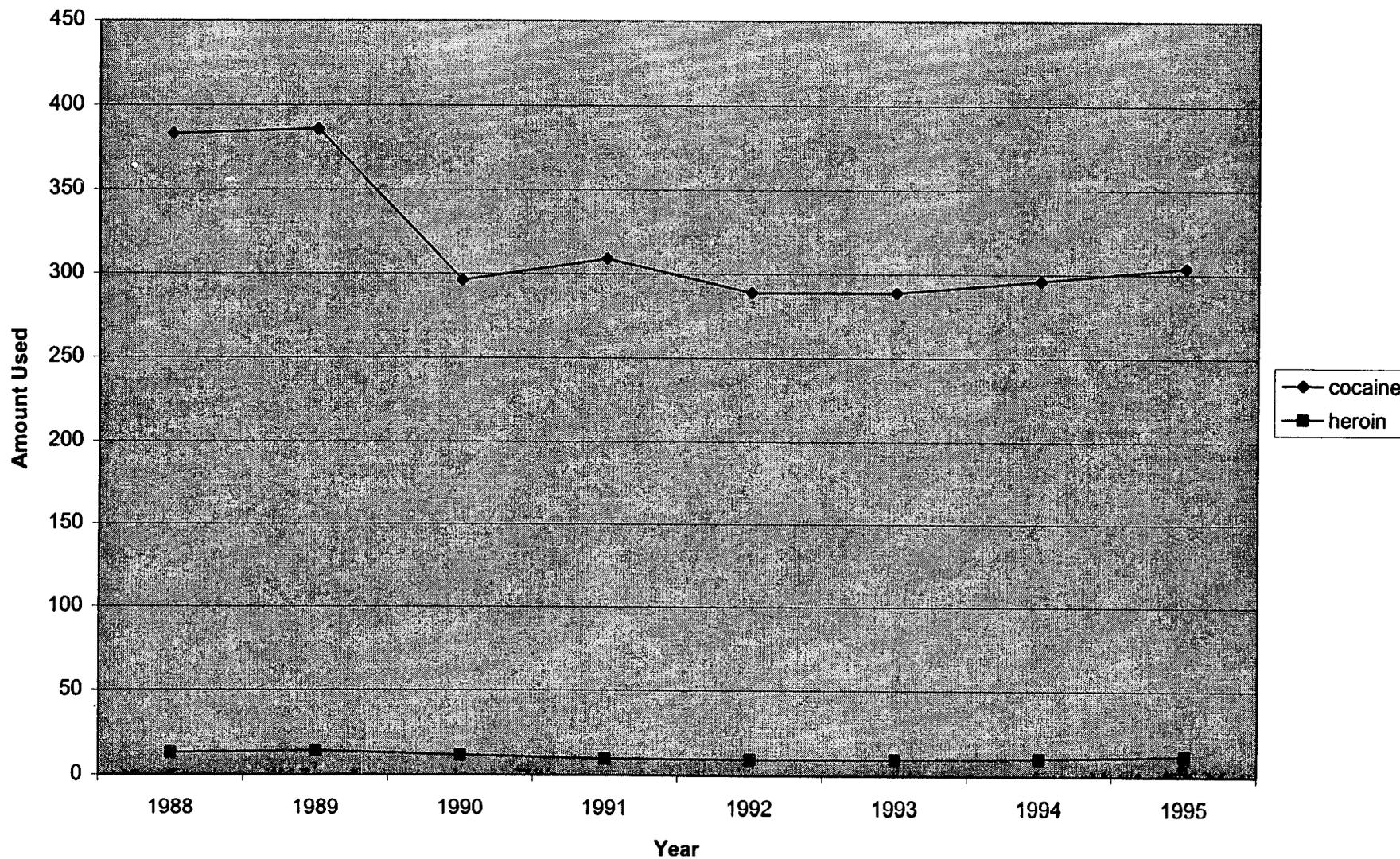
⁵⁰ Donohue & Siegelman, *supra* note 22, at 18.

grams were pursued). The results were disastrous, especially in light of the unprecedented difficulties posed by the growth in illegal drug markets and the movement of the baby boom generation into their high-crime years. As the children of the baby boom are about to provide a smaller dose of increased crime, we must recognize that the long-term upward influences on crime that have been restrained by increasing incarceration and greater numbers of police and security measures (both public and private) may not have abated. While one hopes that new police strategies can more successfully control crime in the future, if the recent sharp drops in crime prove to be evanescent, other avenues of crime reduction that have not played a role in the recent drop, and therefore have largely been overlooked in the current discussion, should be explored further.⁵¹

⁵¹ See Donohue & Siegelman, *supra* note 22, at 27-56 (discussing the feasibility and effectiveness of producing crime reduction through promising social programs, such as pre-school enrichment programs for three-year-olds, and Job Corps training for teens. Drug legalization could probably reduce crime significantly (as it did when Prohibition ended in 1933), but the social costs of greater drug use might be very high. A social scientist might like to see if legalizing marijuana in selected states (coupled with a ban on advertising and an educational campaign designed to discourage use) could achieve some partial crime reduction without generating large offsetting social costs).

Figure 5

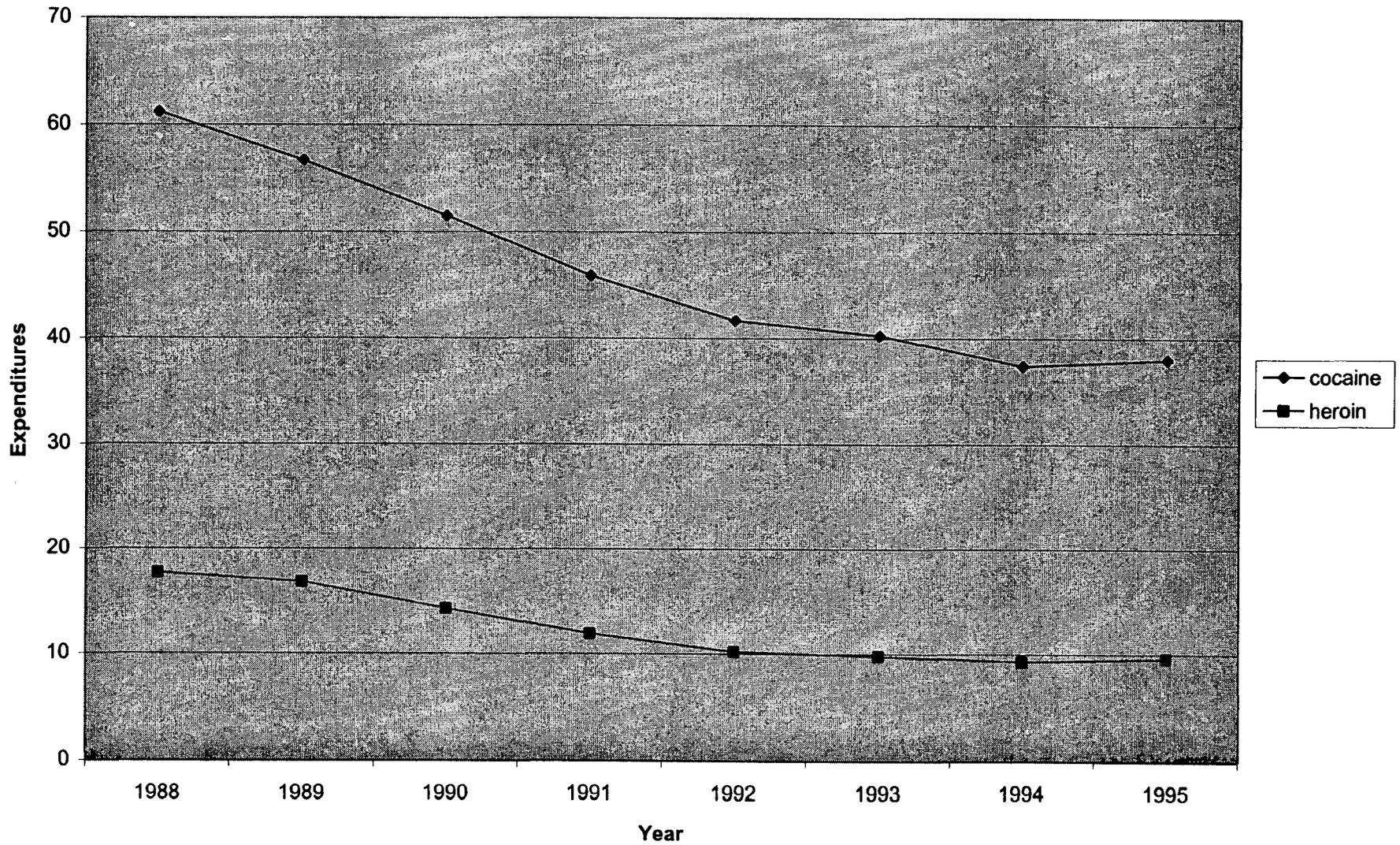
Total Amount of Cocaine and Heroin Used, 1988-1995 (in metric tons)



SOURCE: "What America's Users are Spending on Illegal Drugs, 1988-1995," Special Report prepared for the Office of National Drug Control Policy, Sept. 29, 1997.

Figure 4

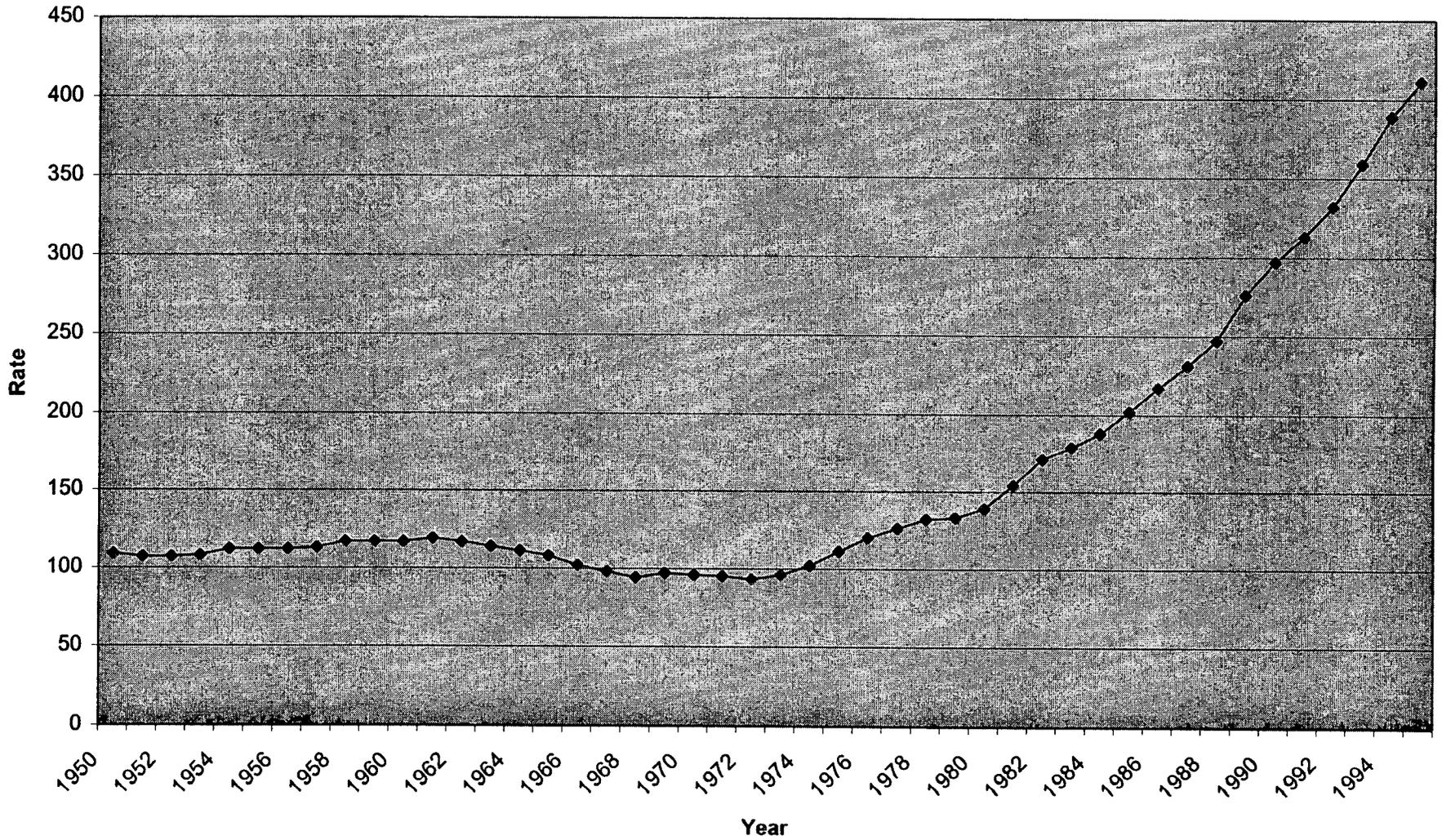
Total U.S. Expenditures on Cocaine and Heroin, 1988-1995 (\$ in billions, 1996 dollars)



SOURCE: "What America's Users are Spending on Illegal Drugs, 1988-1995," Special Report prepared for the Office of National Drug Control Policy, Sept. 29, 1997.

Figure 3

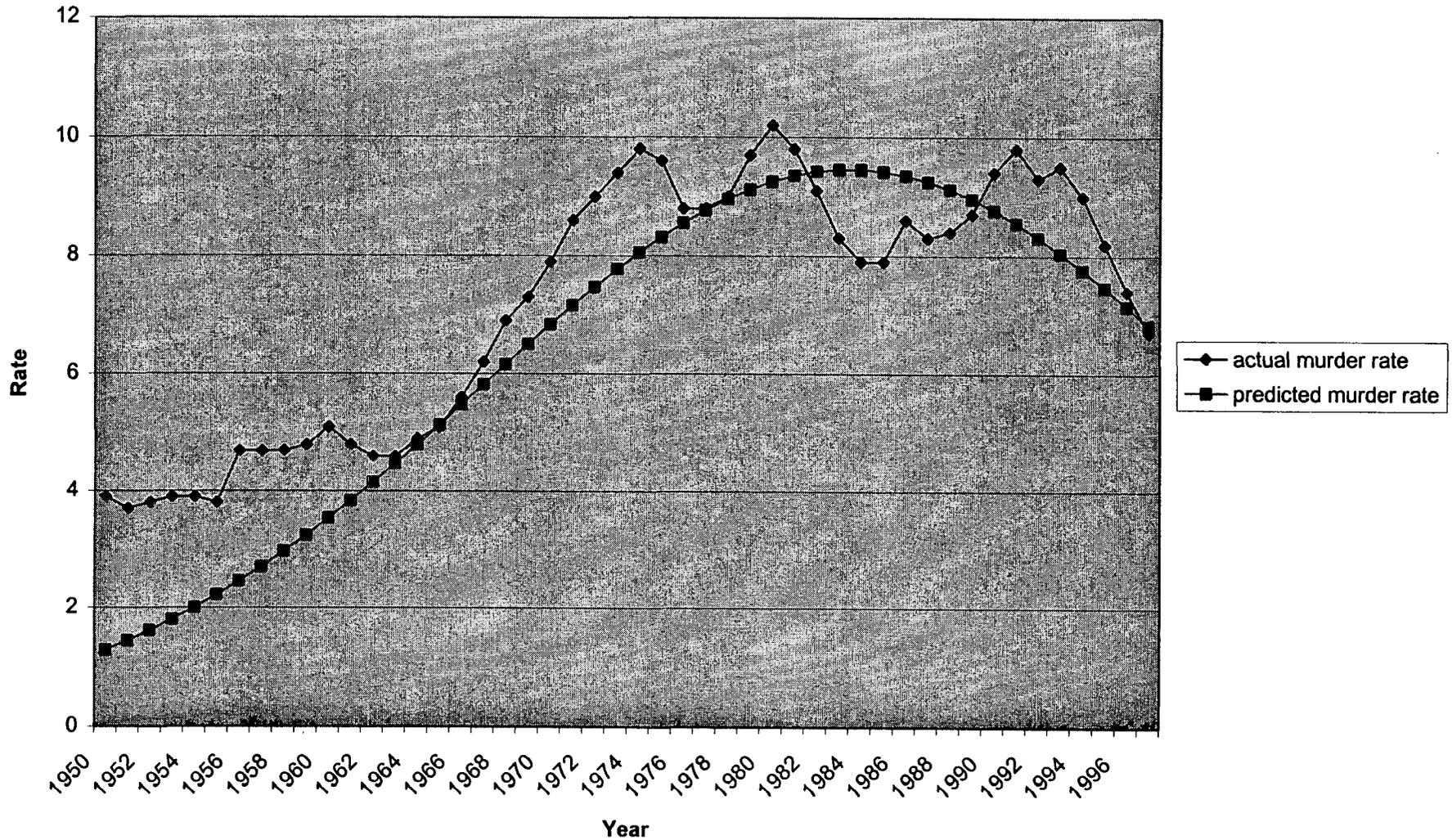
**Rate of Incarceration (per 100,000) of Sentenced Prisoners
in State and Federal Institutions: 1950-1995**



SOURCE: Sourcebook for Criminal Justice Statistics. Graph does not include prisoners in local jails.

Figure 2

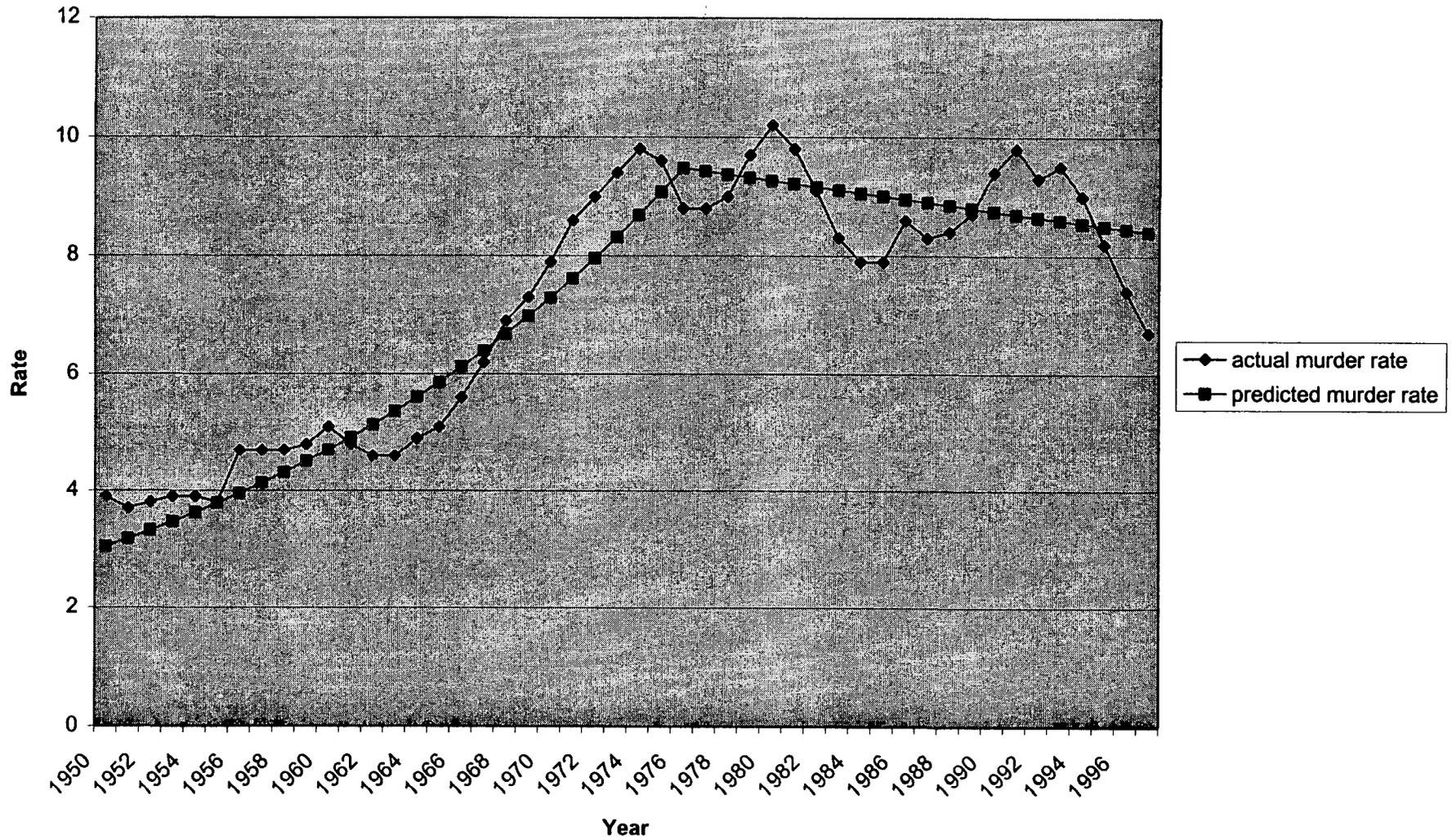
Actual vs. Predicted Murder Rate (National): 1950-1997
Estimated Using the Hildreth-Lu Correction for Serial Correlation Without Time Trends



NOTE: Predicted murder rate: $\ln(\text{murder rate}) = .123 + (.123) \cdot \text{year} [1950=1, 1951=2, \text{etc.}] - .002 \cdot \text{year-squared} [1950=1, 1951=4, \text{etc.}]$. (Adjusted R-squared=.30). 1997 murders estimated using information from January - June, 1997.

Figure 1

Actual vs. Predicted Murder Rate (National): 1950-1997
Estimated Using the Hildreth-Lu Correction for Serial Correlation



NOTE: Predicted murder rate: $\ln(\text{murder rate}) = 1.07 + .04 \cdot \text{year}[1950=1, 1951=2, \text{etc.}] - .05 \cdot \text{year}^2[1977=1, 1978=2, \text{etc.}]$ (Adjusted R-squared=.62). 1997 murders estimated using information from January - June, 1997.

VOLUNTEERISM AND THE DECLINE OF VIOLENT CRIME

BY WARREN FRIEDMAN*

I. INTRODUCTION

This paper makes four general points. There are organized community anti-crime activities going on across the country. Neighborhood residents, acting together through community organizations, have made a serious contribution to the decline in violent crime nationally. If we invest in and support the work of these citizens and their organizations, their activity can become more widespread, more sustained and can have a larger impact on violent crime. As an anti-crime strategy, this is the most effective, democratic, and humane path available to America—the one most likely to make communities safer and friendlier places to live.

II. DECLINING CRIME

Violent crime reached its peak in the U.S. in 1993. That year, according to the Bureau of Justice Statistics, there were 4.2 million violent crimes in this country.¹ In 1994, there were 75,000 fewer.² By 1996, there were nearly 930,000 fewer violent crimes than in 1993.³ Although rape, robbery, assault, and homicide have declined at different rates, they are all down.⁴ When looked at as a group, violent crimes are at a twenty-three year low, the lowest since the agency has been collecting data.⁵

This encouraging national trend does not mean that violent crime is down everywhere nor that Americans are relaxed and feeling confident in their ability to solve the problem of crime. According to Roper organization polling:

crime still tops the list of concerns about the nation's welfare, and crime worries are well above the levels of the 1980s or 1970s. . . . The share of adults who name crime among their top two or three [concerns] rose sharply in the early 1990s Between 1991 and 1995, the percentage almost doubled, from 29 percent to a record high of 54 percent. Although the current share is 5 percentage points lower than the peak, crime still ranks much higher than other issues⁶

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¹ Violent crime is measured by the National Crime Victimization Survey (NCVS) conducted by the Bureau of Justice Statistics (BJS). Data on murder is collected in the FBI's Uniform Crime Reports (UCR). The information is available at the BJS web site at *National Crime Victim Survey* (revised April 28, 1998) <<http://www.OJP.USDOJ.Gov/bjs/glance/4meastbl.txt>>.

² *Id.*

³ *Id.*

⁴ <<http://www.OJP.USDOJ.Gov/bjs/glance/>>.

⁵ <<http://www.OJP.USDOJ.Gov/bjs/glance/4meastbl.txt>>.

⁶ Editors of Roper Reports, *The Big Picture: Crime Fears*, AM. DEMOGRAPHICS, July 1997, at 35.

America's unease with the good news about crime is not paranoia. The trend is fairly recent and there have been other promising declines that have lasted a few years before the violence began increasing once again. The tentativeness of the news about violent crime has stimulated at least two significant discussions, partly captured in these *Chicago Tribune* headlines: "Is the Crime Drop a Blip, For Real, or a Ticking Bomb?" and "Violent Crime Takes a Tumble, Though Reasons are Murky."⁷

One question raised here: is this decline part of a long term trend, like the decrease in property crime, which has been evident since 1975, or just a temporary dip that will reverse itself?⁸ A second question: what is causing this decline? This causal issue, not so much murky as multi-faceted, is related to the first. If we can figure out what is responsible for the good news, we can, perhaps, do more of what works and increase the likelihood that the trend towards a less violent society is long term. We can also apply our understanding of what is working to some locations where the news is not so good.

III. WHY THE DECLINE?

There are a host of reasons suggested for the decline: low unemployment, fewer young men in the crime-prone age group, stable and less violent drug markets, fewer handguns on the street, reduced alcohol and drug consumption, more people serving longer prison sentences, smarter policing, community policing, and community participation in anti-crime efforts.

Most of these explanations have policy implications that beckon elected officials to invest tax dollars in particular strategies. As Roper's findings indicate, though the public is not yet convinced by the good news, the public is hungry for safer communities and seems receptive to solutions. So it is proper that there should be public debate about why crime is declining. It is critical that we invest energy and tax dollars to achieve this public good.

But it is also clear that data are subject to varying interpretations, causation is hard to identify with certainty and the debate is complicated by a significant amount of individual and institutional self-interest in one argument or another.⁹ In fact, the nation is presently engaged in a fateful discussion about what is driving this decline. In part, the outcome of this discussion will help determine where resources go and what cities, neighborhoods, and the criminal justice system will look like in the twenty-first century.

Probably the most widespread explanations for the decline at present are that smarter policing, tougher laws, longer sentences, more cops, and a quadrupling of the prison population are the major causes of violent crime's decline. Getting smart and getting tough probably do make a contribution. After all, getting guns off the street is smart. Even if they are kept at home, this reduces the accessibility and decreases the likelihood of impulse shootings, serious injuries, and homicides.

⁷ Steve Mills, *Is the Crime Drop a Blip, for Real, or a Ticking Bomb*, CHICAGO TRIBUNE, Apr. 19, 1998, at P1; Steve Mills, *Violent Crime Takes a Tumble, Though Reasons are Murky*, CHICAGO TRIBUNE, Apr. 21, 1998, at N1.

⁸ The property crime data is also available at the BJS web site. See *supra*, note 1.

⁹ My own self-interest in this debate is tied to community organizing and community building. I direct a coalition of community organizations, the Chicago Alliance for Neighborhood Safety, that would benefit from investment that supported this strategy as a serious crime and violence reduction policy.

And getting tough has put more violent offenders in prison and the more in prison at any time, the fewer there are in the community committing crimes. If you keep people in prison long enough, the argument goes, they grow out of the crime-prone age range. In the jargon, they "age-out." Whatever the effect of "incapacitation," of larger numbers of people in prison for longer times, we hear about these solutions not only because of their social scientific merit. We also hear about them because taking credit for the decline in crime is a major component in the strategies of powerful political, ideological, and law enforcement groups.

IV. ORDINARY PEOPLE

Though sometimes appended as an afterthought, discussion about what ordinary people are contributing to this decline in violence is rare. I argue that they are a major force for safer communities. This suggestion runs into what appears, from a community organizer's perspective, to be a dominant cultural attitude, one that is dismissive of collective, grassroots efforts.

Organized neighborhood activities are invisible on television's popular crime and police shows. Though there are sometimes helpful citizens in minor roles, for the most part non-police are portrayed as criminals, reluctant witnesses, or powerless victims in the story of America's criminal justice system. These shows never present an organized community as part of the solution. The few allusions to block watch or other neighborhood crime prevention activities are either accompanied by a sneer or depicted as a kind of vigilante effort.

Television programs do not capture the excitement of neighbors figuring out, through democratic discussion, what to do about a neighborhood crime problem. Missing from the nation's visuals are community meetings that are punctuated, as they are in reality, by laughter, anger, and the satisfaction of collective insight. Television does not depict the pride and feeling of empowerment shared by a group of residents who have taken action and forced the police to pay attention or who have freed a park from gang domination and made it once again accessible to neighborhood children, youth, families, and seniors.

Ironically, in an era that can't say enough about the virtues of shrinking government, on the topic of crime, officials and opinion makers are most comfortable with praising and spending on the criminal justice system. This does not reflect only the power of lobbies and ideology—though they are influential—it also reflects the belief among large numbers of government officials, criminal justice researchers, and media workers that average people's efforts don't make a difference. Even worse, organized volunteers are potentially threatening, so the less encouragement, the better. Organized volunteers have opinions. They have policy preferences. They can mobilize and make demands. Keeping them at a distance and portraying citizens, as "eyes and ears," isolated, apathetic, and only moved by law enforcement's prodding is within the comfort zone of those who fashion our cultural images and provide us with information and analysis. The depiction of police, courts, and prisons, warts and all, as the major, if not sole, guardians of public safety, goes largely unchallenged. The community residents who do volunteer in their neighborhoods have no powerful lobby to call attention to the contribution they are making or provide them with a mechanism for participating in the national discussion.

V. THE IMPACT OF COMMUNITY RESIDENTS

But ordinary people do have an impact on the national crime and violence statistics that we are currently celebrating and debating. They have an impact directly and they have an impact indirectly, through the sheer accumulation of private individual decisions. For health and other reasons, for example, people have reduced their drug and alcohol consumption.¹⁰ Because substance abuse, especially in the case of alcohol, is implicated in much violence, these individual decisions have an impact on violent crime.¹¹

People also decide that, with jobs available, they will work in a legal instead of an illegal sector of the economy, where they are less likely to be a victim of violence, or a victimizer. Or, as Richard Curtis' study of the Bushwick neighborhood in Brooklyn illustrates, young people, frightened by the activities of their older brothers and neighbors, forced to retreat from public spaces by drug dealing, violence, police harassment, and neighborhood decay, reject the culture that they see on their streets and choose other, less violence-prone life styles.¹²

Though they pay tens-of-billions of dollars each year to support the police, courts, and prisons, Americans have not delegated all public safety responsibility to the criminal justice system. In addition to private decisions by large numbers of individuals that have an indirect impact on crime and violence, many people decide to have a direct impact, to work together on shared problems. There are some case studies and some survey results on this topic, but the magnitude and impact of this organized activity is largely a missing part of the story of decreasing violence.¹³

To tell the story and assert that the organized efforts of neighborhood residents are a causal factor, an important one, in the decline in violent crime, several questions need to be answered. How massive is this phenomenon of organized grassroots effort? Is neighborhood-level activity really widespread enough to make a difference, especially at the level of national statistics? However large the number of volunteers, is there any evidence that their activity is likely to reduce crime in communities?

Finally, if volunteerism is both massive enough and some significant portion of it is effective, can participation be expanded? Can what President Clinton, in his May, 1997, commencement address at Pennsylvania State University called a "citizen force," be expanded by the million volunteers he suggests as a goal?¹⁴ Can its impact deliberately be intensified and broadened so that it can contribute further to a decline in criminal violence?

¹⁰ Robert Nash Parker & Randi S. Cartmill, *Alcohol and Homicide in the United States: 1934-1995—or One Reason why U.S. Rates of Violence May be Going Down*, 88 J. CRIM. L. & CRIMINOLOGY page (1998).

¹¹ According to *Alcohol and Crime*, a BJS analysis, Lawrence Greenfeld found that among the 11.1 million victims of violence each year, one in four were certain that the offender had been drinking before committing the crime. About one in 20 were certain the offender had been using other drugs. LAWRENCE A. GREENFELD, BUREAU OF JUSTICE STATISTICS, ALCOHOL AND CRIME: AN ANALYSIS OF NATIONAL DATA ON THE PREVALENCE OF ALCOHOL INVOLVEMENT IN CRIME 2-3 (1998). See also Parker & Cartmill, *supra* at page.

¹² Richard Curtis, *The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs, and Youth in the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY [page] (1998).

¹³ Bibliographies of the literature on community crime prevention are available in: ROBERT C. DAVIS AND ARTHUR J. LURIGIO, FIGHTING BACK: NEIGHBORHOOD ANTIDRUG STRATEGIES 133-43 (1996); Tim Hope, *Community Crime Prevention*, in BUILDING A SAFER SOCIETY 21, 78-89 (Michael Tonry & David P. Farrington eds., 1995).

¹⁴ <<http://www.pub.whitehouse.gov/uri-res/12R?urn:pdi://oma.eop.gov.us?1996/5/10/3.txt.1>>.

VI. THE MAGNITUDE OF VOLUNTEERISM

The Bureau of Justice Statistics (BJS) has been conducting a crime survey each year since 1973.¹⁵ One hundred-thousand Americans, twelve years-of-age and older, are asked whether they or anyone in their household were victims of crime in the past year, the nature of the crime, whether they reported it to the police, and if not, why not. With the exclusion of homicide and commercial crime statistics, criminal justice professionals consider this survey the best measure of the actual level of crime or victimization in our country.

Beginning in 1992, in a tiny departure from its focus on Americans' individual experience as victims, BJS added two questions to the more than 160 about victimization and reporting. Interviewers asked people if they knew of neighborhood watches or other anti-crime activities in their communities and, if they did, did anyone in their household participate in these activities.¹⁶

Over the five-year period, answers to the first question indicate that, depending on the year, between thirty-nine and forty-seven million Americans have known about these activities in their neighborhoods.¹⁷ Answers to the second question indicate that millions of Americans are actively working for safer communities. Despite the absence of adequate resources or support from the popular media, community resident participation in neighborhood crime reduction activities, has ranged between eighteen million and 19.1 million volunteers.¹⁸ In 1996 (the most recent year for which data are available), participation was down about 4% from the previous year.¹⁹ Nevertheless, over 18.3 million people volunteered in block watches and other organized neighborhood safety activities.²⁰ Roughly one in twelve Americans, twelve years-of-age and over, participated in neighborhood efforts aimed at improving public safety and the general well-being of their neighbors.²¹

To help put these numbers in perspective, there is a semi-annual Gallup survey of philanthropic and volunteer activities in America. It is commissioned by Independent Sector, a Washington based organization that studies and promotes volunteer participation and philanthropic giving. In the latest figures available, Gallup estimated that in 1995, 93 million people gave their time to various causes and organizations.²² These volunteers represented over 40% of the respondents over eighteen years old.²³ They reported volunteering 4.2 hours per week for a total of over twenty billion volunteer hours during the year.²⁴

Though the Gallup survey provides respondents with choices as to the kind of volunteer activity they participate in, community work in general and community anti-crime work specifically are not among the possible responses.²⁵ So there is no exact match between these two

¹⁵ In 1992, with a series of methodological changes, the survey title was changed from the National Crime Survey (NCS) to the National Crime Victimization Survey (NCVS).

¹⁶ The actual questions are: "Is there an organized neighborhood watch or citizens' protection group for your area?" and "Do you, or does anyone in your household, take part?"

¹⁷ See *supra* note 1.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² VIRGINIA A. HODGKINSON ET AL., INDEPENDENT SECTOR, GIVING AND VOLUNTEERING IN THE UNITED STATES 3 (1996).

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.* at 192-93.

sources of data on volunteerism. Nevertheless, in the absence of a more precise source of information, if we want an idea of the magnitude of volunteer impact, we can cautiously infer that roughly one in five of America's volunteers invest some time in neighborhood safety issues. If the time invested by these volunteers is anywhere near that invested by volunteers in general, then Americans devote nearly four billion hours to organized neighborhood safety activity each year.

VII. WHO PARTICIPATES?

Who is putting in these hours? The level of participation varies at different times among different groups. Participants are racially and ethnically diverse. While people are at work all over the country, community safety volunteers have tended to be more active in cities with populations over 50,000.²⁶ In 1996, 63% of the population lived in cities over 50,000,²⁷ while 66% of the volunteers lived in these cities;²⁸ 10.7% of the population lived in cities over 500,000,²⁹ while 11.4% of the volunteers lived in these cities.³⁰

In the same year, over nine million people from households headed by men or women with less than a college education were participating.³¹ But households with higher levels of education tended to be represented at a greater rate than the less educated.³² Half of the participants came from households headed by someone with a twelfth grade education or less, while nearly 57% of the population came from such households.³³ Similarly, though millions of less affluent people participated, more affluent households were more likely to have a member participating than were lower income households.³⁴ Half of the volunteers came from households earning more than \$50,000 a year, while only 39% of the population lived in such households.³⁵

Except for African-Americans, who were 14% of the participants, but only 12% of the population, all ethnic and racial groups participated at a level lower than their proportion of the population.³⁶ Whites, for instance, accounted for 84% of the population and 82% of the participants.³⁷ Hispanics made up 9.5% and 7.8% and Asians and Pacific Islanders 3.3% and 2.9% respectively.³⁸ But the differences were small. And when one considers the great likelihood of victimization among Blacks and Hispanics, the less-educated, and those who live in low-income neighborhoods, it is clear that there is significant under-participation by these groups in relation to the need.

²⁶ See *supra* note 1.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ HODGKINSON, ET AL, *supra* note 22, at 30.

³⁵ See *supra* note 1.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* Hispanics participated above their proportion of the population in the \$30,000-\$40,000 income range.

VIII. EFFECTIVENESS

But even growing numbers of volunteers in low-income and at-risk neighborhoods will not reduce crime unless the activity in which they are engaged is effective. Unfortunately, the Bureau of Justice Statistics survey reveals nothing more than the bare demographics of this diverse movement. It tells us about the households from which participants come, but the survey provides no information about who the actual participants are or about what they do to make their neighborhoods safer. It offers no window into the decision-making process, the tactics, strategy, or longevity of the activities in particular communities. It is also silent about how the anti-crime activities of these volunteers relate to other community efforts in which they may be involved. We do, however, have some idea of what these activities are from direct experience, case studies, evaluations, and media coverage.³⁹

We know that neighborhood safety volunteers serve in traditional roles as “eyes and ears” of the police by organizing citizen patrols and working to restore business strips that are threatening to area residents.⁴⁰ They agitate for after-school and recreation programs.⁴¹ They problem solve, targeting drug houses and other problem buildings to force landlords to come up to code.⁴² They march to dramatize their concerns. They take on gangs.⁴³ They fill courtrooms as “watchers.”⁴⁴ They agitate for the rehabilitation, boarding-up, or tearing down of abandoned buildings that are often dangerous eyesores in their neighborhoods.⁴⁵ They hold public officials accountable for some level of community maintenance and insist that police treat the neighborhood’s residents respectfully.⁴⁶ They work to reduce liquor store concentration and the loitering it attracts.⁴⁷ They conduct positive loitering in open drug markets to disrupt them.⁴⁸

Early findings from the Harvard School of Public Health’s ambitious ten year study, the “Project on Human Development in Chicago Neighborhoods” (PHDCN), suggest that these and other community efforts not directly focused on crime, do matter.⁴⁹ Conducted in 343 “neighborhood clusters” of about 8,000 people, nearly 8,800 people were interviewed.⁵⁰ The research-

³⁹ BJS needs to add a series of questions on participation to its surveys so that researchers and practitioners can get a better picture of who in the household is actually participating and how long they have been doing so. There need to be questions that allow us to understand what they are doing and whether they are working with and getting cooperation from the police.

⁴⁰ WESLEY G. SKOGAN & SUSAN HARTNETT, *COMMUNITY POLICING: CHICAGO STYLE* 173 (1997).

⁴¹ *Id.* at 177.

⁴² See Warren Friedman, *The Community Role in Community Policing*, in *THE CHALLENGE OF COMMUNITY POLICING: TESTING THE PROMISE* 267 (Dennis P. Rosenbaum, ed. 1994).

⁴³ SKOGAN & HARTNETT, *supra* note 40, at 180.

⁴⁴ WESLEY G. SKOGAN & SUSAN HARTNETT, *COMMUNITY POLICING IN CHICAGO, YEAR THREE*, 82 (1996).

⁴⁵ *Id.*

⁴⁶ SKOGAN & HARTNETT, *supra* note 40, at 123.

⁴⁷ ANN MAXWELL & DAVID IMMERGLUCK, *LIQUOR STORE CONCENTRATION AND COMMUNITY DEVELOPMENT IN LOWER INCOME COOK COUNTY NEIGHBORHOODS 1* (1997); *COMMUNITY ALLIANCE FOR NEIGHBORHOOD SAFETY, TALES FROM THE BEAT: THE COMMUNITY/POLICE PARTNERSHIP IN ACTION 5* (1996) [hereinafter CANS].

⁴⁸ SKOGAN & HARTNETT, *supra* note 44 at 53; CANS, *supra* note 47, at 15.

⁴⁹ Robert J. Sampson et al., *Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy*, 277 *Science* 918, 919 (1997).

⁵⁰ *Id.*

ers found that "social cohesion among neighbors combined with their willingness to intervene on behalf of the public good, is linked to reduced violence."⁵¹

When people take responsibility for behavior in the neighborhood, even communities with "concentrated disadvantage" develop what the authors characterize as "collective efficacy," the "informal mechanisms by which residents themselves achieve public order."⁵² Among similarly disadvantaged neighborhoods, there are some with higher levels of collective efficacy. This is because people were more likely to intervene, for instance, if a fight breaks out in front of their home, if they saw children spray painting, or if the city threatened to close the fire station closest to their home. Communities where individuals or groups are likely to intervene in these and other ways have a greater likelihood of being safer, less violent places to live. The authors found that neighborhoods with high levels of collective efficacy had, in fact, a 40% "reduction in the expected homicide rate."⁵³

If we could increase collective efficacy and achieve that kind of reduction in poor, high crime communities around the country, we would truly be in for a long decline in violent crime. But we need to be clear. Saying that, all other things being equal, the homicide rate was 40% lower than expected is not the same as saying we can intervene in low efficacy neighborhoods and bring their level of violence down the same amount. Part of the reason that these neighborhoods were cohesive and thus had conditions necessary for the effective expression of collective efficacy was that they also had a high level of residential stability.⁵⁴ People had time, the reasoning goes, to get to know and trust each other, and this knowledge and trust provide the basis for individual and group interventions on behalf of the community's well-being.⁵⁵

The hypothesis that residential stability is related to intervention and thus to collective efficacy is supported by the Bureau of Justice Statistics survey. Homeowners and long-time residents were more likely to participate in community safety activities than were renters or newcomers.⁵⁶ Eighty-two percent of those participants were from households that owned homes, considerably more than the 69% of the population who owned their own homes.⁵⁷

Beyond the contribution of residential stability, the authors report that "collective efficacy was significantly . . . and positively related to friendship and kinship ties ($r=0.49$), organizational participation ($r=0.45$) and neighborhood services ($r=0.21$)."⁵⁸ Nevertheless, when they controlled for these related neighborhood characteristics, they found that "by far the largest predictor of the violent crime rate was collective efficacy."⁵⁹

⁵¹ *Id.* at 920.

⁵² "Concentrated disadvantage" consisted mainly of the presence of high levels of poverty, public assistance, unemployment, female headed households and density of children. *Id.* at 919.

⁵³ *Id.* at 922.

⁵⁴ Sampson, et al., *supra* note 49, at 919.

⁵⁵ *Id.*

⁵⁶ Community organizers would acknowledge that organizing in more transient neighborhoods and encouraging residents to take leadership is a challenge. But they would add that it is often hard to separate residential transience as a barrier to cohesion from separate barriers created by the transience of resources for organizing in these communities and the strings attached to the resources available.

⁵⁷ See *supra* note 1. This pattern, however, was different for Hispanics who, in their first three years tended to participate at a rate higher than their proportion of the population.

⁵⁸ Sampson, et al., *supra* note 49 at 923.

⁵⁹ *Id.*

According to the authors, "collective efficacy thus retained discriminant validity when compared to theoretically relevant, competing social processes. "Moreover," they continue, "these results suggested that dense personal ties, organizations, and local services by themselves are not sufficient; reductions in violence appear to be more directly attributable to informal social control and cohesion among residents."⁶⁰

Put differently, a community can have many people who know each other, but friendship and family networks can be passive and rarely confront threats to the public good. A community can also have many organizations that are inert and inward gazing, that rarely intervene for the neighborhood's well-being. Based on their experience, community organizers would assert that, given an issue or a shared need, collective efficacy (they would not use the term) will be generated if there is a culture and tradition open to activism in these neighborhood networks and if there are leaders or organizers who act as catalysts and move others to intervene. Action for the public good by informal or formal groups, the reasoning goes, takes initiators—people who start the activity, urge others on, set an example. When this exercise of will results in collective action, the person or persons who have initiated the action have exercised leadership. Key to generating collective efficacy from personal networks or community-based organizations are volunteer leaders and community organizers who are willing to stimulate action on behalf of the public good.

IX. CALLING ON PEOPLE TO INTERVENE AND COMMUNITY ORGANIZATIONS

The evaluation of the Chicago Alternative Policing Strategy (CAPS), Chicago's version of community policing, supports the PHDCN finding that the presence of organizations is positively related to collective efficacy. The evaluation is the most thorough and sustained study of any city's attempt to implement community policing. Four annual reports have thus far been produced. The evaluation tracks the launching of an ambitious and high risk strategy to transform most of the department and to integrate the delivery of other city services with the delivery of police service.

Through a series of citywide surveys, interviews with officers and community residents, and observations of meetings and training, the study documents and analyzes many of the successes and failures in implementation within the department. It also probes the attitudes, involvement, and training of the community.

The philosophy that underlay much of CAPS encouraged community activism. Producing safety, the message went, required a partnership, a problem-solving partnership. Neighbors needed to work with neighbors, with the police, government, and other institutions. They needed to be organized, active, and informed. In a brief public partnership between the administration of Richard M. Daley, the Chicago Police Department, and the Chicago Alliance for Neighborhood Safety (CANS), the message of participation, partnership and problem solving was repeated frequently in the media, in the department's communications with its officers, through the curriculum used to train police and in the training and outreach to residents.

Philosophy and communication are not sufficient, however, to explain the high level of energy invested by residents. An important factor was the timing of Chicago's community polic-

⁶⁰ *Id.*

ing. Violent crime was rising and homicide was breaking records.⁶¹ As participants in the campaign would testify, in the neighborhoods, where the mayhem was occurring and in at-risk neighborhoods that saw their future in the nearby high crime communities, there was a desperate feeling that something had to be done. As meeting after meeting made clear, this concern about crime corresponded to a deep dissatisfaction among residents with how they were being treated by the police. In their cars and out of touch, to residents, police seemed uncaring, unresponsive, and disrespectful of community anti-crime efforts.

Rising crime and dissatisfaction with police service were coupled with the presence of a citywide organization offering an alternative that spoke to people's concerns. CANS was willing to give leadership and to engage people in volunteer work both for the safety of their communities and for a different, more responsive and accountable kind of police service.⁶²

For over two years, campaign participants said publicly to the police superintendent, city council members, and the mayor: we want to be policed differently; we want to work with the police; we want to take responsibility for our neighborhoods' safety; we want community policing.⁶³ When the mayor finally said yes, these volunteers felt some ownership.⁶⁴ They had brought this new policing to their fellow Chicagoans and their own communities, and they were determined to make it a success.⁶⁵

Once its commitment to try community policing was in place, City officials made a series of smart moves. They commissioned a thorough management study from a team led by former head of the National Institute of Justice, James "Chip" Stewart of Booze, Allen & Hamilton. Following many of the report's recommendations, the City began to decentralize the department to make it possible for officers to be more responsive to the community.⁶⁶ It assigned stable patrol teams to each of the department's 279 police beats (areas with an average population of 10,000 residents). It established regular meetings in the neighborhoods where residents could count on meeting with the patrol officers assigned to their beat. And the officers were charged to work with the community. Initially, police department leadership and the mayor were unequivocal and very public in their support for community partnership. And they were willing to invest in training and mobilizing community residents.⁶⁷

Called the Joint Community-Police Training Project (JCPT), the training and outreach organizing project was an often tense but creative effort by the police department, the city, and CANS. Its purpose was to reach out to people and train them for their role in solving neighbor-

⁶¹ Homicides had been rising since 1988, when 660 people were murdered. It peaked in 1992. Nine-hundred and forty people were murdered that year. Index crimes rose steadily from 1987 to 1991, from 281,030 to 323,909. See CHICAGO POLICE DEPT. BIENNIAL REPORT: 1993 & 1994 11, 13 (1995).

⁶² For a more complete account of this campaign, see Warren Friedman, *Grassroots and Persistence: The Chicago Alliance for Neighborhood Safety*, NAT'L INST. JUST. J., Aug. 1996, at 8. The issue is entitled *Communities: Mobilizing Against Crime, Making Partnerships Work*.

⁶³ *Id.* at 9.

⁶⁴ *Id.* at 8.

⁶⁵ *Id.* at 11.

⁶⁶ City officials have been inconsistent in creating the conditions for partnership. They have failed to make the decentralizing meaningful by altering dispatch policy to free officer time to work with the community on crime and disorder problems and they have failed to establish a promotion process that evaluated officers on their community policing performance.

⁶⁷ In the first three months of the prototype stage, the Department, under internal pressure, began to back down from its plan to free patrol officers who served on the beat teams from a significant portion of 911 calls so they would have more time to work with residents. Once this happened, the department began expecting too much from the beat meetings.

hood problems. Residents participated because they were invited by twenty-five outreach organizers and local organizations to come to an orientation conducted by sixteen teams of community and police trainers. Using adult learning techniques, the teams introduced Chicago's version of community policing and a problem solving method residents could use with the police to make their neighborhoods safer.

At the end of the two-hour orientation, the trainers offered short-term technical assistance to community volunteers who wanted to work on real problems in their neighborhood. Nearly 12,000 Chicagoans were trained before the mayor canceled the program.⁶⁸ The evaluation of JCPT during 1995-96, the height of the CAPS experiment, documents the dramatic contribution outreach, training, technical assistance, and organizations can make in community anti-crime and anti-disorder efforts.

Participants who attended training were surveyed at the training and then were re-contacted four months later and interviewed about the nature of their involvement since the training. These volunteers were divided into three categories according to organizational affiliation: those with no affiliations, those with one to three affiliations, and those affiliated with four or more community-based organizations.

According to Wesley G. Skogan and Susan M. Hartnett, the lead evaluators of Chicago's community policing program, by far the largest number of participants fell into the middle category: 66% had one to three affiliations; 19% had no affiliations; and 15% had four or more.⁶⁹ In terms of volunteers' willingness to contribute to neighborhood safety, to actually work on a drug market or a bad landlord, the researchers found:

- Participants with no community organization affiliation got involved in problem solving 48% of the time.
- Participants with one to three community organization affiliations got involved in problem solving 63% of the time
- Participants with four or more community organization affiliations got involved in problem solving 80% of the time.⁷⁰

Researchers found that people who participated in community-based organizations contributed most to the effort. This finding reinforces and deepens the PHDCN conclusion that organization is positively related to collective efficacy. Where there are community-based organizations committed to intervention, the evidence shows that they play a critical role in sustaining and stimulating activity on behalf of public well being.

⁶⁸ The Chicago Alliance for Neighborhood Safety (CANS) contracted with the City to conduct the training in cooperation with the police department. CANS, a representative from the Mayor's office and the department developed the curriculum cooperatively and all orientations were conducted by a police officer and a community trainer employed by CANS. When CANS, an advocacy and watchdog group that led the campaign for community policing, released *Young People and the Police*, a study it had been working for 18 months before the contract, the mayor moved to cancel the contract. He failed at his first attempt, but ultimately terminated the contract and made the outreach a function of his office. A much reduced community training unit was placed in the police academy.

⁶⁹ THE CHICAGO COMMUNITY POLICING EVALUATION CONSORTIUM, COMMUNITY POLICING IN CHICAGO, YEAR THREE 55 (1996)[hereinafter CCPEC].

⁷⁰ *Id.*

X. WHAT DID THESE VOLUNTEERS DO?

What did these mostly community organization members, these residents disproportionately from high crime neighborhoods, do? For one thing, 37% of them talked with their neighbors more frequently about community problems than they had before.⁷¹ They invited others to participate and passed on to them what they had learned: 63% of them tried to teach neighbors what they had learned at the training (the median was five other residents); 74% of them invited neighbors to other trainings and meetings.⁷²

But they did more than talk. As a crime reduction strategy, problem solving requires active intervention. And the attendees responded to the invitations to participate and the offers of support from JCPT, CANS, the CPD, and the city. They worked at solving problems. They got together (60% attended one or more beat meetings, 40% attended one or more other crime related meetings) and intervened for the public good:⁷³

- 14% of them participated in positive loitering, milling, prayer meetings, and lemonade stands in drug markets
- 13% participated in rallies or demonstrations
- 25% met with local business people to express concerns about crime or disorder problems.

Participants attempted to solve 63% of the problems they identified.⁷⁴ These problems included drug dealing (21%); social disorder, including, vandalism, public drinking, and loitering (19%); "conventional crime," including theft, rape, and homicide (18%); and gang problems, including violence, graffiti, and recruitment (17%).⁷⁵ Participants succeeded, partly or entirely, in solving 26% of the problems.⁷⁶

It is clear from participants' willingness to reach out to neighbors, to talk to them about the community, and to teach others what they had learned, that networking was stimulated. It is clear from residents' willingness to join together to tackle often intimidating crime and disorder problems and to face their fears and actual threats of retaliation, that the process stimulated an outpouring of "collectively efficacious" behavior.

XI. VOLUNTEERING

It is important to remember that there are a host of motives for volunteering. Being safe is one reason, but people also give time in order to be of service to others, to belong and feel useful, to learn and grow, and to be part of a respected community.⁷⁷ Most of us would like to live in safe, friendly, organized communities that are dense with family and friendship networks and where intervention on behalf of the public good is habitual.

⁷¹ *Id.* at 52.

⁷² *Id.*

⁷³ *Id.* at 53. It is clear from these figures that at least 25% participated in these activities. Most likely it was not only the people who met with business people who rallied and milled in drug markets. I did not have access to figures that would clarify what percent participated in any activity; what percent participated in two, three, etc., but it seems clear that over 25% did participate.

⁷⁴ CCPEC at 55.

⁷⁵ CCPEC, *supra* note 45, at 29-30.

⁷⁶ *Id.* at 57..

⁷⁷ HODGKINSON ET AL., *supra* note 22 at 112.

But people's desires, motives and perceived benefits are not sufficient to explain their participation. People give time because they are invited. Independent Sector's Gallup survey found that "over half of all volunteers reported they were asked by a friend; about one in three were asked by someone at their church or synagogue; and nearly one out of five were asked by a family member or relative."⁷⁸ It is critical to develop in communities the capacity to invite residents to join the effort to reduce crime and make their neighborhoods safer. It is also important to figure out how to keep residents inviting each other as crime declines so that their activity maintains the decrease and responds promptly as crime begins to rise again. To build and support a volunteer movement that reduces violent crime over the long-term, we need to take into account the complicated reasons people volunteer, figure out how to stimulate recruitment (systemic invitation) in high crime communities and ask the organizer's question of how to keep people involved.

As a public safety strategy, there is much to recommend mobilizing some of the more than twenty million people identified in the BJS survey who knew of their neighbors efforts and did not participate. If just 10% of them could be moved to join the effort, America would gain about two million community safety volunteers, twice the number President Clinton hoped for in his Penn State speech.

XII. THE BIGGER PICTURE

Critical as it is, we should not romanticize or overstate the impact of local solutions. Despite the potential short and long-term effect dramatized by the PHDCN findings, there is a persistent difficulty with isolated grassroots activity. As the authors of the study indicate, the "image of local residents working collectively to solve their own problems is not the whole picture."⁷⁹ There are powerful forces beyond the neighborhood that cannot be addressed by community mobilization or local empowerment. "The paradox of community crime prevention," Tim Hope points out in his review of the literature on neighborhood anti-crime efforts, "stems from the problem of trying to build community institutions that control crime in the face of powerlessness to withstand the pressures toward crime in the community, whose source[s] . . . derive from the wider social structure."⁸⁰

A long term solution, one capable of driving down the number of violent crimes over a two-and-a-half decade period in a way that is comparable to the decline in property crime, undoubtedly requires attention to these larger issues also. But it is hard to imagine sustained attention being paid on the national level to the big problems affecting ordinary people at the local level, without first paying attention to and organizing communities that stand to benefit from these efforts.

XIII. NEXT STEPS

How do we shove the pendulum towards community building and a version of community policing in which residents have a strong partnership role? How do we make this widespread

⁷⁸ *Id.* at 110.

⁷⁹ Sampson et al., *supra* note 17, at 923.

⁸⁰ Hope, *supra* note 8, at 24.

volunteer activity even more widespread and more effective in its efforts to build a more democratic, safer, less violent nation? It will be difficult, as tens-of-thousands of volunteers and professional organizers can testify.

There are a large number of people who have worked at building and maintaining volunteer organizations around the nation. Among the 1.4 million not-for-profits in this country, there are thousands of community-based organizations, civic associations, coalitions, and organizers that regularly mobilize volunteers to solve problems collectively.⁸¹ There are also dozens of organizing schools around the country with the mission of training volunteers and organizers.

And if one knows how and where to look, most communities, even the poorest and apparently most disorganized, have a rich array of formal and informal associations (not counted among the 1.4 million not-for-profits). One rarely has to start from scratch. John Kretzman and John McKnight, for instance, found a wealth of citizen associations in the Grand Boulevard community of Chicago, a 99% African-American community of 36,000 residents, with a 1989 median income of \$8,371.⁸² The 319 associations they identified included religious, social, cultural, neighborhood improvement, senior, youth, advocacy, and political groups.⁸³ Many of the leaders of these groups indicated that they were open to trying something new that would benefit the community. Most indicated they had never been asked before.⁸⁴

There is an enormous volunteer movement out there and the possibility of its growth in numbers and self-consciousness is real. There are also millions of Americans dissatisfied with what one criminal justice scholar has called our "punishment and imprisonment orgy."⁸⁵ Those who are unhappy with the way things are going need to argue for the importance of grassroots efforts in the decline of violent crime.

Those who want an alternative to the growing emphasis on punishment, police, and prisons, need to make visible and honor the volunteers and their millions of acts on behalf of the public good. They need to focus on the work in high crime and at-risk neighborhoods, where considerable courage is required to be an anti-crime volunteer. These are the communities where organizations have the most acute need for staff, for training, technical assistance, and education.

Those who want an alternative to "getting tough" should advocate for an investment in community based organizations that have the mission of involving people to solve community problems. It is in these neighborhoods, where the need is greatest, that resources and visibility can have the largest impact. The possibility of growth in volunteerism is significant. With adequate investment, some of the predictable disasters of the "getting tough" strategy may be avoided. With adequate investment, the present decline in violent crime may be sustained and thousands of safer, friendlier communities may be created.

⁸¹ JEREMY RIFKIN, *THE END OF WORK* 241 (1995).

⁸² JOHN P. KRETZMANN & JOHN L. MCKNIGHT, *VOLUNTARY ASSOCIATIONS IN LOW-INCOME NEIGHBORHOODS: AN UNEXPLORED COMMUNITY RESOURCE* 2 (1996).

⁸³ *Id.* at 4-16.

⁸⁴ *Id.* at 18.

⁸⁵ Arthur J. Lurigio, *Law and Order*, *LOYOLA MAGAZINE*, at 13 (Spring 1998).

EFFECTIVE LAW-ENFORCEMENT TECHNIQUES FOR REDUCING CRIME

JOHN N. GALLO*

In their article *Asymmetrical Causation and Criminal Desistance*, Christopher Uggen and Irving Piliavin discuss "devising theoretically relevant interventions."¹ As a white-collar criminal defense attorney and a former federal prosecutor, I have been asked for my personal perspective on what law-enforcement techniques, a type of "relevant interventions," have been effective in reducing crime. Given my background, it seems I am most qualified to comment on that question from the perspective of law enforcement, and in particular from the vantage point of federal law-enforcement. Viewed from this perspective, the question I address in this article is whether federal law-enforcement has played a significant role in reducing crime and, if so, what law-enforcement techniques have been effective in that regard?

In summary, my experience has been that law enforcement has had an impact in deterring and/or reducing criminal activity, but that the type of deterrence generally varies depending on the nature of the criminal activity. Specifically, in the case of white-collar crime, where the actors are generally rational, informed individuals, enforcement of criminal laws generally deters additional criminal conduct of the kind at issue; in other words, the prosecution of one will deter others from committing similar criminal conduct. On the other hand, in the case of violent crime, the prosecution of an individual is far less likely to deter others from engaging in the same criminal conduct, either because such actors do not act rationally or because they are unaware of the punishment for their conduct. At times, prosecution of violent offenders may individually deter criminal conduct, that is, prevent the same individual from committing similar acts again. Some violent offenders, however, if given the opportunity, will repeat their criminal conduct regardless of how many times they are prosecuted. In these cases, the only effective law-enforcement tool is incapacitation of that individual, usually through incarceration.

These principles, if validated, have significant implications for the way our society allocates its law-enforcement resources and for the way it punishes criminal offenders. In particular, in the case of white-collar offenses, law enforcement is most effective and efficient if it targets particular types of criminal conduct and publicizes prosecutions. For violent offenders, on the other hand, law enforcement will by necessity be generally more reactive; in this case, however, once society prosecutes an individual, it is vital that society aggressively supervise (including drug test) that individual as part of some probationary sentence served after any period of incarceration. Finally, in the case of corrupt, violent organizations, law enforcement is most effective if it targets for prosecution the leaders of those organizations, causes their long-term incapacitation, then identifies and targets their successors.

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¹ Christopher Uggen & Irving Piliavin, *Asymmetrical Causation and Criminal Desistance*, 88 J. Crim. L. & Criminology [page #], [pinpoint section IV A] (1998).

I. WHITE COLLAR CRIME

For purposes of this commentary, "white collar crime" refers to non-violent criminal offenses committed in an institutional or commercial context.² Examples include fraud of all kinds (including wire, mail, and bank fraud), public corruption, commercial bribery (including payment or receipt of kickbacks), antitrust violations, and environmental offenses. White-collar offenders generally are motivated by profit, and are usually rational, informed actors who will assess the risks versus the benefits of engaging in criminal conduct. As further discussed in the examples below, white-collar crime is more prevalent in areas where law-enforcement has not devoted resources or has not been effective. When, however, law enforcement is effective in enforcing the criminal laws against a small number in a white-collar area, oftentimes the result is that the larger group in that area conform their conduct to the law.

To highlight this principle, what follows are a series of examples of white-collar prosecutions and a discussion of the observed impact of the same on the conduct of those in the affected area.

A. OPERATION GREYLORD

Perhaps one of the most notable examples of the impact of targeted law-enforcement on white-collar crime is "Operation Greylord," a federal probe of corruption in the Circuit Court of Cook County, Illinois³ that began with an undercover investigation in the late 1970s. At the start of the probe, the Circuit Court was notorious for its corrupt judges and attorneys, and bribery and extortion were rampant. At the end of the probe, fifteen judges and forty nine lawyers had gone to prison for bribery and/or tax-related offenses; a total of 103 attorneys at one time or another faced charges of criminal or unprofessional conduct.⁴

The investigation resulted in the creation of a commission to investigate how the Circuit Court functioned. That commission recommended a series of changes, many of which were adopted by the Circuit Court. Those changes included judges being rotated through various branches of the Court every eight to twelve months; cases being assigned on a random basis, frequently by computer; new judges receiving ethics training; and attorneys having to sign in at the courthouse and list their cases (thereby reducing the possibility that they will solicit or "hustle" cases).⁵ The result of the investigation and subsequent court-reforms has been that the Court no longer is reputed among lawyers to be a bastion of corruption.

B. [GELLENE INDICTMENT]

A recent example of the impact of a single white-collar prosecution on a much wider group arose in the area of bankruptcy law. The federal prosecution in Milwaukee, Wisconsin, of a former partner of a large New York law firm sent ripples throughout the bankruptcy bar of the

² White collar crimes are "unlawful, non-violent conduct committed by corporations and individuals including theft or fraud and other violations of trust committed in the course of the offender's occupation (e.g., embezzlement . . . , antitrust violations, price fixing . . . , and the like)." BLACK'S LAW DICTIONARY 1596 (6th ed. 1990).

³ [Cook County encompasses all of Chicago and some of the surrounding suburbs.]

⁴ Abdon M. Pallasch, *Chicago Lawyer Special Report: Greylord Update*, CHICAGO LAWYER, Sept. 1995, at 14.

⁵ *Id.* at 18.

United States, and resulted in widespread attention to what had formerly been a fairly routine required series of filings for a lawyer seeking to represent a debtor in a bankruptcy proceeding.

Specifically, in December 1997, a federal grand jury returned an indictment charging John Gellene with having failed to make material disclosures to the bankruptcy court in 1994 in connection with the process by which the bankruptcy court ultimately appointed Gellene's law firm to represent a Milwaukee company, the Bucyrus-Erie Company, in a proceeding pursuant to Chapter 11 of the United States Code.⁶ In particular, the indictment alleged that the bankruptcy rules required a law firm seeking court appointment to represent the debtor in bankruptcy to disclose to the Court all of the law firm's connections to the debtor, creditors, and any other party in interest in the bankruptcy proceeding. According to the indictment, Mr. Gellene failed to disclose to the bankruptcy court that his firm also represented the senior secured-creditor and one of the creditor's principals at the time of the bankruptcy proceeding. In February 1998, a Wisconsin jury found Mr. Gellene guilty as charged in the indictment.⁷

Even prior to Mr. Gellene's indictment, during the grand-jury phase of the federal investigation, the bankruptcy bar was focused on the implications of the matter for practitioners filing similar disclosure declarations in other jurisdictions.⁸ The federal prosecution in Milwaukee was followed by careful bankruptcy-court scrutiny of other disclosure statements filed by law firms in other jurisdictions. Law firms have become "hypersensitive" to disclosure of their connections to creditors and other parties-in-interest in the bankruptcy setting.⁹ Firms began to review their internal procedures for spotting potential conflicts-of-interest, and have become more candid in their disclosures to bankruptcy judges.¹⁰ In one case, a law firm attached to its disclosure statement a computerized printout of all the firm's clients. In response to the federal scrutiny on bankruptcy disclosure, some law firms have begun consulting with government representatives for assistance on formulating ways to improve their internal identification of clients with connections to bankruptcy proceedings.¹¹

C. [HEALTH CARE FRAUD]

Starting in the early 1990s, an increase in the federal investigative resources devoted to the investigation and prosecution of health-care fraud and abuse has led to widespread corporate attention in the health-care industry to addressing the problems of fraud and abuse. For example, from 1991 to 1993, the Federal Bureau of Investigation tripled the number of agents assigned to investigate health-care fraud and abuse.¹² In May 1995, President Clinton launched "Operation Restore Trust," a special initiative of the Department of Health and Human Services against

⁶ United States v. Gellene, No. 97 CR 221 (E.D. Wis. 1997).

⁷ Gellene Indictment, No. 97 CR 221 at 3 (citing Fed. R. Bankr. Pro. 2014). [need this source from author]

⁸ *Bankruptcy Court Decisions*, V.31, Issue 7 (September 16, 1997) at A9. [need this source from author. Also need to clarify what it is]

⁹ Mathew Goldstein, *Lawyers Go Over Limit: Bankruptcy Attorneys Learn Lessons in Disclosure*, CRAIN'S N.Y. BUS., June 1, 1998, at 3.

¹⁰ *Id.*

¹¹ *Id.*

¹² These statistics were obtained from the FBI's Criminal Investigative Division, Health Care Fraud Program. [need source from author]

health-care fraud, waste, and abuse. Operation Restore Trust established a demonstration project focused on home-health care, nursing homes, and durable medical equipment suppliers in five states.¹³ From 1995 to 1996, the number of federal prosecutions linked to health care increased by 60%.¹⁴

With the increased federal focus on health-care fraud and abuse, there has been a revolution in the attention spent by public and private health-care institutions on issues relating to fraud and abuse. In response to the demand of clients, most large law firms have expanded their health care practices to provide advice and counseling to institutions concerned about developments in the area. Health-care institutions have created internal codes of conduct and audit programs and hired compliance officers to monitor compliance with relevant statutes and regulations. Health-care institutions and professionals monitor federal investigative developments on a regular basis, and circulate those developments in newsletters and correspondence throughout the industry. The combined impact of the federal enforcement in an area that had been relatively neglected and of the private reaction to such enforcement has been a newly-sensitized health-care environment where fraud and abuse has been effectively deterred.

D. [CORPORATE SENTENCING GUIDELINES]

On November 1, 1991, the United States Sentencing Commission introduced a new set of guidelines applicable only to the sentencing of organizations.¹⁵ These "corporate" sentencing guidelines have revolutionized white-collar law-enforcement by effectively establishing a system where corporations and other organizations are driven to police themselves and their employees. One of the achieved objectives of the corporate sentencing guidelines has been that many corporate institutions have established internal mechanisms for preventing, detecting, and reporting criminal conduct.¹⁶ That objective was achieved in part by the design of the corporate sentencing guidelines, which oblige courts sentencing organizations to consider whether the organization brought the misconduct at issue to the attention of law-enforcement authorities, i.e., whether the organization voluntarily disclosed the misconduct.¹⁷

The guidelines also require courts sentencing organizations to consider whether at the time of the offense, the organization had "an effective program to prevent and detect violations of law," also known as a corporate compliance program.¹⁸ The guidelines detail what defines an effective corporate-compliance program.¹⁹ Those minimum requirements include a corporate code of conduct, the assignment of high-level individuals to oversee compliance with the code of conduct, effective communication of the code of conduct to individuals in the organization, audit controls to monitor compliance, sanctions for those who violate the code of conduct, and the taking of reasonable steps to prevent further offenses after they become known.²⁰

¹³ Department of Health and Human Services Press Release, "Operation Restore Trust Objectives and Accomplishments" (May 13, 1996). [need source from author]

¹⁴ Monica Langley, *A Nonprofit Hospital Finds Its Executives Were Making the Profit*, WALL ST. J., Nov. 20, 1996, at A1.

¹⁵ United States Sentencing Commission, Guidelines Manual, Ch. 8 (1997) [hereinafter USSG].

¹⁶ *Id.*, at Ch. 8, intro. comment.

¹⁷ *Id.*, at §8C2.5(g) ("Self-Reporting, Cooperation, and Acceptance of Responsibility").

¹⁸ *Id.*, at §8C2.5(f) ("Effective Program to Prevent and Detect Violations of Law").

¹⁹ *Id.*, at §8A1.2, comment. (n.3(k)).

²⁰ *Id.*

Federal law-enforcement authorities responded to the implementation of the corporate sentencing guidelines by establishing policies further encouraging voluntary disclosure by organizations of misconduct and the establishment of corporate compliance programs. For example, both the Department of Justice (in the antitrust area) and the Department of Health and Human Services (in the area of health-care fraud and abuse) have policies which state that when the government exercises discretion regarding whether or not to prosecute an organization, the government will consider whether the organization made voluntary disclosure of the offenses and whether the organization had an effective corporate-compliance program.²¹

The impact of the corporate sentencing guidelines and subsequently-established federal law-enforcement policies has been significant. Virtually every large corporate institution, fearing the potentially draconian sanctions resulting from a federal prosecution of the institution, has established a corporate code of conduct and an audit program designed to root out corporate misconduct. In circumstances where an institution identifies misconduct within the organization, the institution invariably now considers making voluntary disclosure of that conduct to the government. The result has been that the federal government has dramatically increased its investigative capabilities beyond just federal law-enforcement authorities to include substantial portions of the private sector which now, in effect, act as the eyes and ears of the federal government.

Examples like the foregoing support the principle that the prosecution of white-collar offenders deters similarly-situated potential offenders from committing the same crimes. This appears to be a function of the rational, informed nature of potential white-collar offenders. The implication for law-enforcement authorities is that selective targeting of types of white-collar crime can efficiently reduce criminal conduct of this kind.

II. VIOLENT CRIME

For purposes of this commentary, "violent crime" refers not only to offenses against a person (such as murder, assault, and robbery), but also to narcotics and firearms offenses. Individuals who typically commit these types of offenses generally do not engage in the same cost-benefit analysis that white-collar offenders do, either because violent offender do not act rationally, or because they are not adequately informed regarding the implications of their criminal conduct. This principle is highlighted by the following examples:

A. DRUG "MULES"

Perhaps the classic example of a violent offender acting in an irrational and/or uninformed manner is the low-level courier of narcotics such as cocaine. Specifically, depending on market conditions, a kilogram of cocaine sells for approximately \$20,000 at the retail level. Oftentimes, narcotics dealers hire individuals to deliver cocaine to buyers and/or to bring the money back from the purchaser. Such couriers, or "mules," frequently are paid a very small percentage of the cost of the kilogram, such as a few hundred dollars. If, however, a courier is caught committing the crime, the courier faces a mandatory-minimum sentence under federal law of five years' im-

²¹ [need cite]

prisonment and a fine of \$250,000.²² Except in extraordinary circumstances, a rational actor would not take on the risk of such severe penalties for such a meager reward. At times, such offenders are operating under a misunderstanding that if they are not physically in possession of the cocaine, or if they do not receive the money at the same time they deliver the cocaine, they cannot be prosecuted.

B. BANK ROBBERY

The Federal Bureau of Investigation's statistics regarding robbery, burglary, and larceny of federally-insured financial institutions (crimes collectively referred to hereafter as "bank robberies") dramatically highlight the irrational nature of a violent criminal.²³ Specifically, in 1995, a total of 7239 bank robberies occurred nationwide.²⁴ The total value of the cash, securities, and other property taken in those bank robberies was \$61,280,877.55, or an average of approximately \$8,465 per bank robbery.²⁵ Of those 7239 bank robberies, law enforcement has "solved," that is, arrested the offender(s) [check] in 4583 instances.²⁶ The solution rate, therefore, for bank robberies committed in 1995 is approximately 63%.

The statistics for 1996 are similar. In 1996, 8536 bank robberies occurred.²⁷ The property taken in those bank robberies totaled \$81,522,697.94, or an average of approximately \$9,550 per bank robbery.²⁸ Law enforcement has solved 5122 of those bank robberies, or 60% of all bank robberies in 1996.²⁹ Combined for the two years, law enforcement solved approximately 62% of the bank robberies committed; the average amount of loot gained from each of those robberies was \$9,053.

Bank robberies committed in 1995 and 1996 are punishable under the United States Sentencing Guidelines. Specifically, assuming a successful federal-prosecution under 18 U.S.C. §2113 (which prohibits "bank robbery and incidental crimes"), an offender with no criminal record who took less than \$10,000 faces a sentence of not less than forty-one to fifty-one months' imprisonment without possibility of parole.³⁰ If the offender has a prior conviction, brandished a weapon, caused bodily injury, or threatened death, the guideline range for the offense increases dramatically. [to what?]

Despite these statistics, 8264 bank robberies occurred in 1997.³¹ The offenders committed the crimes where the likelihood is that they will steal less than \$10,000; where the chances of their being arrested are about three out of five; and where the sentence they face if convicted in a

²² See 21 U.S.C. §841(a) (1994).

²³ The statistics referred to regarding bank robberies were obtained from the Chicago Division of the FBI. The reporting date for the statistics was May 7, 1998. [get source from author]

²⁴ [I.d.]

²⁵ [I.d.]

²⁶ [I.d.]

²⁷ [I.d.]

²⁸ [I.d.]

²⁹ [I.d.]

³⁰ See USSG, *supra* note 14, at §2B3.1.

³¹ See *supra* note [??] at --

federal court is approximately four years of non-parolable imprisonment.³² The irrational nature of the commission of the offenses in 1997 is readily apparent.

Finally, the FBI statistics regarding bank robberies are notable for revealing the importance of carefully monitoring the conduct of those previously convicted of similar offenses, particularly drug users. Of those identified as having committed bank robbery, about one out of four was previously convicted of a similar offense, about one out of three was on probation or parole, and (to the extent identifiable) about three out of four were narcotics users.³³

A personal experience with a repeat narcotics offender highlights the irrational nature of the violent offender. In 1990, the Internal Revenue Service learned that a man (hereafter "Fat Daddy") in a suburb outside Chicago had purchased his home with cash and without having any known legitimate source of income. After further investigation, the federal government obtained a court order calling for the civil forfeiture of Fat Daddy's home. At the time of the execution of the seizure order, federal agents confronted Fat Daddy, who admitted his connection to a wide-ranging narcotics distribution network. Fat Daddy agreed to cooperate with the federal agents in connection with an investigation into the narcotics network, then disappeared without maintaining the requested contact with the agents.

Sometime later, Fat Daddy telephoned a federal agent from the hospital and reported that he had just been shot. Fat Daddy suspected that he had been shot by narcotics conspirators suspicious that he was cooperating with the federal government. Fat Daddy admitted that he had been involved in narcotics distribution since the civil seizure, but promised to cooperate in the future with the federal government. After his release from the hospital, however, he again ceased communication with the IRS. Subsequently, a grand jury indicted him for structuring currency transactions to avoid reporting requirements, he was arrested, and he pled guilty under seal pursuant to a plea agreement that required him to cooperate with the federal government. Predictably, he again fell out of sight until he was arrested again. This time, the court ordered Fat Daddy detained until sentencing.

The court ultimately sentenced Fat Daddy to eleven months' imprisonment, followed by two years' supervised release. After his release from prison, a United States Probation Officer carefully supervised Fat Daddy, and required him to be tested periodically for narcotics use. Whenever he tested positive for narcotics use, the court ordered Fat Daddy to appear in court and threatened revocation of his supervised release and an additional prison term. In this fashion, the federal government closely supervised the conduct of an individual who undoubtedly will return to the practice of committing crime once his supervision ends.

In summary, because of the nature of most violent crime, law enforcement necessarily is more reactive in responding to such conduct than it is for white-collar crime, where law enforcement effectively can be proactive by targeting types of offenses. The prosecution of individual offenders appears to have little general deterrent effect on other potential offenders. Law enforcement, however, potentially can deter individual offenders from repeating similar crimes by aggressively supervising offenders, including periodically testing such offenders for drug use. If such supervision fails, the only effective means of deterring individuals from committing similar violent offenses is to incapacitate them, usually by imprisonment.

³² [need cite]

³³ [need cite]

III. CORRUPT/VIOLENT ORGANIZATIONS

Federal law-enforcement faces a unique problem when confronted by criminal conduct of sophisticated violent organizations like organized crime or gangs. In this circumstance, the criminal conduct of the organizations typically is not deterred by the prosecution of other organizations (general deterrence) or by reacting to the criminal conduct of some of its individual members (individual deterrence). One of the reasons traditional forms of law enforcement are ineffective is that the leadership of these organizations typically insulates itself from the day-to-day operations of the organization, and hires low-level criminals like the above-mentioned narcotics courier³⁴ to conduct the criminal conduct of the enterprise, with the profits flowing back to the organization. In this context, the most effective law-enforcement technique is the identification of the leadership of the organization, the targeting of that leadership for investigation, and the use of appropriate means—such as wiretapping and the use of informants—to make a criminal case of some kind against the leadership. Once that has been accomplished, law enforcement must remain vigilant in identifying successors to the leadership of the organizations, and repeat the process.

In this way, over time, such organizations lose their influence and effectiveness, and wither in terms of their capacity to terrorize communities. Notable examples of the success of federal law-enforcement in this regard include investigative efforts relating to organized crime in New York and Chicago, and relating to gang crime in Chicago.

IV. CONCLUSION

In any society, law enforcement will have an important role in society's efforts to reduce crime. As we have witnessed criminal activity decreasing, one of the questions raised has been what law enforcement techniques were effective in causing the reduction in crime. The conclusion of this commentary is that the type of effective law-enforcement technique depends on the type of the crime. In the case of white-collar crime, where the offenders are rational, informed actors, the targeting of a select group in an identifiable subject area will lead to the deterring crime by the larger group in that same area. In the case of violent crime, where offenders are not as rational and/or informed about the implications of their conduct, law enforcement is most effective when it reacts to offenders' conduct by seeking close societal supervision of offenders, and by seeking incarceration for those frequent and repeat offenders. In the case of corrupt, violent organizations, law enforcement must identify the high-ranking members of the organization, target them for prosecution and incarceration, then repeat the process with the successors to the leadership.

³⁴ [See *supra*, text accompanying note —.]

WHICH HOMICIDES DECREASED? WHY?

MICHAEL D. MALTZ*

In a sense, criminologists are luckier than economists. Economists are asked to forecast what *will* happen to the economy, and a lot of them get it wrong. Criminologists are asked to *back-cast*, to explain what happened after it happens, and probably with about the same success as economists have at forecasting: even though we know what the outcome is, we often don't know why. But this is not for lack of trying.

After reading the papers and hearing the presentations, I am struck by the care with which the authors have analyzed the homicide data at three levels: national, multi-jurisdictional, and single-city. My comments should in no way be seen as criticisms of their efforts; rather, they are suggestions as to additional steps that might be taken. My comments focus on two areas: disaggregation of homicide data, and considering whether "regression to the mean" might explain the recent decline in New York City homicides.

I. DISAGGREGATION.

As Frank Zimring pointed out in his remarks, these three papers go from the general to the specific. The first¹ discusses time trends for the whole country, the second² focuses on eight cities, and the third³ is limited to one city. But I think that even more disaggregation is necessary in trying to understand homicide trends.

Homicide is a crime in and of itself; but in another sense it is the fatal outcome of a many different crimes.⁴ *Child abuse* is a crime, and when it turns fatal it becomes infanticide. *Domestic abuse* is a crime, and when it turns fatal it is homicide among intimates.⁵ *Armed robbery* is a crime, and when it turns fatal it becomes a felony homicide.⁶ I would like to see studies that look at trends in child abuse, domestic violence, and armed robbery—as well as other offenses—and see the extent to which they are related to the trends in homicide: for example, since most infanticides are not committed with guns, perhaps a long-term decrease in child abuse is the cause for the long-term decrease in non-gun

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¹ Alfred Blumstein and Richard Rosenfeld, *Explaining Recent Trends in U.S. Homicide Rates*, 88 J. CRIM. L. & CRIMINOLOGY [PAGE] (1998).

² Latimore et al paper[check with author on this-she is not publishing in this edition]

³ Jeffrey Fagan et al, *Declining Homicide in New York City: A Tale of Two Trends*, 88 J. CRIM. L. & CRIMINOLOGY [PAGE] (1998).

⁴ Richard Block and Carolyn Rebecca Block, *Homicide Syndromes and Vulnerability: Violence in Chicago Community Areas Over 25 Years*, 1 STUDIES ON CRIME & CRIME PREVENTION, [start page], [61-87] (1992).

⁵ Lawrence A. Greenfeld et al, *Violence by Intimates*, Report NCJ-167237, Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice, Washington, D.C., March 1998.

⁶ Michael D. Maltz, "Secondary Analysis of the UCR: An Index of the Risk of Death Due to Robbery," 4 *Journal of Criminal Justice*, 2, Summer 1976, 153, 153-56.

homicides that Fagan, Zimring, and Kim noted.⁷ **This appears to be the direction towards which Latimore is moving.**⁸

To understand a phenomenon, it is usually necessary to go to the next level, to understand the context in which the phenomenon is found. Looking only at homicide statistics begs the question of the many different motivations that may be driving the statistics. Knowing the authors of these papers, I am sure that they are well aware of this, but the readers should be cautioned that additional steps need to be taken to provide a greater understanding of homicide.

II. REGRESSION TO THE MEAN.

The three homicide studies to which I am responding⁹ all used homicide data from the FBI's Uniform Crime Reports (UCR)¹⁰ and Supplementary Homicide Reports (SHR),¹¹ or arrest data from the UCR; that is, all used data that were obtained from the police. It turns out that victimization data—data about crime obtained from victims—can also be used to explore at least one of the reasons given for the declining homicide rate in New York City, "regression to the mean."¹²

A well-known example of this phenomenon is found in "The Connecticut Crackdown on Speeding."¹³ In 1956, following a year in which Connecticut experienced a very high rate of traffic fatalities, then-Governor Abraham Ribicoff instituted a new policy for the State Police: zero tolerance of speeding. The next year there were 40 fewer traffic fatalities (a 12.3% decrease), as shown in Figure 1, which the governor attributed to this policy.¹⁴

[Figure 1 about here]

But it's not always that simple; a before-after comparison can often be very misleading.¹⁵ When Campbell and Ross added to the picture prior and subsequent years (Figure

⁷ See Fagan, *supra*, note 3 at [page]. I doubt that this is the case, but it is exemplary of the type of analysis that should be done.

⁸ [See *supra*, note 2. What to do about Latimore?]

⁹ See *supra* notes 2-4.

¹⁰ FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES, 1996. The FBI publishes this annual report based on data sent by police departments to the FBI.

¹¹ The SHR data set can be downloaded from the National Archive of Criminal Justice Data, located at <http://www.icpsr.umich.edu/nacjd>, it is Study Number 6754. It is based on data sent by police departments to the FBI.

¹² See Fagan et al., *supra*, note 3 at [page].

¹³ Donald T. Campbell & H. Laurence Ross, *The Connecticut Crackdown on Speeding: Time Series Data in Quasi-Experimental Analysis*, 3 L. & SOC'Y REV. 33 (1968). The figures from that paper have been redrawn.

¹⁴ *Id.*

¹⁵ Michael D. Maltz et al, "An Artifact in Pretest-Posttest Designs: How It Can Mistakenly Make Delinquency Programs Look Effective." 4 EVALUATION REV., April, 1980, 225-40; Michael D.Maltz and Stephen M. Pollock, *Artificial Inflation of a Delinquency Rate by a Selection Artifact*, 28 OPERATIONS RES. 547, 547-59 (1980). [EVALUATION REVIEW IS A BOOK SERIES THAT WAS PUBLISHED BY SAGE, TO WHICH WE CONTRIBUTED A CHAPTER—AS I RECALL, THE EDITOR WAS LEE SECHREST]

2), the attribution of the decrease to the policy seemed much more debatable: note that the fatalities in the first two years after the treatment were higher than five of the six years prior to the treatment.

[Figure 2 about here]

It appears that two conditions made the policy makers mistakenly conclude that the new policy had caused the reduction. First, there was a great deal of volatility, or year-to-year variation, in the traffic fatality rate, as seen in Figure 2. This means that it would be difficult to determine the extent to which any change (up or down) is due to the policy and the extent to which it is due to the inherent variation in the data.

Second, the policy was implemented in a year following one that had a rather extreme number of traffic fatalities. One would expect that, *regardless* of any change in policy, the next year's rate would be more moderate (i.e., closer to the historical mean rate): it is harder to go *up* from an all-time high than it is to go down. In fact, a better name for the phenomenon might be "selection of the extreme," because it was the selection of an extremely high rate as the "before" year that foreordained a more moderate rate—a decrease—in the "after" year.

To what extent can this phenomenon explain the New York City experience? Is there evidence of volatility in the data, and is there evidence that the homicide rate in the late 80's and early 90's was in some sense extreme?

Let us first look at whether the homicide rates for New York were in some sense extreme. Evidence from a different source of data, the National Crime Survey (NCS), suggests that they were.¹⁶ Since 1995 I have been a Visiting Fellow at the Bureau of Justice Statistics (BJS); one of my first projects there was to look at the relationship between aggravated assault as reported by police to the FBI and as reported by victims on the NCS, for various states. Although the NCS is a national survey, at that time the sample size was sufficiently large that one could obtain estimates of victimization rates for the eleven largest states.¹⁷ This permitted us to investigate the relationship between aggravated assault, as reported on the NCS, and homicide. While most criminologists have felt that the relationship between the two is quite strong (because many homicides, had they not been fatal, would have been classified as aggravated assaults), it could not be investigated using police-collected data because so many victims of aggravated assault do not report them to the police.¹⁸ Since homicide data are considered to be very accurate and reli-

¹⁶ Begun in 1973, the NCS was a longitudinal sample survey of 60,000 households in the United States; all household members aged 12 and over are interviewed about incidents in which they have been victims of a crime. That has been used to estimate the nation's victimization experience. It was redesigned in 1992 and is now known as the National Crime Victimization Survey (NCVS). The Census Bureau collects the survey data for the Bureau of Justice Statistics. Further information on this program can be obtained at the BJS website, <http://ojp.usdoj.gov/bjs>.

¹⁷ The Census Bureau, which collected the NCS data, provided data disaggregated by state, but only for the eleven most populous states (as defined by the 1990 Census). Moreover, for budgetary reasons the sample size has since been reduced, so the state-specific data available even for these eleven states may now be of more limited utility.

¹⁸ According to the NCVS, 45 percent of aggravated assault victimizations are not reported to the police. CHERYL RINGEL, BUREAU OF JUSTICE STATISTICS, REPORT NO. NCJ-165812, CRIMINAL VICTIMIZATION 1996 8 (1997).

able, we were able to compare two reliable data sets, NCS-collected aggravated assault data and police-collected homicide data, for these eleven states.¹⁹ As seen in Figure 3, the relationship between the two is fairly strong for most states, but New York State's homicide rate is considerably above what one would expect from the other states' data.

[Figure 3 about here]

My conclusion from using a different data set than that used by Fagan et al is that it appears that New York State (and therefore New York City) did have a higher than expected number of homicides during this period.²⁰ Thus we have one of the conditions necessary for regression to the mean—an extreme number of homicides, considerably greater than “normal.”

However, another condition is necessary before one can attribute the finding to a statistical anomaly like regression to the mean—volatility in the data so that the year-to-year variation is of the same order of magnitude as the presumed decrease. From the data that Fagan, et al present, this is not the case.²¹ Homicide rates are consistently high for a number of years, and the year-to-year variation does not exhibit the volatility that would make it a candidate for regression to the mean.

What I suggest is a friendly amendment to their paper, that they replace the term “regression to the mean” with “compensatory feedback” as a possible explanation of the increase and decrease, in some ways equivalent to the homeostasis that Blumstein and his colleagues noted in corrections data before the 1980s.²² By “compensatory feedback” I mean that when extreme homicide rates began to accrue year after year, various steps were taken, perhaps by the police, perhaps by others, to mitigate this problem.

Some observers may feel that the steps produced a “sea change” in the practices of the New York City Police Department, while others may feel that the decline was bound to occur regardless of the new police tactics, because, as Fagan et al note, similar reductions were experienced in other cities and at other times. On whether it was due to the police or an inevitable downswing, the jury is still out.

[NOTE ADDED IN PROOF] In a subsequent conversation with Jeffrey Fagan, he suggested that the rise and fall of homicides in New York City might have been attributable to an epidemic that grew and was sustained due to the combined effect of the ready availability of drugs and guns, and that there might have been some self-limiting aspects to the epidemic: a finite number of “susceptibles” that limited growth, and various factors

¹⁹ We chose to look at the years 1988-1990, due primarily to the availability of NCS state-level data for those years. More recent data were not available at BJS at the time of the study.

²⁰ An analysis of the SHR data, *supra* note 9, shows that from 1988-90 New York City accounted for 84.8 percent of the 6202 homicides that occurred in New York State, so an extreme number in New York State is attributable for the most part to New York City.

²¹ See Fagan, *supra* note 3; at [page], [figure or table X].

²² Alfred Blumstein and Jacqueline Cohen, *A Theory of the Stability of Punishment*, 64 J. CRIM. L. & CRIMINOLOGY 198 (1973); Alfred Blumstein et al., *The Dynamics of a Homeostatic Punishment Process*, 67 J. CRIM. L. & CRIMINOLOGY, 317 (1976); Alfred Blumstein et al, *On Testing the Stability of Punishment Process: A Reply*, 72 J. CRIM. L. & CRIMINOLOGY, 1799 (1981).

that inhibited its "intergenerational" transmission. This explanation, too, would fit under the rubric of "compensatory feedback," without having to invoke a statistical "regression to the mean" to explain the phenomenon.