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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 6.8 in 1997, which is lower than any annual rate since 1967.¹

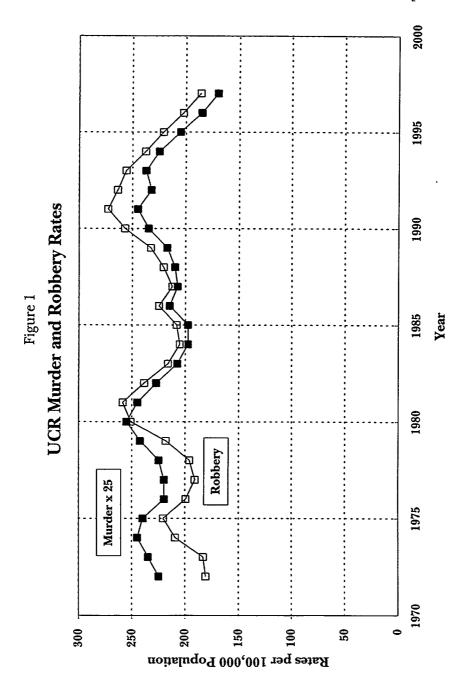
The jubilation over this decline is mixed with widespread curiosity over the factors that are responsible for it. In this paper, we explore some of those factors, focusing particularly on those whose effects are reasonably measurable and where aggregates may present a misleading picture. In some cases, 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.

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

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¹ See generally Federal Bureau of Investigation, Uniform Crime Reports 1997 (1998).



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 the booming economy, changing drug markets with diminished roles for young people, and growing incapacitation effects through increases in the prison population. And, looking

 $^{^{2}}$ Kathleen Maguire & Ann L. Pastore, Sourcebook of Criminal Justice Statistics 1996, at 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; see also GEORGE L. KELLING & CATHERINE M. COLES, FIXING BROKEN WINDOWS: RESTORING ORDER AND REDUCING CRIME IN OUR COMMUNITIES 157, 259-60 (1997); George L. Kelling & William J. Bratton, Declining Crime Rates: Insiders' Views of the New York City Story, 88 J. CRIM. L. & CRIMINOLOGY 1217 (1998); 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.

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

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. Others characterized a subgroup of active offenders as youthful "super predators" who would terrorize the nation's cities. 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

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

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

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. 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, 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. Our point here is simply that the debate

⁷ See Butterfield, supra note 3, at A8.

Fox Butterfield, Crime Fighting's About Face, N.Y. TIMES, Jan. 19, 1997, § 4, at 1.

⁹ See infra Part VI.

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

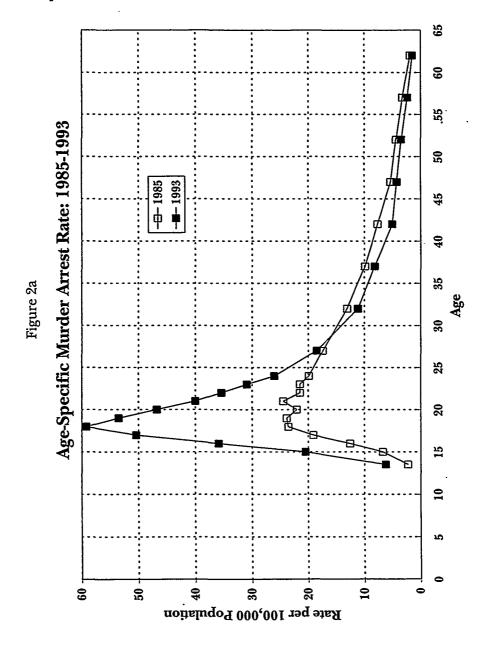
An earlier paper in this Journal presented the striking changes between 1985 and 1992 in age-specific arrest rates for homicide. That paper showed that, while the rates for persons age eighteen and younger more than doubled, the rates for those thirty and above declined by about 20-25%. We can now extend those analyses to 1997, and we see some striking changes in the younger group. Figure 2a 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.

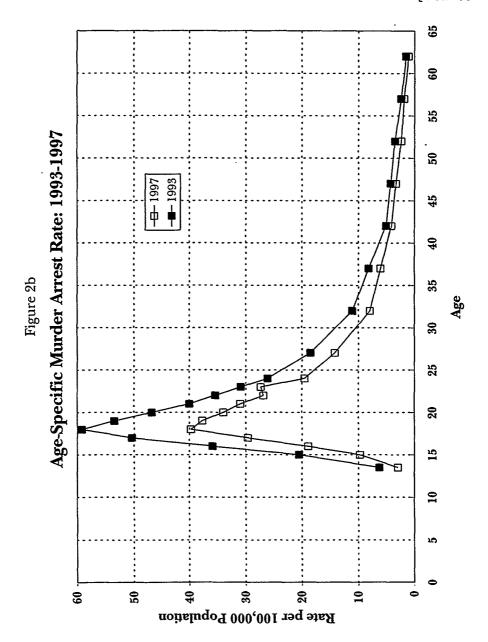
Figure 2b depicts the same 1993 situation along with the figure for 1997, where we see the rates for all ages decline, with the steepest decline around age eighteen, where the growth had been greatest.

It is instructive to break out these changes in more detail by looking at the time trends for each individual age. Figure 3 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

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

¹¹ Id.





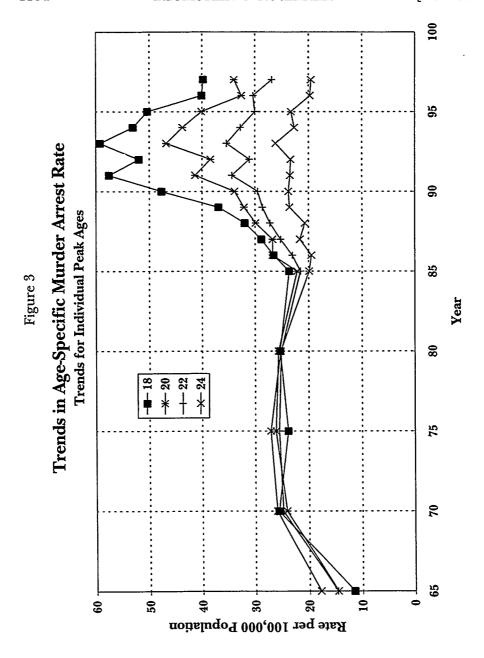
next three years. The pattern is similar for the other ages depicted in Figure 3, although the rise in the late 1980s is less steep with increasing age and the decline after 1993 is correspondingly less for the older ages. For youth under eighteen, the pattern is very similar, although the stable base 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.

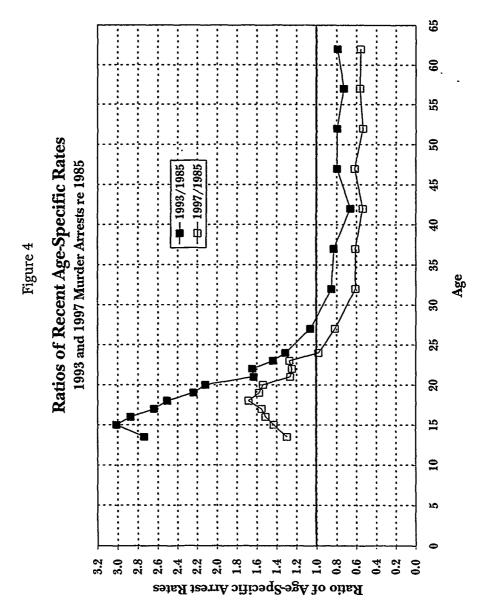
These changes for the growth period, 1985 to 1993, and for the decline period, 1993 to 1997, are reflected in Figure 4, which depicts for each age the ratio of the age-specific arrest rate for murder to the rates that prevailed in 1985. Points above the heavy line (at the ratio of one) represent an increase 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 1997.

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 1997-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 3), 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 21.6% by 1997, 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 24.2% for persons less than twenty-five-years-old and by 18% for those twenty-five and over.

Table 1. Change in Homicide Arrests by Age Group, 1993 to 1997.

	1993	1997	Change	Percent Change	Percent of Total Change
Total Estimated Homicide Arrests	23,328	18,290	-5038	-21.6%	100.0%
Suspects Under Age 25	13,399	10,152	-3247	-24.2%	64.5%
Suspects Age 25 and Over	9929	8138	-1791	-18.0%	35.5%

Not surprisingly, given their sharply higher arrest rates, younger persons contributed disproportionately to the overall decline in homicide arrests. Over 5,000 fewer arrests were made for homicide in 1997 than in 1993, and the decrease in arrests of persons under age twenty-five accounted for almost two-thirds of that total decline. However, over one-third of the drop in homicide arrests was contributed by the decrease among older adults.

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

[&]quot;Writing 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

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 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 5a 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

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 5b), 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

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.

[&]quot;Alfred 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).

[&]quot;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.

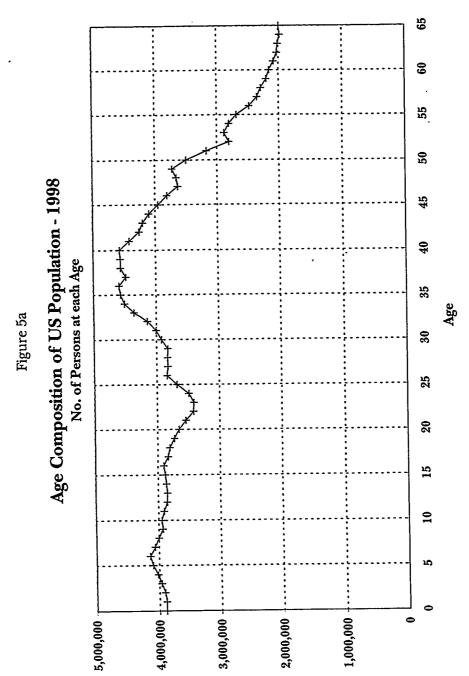
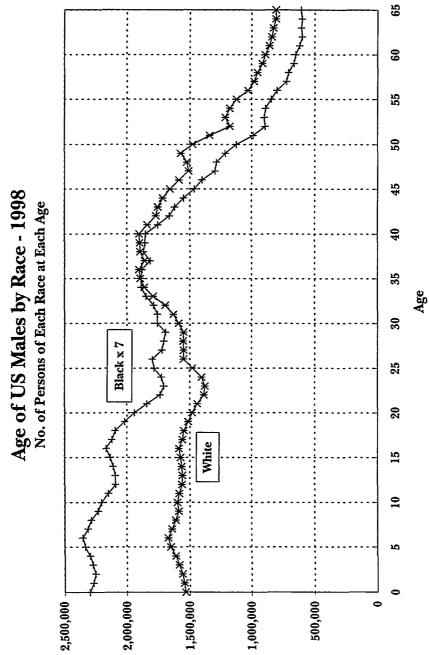


Figure 5b



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.

Finally, it is possible that changes in relative cohort size could alter the age-specific rates through mechanisms described by Easterlin and others. 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. To

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 fash-

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).

[&]quot;See Paul S. Maxim, Cohort Size and Juvenile Delinquency: A Test of the Easterlin Hypothesis, 63 Soc. 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).

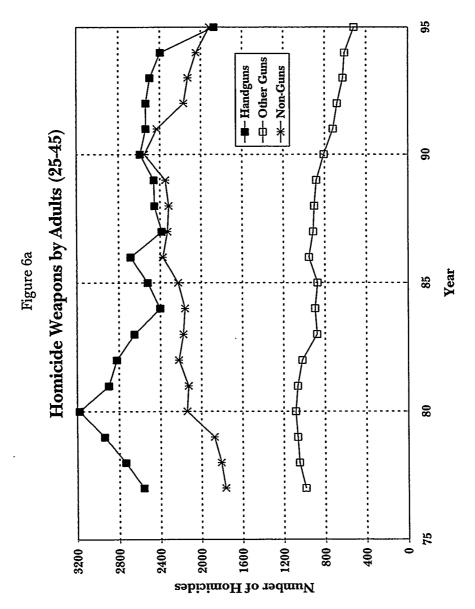
¹⁸ Blumstein & Cork, supra note 4, at 5. See generally Philip J. Cook, Kids, Guns, and Public Policy, 59 J.L. & CONTEMP. PROBS. 1 (1996).

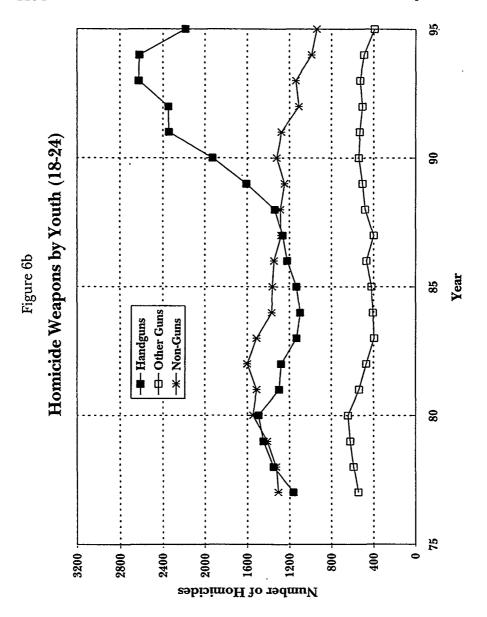
ion with which police designate the single circumstance limit the reliability of that aspect. 19

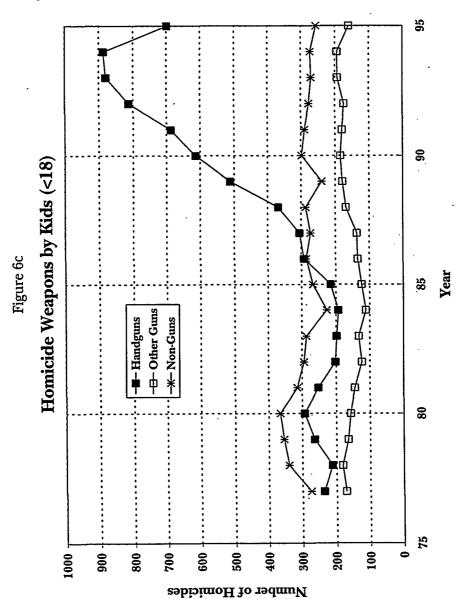
A. THE GROWTH PERIOD, 1985-1993

Figures 6a-6c 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 6a); youth, eighteen to twenty-four (Figure 6b); and juveniles, seventeen and under (Figure 6c). 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 3.

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 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.



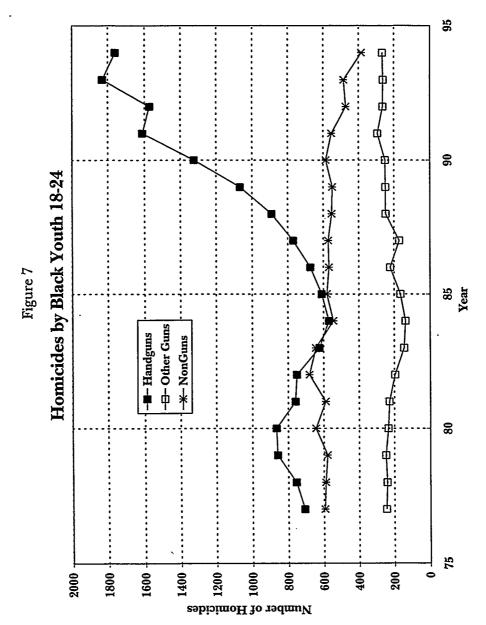


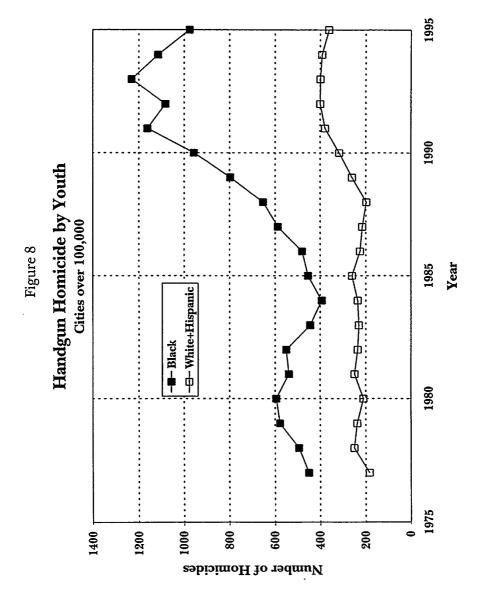


In all these figures, no appreciable increase has occurred in either the long-gun or the non-gun categories. There has been some decline in the non-gun category for youth, but this decline (28% from 1985 to 1994) is small compared to the more than 100% growth in their use of handguns. Thus, we observe 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 among African-American young people, both as offenders and as victims. Figure 7 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.

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 8, 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.



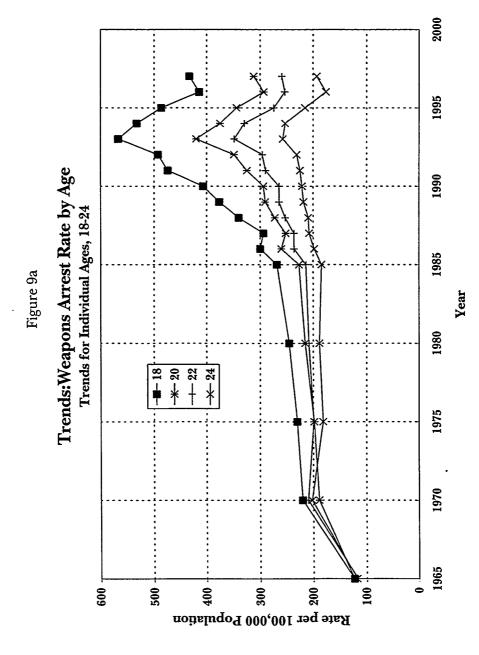


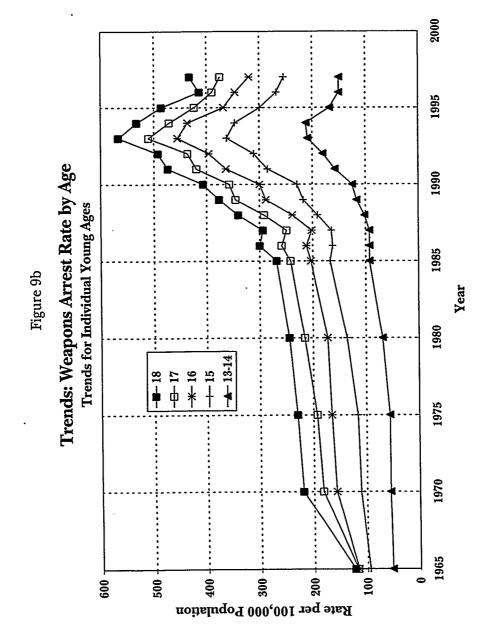
B. THE DECLINE PERIOD, 1993-1996

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 3, 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 9a and 9b, 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 3, 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.

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





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, 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. 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. New York City's contribution to the drop since 1995 has been closer to 10%, still very large, but

 $^{^{21}}$ Uniform Crime Reports, U.S. Dep't of Justice, Crime in the United States, 1991, at 59 (1991).

²² Id at 189

 $^{^{23}}$ Id. at 108 tbl.8; Uniform Crime Reports, U.S. Dep't of Justice, Crime in the United States, 1996, at 112 tbl.8 (1996).

²⁴ Uniform Crime Reports, U.S. Dep't of Justice, Crime in the United States, 1993, at 139 tbl.8 (1993); Uniform Crime Reports, U.S. Dep't of Justice, Crime in the United States, 1994, at 138 tbl.8 (1994).

 $^{^{25}}$ Uniform Crime Reports, U.S. Dep't of Justice, Crime in the United States, 1995, at 58, 134 tbl.8 (1995).

²⁶ Id.

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 10a (for homicides with other than handguns) and 10b (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

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

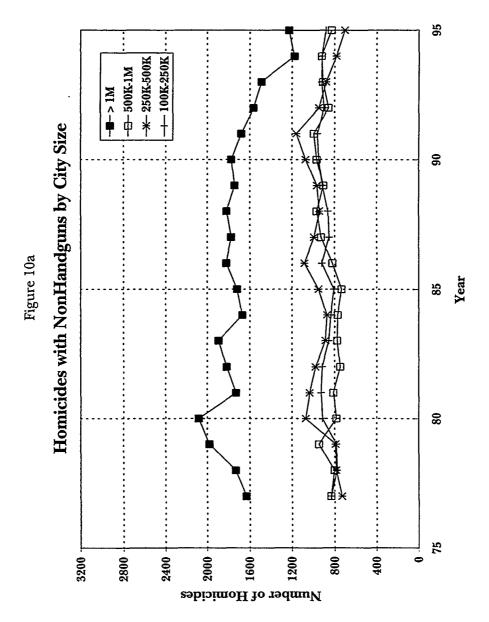
Figure 10a shows limited variation associated with the non-handgun homicides. There was very little change in the smaller cities, and a rather gradual decline of 18% in the large cities from a peak in 1986 through 1993, with a comparable drop of 21% from 1993 to 1994.

But the non-handgun homicide changes were much smaller than those in the handgun homicides. Figure 10b shows that

The 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 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.

²⁰ 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.



9 Homicides with Handguns by City Size 90 Figure 10b 82 *-250K-500K -B-500K-1M —-> 1M 8 72 2800 3200 Number of Homicides

the large cities had a major growth beginning in 1986, 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

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 chronicled the escalating homicide rates in some mid-sized cities and speculated 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 cor-

⁵⁰ 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 Mechanism, Level of Urbanization, Race, and Sex, 1987 through 1995, 280 JAMA 423, 423-427 (1998).

⁵¹ 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 (1997).

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

responding 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.

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 responded 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

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, 550-55 (1986).

⁵⁵GOLUB & JOHNSON, supra note 32.

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 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.

[&]quot;Eric Baumer et al., The Influence of Crack Cocaine on Robbery, Burglary, and Homicide Rates: A Cross-City, Longitudinal Analysis, 35 J. Res. Crime & Deling. 316, 316-340 (1998); Butterfield, su-pra note 3, 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).

[&]quot;JOSEPH 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.

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 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. Importantly, economic gains have been shared by racial minorities, teenagers, and high school dropouts, groups at disproportionate risk for serious criminal violence.

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

ss See GOLUB & JOHNSON, supra note 32, at 3.

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.

^{**}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.

[&]quot;See Sylvia Nasar, Jobs Juggernaut Continues Surge, 300,000 Find Work, N.Y. TIMES, Mar. 7, 1998, at Al.

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 innercity young men engage in both legal and illegal activity at the 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."

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

[&]quot; 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).

⁴⁵ 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).

[&]quot; Id. at 17.

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 very unwise policy to count on purely cyclical forces, and their interaction with changes in illegitimate income opportunities, to prevent youth crime and vio-Many kids involved in the illegal drug business apparently resort to legitimate employment only when other money-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." 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

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).

Figure 4), especially for those over thirty, who displayed a 40% drop in homicide rates between 1985 and 1997. 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 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. 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. 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. Some preliminary evidence suggests that the increasing availability of

[&]quot; 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).

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 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 selfprotection, 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

⁵⁰ Laura Dugan et al., Explaining the Decline in Intimate Partner Homicide: The Effects of Changing Domesticity, Women's Status, and Domestic Violence Resources, 3 HOMICIDE STUDIES (forthcoming 1999).

 $^{^{\}rm 51}$ William Bratton & Peter Knobler, Turnaround: How America's Top Cop Reversed the Crime Epidemic (1998).

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

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

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.

2. Community Efforts

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.

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

⁵⁴ See, e.g., Warren Friedman, Volunteerism and the Decline of Violent Crime, 88 J. CRIM. L. & CRIMINOLOGY 1453, 1462-63 (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).

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 diminishing, 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.