Urban Labor Markets and Job Opportunity

GEORGE E. PETERSON AND
WAYNE VROMAN
Editors

THE URBAN INSTITUTE PRESS
Washington, D.C.

Chapter Six

CRIME AND THE EMPLOYMENT OF DISADVANTAGED YOUTHS

Richard B. Freeman

Stories about crime in poor inner-city neighborhoods fill newspapers and TV and radio news shows. Unlike some sensational reporting, the stories reflect reality. In this paper I show that the proportion of disadvantaged young black men with criminal records grew so large in the 1980s that crime became a major determinant of their economic life rather than merely deviant behavior on the margin. As a result, traditional programs to help the disadvantaged—job training, education, affirmative action, and area economic development—will not suffice to bring these men into the mainstream economy. I argue that to accomplish this, the incentives and opportunities for crime must also be reduced, and programs must be devised to rehabilitate ex-offenders. This conclusion is based on two findings:

- Among blacks, one-fifth of 16–34 year old men and as many as three-fourths of 25–34 year old high school dropouts had criminal records in the 1980s. This created a sizable, relatively permanent population of offenders and ex-offenders outside the mainstream of society—an "underclass" by most meanings of the word. A substantial though smaller proportion of non-black male dropouts also came under supervision of the criminal justice system. Even in low unemployment cities such as Boston, at the peak of the "Massachusetts Miracle" economic opportunities were insufficient to deter large numbers of disadvantaged youths from crime.
- Incarceration and probation have long-term adverse effects on the employment of young men. Those incarcerated at the outset of the 1980s were markedly less likely to work throughout the decade than other young men. The relation between incarceration and employment is "causal" rather than the result of fixed unobserved personal characteristics that are correlated with crime and employment. Proportionately fewer youths who had been incarcerated worked years afterwards than did non-incarcerated youths with similar initial employment experiences.

This paper is divided into four parts. The first two parts document the two claims made above. The third part examines evidence on the earnings and costs of engaging in crime. The final part speculates on the causes of increased youth crime and draws implications for debates concerning the "underclass."

Because criminal activity is difficult to measure[1] and information on criminal earnings and the risks of crime hard to come by, I analyse several data sets: the Department of Justice's 1986 Survey of Prison Inmates; the Current Population Survey (CPS); published administrative data on the criminal justice system; the National Longitudinal Survey of Youth (NLSY); and two National Bureau of Economic Research surveys—the 1979–80 Inner City Youth Survey (ICY), and the 1989 Boston Youth Survey (BYS). I focus largely on high school dropouts, particularly black dropouts, although I present data for other disadvantaged youths as well.

YOUTH INVOLVEMENT IN CRIME IN THE 1980s

A massive number of disadvantaged youths participated in crime in the 1980s. Figure 6.1 depicts five indicators of per capita criminal activity from the 1960s through the 1980s: the total crime index, the number of arrests, the number of homicides, the number of inmates in state and federal prisons, and the number of personal and household victimizations.

The total crime index (figure 6.1A) is compiled by the Federal Bureau of Investigation (FBI) through its Uniform Crime Reporting Program on the basis of reports by some 16,000 law enforcement agencies. The index includes seven major crimes: murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny theft, and motor vehicle theft. The arrest figures (figure 6.1B), also obtained by the FBI from local law enforcement agencies, measure arrests for all crimes, not simply those in the FBI index. Arrests for index crimes comprise roughly 20 percent of total arrests, so the index arrest rate is approximately one-fifth the total arrest rate (U.S. Department of Justice 1990, table 4.7). Homicides (figure 6.1C) are obtained from the U.S. National Center for Health Statistics' *Vital Statistics of the United States*. The number of prisoners (figure 6.1D) includes those in state and federal prisons but not those in local jails. Victimization figures (figure 6.1E) are derived from the National Crime Survey, which asks members of some 60,000 households about being victimized by crime.

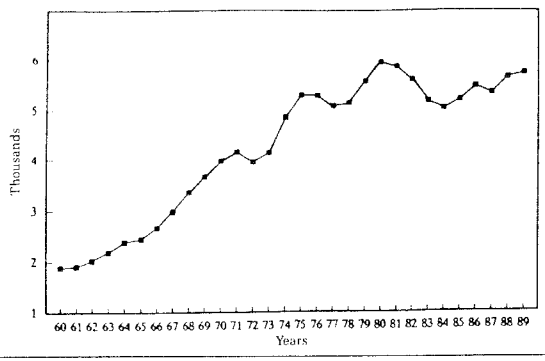
1. Surveys that ask if people commit crimes suffer from underreporting, particularly by black youths (Hindelang, Hirschi, and Weis 1981). Administrative data on crime are imperfect because reporting differs across police departments and over time and because not all crimes are reported. Due to problems of implementation (Lattimore, Witte, and Baker 1990), replication, and selectivity (they deal only with criminals), rehabilitation experiments are no panacea for inferring responses to opportunities.

As Jencks (1991) has pointed out and figure 6.1 illustrates, widespread concern about drug-related crimes and the underclass notwithstanding, crime fell in the first half of the 1980s. The total crime index declined by 15 percent from 1980 to 1984. Homicide rates dropped from 10.7 per hundred thousand in 1980 to 8.3 per hundred thousand in 1985, with the major victimised group, black men, less likely to be murdered in 1984 than in 1970 (U.S. Bureau of the Census 1990). Arrests per capita fell by 8 percent from 1982 to 1984. It is erroneous, however, to view the early 1980s drop in crime as a turnaway from a high crime society. As panels A to C of figure 6.1 show, crime levels in the 1980s far exceeded those in previous decades. The crime index tripled from 1960 to 1980, homicides increased from 1960 to 1974 and even in the lowest 1980s homicide rate year were 70 percent above their 1960 level, and arrests per capita grew through 1982. Moreover, in the latter half of the 1980s, the administrative data show crime once again rising. The crime index went up 14 percent from 1984 to 1989. Homicides increased by 10 percent, homicide became the prime cause of death of black youths, and arrests per capita were higher in 1989 than in any other post-World War II year.

Most strikingly, the high rate of crime in the 1980s occurred despite massive growth of the prison population per capita (figure 6.1D). In absolute numbers, 604,000 persons were in federal or state prisons. An additional 344,000 were in local jails in 1988 for a total incarcerated population of nearly one million persons (U.S. Bureau of the Census 1991, p. 193). At the same time 0.4 million people were on parole and 2.4 million were on probation—making a total of 3.7 million persons under correctional supervision (U.S. Department of Justice 1989, table 3)—a number equivalent to 5 percent of the nation's male work force.[2] All else equal, the incapacitation of so many criminals should have greatly reduced the crime rate. That it did not

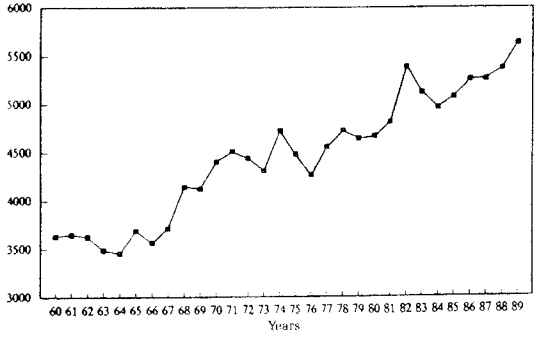
2. U.S. Bureau of the Census *Statistical Abstract 1990*, table 628, gives the number of men employed as 63 million. The number under supervision is 6 percent of this, but 15 percent of those under supervision are females. The 5 percent in the text represents male prisoners over male employment.

Figure 6.1A INDEX CRIME RATE, 1960–1989 (Per 100,000)



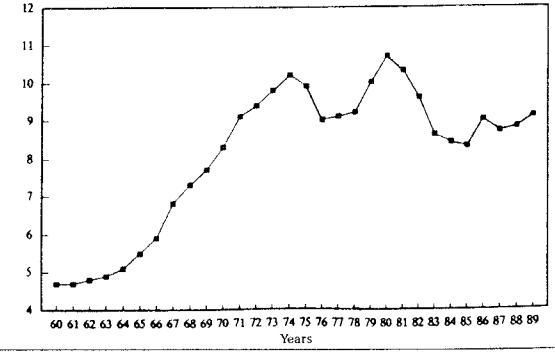
Source: U.S. Department of Justice, *Sourcebook of Criminal Justice Statistices*, 1989.

Figure 6.1B TOTAL ARREST RATE, 1960–1989 (Per 100,000)



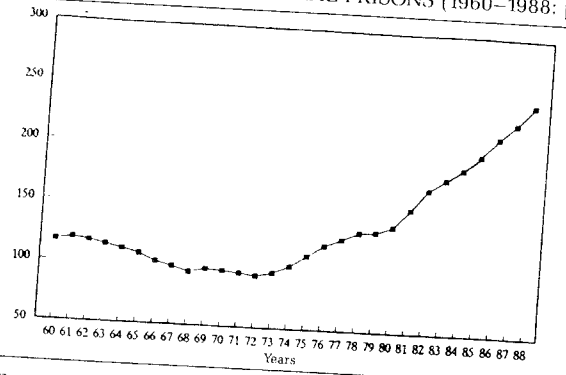
Source: U.S. Department of Justice, *Crime in the United States* various editions.

Figure 6.1C HOMICIDES PER 100,000: 1960–1989



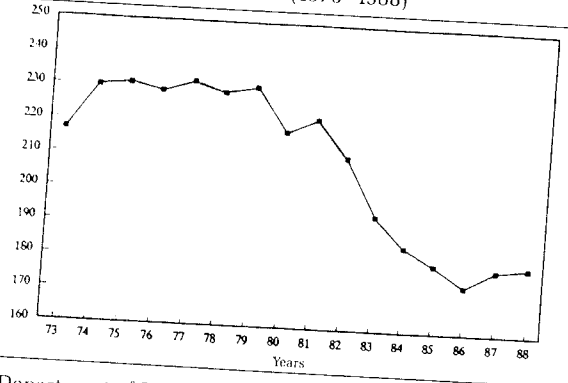
Source: U.S. Bureau of the Census, *Statistical Abstract*, 1990.

Figure 6.1D INMATES IN STATE & FEDERAL PRISONS (1960–1988: per 100,000)



Source: U.S. Department of Justice, *Sourcebook of Criminal Justice Statistics*, 1989.

Figure 6.1E VICTIMIZATION PER 1,000 (1973–1988)



Source: U.S. Department of Justice, *Criminal Victimization in the United States: 1973–88 Trends*.

mplies a substantial increase in criminal behavior on the part of the noninstitutionalised population.[3]

In contrast to the high crime rate in the administrative records, the victimization data (figure 6.1E) show crime declining in the 1980s, so that the rate of victimization in 1988 was below that in 1973. There is

[3] An additional cause of change in crime rates is the young male share of the population. Men aged 16–34 made up 58 percent of all persons arrested in 1988 compared about 15 percent of the total population. My analysis (like that of Phillips and Votey suggests, however, that changes in the age structure have only moderate effects crime rates. I estimate that, as 1963 age-specific arrest rates, the rise in the 16–34 share of the population from 1963 to 1988 would have increased the arrest rate by about 20 percent, compared to an observed increase of 61 percent.

no obvious explanation for the discrepancy between the trend in the administrative data and in the victimization survey.[4] Resolving the difference should be high on the list of research priorities. However, this lies beyond the scope of this study, which is largely concerned with participation in crime on which the victimization survey is silent.

Young Male Participation in Crime

There are three ways to estimate how many young men have criminal records or engage in crime: by using criminal justice system figures on annual arrests by age; by using numbers in jail or prison, on probation, and on parole by age at a moment in time; and by examining self-reported criminal behavior in surveys of youths. None of these sources is ideal. Criminal justice figures on arrests are limited to persons apprehended by the police, exclude criminals who are not caught, and include some who will not be convicted. In addition, since someone can be arrested several times, arrests reflect both the number of persons arrested and the number of times they are arrested, and thus exaggerate the number involved in crime. Statistics on incarcerations, probations, or parolees exclude those who commit crimes without being caught or who were convicted but are no longer under supervision of the criminal justice system. As for surveys that ask about criminal behavior, they are likely to undersample high crime groups, they often exclude prison inmates, and they suffer from the reluctance of people to admit to crime. But because the three sources of data have different biases, taken together they should provide a reasonable picture of the magnitude of youth involvement in crime.

Table 6.1 combines criminal justice figures on arrests and incarcerations and Current Population Survey population data to estimate 16–34 year old male involvement in crime in 1989. Line 1 records the number of arrests of 16–34 year old men and the number of arrests for crime included in the FBI crime index. Line 2 gives the noninstitutional male population in the age category. Line 3 shows the ratio of arrests to the population. For all 16–34 year old men, the arrest ratios are large: 0.328 arrests for all crimes and 0.045 arrests for index crimes. Because some 20 percent of offenses known to police result in an arrest (U.S. Department of Justice *Sourcebook of Criminal Justice Statistics* 1989, table 4.23), the number of crimes is about five times the number of arrests, suggesting ratios of 1.6 arrests for all crimes and 0.23 arrests for index crimes per 16–34 year old.

The ratio of arrests to the young male population can be used to estimate the proportion of young men arrested, given independent information on number of arrests per arrestee. Using the crime module of the National Longitudinal Survey of Youth (NLSY), I calculated that there were 2.3 arrests per young man arrested (booked) in a given year. Dividing the arrest ratio in table 6.1 by 2.3 suggests that 14 percent of all young men were arrested in 1988. Similarly, I calculated that the average number of crimes per person who admitted to crime

4. There was an upward trend in reporting crimes to the police from 1973 to 1980 but little change from 1980 to 1988 (U.S. Department of Justice 1988b) so this cannot be the cause of the discrepancy. For crimes such as rape, the victimization data show a huge decline while the police data show a sharp rise. It is thus hard to see how changes or differences in the mix of crimes might account for the divergence.

Table 6.1 PRIME PARTICIPATION OF 16–34 YEAR OLD MEN IN 1989, BY RACE

	All 16–34	Black 16–34
Arrests:		
1. Number of arrests		
All crimes	11,745,200	3,617,500
Index crimes	1,607,900	490,400
2. Number of men	35,839,000	4,615,000
3. Arrests per man		
All crimes	0.328	0.784
Index crimes	0.045	0.108
Criminal justice population:		
4. Incarcerations	682,354	320,024
5. Numbers probated/paroled		
Probated	1,956,000	567,000
Paroled	379,000	273,000
6. Incarcerations per man	.019	.069
7. "Under supervision" (incarcerated plus probation plus parole) per person	.069	.200

Sources: U.S. Department of Justice 1990, Table 24 for total arrests, Table 34 for male arrests by age, Table 33 for all arrests by age, Table 38 for arrests by race. I used all of these data because the agencies reporting age, race, and sex differ. For total population, U.S. Bureau of the Census, *Statistical Abstract, 1990*, p. 12. Incarcerations are the sum of jail and prison inmates from U.S. Department of Justice *Sourcebook of Criminal Justice Statistics, 1989*, Tables 6.26 and 6.43, with number of blacks from Tables 6.28 and 6.47. Number probated is estimated from U.S. Department of Justice 1988a, Table 1.3. I calculated the ratio of men probated to men incarcerated (2.21) and the ratio of men parolled to men incarcerated (0.43). To obtain the number of black men, I assumed that the proportion of black women in each category was the same as the proportion of all women in the category (there were no data for black women), and I estimated a ratio of black men probated to black men incarcerated of 1.40 and of numbers paroled to incarcerated of 0.50.

in the NLYS was 6.6, and divided this into the estimated crime ratio. This suggests that 25 percent of young men committed crimes.

The remainder of table 6.1 deals with the population under supervision of the criminal justice system. Line 4 shows the number imprisoned. Line 5 estimates the number on probation or parole (based on the ratio of numbers paroled and probated per incarcerated male). Line 6 records the proportion incarcerated, while line 7, "under supervision of the criminal justice system," gives the proportion incarcerated, paroled, or probated. The proportions are strikingly high: nearly 2 percent of all 16–34 year old men were incarcerated and nearly 7 percent were under supervision in 1989, figures far in excess of the proportions in previous decades, given the trend shown in figure 6.1D. Since some persons with a criminal record egress from the criminal justice system, the proportion of young men with a criminal record is even larger.

High as the criminal activity rates are for all young men, the rates are a magnitude greater for young black men. This is reflected in the fact that a third of arrests and half of incarcerations involve black men. As shown in table 6.1, in 1989 there were 0.78 arrests for all crime and 0.11 arrests for index crime per 16–34 year old black man. In the NLSY there were 2.3 arrests per black arrestee, suggesting that 35 percent of young black males were arrested in a year. The mean number of crimes per black youth who committed a crime was 5.7, which, assuming five crimes per arrest, implies that 68 percent of young black men committed at least one crime.

Consistent with the high arrest and crime rates for young black men, a striking proportion of this group had criminal records: in 1989 7 percent were in jail or prison, and 20 percent were under the supervision of the criminal justice system (table 6.1).[5] These figures reflect the 1980s upsurge in incarcerations. The proportion of young black men in jail or prison in 1989 was far larger than the 4.4 percent of 20–29 year old black men institutionalised in 1980 (according to the 1980 Census of Population) or the 4.6 percent of 20–29 year old black men institutionalised in 1970 (according to the 1970 Census).

Crime and Education

Criminals tend to be less educated and from poorer economic backgrounds than others (Wilson and Hermstein 1985). Thus, crime participation of the less educated and poor exceeds that of all young men shown in table 6.1. To determine the criminal activity of the less educated, I calculated the distribution of prisoners by years of schooling prior to arrest, using a 1986 Department of Justice Survey of Inmates. I then contrasted this with the distribution of years of schooling of noninstitutionalised men. The results (table 6.2) tell a striking story. The fourth line in the table reveals that although less than a quarter of all (noninstitutionalised) 18–24 year old men and 30 percent of 18–24 year old blacks had fewer than 12 years of schooling, nearly three-quarters of all 18–24 year old prisoners and almost four-fifths of 18–24 year old black prisoners had fewer than 12 years. Among men age 25–34, the difference between inmates and others is even more striking: 60 percent of all male prisoners and 64 percent of black male prisoners had fewer than 12 years of schooling, compared to 14 percent of all men and 18 percent of all black men. The proportion of inmates with less than 12 years of schooling rose from 53 percent in 1979 to 62 percent in 1986 (U.S. Department of Justice 1986, table 1) during a time when high school dropout rates were falling. Thus, the overrepresentation of high school dropouts among prisoners increased steeply during the 1980s.

Given the results of the prisoner surveys, what proportion of the less educated have criminal records? To answer this question, I combined the educational distributions in table 6.2 with estimates of the proportions in jail (table 6.1) and CPS numbers in the relevant education-race groups to determine the proportion of men with different

Table 6.2 PERCENTAGE OF MEN AGE 18–34 WITH SPECIFIED YEARS OF SCHOOL COMPLETED BY INMATE STATUS, 1986

Yrs. of school completed	18–24 years old				25–34 years old			
	Total		Black		Total		Black	
	Inmate	All	Inmate	All	Inmate	all	Inmate	All
0–7	9.1	2.0	7.0	1.9	9.0	2.8	7.0	2.0
8	11.8	2.0	9.5	2.3	8.2	1.7	7.5	2.0
9–11	53.4	18.9	62.3	26.7	42.3	9.0	49.6	13.9
<12	74.5	22.9	78.8	30.9	59.5	13.5	64.2	17.9
12	22.3	43.6	18.4	43.9	29.5	39.9	26.4	47.0
13–15	3.1	26.1	2.9	22.3	9.8	21.4	8.6	22.1
16,16+	0.1	7.2	—	3.0	1.2	25.2	0.8	13.1

Sources: Number of inmates tabulated from 1986 Department of Justice Prison Inmate Survey using survey weights, with men receiving GED given 12 years of schooling. All = all noninstitutionalised population, from Current Population Survey, Series P-20, no. 428, Table 1, p. 10, and p. 12 for black males.

5. The Sentencing Project (1990) has reported a similar figure for a somewhat different age group, indicating that the 20 percent estimate is not highly age dependent.

Figure 6.2A PERCENTAGE OF YOUNG MEN INCARCERATED BY EDUCATION AND RACE, 1986 (Ages 18–24)

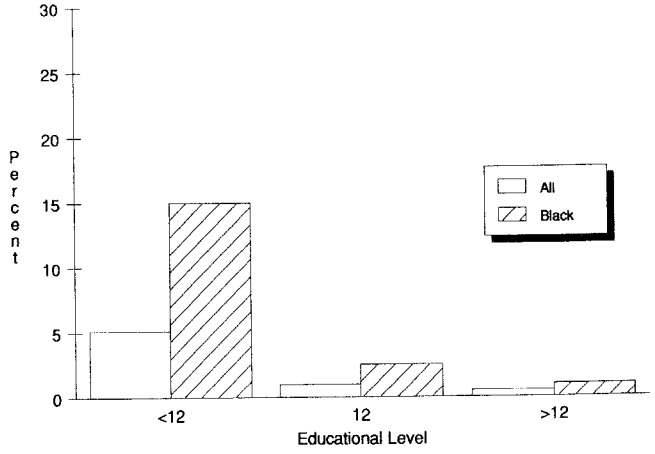
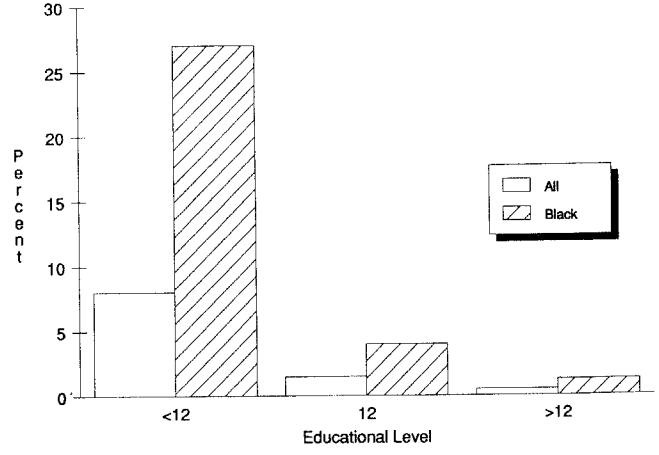


Figure 6.2B PERCENTAGE OF YOUNG MEN INCARCERATED BY EDUCATION AND RACE, 1986 (Ages 25–34)



Sources: Number of prisoners by education was estimated by applying percentage distributions of prisoners by education to the number of men in state and federal prisons and in jails in 1986. I took the number of male prisoners in state and federal prisons (518,478) from the U.S. Bureau of the Census *Statistical Abstract 1990* (Table 328, p. 189) and the number of males in jail (251,235) from Table 323, p. 187. To estimate the number of black prisoners I multiplied the number in state and federal prisons by .47, the proportion of blacks reported for state prison inmates from Table 321, p. 187. Rounding, this gave me 244,000 blacks in prison. In 1986 41 percent of jail inmates

levels of schooling in prison. The resultant statistics in figure 6.2 show that in 1986, 5.1 percent of 18–24 year old male dropouts (of all races) and 7.4 percent of 25–34 year old male dropouts (of all races) were incarcerated, and that 14.1 percent of 18–24 year old black male dropouts and 25.7 percent of 25–34 year old black male dropouts were in jail or prison. Since more men are on probation or parole than in prison, the proportions of dropouts under supervision of the criminal justice system are even larger. In 1988, among men of all races 2.64 were paroled or probated per incarceree; among blacks 1.90 men were paroled or probated per incarceree (U.S. Department of Justice *1988a*, table 1.2).[6] At these rates, 19 percent of 18–24 year old dropouts and 27 percent of 25–34 year old dropouts would have criminal records. Among blacks, 41 percent of 18–24 year old dropouts and 75 percent of 25–34 year old dropouts would be under the supervision of the criminal justice system, implying that over half of the broad age group

6. The government statistics do not give breakdowns by race and sex, so I estimated the black male distribution by assuming that black females constituted the same proportion of each correctional group as did all females.

were black (in 1989, 47 percent were black), according to Table 323, p. 187, so that there were 103,000 black men in jail. Thus I estimate 770,000 men in jail/prison and 347,000 black men in jail/prison. Using the prison survey, I estimate that 27.1 percent of all male prisoners were 18–24 and 45.7 percent were 25–34; and that 27.5 percent of black male prisoners were 18–24 and 45.7 percent were 25–34. This gives 209,000 male prisoners aged 18–24 and 352,000 male prisoners 25–34. For blacks, I estimate that there were 95,000 prisoners 18–24 and 169,00 prisoners 25–34. Applying the distribution of prison inmates by age and education to these data yields the figures under inmates (below). From U.S. Bureau of the Census, Current Population Reports Series P-20, No. 428, Table 1, pp. 3 and 10, I obtained numbers of all men and black men age 18–24 and 25–34 by education. This yields the numbers under TOTAL. Dividing INMATES by TOTAL gives me an estimate of the proportion of males and of black males by years of education who are inmates.

	All males					
	18–24			25–34		
Years ed.	Inmates	total	%	Inmates	total	%
		(000s)			(000s)	
<12	156	3060	.051	209	2829	.074
12	47	5812	.008	104	8359	.012
>12	7	4463	.002	39	9789	.004
	Black males					
<12	75	532	.141	108	421	.257
12	17	755	.023	45	1107	.041
>12	3	433	.007	16	828	.019

has a criminal record. Since high school dropouts are more likely to be incarcerated than probated or paroled, the ratios of probation-to-prisoners and of parole-to-prisoners are probably upwardly biased for dropouts. Even so, the incarceration rates in figure 6.2 are so large that even modest probation and parole numbers would support the claim that an extraordinary proportion of the nation's disadvantaged youths have criminal records.

Survey Data

Surveys that ask about criminal behavior obtain data on illegal acts that do not result in arrest/conviction as well as on those that do, and thus provide a different perspective on criminal activity than administrative data. Accordingly, I examined the crime modules of the 1979–1988 National Longitudinal Survey of Youth (NLSY), the 1989 (NBER) Boston Youth Survey (BYS), and the 1979–1980 NBER Survey of Inner City Youths in Boston, Chicago, and Philadelphia (ICY).

The National Longitudinal Survey of Youth. The NLSY interviewed a random sample of youths and a special sample of minority and poor youths from 1979 to 1988. The 1980 wave asked questions about crime. In addition, the survey interviewed youths in jail in later years, providing a separate measure of incarcerations. The virtue of the NLSY is that it is longitudinal, permitting analysis of the link between criminal activity and economic outcomes nearly a decade later. Table 6.3 records the cumulative percentages of youths who admitted in the three different surveys to being involved with crime. Ordered from the most to the least serious brush with the law. In the 1980 NLSY module, 4.5 percent reported they had been in jail, prison, or reform school, and 11.0 percent reported being institutionalised or probated at one time. By 1987 the proportion who had been incarcerated at least once had risen to 8.1 percent (not shown). In terms of crimes committed, 41 percent of the young men in the survey admitted to serious crimes and an additional 17 percent admitted to petty theft, vandalism, and the like. In contrast with administrative figures, the NLSY data in table 6.3 show little racial difference in arrests or incarcerations. This is a frequent result in self-reported surveys that criminologists attribute to underreporting of crimes and arrests by young blacks (Hindelang et al. 1981). The one non-self-reported statistic on crime in the NLSY—whether youths were interviewed in jail (not shown)—shows a pattern similar to that in the administrative data: 12 percent of young blacks were at one time interviewed in jail

Table 6.3 PERCENTAGE OF YOUNG MEN SELF REPORTING CRIMINAL ACTIVITY IN THREE SURVEYS

	NLSY, 1980		Boston Youth Survey, 1989		Inner City Youths Survey, 1980
	All	Black	All	Black	Black
1. Jail	4.2%[a]	4.5%			2.6%
2. Probation	11.0	11.4	7.3%[c]	5.9%[c]	7.9
3. Convicted	13.8	13.1	9.4	6.5	NA
4. Arrested	18.7	17.6	13.7	8.8	NA
5. Stopped	35.5	35.2	NA	NA	NA
6. Committed crime last year	40.9[b]	40.9[b]	23.0	17.0	22.4
Sample size	5332	1383	655	303	2358

Source: Author's calculations from the various surveys.
a. The column percentages are cumulative.
b. Crimes included were thefts over $50; using force, attack with attempt to kill; selling pot; selling other drugs; auto theft; breaking in; fencing stolen goods; and participation in gambling. If shoplifting and theft of less than $50 and vandalism are included, the percentages rise to 58.1% for all and to 57.8% for blacks.
c. Percentages here are for both jail and probation.

compared to 4 percent of non-blacks. Assuming no underreporting by non-blacks, this suggests that in the NLSY, blacks underreported their criminal behavior by about three-fold, a figure comparable to that given by Hindelang et al.

The NBER Boston Youth Survey. The 1989 Boston Youth Survey (BYS) asked youths from the lowest income neighborhoods in Boston (Roxbury, parts of Dorchester, and South Boston) about committing a set of crimes smaller and more serious than those asked about in the NLSY. Table 6.3 presents the responses of youths to these questions. Because the survey refers to specific neighborhoods in a single city, the percentages are not directly comparable to national crime rates. This said, sizable proportions of youths report illegal activity. Because Boston had one of the lowest unemployment rates in the country (the "Massachusetts Miracle") at the time of the survey, the high level of reported criminal activity indicates that a tight job market was not sufficient to resolve the youth crime problem of the 1980s.[7]

The BYS also asked youths about crime in their neighborhoods (figure 6.3). Proportionately more black youths than other youths re-

7. Consistent with this interpretation, I found no relation in the NLSY between youth criminal behavior and rates of unemployment in local labor markets.

Figure 6.3A PERCENTAGE OF YOUTHS WHO REGARD STATEMENT ABOUT THEIR NEIGHBORHOOD AS TRUE, BOSTON YOUTH SURVEY, 1989

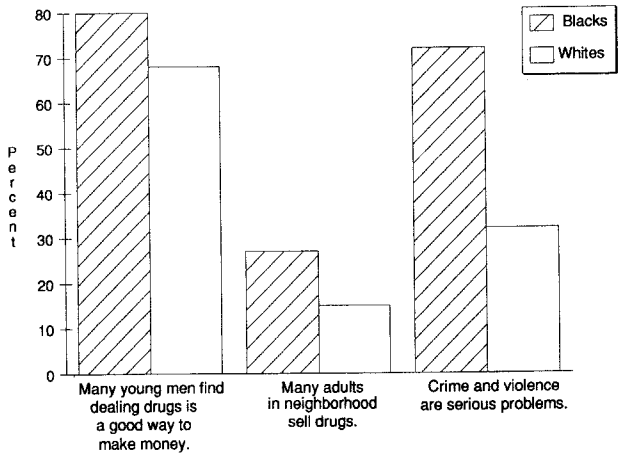
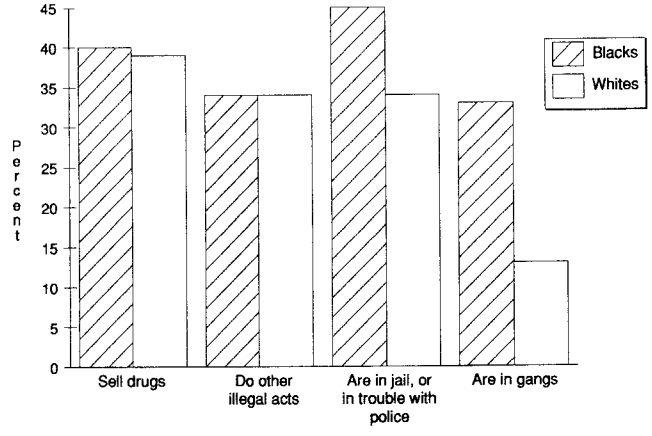


Figure 6.3B CHARACTERISTICS OF NEIGHBORHOOD CONTACTS: PERCENTAGE OF YOUTHS WHO KNOW VERY WELL PERSONS WHO:



Source: Boston Youth Survey, 1989.

ported drug dealing, crime, and violence in their neighborhood and knowing "very well" people in jail, in other trouble with the police, or in gangs. Comparable proportions of blacks and others reported knowing very well people who sell drugs or do other illegal acts. To see if the reported difference in crime by neighborhood was accurate

I obtained data on crimes from the Boston police. These figures show that crime rose in the city as a whole and in the surveyed neighborhoods from 1984 to 1990 (Boston Police Department 1991). Consistent with the youths' description of neighborhoods and knowledge of people in jail/gangs, the crime rate in the primarily black Roxbury neighborhood was twice as high as in the primarily white South Boston neighborhood. This suggests that in the BYS as in other surveys, blacks underreport criminal activity more than whites, although they correctly report more crime in their neighborhood.

The NBER Survey of Inner City Youths. The Survey of Inner City Youths (ICY) asked crime questions of young men from the poorest predominantly black poverty tracts in Boston, Chicago, and Philadelphia in 1979–1980 (Freeman and Holzer 1986). Table 6.3 shows the proportions of youths in this sample involved in crime. As in the NLSY and BYS, a sizable proportion admitted committing crimes and being involved with the criminal justice system.

All three surveys provide information on the education of youths that confirms the finding that high school dropouts are disproportionately involved in crime. In the NLSY, 17 percent of male dropouts compared to 9 percent of men with 12 or more years of schooling reported that they had been charged with an illegal offense beyond a traffic violation. In the BYS, 14 percent of male dropouts compared to 8 percent of men with 12 or more years of schooling said they had faced charges. In the ICY, a higher proportion of male dropouts than high school graduates also said they were involved in crime. That crime participation differs markedly among youths by education, even in the NBER surveys of youths in poverty neighborhoods, indicates that this relation is not due to comparisons of educated youths from the suburbs with less educated youths in inner cities.

In sum, both administrative and micro survey data show large proportions of youths, particularly high school dropouts, involved in crime in the 1980s. The administrative data indicate that exceptional numbers of black dropouts developed criminal records, supporting the claim that crime moved from deviant activity by a small number to a major activity among these youths.

HOW DOES YOUTH CRIME AFFECT EMPLOYMENT?

Standard analyses of crime and the labor market examine how unemployment or other indicators of market conditions affect crime.

They usually find a modest relation in the expected direction (Freeman 1983). While in the aggregate, unemployment is a plausible exogenous determinant of crime, individual criminal behavior will also affect labor market outcomes (Freeman 1987). Some young men will reject employment because they earn more from crime. Others will have trouble getting a job because they have a criminal record. In this section I show that a criminal record markedly lowers employment in the long run as well as in the short run.

Analyses of Surveys

Below I analyze the effects that a criminal record has on employment in each of the three surveys discussed above: the NLSY, the BYS, and the ICY Survey.

The National Longitudinal Survey of Youth

The NLSY offers a unique body of longitudinal data with which to examine the long-term employment effects of a criminal record. To analyze these data I created a vector of mutually exclusive dummy variables for involvement with the criminal justice system:

JAIL = 1 if the person answered yes to "Have you ever been sentenced to spend time in a corrections institution, like a jail, prison, or a youth institution like a training school or reform school?"

PROB = 1 if JAIL = 0 and the person answered yes to "Have you ever been on probation?"

CONVICT = 1 if JAIL = PROB = 0 and the person answered yes to "Have you ever been convicted of any charges other than a minor traffic violation?"

CHARGE = 1 if JAIL = PROB = CONVICT = 0 and the person answered yes to "Not counting minor traffic offenses, have you ever been booked or charged for breaking a law, either by the police or by someone connected with the courts?"

STOP = 1 if JAIL = PROB = CONVICT = CHARGE = 0 and the person answered yes to "Other than for a minor traffic violation, have you ever been stopped by the police, but not picked up or arrested?"

I examined the effect of this vector on a dummy variable for whether the individual was employed during the survey week (WORK) and on weeks worked in the preceding year (WEEKS) for each year from 1980 to 1987 or 1988 (employment status is available in the survey year while weeks worked relate to the previous year). Linking the outcomes of the late 1980s to criminal justice variables from the 1980 crime module helps identify the effect of having a criminal record on outcomes from the effect of current labor market opportunities on crime. I limited the sample to out-of-school men in each year and included numerous control variables, ranging from education, region, and age to self-reported use of drugs and alcohol (even though most of that information comes from later surveys). My purpose was to hold fixed all personal attributes whose omission might bias upward the estimated link between crime and employment outcomes.

Table 6.4 presents coefficients and standard errors on the crime variables from ordinary least squares (OLS) regressions. The linear probability estimates of the determinants of employment in the survey week in Panel A show that the most serious involvement with the criminal justice system—jail or probation—*had massive long-term effects on employment* while lesser involvements had small and often negligible effects. Men in jail or on probation as of 1980 had lower employment in all succeeding years than other men with comparable characteristics. For example, those who had been in jail or on probation as of 1980 had a 0.19 point lower chance of being employed in 1988 than those with no involvement with the criminal justice system. As a summary of all the years' results, I pooled the data for the nine years and calculated the percentage of years in which a person worked at the time of the survey, and estimated the effect of the criminal involvement vector on this sample for all men and separately for blacks. The estimated effects of jail and probation on employment for both groups are highly significant and sizable.

Panel B of table 6.4 presents comparable regression results for weeks worked in the preceding year. It shows that men who had been incarcerated or probated as of 1980 worked significantly less than others in all succeeding years. Given average weeks worked, which ranged from 35.7 to 43.7, the estimated coefficients imply that jail reduced work time by 25 to 30 percent while probation reduced it by 10 to 15 percent. By way of summary, I formed a composite variable for those who responded to each survey: the proportion of weeks worked from 1980 to 1987. For all men and for blacks taken separately, jail greatly reduces this variable and probation has a substantial though smaller effect. For the entire eight-year period, incarceration in 1980 reduced subsequent work weeks by 27 percent for blacks and 22 percent for all youth. Probation alone had effects of 7 percent and 9 percent, respectively, for the two groups.

What underlies the massive loss of future employment that seemingly results from a criminal record? One possibility is that youths who committed crime before 1980 are more likely to be in jail in later

Table 6.4 REGRESSION COEFFICIENTS AND STANDARD ERRORS FOR EFFECTS OF CRIMINAL ACTIVITIES ON OUT OF SCHOOL YOUNG MEN: 1980–1988, NLSY

	Mean	Jail	Probat.	Convict.	Charge	Stop	Controls[a]	R^2	n
A. Dependent variable: Work in survey week									
1980	.72	−.24	−.05	−.05	−.06	−.01	/	.10	4002
		(.03)	(.03)	(.04)	(.03)	(.02)			
1981	.72	−.28	−.14	−.08	−.10	−.05	/	.11	4164
		(.03)	(.03)	(.04)	(.03)	(.02)			
1982	.73	−.22	−.08	−.03	−.04	−.02	/	.09	4167
		(.03)	(.03)	(.04)	(.03)	(.02)			
1983	.73	−.24	−.10	−.05	−.02	.00	/	.12	3865
		(.03)	(.03)	(.04)	(.03)	(.02)			
1984	.78	−.25	−.11	.00	−.02	.00	/	.12	4109
		(.05)	(.02)	(.03)	(.03)	(.02)			
1985	.81	−.24	−.08	−.01	.04	.01	/	.10	3957
		(.03)	(.02)	(.04)	(.03)	(.02)			
1986	.84	−.18	−.09	−.03	−.02	.00	/	.10	4120
		(.03)	(.03)	(.03)	(.03)	(.02)			
1987	.86	−.25	−.10	−.03	−.02	−.01	/	.12	4193
		(.03)	(.02)	(.03)	(.02)	(.01)			
1988	.87	−.19	−.10	−.02	−.05	.00	/	.11	4484
		(.02)	(.02)	(.03)	(.02)	(.01)			
Percentage of years working in survey week, 1980–88									
All	.81	−.21	−.09	−.03	−.01	−.01	/	.30	1980
		(.02)	(.02)	(.03)	(.02)	(.01)			
Blacks	.70	−.25	−.08	−.06	−.02	−.02	/	.28	446
		(.06)	(.04)	(.07)	(.05)	(.03)			

B. Dependent variable: Weeks worked in a year									
1980	35.7	−13.3	−5.0	−4.5	−2.7	−1.7	/	.16	3699
		(1.3)	(1.1)	(1.0)	(1.6)	(1.2)			
1981	36.3	−12.3	−5.3	−3.5	−3.1	−.23	/	.17	4084
		(1.3)	(1.0)	(1.5)	(1.2)	(.7)			
1982	36.7	−12.2	−4.8	−3.6	−2.7	−.7	/	.14	4129
		(1.3)	(1.1)	(1.6)	(1.2)	(1.0)			
1983	38.3	−12.8	−5.6	−2.7	−2.3	.31	/	.17	3865
		(1.3)	(1.0)	(1.6)	(1.2)	(.7)			
1984	40.8	−12.5	−3.4	−1.2	−1.2	−.1	/	.15	3980
		(1.2)	(1.0)	(1.5)	(1.1)	(.7)			
1985	42.4	−11.8	−3.5	−1.8	−2.1	−.3	/	.14	3957
		(1.2)	(1.0)	(1.5)	(1.1)	(.6)			
1986	43.1	−13.1	−5.2	−1.8	−1.0	−.7	/	.14	3919
		(1.2)	(1.0)	(1.4)	(1.1)	(.6)			
1987	43.7	−11.6	−4.9	−3.0	−2.1	−.3	/	.14	4193
		(1.1)	(.9)	(1.3)	(1.0)	(.6)			
Percentage of weeks worked 1980–87									
All	.78	−.22	−.09	−.04	−.03	−.01	/	.34	2128
		(.02)	(.01)	(.03)	(.02)	(.01)			
Blacks	.68	−.27	−.07	−.05	−.06	−.02	/	.29	490
		(.05)	(.04)	(.07)	(.05)	(.03)			

a. All regressions include the following controls, from 1980: age, age squared, black, married, region dummies, grade completed, urban, union, high and medium unemployment in labor market area dummies; from 1982: high drinking; from 1984: lifetime pot use, recent pot use, lifetime cocaine use, recent cocaine use.

years as well, and thus to be jobless then. The high recidivism rate of ex-offenders—on the order of two-thirds of state prisoners aged 18–34 who are re-arrested within three years (U.S. Department of Justice. 1989, table 14)—suggests that this is part of the story. I estimated the recidivism effect on 1988 employment by restricting the sample to youths who were not interviewed in jail in that year. The estimates thus show how early incarceration affected the employment of non-institutionalised men in 1988. The resultant coefficient (standard error) was .12 (.02), which is 63 percent as large as the .19 in the comparable table 6.4 regression, implying that roughly one-third of the effect of a criminal record on future employment is the result of future incarceration. Another possible route of impact is that youths who go to jail reject work in favor of crime when they are at liberty, but absence of crime questions on later NLSY surveys makes it impossible to estimate this effect. A third possibility is that employers are unwilling to hire ex-offenders even when they seek legitimate work (see Boshier and Johnson 1984; Dale 1976; Finn and Fontaine 1985; Shwartz and Skolnik 1962); this also cannot be examined in the NLSY.

The Boston Youth Survey

Table 6.5 presents the results of my analysis of the effect of crime on employment and earnings in the 1989 Boston Youth Survey. As in the NLSY, I limited my sample to out-of-school young men. This produces a higher crime rate in the regression samples than the crime rate in table 6.3. The principal dependent variable is a 0–1 dichotomous measure of whether the youth worked during the survey week. Although the survey was conducted at the height of the Boston labor market boom, only 55 percent of the out-of-school youths from the poverty neighborhoods had jobs during the week. This supports the claim that while full employment raises the proportion of youths working (Freeman 1991) it does not induce the vast majority to work. To control for personal characteristics that are potentially correlated with labor market outcomes and crime, I included a wide variety of other variables, as listed in the note to table 6.5. Each line in the table relates to a separate regression in which I varied the measures of crime but kept the other variables the same.

The regression in line 1 suggests that one reason for the low employment rate among disadvantaged youths in booming 1989 Boston was crime; youths who committed crimes were 19 percentage points less likely to be working than others. For consistency with the NLSY, the crime variables in line 2 are a set of mutually exclusive dummies: whether the individual spent any time in jail or reform school;

Table 6.5 ESTIMATES OF THE EFFECT OF CRIMINAL ACTIVITY ON EMPLOYMENT AND EARNINGS OF OUT-OF-SCHOOL YOUTHS IN THE BOSTON YOUTH SURVEY, 1989 (Each Line Represents a Separate Regression)

Measure of crime	(mean)	Coeff. (standard error)	R^2
OLS estimates			
1. Committed crime	(.24)	−.19 (.06)	.09
2. Crime vector:			
Jail	(.10)	−.26 (.09)	.13
Convict only	(.02)	−.01 (.16)	
Arrest only	(.03)	−.26 (.14)	
Not caught	(.09)	−.14 (.09)	
3. Jail	(.09)	−.21 (.09)	.09
Instrumental variable estimates			
4. Committed crime		−.56 (.22)	—
5. Jail		−.87 (.34)	—

Notes: All regressions include the following controls: age, age squared, black, highest grade completed, good grades in school (A's and B's), lived with mother when 14 years old, live in public housing, single, attend church, household size, high alcohol use, high pot use, use other drugs, get high at work, and gang membership. The instruments include: friends sell drugs, know people who have gone to jail, friends use cocaine, friends in gangs.

Dependent variable: work in survey week (mean = .55, obs = 421).

whether he was convicted but did not go to jail; whether he was charged with a crime but not convicted; and whether he committed a crime but was not caught. It shows that those who had been in jail had exceptionally low chances of employment. Men who are arrested and men who commit crimes but are not caught also have lower chances of employment than others. Those who were convicted have a greater chance of employment than those arrested, but this may be an artifact of the small sample size. Line 3 shows the strong adverse effect of jail or probation on employment when it is entered as the sole measure of involvement with crime. Because no one in this sample was interviewed in jail, the estimated effect is independent of recidivism.

Survey of Inner City Youths (ICY)

Table 6.6 presents estimates of the effect of crime on employment and earnings for out-of-school youth in the ICY Survey. As in the preceding table, each line gives the coefficients from a separate regression in which the measures of crime differ while all other variables are the same. The results show that despite the low employment rate of 4.3

Table 6.6 ESTIMATES OF THE EFFECT OF CRIME ON OUT-OF-SCHOOL YOUTH EMPLOYMENT AND EARNINGS IN THE NBER 1980 INNER CITY YOUTH SURVEY (Each Line Represents a Separate Regression)

Definition of crime:	Coeff.	(Standard error)	R^2
1. Any crime involvement	−.11	(.03)	.13
2. Number crimes committed: last year	−.06	(.01)	.14
3. Earnings from crime last year:			.14
=0	0		
<=1000	−.08	(.04)	
>1000	−.26	(.05)	
4. Vector of crime variables:			.14
In jail last year	−.24	(.07)	
Only probation	−.08	(.05)	
Committed last month	−.10	(.04)	
Committed last year	−.04	(.07)	

Notes: All regressions include the following controls: age, highest grade completed, good grades (A's and B's), lived with mother at age 14, live in public housing, single, attend church, city dummies, gang membership, get high at work, high alcohol use, high pot use, high drug use.

Dependent variable: work (mean=.43).

percent at the time of the survey, youths involved in crime had a lower probability of working than others. Those with "any criminal involvement" (having been in jail or on probation or admitting they committed a crime) had a 0.11 lower chance of being employed (line 1). The more crimes committed, the smaller the chance of having a job (line 2). The greater the income from crime, the smaller the chance of having a job (line 3). The regressions with the vector of mutually exclusive crime variables confirm that having been in jail is the single most important deterrent to employment (line 4).

Interpreting the Crime-Employment Relation

Should the regression findings in tables 6.4 to 6.6 be viewed as causal evidence that having a criminal record reduces employment, or are the results subject to econometric problems that make them so biased as to be spurious?

One reason for expecting the regressions to be biased is that, diverse controls for personal characteristics notwithstanding, there may be "unobserved personal attributes" that affect both crime and employment. For instance, persons with exceptionally low legitimate market skills—say the functionally illiterate or those with personality problems due to childhood abuse—may be more likely to commit crimes

and less likely to work irrespective of whether they commit crimes.[8] To control for the effect of unobserved personal attributes, I switch from cross-section analyses that compare different people with differing criminal experiences to longitudinal analyses that contrast the same person before and after his criminal experience. I focus on the crime variable that had the strongest cross-section effect, incarceration.

Table 6.7 presents the results of longitudinal analyses of the effect of incarceration on employment in the NLSY. Here, I exploited the NLSY information on place of interview to determine the year an individual was in jail, and used an omitted variable regression model to estimate the effect of jail on working. Let Y be the outcome measure, J be a 0–1 measure of having been in jail, and Θ be the omitted personal variable. In the current period, crime affects outcomes according to

(1) $Y' = aJ + b\Theta + u'$, where u' is a normal error term.

Prior to the youths going to jail,

(2) $Y = \Theta + u$, where u is an error term.

Substituting for the omitted personal factor Θ yields

(3) $Y' - Y = aJ + (b - 1)Y + u' - bu$

Since u is correlated with Y this equation will yield biased coefficients. I deal with this by instrumenting Y on outcomes in a different year preceding the stint in jail.[9]

I estimated equation (3) by instrumental variables (IV) for 1980 and 1983, the years of the crime module on which my table 6.4 results are based. In each case my measure of incarceration was a 0–1 dummy variable for whether the person was interviewed in jail, which is a potentially more accurate measure than the self-reported "Jail" used in table 6.4. My dependent variables were 1987 weeks worked and

8. Another possible reason for regressions to overestimate the effect of crime on future outcomes is serial correlation in work status. Suppose, for instance, that poor employment opportunities in year t cause someone to commit a crime in t, and that opportunities in t + 1 are correlated with opportunities in t. Then outcomes in t + 1 will be correlated with crime in t because of the serial correlation of opportunities. One way to examine the serial correlation problem is to compare coefficients on crime over time. Serial correlation coefficients below 1 imply that the effect of crime on employment should decline over time. However, this is contrary to the results in table 6.4, where the effect of crime is not noticeably lower in the late 1980s than the early 1980s.

9. This approach suffers if errors are serially correlated, so that the Y used as an instrument is itself correlated with the error term.

Table 6.7 COEFFICIENTS AND STANDARD ERRORS ON JAIL AND PREVIOUS WORK EXPERIENCE OF OUT-OF-SCHOOL YOUTHS FROM LONGITUDINAL INSTRUMENTAL VARIABLE (IV) MODEL AND ORDINARY LEAST SQUARE (OLS) MODEL OF THE EFFECT OF JAIL ON 1987–88 WORK EXEPRIENCE, NLSY

	(1) OLS	(2) IV	(3) OLS	(4) IV
A. Dependent variable is weeks worked 1987				
Jail in 1980	−20.4	−16.4		
	(2.6)	(2.6)		
Weeks worked 1979	—	.27		
		(.03)		
Jail in 1983			−18.8	−7.8
			(1.9)	(2.0)
Weeks worked 1982				(.03)
Sample size	2696	2696	2577	2577
B. Dependent variable is working in survey week 1988				
Jail in 1980	−.30	−.24		
	(.05)	(.05)		
Work 1979		.24		
		(.04)		
Jail in 1983			−.30	−.15
			(.05)	(.05)
Work 1982				.41
				(.04)
Sample size	2667	2667	2382	2382

Note: All regressions include the following controls, from 1980: age, age squared, black, married, region dummies, grade completed, urban, union, high and medium unemployment in labor market area dummies; from 1982: high drinking; from 1984: lifetime pot use, recent pot use, lifetime cocaine use, recent cocaine use. Instruments include: charged with illegal activity, number of charges, ever convicted, number of convictions and ever on probation. In panel A the instrument in column 2 was weeks worked in 1988; the instruments in column 4 were weeks worked in 1981 and 1980. In panel B the instrument in column 2 was weeks worked in 1988; the instruments in column 4 were working in survey week in 1981, 1980, 1979.

1988 employment. In the regressions with 1983 incarceration as the independent variable, I controlled for 1982 work experience instrumented on 1981 and 1980 work experience. In the regressions with 1980 incarceration as the independent variable, I controlled for 1979 work experience instrumented on 1978 work experience. For purposes of comparison I also estimated equation (1), which does not control for omitted personal factors.

Table 6.7 presents the results of this analysis. The odd-numbered columns give the OLS results while the even-numbered columns give the estimates of equation (3). Note first that the OLS coefficients on

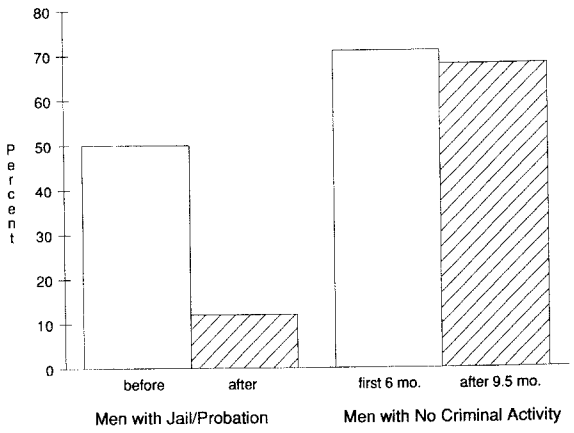
1980 incarceration are larger than in the comparable table 6.4 regressions. I interpret this as resulting from smaller measurement error in interview-based data than in self-reported incarceration data. Controlling for the omitted personal factor in the even-numbered columns reduces the effect of 1980 incarceration by 20 percent. In the OLS regressions the calculations focusing on 1983 incarceration yield similar coefficients to those on 1980 incarceration. However, the correction for omitted variable bias reduces the coefficient on incarceration by much more in the 1983 case—by one-half rather than by one-fifth. Still, in both cases the effect of incarceration on employment years later is substantial and statistically significant.[10]

Turning to econometric probes of the other data sets, the ICY contains a "time line" that permits a before-after test of the effect of incarceration or probation on employment. For the time line, interviewers asked individuals about activities over the preceding year, which the interviewers coded to determine participation in each month. One hundred and thirteen men in the sample entered jail/probation in the year. The men averaged 6 months of activity prior to being incarcerated/probated and 3 months of activity after release. I calculated the proportions who had a job in at least one month prior to jail/probation and after release. For comparison I estimated the proportion of out-of-school men in the rest of the sample who had a job during the first 6 months of the time line (before) and during the last 3 months (after). The results of this longitudinal analysis, summarized in figure 6.4, confirm that jail/probation has a strikingly adverse effect on an individual's employment status. Prior to incarceration, 50 percent of the jail or probation sample had a job in at least one month. Afterwards, only 10 percent had a job. By contrast, there is virtually no change in the proportion of men with no clinical activity (the "control group") with a job in at least one month.

Finally, while the BYS has no longitudinal information, it contains data that can be used to examine the potential bias in results due to

10. That the coefficients on incarceration remain sizable and significant in the presence of preincarceration work experience does not mean that the initial work experience of those who are incarcerated is similar to that of those who are not. The pre-incarceration employment experience of persons who are later incarcerated is worse than that of the rest of the sample. However, the coefficients on previous weeks worked or employment are markedly below those in the regressions. Persons who initially work little and are later incarcerated increase their time worked less than others who initially work less. At the other side of the spectrum, men who initially had high weeks worked/employment at the time of survey and who were incarcerated suffered large declines in work time relative to those who were not incarcerated.

Figure 6.4 PROPORTION OF MEN WHO WORKED DURING ONE MONTH (OR MORE), BY INCARCERATION STATUS, FROM NBER SURVEY OF INNER CITY YOUTHS (ICY), 1980



Source: NBER Survey of Inner City Youths (ICY), 1980.

measurement error in self-reported crime.[11] I examine measurement error by instrumenting crime variables on youths' reported links to persons with crime/gang activity. The hypothesis is that young men who report "close friends or family members in jail," "knowing drug dealers very well," or "having friends in gangs" may be involved with crime even if they do not admit it. Since I have a limited number of instruments, I use this technique for single-crime variables. The resultant estimated coefficients, given in lines 4 and 5 of table 6.5 are much greater than the OLS estimates, supporting the hypothesis that measurement error biases the OLS results substantially downwardly in this data set.

Although these econometric probes support the claim that a criminal record greatly reduces employment, the statistical results should be interpreted cautiously. Criminal behavior is not an exogenous experimental variable like a treatment on an agricultural plot, but rather

11. Random measurement error reduces the effect of a variable on outcomes. Measurement error in crime is, however, unlikely to be random: some of those who commit crimes will fail to report this, but few will claim crimes they did not commit. This also leads to downward bias in the analysis, since the sample who report they do not commit crimes will include some who do and whose employment experience will be similar to that of those who commit crimes. This problem makes imperfect my instrumental variables technique for treating measurement error.

results from individual responses to incentives and opportunities. The table 6.4 to 6.7 estimates do not show what would happen if a randomly chosen youth was given a criminal record but rather what actually happened to youths who chose to commit crimes. Put differently, the longitudinal analyses rule out a fixed unobservable interpretation of the incarceration-employment relation. However, they are consistent with the "true" cause of the relation being the endogenous decision to pursue crime at the risk of incarceration and loss of legitimate employment. I turn next to that decision.

ECONOMIC INCENTIVES AND YOUNG MEN'S DECISION TO TURN TO CRIME

Because the data needed to apply the economic theory of criminal behavior (Becker 1974) to actual decisions—measures of criminal earnings, risks of injury, apprehension, incarceration, and the like—are not readily available, my analysis of the role of economic factors in the supply of crime is tentative. I use limited data on criminal earnings and youths' perceptions of the earnings and risks of crime to assess crudely the economic rationality of their decision to choose crime.

Earnings from Crime

There is disagreement over how much young men make from crime. On the one hand are reports of fortunes gained in the illegal drug business. On the other are reports of low earnings and long hours: "most of the people in the [drug] business work round the clock, six to seven days a week, for low real wages in an atmosphere of physical threat and control" (Kolata 1989). One reason for disagreement is the lack of hard information on criminal earnings. Few surveys ask about criminal earnings and those that do may not obtain accurate estimates. Another difficulty is that criminals are often self-employed, with consequent problems in differentiating gross and net earnings and in determining the time spent at "work" (including time planning crimes, waiting for victims or customers, etc.). A third reason is that the large numbers who commit crimes produce a wide dispersion of earnings, providing ready examples on both sides of the issue. This said, I examine the available survey information to see if self-reported

earnings and risk are consistent with an economic interpretation of why disadvantaged youths choose crime.

Table 6.8 summarizes self-reported criminal earnings from several data sets: the Boston Youth Survey (BYS) and Survey of Inner City Youths (ICY); interviews with lower level drug dealers in Oakland, California (Monnin and Shedroff 1990); a RAND survey of drug dealers in Washington, D.C. (Reuter et al. 1990); and the 1986s Survey of Inmates of State Correctional Facilities (U.S. Department of Justice, 1988).[12] Each of these data sets if flawed. The BYS asked how much youths made from illegal activities during the past year and how much they believe could be made from the drug business. The ICY asked for income from illegal activities for the past year (and in the past four weeks, which I do not use here). Because criminal behavior is understated in these surveys, so too is criminal income: Viscusi (1986) estimates that criminal income was roughly three times what was reported in the ICY. In Oakland, two Harvard students identified through personal connections seven "runners" in the drug business and asked them their weekly earnings and hours worked (Monnin and Shedroff 1990). While their interviews yielded valuable information, particularly about time worked, their sample is small and biased. The RAND survey, arguably the best source of information on earnings from drugs, asked 186 persons (of whom 69 were age 18–24) convicted of drug dealing in Washington D.C. about earnings from illegal activities during the past 4 weeks and 6 months in 1989. The 1986 Inmate Survey asked prisoners their income and sources of income prior to incarceration, but only a fifth reported earnings from illegal sources—hardly believable for a sample of convicted criminals. Problems notwithstanding, these data sets are our best source of information on earnings form crime, and thus deserve examination.

The BYS survey shows modest annual income but sizable hourly pay from crime. Youths who reported earnings from crime made just over $3,000 per year, with a range from $750 for those who admitted a single crime to almost $5,400 for those who engaged in crime once

12. The NLSY is not included here. That survey asked for the proportion of total income or support from illegal activities rather than for dollars of criminal earnings, and did not specify the income/support that served as the base, making it nearly impossible to estimate actual crime incomes. The NLSY showed that 75 percent of youths made "very little" from crime; 9 percent reported criminal earnings comprised one-fourth their income support, 8 percent reported criminal earnings were one-half of their income; 4 percent reported criminal earnings were three-fourths of their income; and 5 percent reported it was 'almost all' of their income. The pattern of relatively few making most of their income from crime while most youths make just a bit is consistent with figures in Reuter et al. (1990) on the distribution of earnings from drug sales.

Table 6.8 ESTIMATES OF EARNINGS FROM CRIME FROM DIVERSE SURVEYS

Survey (sample size)	Annual earnings	Monthly/ weekly earnings	Estimated hourly earnings
Boston Youth, 1989			
16–24 who report crime income (112)	$3,008		
Committed crime once	752		$88.00
A few times/about once a month	2,127		45.00
Once a week or more	5,376		9.75
Perceived earnings from drug sales (382)			
Few opportunities		$2,346/mo	
Some opportunities		2,778/mo	
Many opportunities		3,587/mo	
Inner City Youths, 1980			
16–24 who report crime income (370) (in 1980 dollars)	1,607		
Oakland, 1990			
Earnings from runners (7)		444/wk	7.92
Rand—Reuter et al. 1990			
All, net earnings (186)		2,015/mo	30.00
18–24, net earnings (69)		1,234/mo	18.00
Inmates Survey, 1986			
Estimated by regressions[a]	12,243		
Income of prisoners with criminal income only (307)	24,775		12.00

Source: Tabulated from surveys and reports as described in text.
a. Based on regression of income on sources for a sample of 5,857 men. The mean income was $13,725.

a week or more. On the basis of reported hours on the most recent crime, these figures imply hourly pay of $88.00 for those who commit one crime to $9.75 an hour for those who commit crimes weekly, indicating rapidly diminishing returns.[13] Average hourly pay from crime was $19. The amount youths believed they could make from drug sales ranged from about $2,300 monthly for those who saw few opportunities to almost $3,600 for those who saw many opportunities. Putting these figures onto an hourly basis on the assumption of 40 hours worked per week gives hourly pay of $13 to $21. All these estimates, including the $9.75 an hour for those who commit crimes

13. This applies the hours on the last crime reported on the survey to all crimes committed, and assumes that the youths commit one crime per week.

weekly, exceed the $7.50 that youths in the survey earned from legitimate work, and substantially exceed take-home pay, given a rough 25 percent reduction (to $5.60/hour) due to Social Security and taxes. The $9.75/hour from crime is 73 percent greater than take-home pay from a legitimate job, whereas the $19/hour average from crime is over three times take-home pay.

In the ICY Survey, individuals who reported crime in the previous year made an average of $1,607 from crime in 1979–1980, or some $2,423 in 1989 dollars—moderately less than the earnings reported by youths in the BYS. In his analysis of these data Viscusi (1986) adjusted the figures by 3 for likely underreporting, with the result that criminal income was one-fourth of all the income earned by young men in the sample.

In the Oakland interviews, average weekly earnings was $444 and average hours worked was 56 (not shown), giving an average hourly pay of $7.92. While $7.92/hour is not going to finance a Mercedes, this is good tax-free pay for less educated youths—over twice the minimum wage and higher than pay at fast food restaurants. Going beyond pay, however, the Oakland interviews suggest a positive value to the non-monetary aspects of illegal jobs: the ability to sell out of one's own apartment, set one's own hours, and receive approbation as an independent entrepreneur. "I wasn't no old working fool. I was a dealer, a player! I always carried my beeper around, even when I wasn't dealing because when people saw it they knew I was for real. People knew I was dope" (Monnin and Shedroff 1990, p. 13; Interview with Izzy, Oakland, Ca., Jan. 1990). This finding is in agreement with detailed ethnographic studies that show that many young drug dealers prefer the employment conditions of illegal work (Williams 1989; Taylor 1989; Bourgois 1989).

The RAND survey provides strong evidence that drug dealing is "much more profitable on an hourly basis than are legitimate jobs available to the same persons" (Reuter et al. 1990, p. viii). The dealers in the survey reported net monthly mean income of $1,799 from drugs and $215 from other crimes, which cumulates to a total annual income of nearly $25,000 from crime. For the reported hours on the last sale, the implied hourly pay was $30. Even if these men had worked year-round and full-time, pay exceeded $12.00 an hour. By comparison, those who held legitimate jobs averaged $1,046 per month, half the monthly income from crime. For 18–24 year olds, net monthly mean income from drug dealing and crime was $1,234, while the median was $333, implying that many persons made only limited money from drug dealing because they did it infrequently (Reuter et al. 1990, Chapter IV).

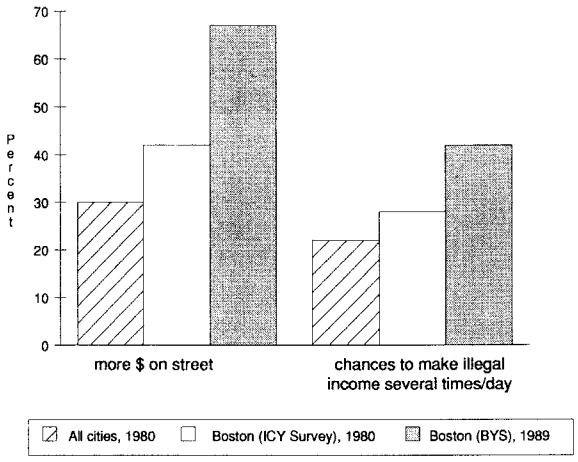
Because the 1986 Inmates Survey did not ask for earnings from illegal sources, I inferred illegal income from differences in the earnings of persons who did/did not list illegal activity as a source of income. In a regression of income on source of income, the 20 percent of the sample who reported illegal earnings had total incomes that were $12,243 higher than the income of those who did not report illegal earnings. This is about the same as the mean income from legitimate sources. Prisoners who said their sole source of income was illegal activities had incomes nearly twice those of prisoners who earned "nothing" from illegal sources. If these inmates worked full-time at crime, their hourly pay would have been $12.

The data suggest that men with limited skills earn hourly rates of net pay on the order of twice the pay from legitimate work, and possibly much greater.

Perceived Incomes and Risks over Time

The 1989 BYS asked youths their perceptions of opportunities to engage in crime and of illegal earnings. Similar questions were asked in the 1979–1980 ICY Survey. Figure 6.5 displays the results of the two surveys. It shows a sharp increase in the proportion who believed they could earn more "on the street" than from legitimate work and in the proportion who see many chances for making illegal income. In the 1979–1980 ICY Survey, 31 percent of all youths and 41 percent of those in Boston reported they could make more on the street compared to the majority who said they could earn more from the labor market. A disproportionate number who said they could make more on the street committed crimes (Viscusi, 1986; Freeman 1986). In 1989 the picture was quite different: 63 percent of youths said they could make more on the street, and there was no difference in the responses by whether they committed crimes. The view that crime pays more than legal activities changed from a minority perspective, held largely by those who committed crimes, to a general assessment held by most disadvantaged youths. Figure 6.5 also shows that the proportion of youths who saw "chances to make illegal income several times a day" roughly doubled between 1980 and 1989. The implication is that even in labor-short Boston, criminal opportunities increased relative to legitimate opportunities. Why? The most likely cause is the drug business, which grew so rapidly in the late 1980s that "Boston moved

Figure 6.5 PERCEPTIONS OF CRIMINAL OPPORTUNITIES: INNER CITY YOUTH (ICY) SURVEY, 1980; AND BOSTON YOUTH SURVEY (BYS), 1989



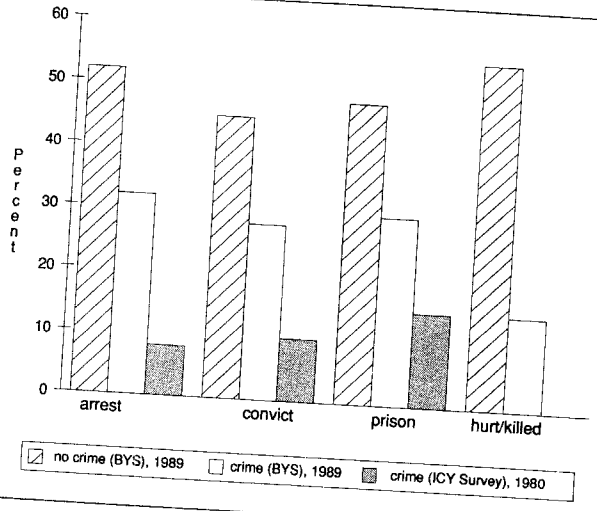
Source: ICY Survey, 1980; BYS Survey, 1989.

behind Los Angeles, Miami, and New York as the fourth largest drug economy in the U.S." (Interview with Steve Morreale, Drug Enforcement Agency-New England, Boston, Jan. 15, 1990).

The negative side of criminal activity is the chance of being caught and the penalties thereof. Arrest and imprisonment reduce earnings from legal and illegal sources and impose nonpecuniary costs and loss of future employment possibilities. There is also the chance of being physically harmed by police or by competitors for illegal earnings opportunities. Reuter et al. (1990) estimate that regular drug dealers in Washington, D.C. had a 50 percent chance of being charged with a drug offense in a given year (p. 92), while those arrested had a 50 percent chance of incarceration (p. 95). Given an average time served of 18 months, this implies that the drug dealers spend one-third of their careers in jail. In addition, these men had high chances of injury or of getting killed. Their earnings exceeded what they could make in the legitimate job market, but so too did their risks.

To determine how disadvantaged young men perceive the risks of crime, the BYS asked youths their chances of getting arrested, convicted and so on, coding the answers as "high", "about 50–50", or "low." Figure 6.6 shows the proportion who reported high risks of crime in the BYS and gives responses to comparable questions asked of youths who committed crimes in the 1979–1980 ICY Survey. There

Figure 6.6 PROPORTION PERCEIVING HIGH RISKS OF LISTED OUTCOMES FROM COMMITTING CRIME: INNER CITY YOUTH (ICY) SURVEY, 1980; AND BOSTON YOUTH SURVEY (BYS), 1989



Source: ICY Survey, 1980; BYS Survey, 1989.

are two findings. First, those who do not commit crimes saw greater risks, possibly reflecting risk aversion, than those who commit crimes. Second, proportionately more youths in 1989 than in 1979–1980 saw risks as high.[14] This is consistent with the economic model of decision-making, which predicts a positive relation between the risks of crime and criminal incomes, given that youths in 1989 saw criminal incomes as relatively higher than youths in 1979–1980.

In sum, the survey evidence suggests that crime offers relatively high hourly pay to disadvantaged youths, with commensurate risks. More work is needed, however, in two respects. First, we need to determine whether committing crime is "rational" in terms of lifetime benefits and costs, or is "myopic" in the sense that youths overly discount future loss of employment and risks, including time spent in jail. Second, we need to estimate the supply curve of youths to

14. Do youth perceptions of risk correspond to reality? Criminal justice system data show that 20 percent of crimes reported to the police are cleared, with no strong trend over time (U.S. Department of Justice, *Sourcebook of Criminal Justice Statistics* 1989, Table 4.24). However, the ratio of incarcerations per arrest has risen. There were 2.2 persons in prison per arrest in 1970, 2.9 persons in prison per arrest in 1980, and 4.4 persons in prison per arrest in 1989. As a result, the chances of being in jail for committing a crime has roughly doubled between 1970 and 1989.

crime that can show how changed market opportunities and criminal penalties alter criminal behavior.[15]

CONCLUSION: THE CRIMINAL UNDERCLASS

This study has documented the rising participation of disadvantaged young men, particularly less educated young blacks, in crime. It has shown that crime has long-term adverse consequences for the employment of this group, and it has presented evidence that the decision to engage in crime has at least a short-run economic rationale in terms of high hourly pay. What might have caused the upsurge in crime among disadvantaged young men in the 1980s?

One important contributing factor is likely to be the huge drop in the real earnings and employment prospects of less educated young men that characterized the period (Blackburn, Bloom, and Freeman 1990). The fall in real earnings reduced the opportunity cost of crime, and may have convinced many youths that they have no future in the legitimate job market. The long-term decline in the probability of employment of the less educated (as opposed to cyclical changes in aggregate unemployment) is likely to have had a similar impact, drawing youths to crime. Another potential cause of the rising participation in crime is the increased income of the upper deciles of the income distribution. The more money in the hands of the wealthy, the more lucrative is robbery or burglary, and the greater is the potential demand by the wealthy for illegal consumption items such as drugs. The exogenous growth of criminal opportunities due to innovation and expansion of the drug business is also likely to have contributed to the rise in youth crime. While important, the increased demand for drugs did not reduce the supply of the less educated to the legitimate market by enough to raise earnings there.

What are the implications of this study for debates concerning the underclass and poverty? First, the fact that in the 1980s the United States developed a large, relatively permanent group of young male offenders and ex-offenders, particularly less educated blacks, outside the mainstream economy suggests a major change from previous decades in the nature of poverty and youth unemployment (Freeman and Wise 1983). While in the past one might view crime as a peripheral issue in analyzing poverty and youth unemployment—a topic for criminologists or ethnographers of deviance but not for economists, sociologists, and policy analysts—that is no longer the case. If we are to understand and develop policies to resolve the inner-city poverty problem of the 1990s, we must come to grips with the incentives for crime. This implies that law enforcement and rehabilitation of criminals should be part of any effort to deal with poverty, particularly in the black community. On the other side, the increased concentration of crime among school dropouts suggests that efforts to improve their skills and increase their legitimate opportunities should be part of any crime reduction program. In the 1980s not even labor shortages raised the earnings opportunities of dropouts enough to offset criminal opportunities.

Finally, given annual direct expenditures of $10,000 per prisoner and total expenditures (including capital outlays) of $20,000, the costs of the criminal justice systems, the loss of potentially productive citizens, and the costs of crime to victims, my reading of the evidence is that virtually any program—be it schooling, crime prevention, or rehabilitation—with even marginal success in making crime less attractive and legitimate work more rewarding for disadvantaged youths is likely to have a sizable social payoff.

15. The high levels of crime in the 1980s in the face of a huge growth in prison population suggest that the supply curve of youths to crime is highly elastic, but the data re also consistent with a massive shift in demand for crime induced by, say, the expansion of the drug business.

References

Becker, Gary S. 1974. "Crime and Punishment: An Economic Approach." In *Essays in the Economics of Crime and Punishment*, ed. Gary Becker and William M. Landes, N.Y.: Columbia University Press.

Blackburn, McKinley H., David Bloom, and Richard Freeman. 1990. "The Declining Economic Position of Less Skilled American Men." In *A Future of Lousy Jobs*, ed. Gary Burtless, Washington, D.C., Brookings Institution.

Boshier, Roger, and Derek Johnson. 1974. "Does Conviction Affect Employment Opportunities?" *British Journal of Criminology* 14, 3 (June): 264–268.

Boston Police Department. 1991. Data on crime by neighborhood.

Bound, John and Richard Freeman. 1992. "What Went Wrong? The Erosion of Relative Earnings and Employment among Young Black Men in the 1980s." *Quarterly Journal of Economics* 107, 1 (February): 201–232.

Bourgois, Philippe. 1989. "In Search of Horatio Alger: Culture and Ideology in the Crack Economy." *Contemporary Drug Problems* 16, 4 (Winter): 619–649.

Dale, Mitchell. 1976. "Barriers to Rehabilitation of Ex-Offenders." *Crime and Delinquency* 22, 3 (July) 322–337.

Finn, R., and P. Fontaine. 1985. "The Association Between Selected Characteristics and Perceived Employability of Offenders." *Criminal Justice and Behavior* 12, 3: 353–365.

Freeman, Richard. 1991. "Employment and Earnings of Disadvantaged Youths in a Labor Shortage Economy." In *The Urban Underclass*, eds. Christopher Jencks and Paul E. Peterson, Washington, D.C.: Brookings Institution.

———. 1987. "The Relation of Criminal Activity to Black Youth Unemployment." *The Review of Black Political Economy* 16, 1–2 (Summer-Fall): 99–107.

———. 1986. "Who Escapes? The Relation of Churchgoing and Other Background Factors to the Socioeconomic Performance of Black Male Youths from Inner City Tracts." In *The Black Youth Unemployment Crisis*, eds. Richard Freeman and Harry Holzer, Chicago: University of Chicago Press.

———. 1983. "Crime and Unemployment." In *Crime and Public Policy*, ed. James Q. Wilson, San Francisco: Institute for contemporary Studies.

Freeman, Richard, and Harry Holzer, eds. 1986. *The Black Youth Employment Crisis*. Chicago: University of Chicago Press.

Freeman, Richard, and David Wise, eds. 1983. *The Youth Employment Problem*. Chicago: University of Chicago Press.

Hindelang, Michael J., Travis Hirschi, and Joseph G. Weis. 1981. *Measuring Delinquency*. Beverley Hills, Ca.: Sage.

Jencks, Christopher. 1991. "Which Underclass is Growing?" In *The Urban Underclass*, eds. Christopher Jencks and Paul E. Peterson, Washington, D.C.: Brookings Institution.

Kolata, Gina. 1989. "Despite its Promised Riches, the Crack Track Seldom Pays." *The New York Times*, Nov. 26, p. A1.

Lattimore, Pamela, Ann Dryden Witte, Joanna Baker. 1990. "Experimental Assessment of the Effect of Vocational Training of Youthful Property Offenders." *Evaluation Review* 14, 2 (April): 115–133.

Monnin, Paul and John Shedroff. 1990. "The Wages of Sin: An Investigation of the Street-level Cocaine Economy." Paper for economics course 1015 (Harvard University). January 26.

Phillips, Llad and Harold Votey. 1990. "Demographics and Trends in Crime: A Failed Hypothesis." Unpublished Mimeo. University of California. Santa Barbara, May.

Reuter, Peter, Robert MacCoun, and Patrick Murphy. 1990. *Money from Crime*. Santa Monica, Ca.: RAND Drug Policy Research Center.

Sentencing Project. 1990. *Young Black Men and the Criminal Justice System: A Growing National Problem*. Washington, D.C., Feb.

Schwartz, Richard, and Jerome Skolnik. 1962. "Two Studies of Legal Stigma." *Social Problems* 10, 2 (Fall): 133–142.

Taylor, Carl S. 1990. *Dangerous Society*. East Lansing, MI: Michigan State University Press.

U.S. Bureau of the Census. *Statistical Abstract*, various years.

U.S. Department of Justice, Bureau of Justice Statistics. Various editions. *Sourcebook of Criminal Justice Statistics*. Washington, D.C.: U.S. Government Printing Office.

———. Various editions. *Crime in the United States*. Washington, D.C.: Government Printing Office.

———. 1990. *Probation and Parole, 1989*. Washington, D.C.: Government Printing Office.

———. 1990. *Correctional Population in the United States, 1988*. Washington, D.C.: Government Printing Office.

———. 1991. *Criminal Victimization in the United States: 1973–1988 Treds*. Washington, D.C.: Government Printing Office.

———. 1988. *Profile of State Prison Inmates, 1986*. Washington, D.C.: Government Printing Office.

———. 1989. *Recidivism of Prisoners Released in 1983*. Washington, D.C.: Government Printing Office.

———. 1986. *Survey of Inmates of State Correctional Facilities, 1986*. Computer Files.

U.S. National Center for Health Statistics. *Vital Statistics of the United States*, various years.

Viscusi, Kip. 1986. "Market Incentives for Criminal Behavior." In *The Black Youth Employment Crisis*, eds. Richard Freeman and Harry Holzer, Chicago: University of Chicago Press.

Williams, Terry M. 1989. *The Cocaine Kids*. Reading, Ma.: Addison-Wesley Pub. Co.

Wilson, James Q., and Richard J. Hermstein. 1985. *Crime and Human Nature*. N.Y.: Simon and Schuster.