

**Diminishing Returns:
Crime and Incarceration in the 1990s**

By

Jenni Gainsborough and Marc Mauer

September 2000

This report was written by Jenni Gainsborough, Senior Policy Analyst, and Marc Mauer, Assistant Director, of The Sentencing Project.

The Sentencing Project is a national non-profit organization engaged in research and advocacy on criminal justice policy issues. Funding for this report was made possible by support from the Center on Crime, Communities and Culture of the Open Society Institute.

Copyright © 2000, by The Sentencing Project. Reproduction of this document in full or in part in print or electronic format only by permission of The Sentencing Project.

For further information:

The Sentencing Project
514 Tenth NW, Suite 1000
Washington, D.C. 20004
(202) 628-0871

www.sentencingproject.org

Diminishing Returns: Crime and Incarceration in the 1990s

We figured out what to do with criminals. Innovations in policing helped, but the key insight was an old one: Lock'em up.

Charles Murray , American Enterprise Institute. ¹

Putting people in prison is the single most important thing we've done [to decrease crime].

James Q. Wilson, Professor Emeritus, The Anderson School, University of California at Los Angeles. ²

Overview

Since the 1970s, political leaders have addressed public concern about crime by devoting unprecedented rhetorical and financial resources to the construction of prisons. As a result, the scale of incarceration has expanded from about 330,000 Americans in prison and jail in 1972 to nearly two million today. The cost of prison construction and housing now totals nearly \$40 billion annually.

Beginning in the early 1990s, crime rates began to decline significantly around the nation. In the seven-year period 1991-98 the overall rate of crime declined by 22%, violent crime by 25%, and property crime by 21%. These were welcome developments, since the rate of crime in 1991 had been at the highest level ever measured by the FBI in its Uniform Crime Reporting program.

During this period the number of state and federal prisoners rose substantially, from 789,610 to 1,252,830 – a 59% increase in just seven years. The rate of incarceration (number of prisoners per 100,000 population) rose from 313 to 461, an increase of 47%.³ (The percentage increase in the number of prisoners is greater than the increase in the rate of incarceration because the underlying national population on which the rate is calculated increased during that time.)

To some observers, these two trends point to a simple conclusion. The massive *increase* in imprisonment from 1991 to 1998 resulted in a dramatic *decrease* in crime. This study, which is the first to analyze the relationship between incarceration and crime at the state level in the 1990s, finds little support for the contention that massive prison construction is the most effective way to reduce crime. The report also assesses the role that other factors have played in contributing to the decline in crime. These include changing economic conditions, availability of guns, changes in the drug trade, law enforcement practices, and demographics. Finally, the report questions the value of the nation's commitment to mass incarceration in light of its adverse impacts on communities and the long-term prospects for reducing crime.

¹ *The Ruthless Truth: Prison Works*, The Times of London, 1997

² *The Crime Bust*, U.S. News & World Report, May 25, 1998

³ These numbers and rates reflect the total number of convicted prisoners serving sentences of one year or more under the jurisdiction of state and federal correctional authorities. US Department of Justice, Bureau of Justice Statistics, *Sourcebook of Criminal Justice Statistics 1998* and *Prisoners in 1998*.

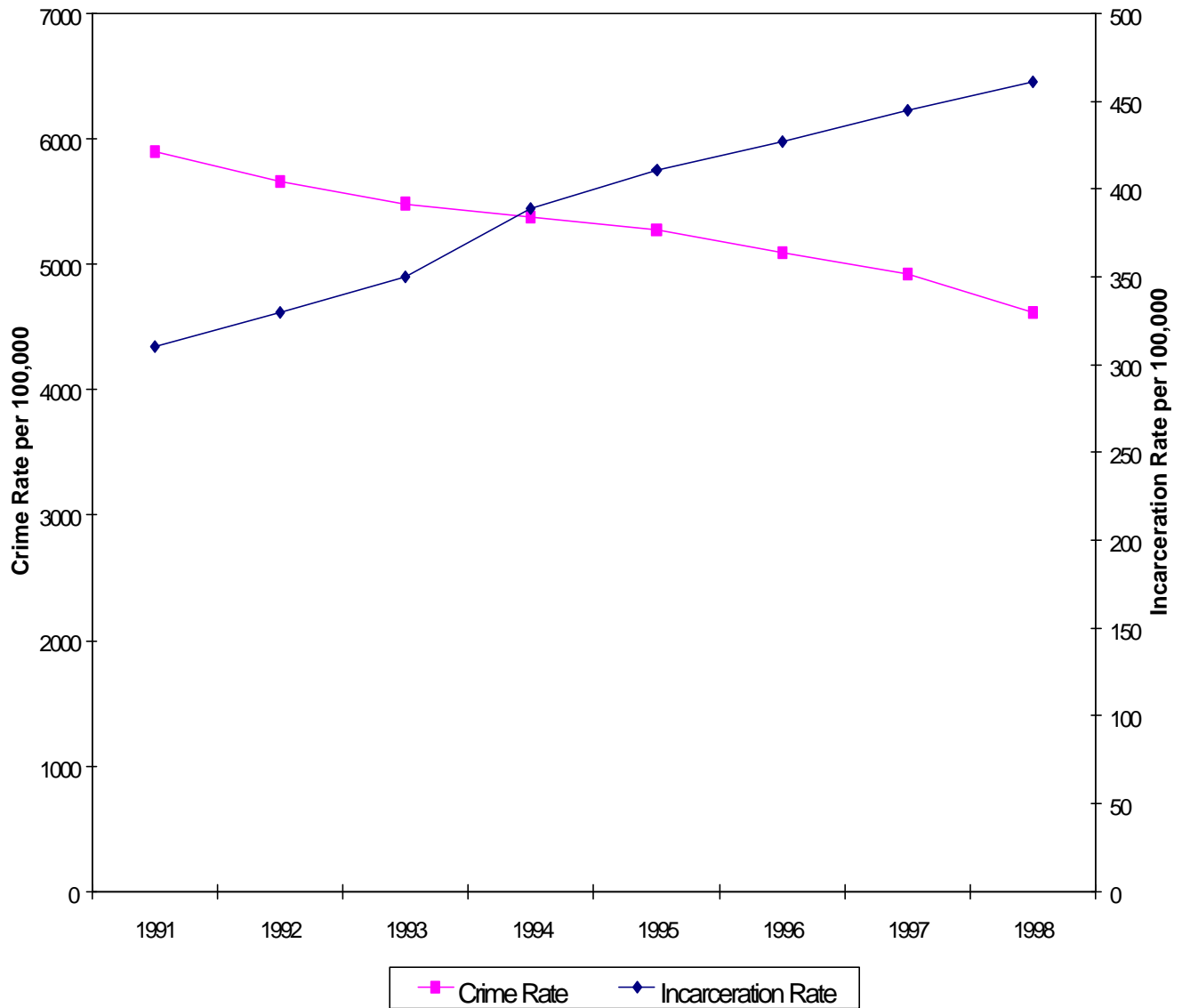
The key findings of this report are:

- During the national decline in crime from 1991 to 1998, states with the *largest* increases in incarceration experienced, on average, *smaller* declines in crime than other states. The “above average” states increased their rate of incarceration by an average of 72% and experienced a 13% decline in crime, while the rate of incarceration in “below average” states rose by 30% and crime rates declined by 17%.
- Texas led the nation with a 144% increase in the use of incarceration from 1991 to 1998 and experienced one of the most substantial declines in crime, 35%. But three other large states – California, Massachusetts, and New York – experienced similar or larger reductions in crime with far less increase in imprisonment – 52%, 21%, and 24% respectively.
- During the 14-year period 1984-1998, incarceration rose continuously, yet crime increased for the first half of the period and declined for the second half.
- States that increased the use of incarceration the most in the period 1984-1991 experienced slightly less of a rise in crime than other states, 15% compared to 17%. The estimated cost for additional prison construction and housing for this 2% gain was \$9.5 billion.
- Increases in the use of imprisonment in recent years have been much more the result of policy decisions – drug arrests, harsher sentencing policy, and increased revocation of parole violators – than changes in crime rates.
- Much of the explanation for the reduction in crime in the 1990s is due to economic expansion, changes in the drug trade, and new approaches to policing.

Incarceration and Crime at the State Level

As seen in Figure 1, the national trend for the 1990s is one of rising incarceration and declining crime. From 1991 to 1998 the rate of incarceration rose by 47% and the crime rate declined by 22%. This trend forms the basis for an assessment by some observers that a greater level of incarceration *caused* the decline in crime.

FIGURE 1
CRIME AND INCARCERATION RATES, 1991 - 1998



National data, through, obscure substantial variations among the states in the degree to which they use incarceration. In 1998, for example, Louisiana led the nation with a rate of incarceration of 736 per 100,000, a rate more than six times that of Minnesota's 117, the state

with the lowest rate. As will be seen, there is also significant variation in the degree to which states have increased their prison populations in recent years.

Because of this, our analysis of the decline in crime in the 1990s explores the question, “Did those states that increased their use of imprisonment the most experience the most substantial declines in crime?” We look at state-level data because most crime is prosecuted under state law and more than 90% of prisoners are housed in state prisons.

There are two primary measures of crime in the U.S. The FBI’s Uniform Crime Reporting (UCR) Program uses seven categories to establish a “Crime Index” to measure the trend and distribution of crimes reported to the police. The offenses included in the Crime Index are the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault, and the property crimes of burglary, larceny-theft, and motor vehicle theft. The second measure of crime is the Department of Justice’s National Crime Victimization Survey (NCVS). The NCVS estimates are based on self-reports by victims of crimes and include crimes not reported to the police.

The figures used in this report are taken from the UCR crime index rather than the NCVS because they provide state-level data allowing for comparisons among individual states. In addition, since the UCR is weighted towards the more serious crimes that are likely to lead to incarceration upon conviction, any impact of imprisonment on crime is more likely to be observed among these offenses.

An additional note on crime rates relates to drug offenses. As will be seen later, the imprisonment of drug offenders has been a driving force in incarceration rates over the past twenty years. However, because drug offenses are not represented in the UCR “index” crimes, they have no direct effect on measures of the crime rate over that period. It is difficult to determine precisely the overall level of drug crime or the impact of drugs on other crimes. For example, burglary rates have declined substantially in recent years, but it is possible that these offenses may have been “displaced” by more offenders engaged in selling drugs.

As seen in Figure 2 and Table 1, every state increased its rate of incarceration during the seven-year period 1991-98, but there was substantial variation in the degree to which states built and filled prisons. Texas led the nation with a 144% rise in the rate of incarceration, while Maine experienced the least rate of growth, 2%. The national average during this period was a 47% rise in imprisonment.

FIGURE 2
CHANGES IN INCARCERATION AND CRIME RATES BY STATE, 1991 – 1998

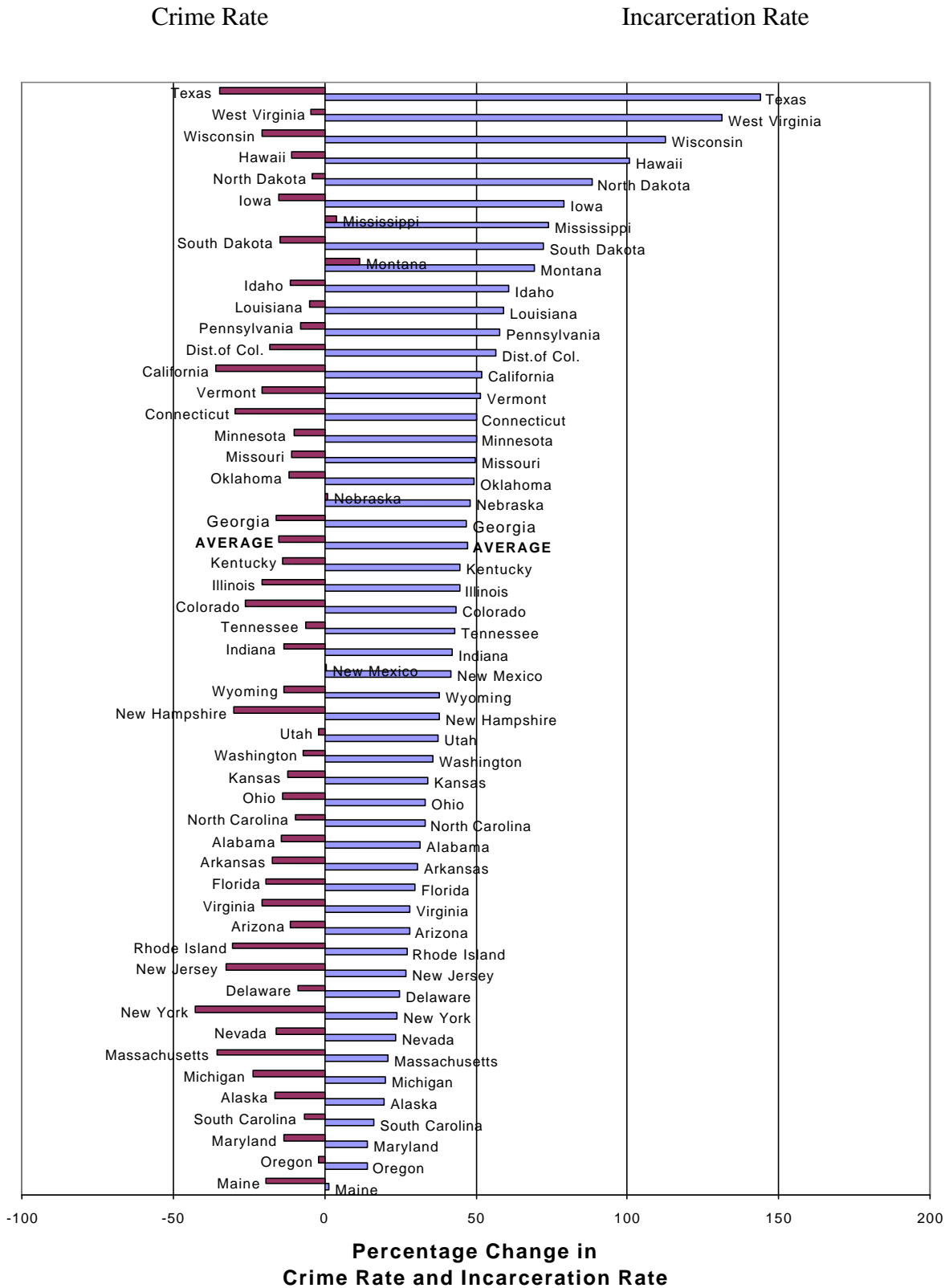


TABLE 1
CHANGES IN INCARCERATION AND CRIME RATES BY STATE, 1991 – 1998

| | 1991-98 Inc. Rate % Change | 1991-98 Crime Rates % Change | | |
|----------------|----------------------------------|---------------------------------|------------|------------|
| | | Total | Violent | Property |
| Texas | 144 | -35 | -33 | -35 |
| West Virginia | 131 | -4 | 30 | -7 |
| Wisconsin | 113 | -21 | -10 | -21 |
| Hawaii | 101 | -11 | 2 | -11 |
| North Dakota | 88 | -4 | 37 | -5 |
| Iowa | 79 | -15 | 3 | -17 |
| Mississippi | 74 | 4 | 6 | 4 |
| South Dakota | 72 | -15 | -15 | -15 |
| Montana | 69 | 12 | -1 | 12 |
| Idaho | 61 | -11 | -3 | -12 |
| Louisiana | 59 | -5 | -18 | -3 |
| Pennsylvania | 58 | -8 | -7 | -8 |
| Dist.of Col. | 57 | -18 | -30 | -14 |
| California | 52 | -36 | -35 | -36 |
| Vermont | 52 | -21 | -9 | -21 |
| Minnesota | 50 | -10 | -2 | -10 |
| Connecticut | 50 | -29 | -32 | -29 |
| Missouri | 50 | -11 | -27 | -8 |
| Oklahoma | 50 | -12 | -8 | -12 |
| Nebraska | 48 | 1 | 35 | -2 |
| Georgia | 47 | -16 | -22 | -15 |
| AVERAGE | 47 | -15 | -12 | -15 |
| Kentucky | 45 | -14 | -35 | -11 |
| Illinois | 45 | -21 | -22 | -20 |
| Colorado | 43 | -26 | -32 | -25 |
| Tennessee | 43 | -6 | -2 | -7 |
| Indiana | 42 | -13 | -15 | -13 |
| New Mexico | 42 | 1 | 15 | -1 |
| Wyoming | 38 | -13 | -20 | -13 |
| New Hampshire | 38 | -30 | -10 | -31 |
| Utah | 38 | -2 | 10 | -2 |
| Washington | 36 | -7 | -18 | -6 |
| Kansas | 34 | -12 | -21 | -11 |
| Ohio | 33 | -14 | -35 | -11 |
| North Carolina | 33 | -10 | -12 | -9 |
| Alabama | 32 | -14 | -39 | -10 |
| Arkansas | 31 | -17 | -17 | -17 |
| Florida | 30 | -19 | -21 | -19 |
| Virginia | 28 | -21 | -13 | -21 |
| Arizona | 28 | -11 | -14 | -11 |
| Rhode Island | 27 | -30 | -32 | -30 |
| New Jersey | 27 | -33 | -31 | -33 |
| Delaware | 25 | -9 | 7 | -11 |
| New York | 24 | -43 | -45 | -42 |
| Nevada | 23 | -16 | -5 | -18 |
| Massachusetts | 21 | -35 | -16 | -39 |
| Michigan | 20 | -24 | -23 | -24 |
| Alaska | 20 | -16 | 7 | -19 |
| South Carolina | 16 | -7 | -7 | -6 |
| Maryland | 14 | -14 | -17 | -13 |
| Oregon | 14 | -2 | -17 | 0 |
| Maine | 2 | -19 | -5 | -20 |

In order to examine the relationship between incarceration and crime in the 1990s, we divide the states into two groups – those which increased their rate of incarceration above and below the national average of 47% for the period. As seen in Figure 3, while crime declined in both groups of states, the thirty “below average” states experienced a greater average decline in crime than the twenty “above average” states (plus the District of Columbia) – 17% compared to 13%. This occurred despite the fact that their average increase in the rate of incarceration was 42 percentage points less than in the “above average” states.

FIGURE 3
CHANGE IN INCARCERATION RATES AND CRIME RATES FOR STATES
GROUPED BY ABOVE AVERAGE AND BELOW AVERAGE INCREASES IN INCARCERATION,
1991 – 1998

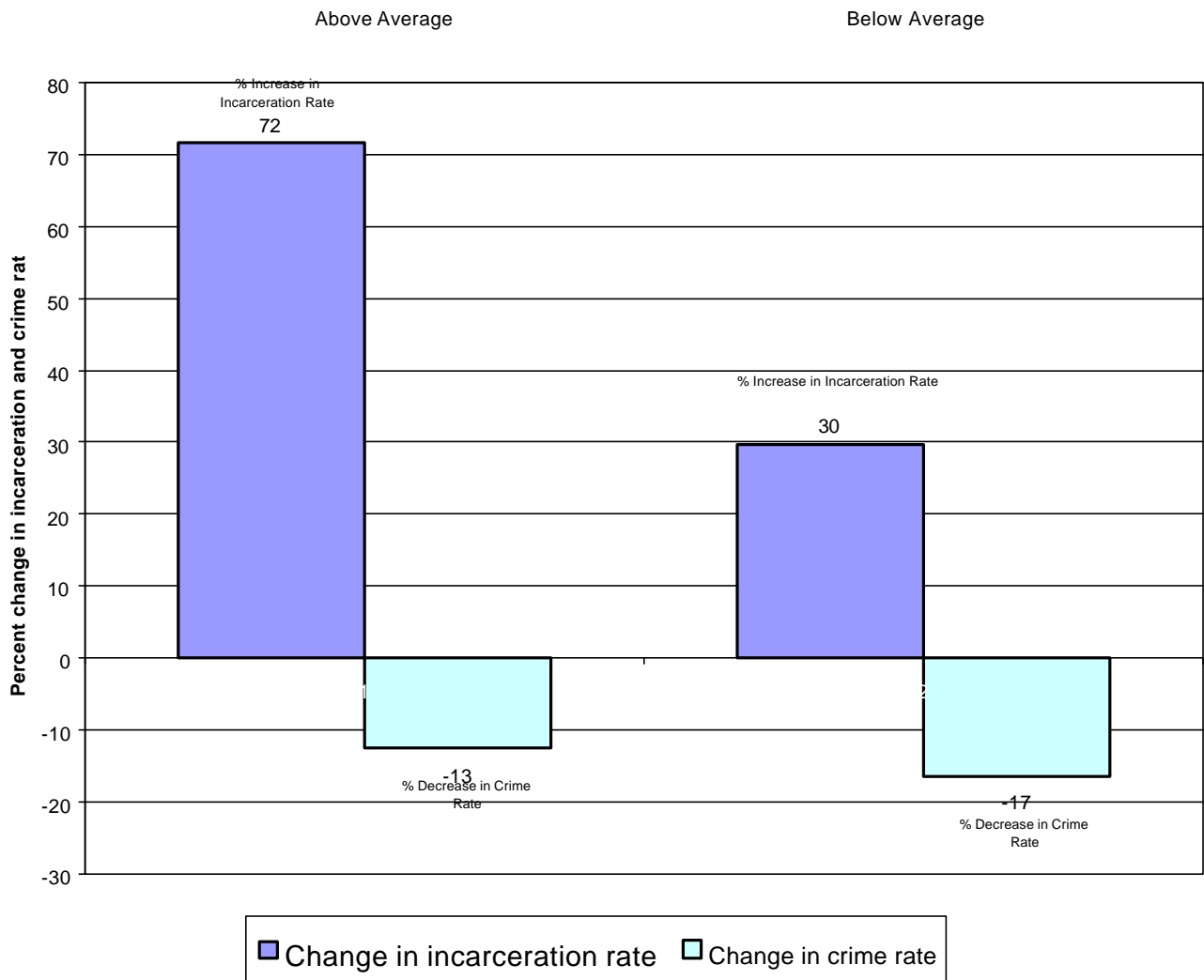


Table 2 demonstrates that this comparison in crime rates holds true for both property and violent crime. The rate of violent crime decreased in “below average” states at more than double the rate of states with “above average” increases in incarceration.

**TABLE 2
VIOLENT AND PROPERTY CRIME RATE CHANGES, 1991 – 1998***

| State Group | Incarceration Rate | Violent Crime Rate | Property Crime Rate |
|--------------------|---------------------------|---------------------------|----------------------------|
| Above Average | +72% | -7% | -13% |
| Below Average | +30% | -16% | -16% |

* Incarceration and crime rate numbers are the average percentage change for the states in each of the two groups

An examination of individual state patterns further suggests the difficulty of ascribing declines in crime to high increases in the use of imprisonment. For example, as shown in Table 3, Texas led the nation by far with a 144% rise in imprisonment and experienced one of the most significant national declines in crime, 35% over the seven-year period. Yet three other large states – California, Massachusetts, and New York -- saw similar or larger reductions in crime with far less increase in their prison population – 52%, 21%, and 24% respectively.

**TABLE 3
INCARCERATION AND CRIME RATE CHANGES IN SELECTED STATES, 1991-1998**

| | Incarceration Rate | Crime Rate |
|---------------|---------------------------|-------------------|
| Texas | 144% | -35% |
| California | 52% | -36% |
| Massachusetts | 21% | -35% |
| New York | 24% | -43% |

Further, the second highest ranking state in prison increase, West Virginia, experienced one of the lowest declines in overall crime (4%) and experienced a large (30%) increase in violent crime, despite a 131% rise in imprisonment. West Virginia’s violent crime increase was surpassed only by North Dakota (37%) and Nebraska (35%), both states with above average increases in incarceration as well. Three of the four states which experienced an increase in overall crime (Mississippi, Montana, and Nebraska) had increased their incarceration rates at above the national average (74%, 69% and 48% respectively).

In this analysis, we examine the impact of increased incarceration on crime because of the popular contention that the decline in crime resulted from more imprisonment. Looking at the state data, we do not find significant support for the contention that prison construction will always lead to greater impacts on crime. Another possible explanation is that the states that increased incarceration the most did so because their crime rates were higher than average to begin with, and therefore this was a necessary policy response. However, we find little support for this either. Of the 20 states that increased their use of incarceration at *above* average rates between 1991 and 1998, 12 had *below* average crime rates at the start of the period. Of the ten states that had the highest incarceration rate increases, only two (Hawaii and Texas) had above average crime rates at the start of the period.

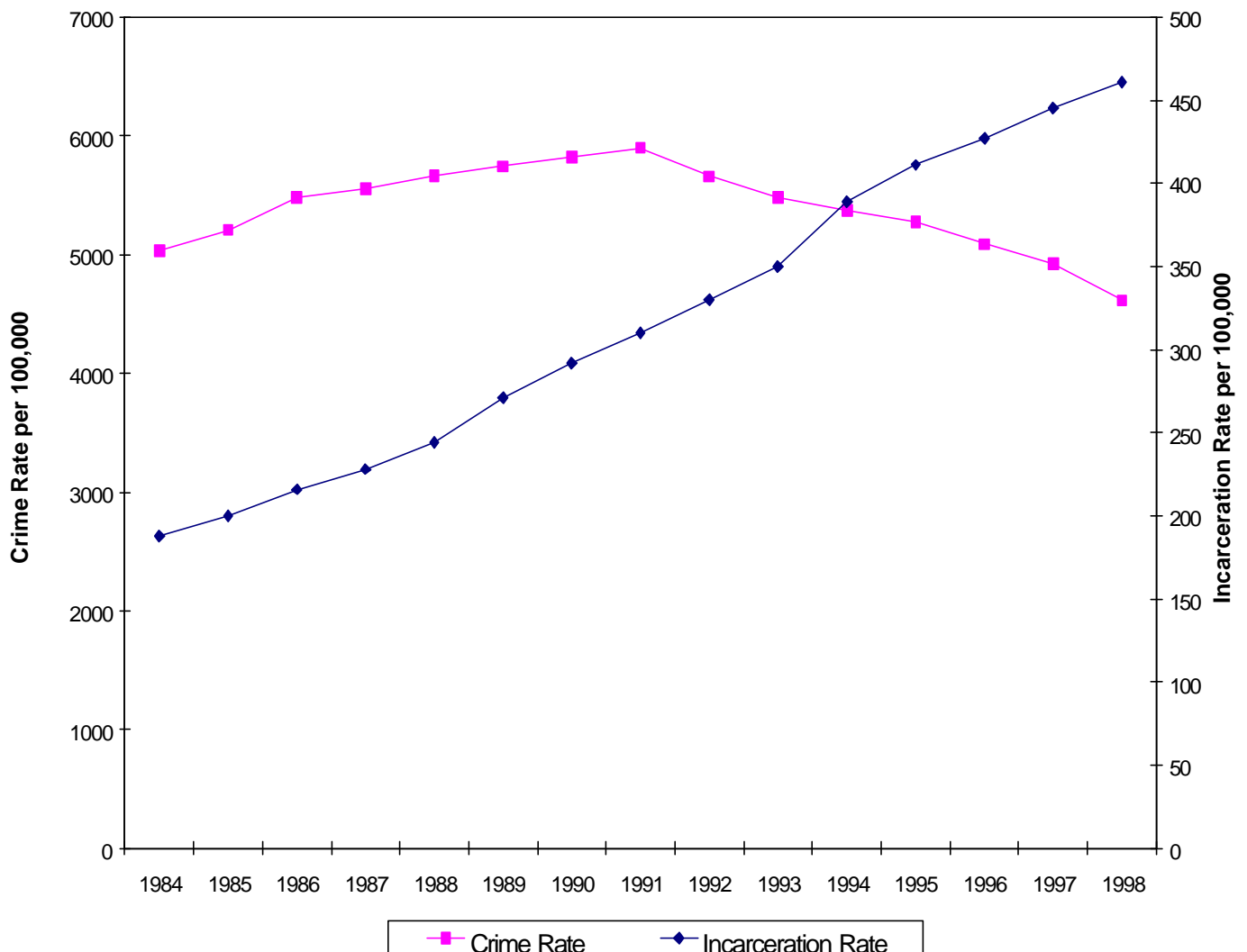
Our findings for the period 1991-1998 do not suggest that incarceration has no impact on crime. Clearly, at a certain level, the imprisonment of dangerous offenders contributes to public safety. The extreme examples in this regard are mass murderers and serial rapists. And either through incapacitating offenders or deterring current or future offenders, imprisonment may have some impact on less serious offenders as well. This does not, however, suggest that imprisonment is the *most* effective means of reducing crime. Further, the experience of the 1990s implies that whatever impact incarceration may have, at a certain level a point of diminishing returns is reached.

Incarceration and Crime in a Period of Rising Crime: 1984 - 1991

In order to explore the relationship between incarceration and crime in greater detail, we next examine the seven-year period 1984-91, just prior to the beginning of the decline in crime in the 1990s. The national trend is significant here, particularly in contrast to that of the 1990s. The incarceration rate rose throughout this period, increasing by 65% from 1984 to 1991, yet crime rates also increased, by 17%.

As seen in Figure 4, this seven year period is in direct contrast with the previously examined period of 1991-1998. Overall, we see a continuously rising rate of incarceration for 14 years, but rising crime rates for the first seven years and falling rates for the second seven years. This does not suggest that imprisonment had no impact on crime, but clearly the relationship, if any, is ambiguous.

FIGURE 4
CRIME AND INCARCERATION RATES, 1984 - 1998



As in the earlier analysis, we compared the “above average” states in incarceration increase for 1984-91 with the “below average” states in terms of their impact on crime. Since crime was generally rising during this period, we examined whether the high incarceration states had *less* of a rise in crime than the low states. Here, we find a modest impact on crime for those states that increased their use of imprisonment the most. The “above average” states experienced a 15% increase in crime, compared to a rise of 17% for the “below average” states.

TABLE 4
INCARCERATION AND CRIME RATE CHANGES, 1984 - 1991

| State Group | Incarceration Rate | Crime Rate | | |
|---------------|--------------------|------------|---------|----------|
| | | Total | Violent | Property |
| Above Average | +89% | +15% | +32% | +13% |
| Below Average | +37% | +17% | +35% | +15% |

The scale of incarceration is particularly critical in assessing the value of rising imprisonment during this period. Assuming for the moment that the 2% difference in the crime rate increase was a result of more incarceration in the high states, this required a level of increase more than double the low states’ average – 89% compared to 37%. Thus, the high imprisonment states locked up 136,100 more offenders than they would have at the lower rate of growth to achieve an average 2% lower rise in crime.

The cost of such a gain is quite substantial. By the end of the seven-year period, these states would have invested an estimated \$9.5 billion in additional costs of incarceration, as seen in Table 5. This reflects a conservative average cost of \$50,000 per prison cell constructed (not including interest costs associated with capital expenditures) and \$20,000 a year cost of incarceration. The additional cost of housing the increase of 136,100 prisoners is only calculated for the last year of the seven-year period. Actual costs would be substantially higher since the increase in the number of prisoners would build gradually over the whole time frame.

TABLE 5
COST OF ABOVE AVERAGE RATE OF INCREASE

| | |
|--|------------------------|
| Prisoners in “above average” states | |
| 1984 | 216,000 |
| 1991 | 432,000 |
| 1991 at “below average” rate of increase (37%) | 295,900 |
| Additional prisoners | 136,100 |
| Additional Cost | |
| Operations @ \$20,000 per year | \$2,722,000,000 |
| Capital @ \$50,000 per cell | \$6,805,000,000 |
| Total | \$9,527,000,000 |

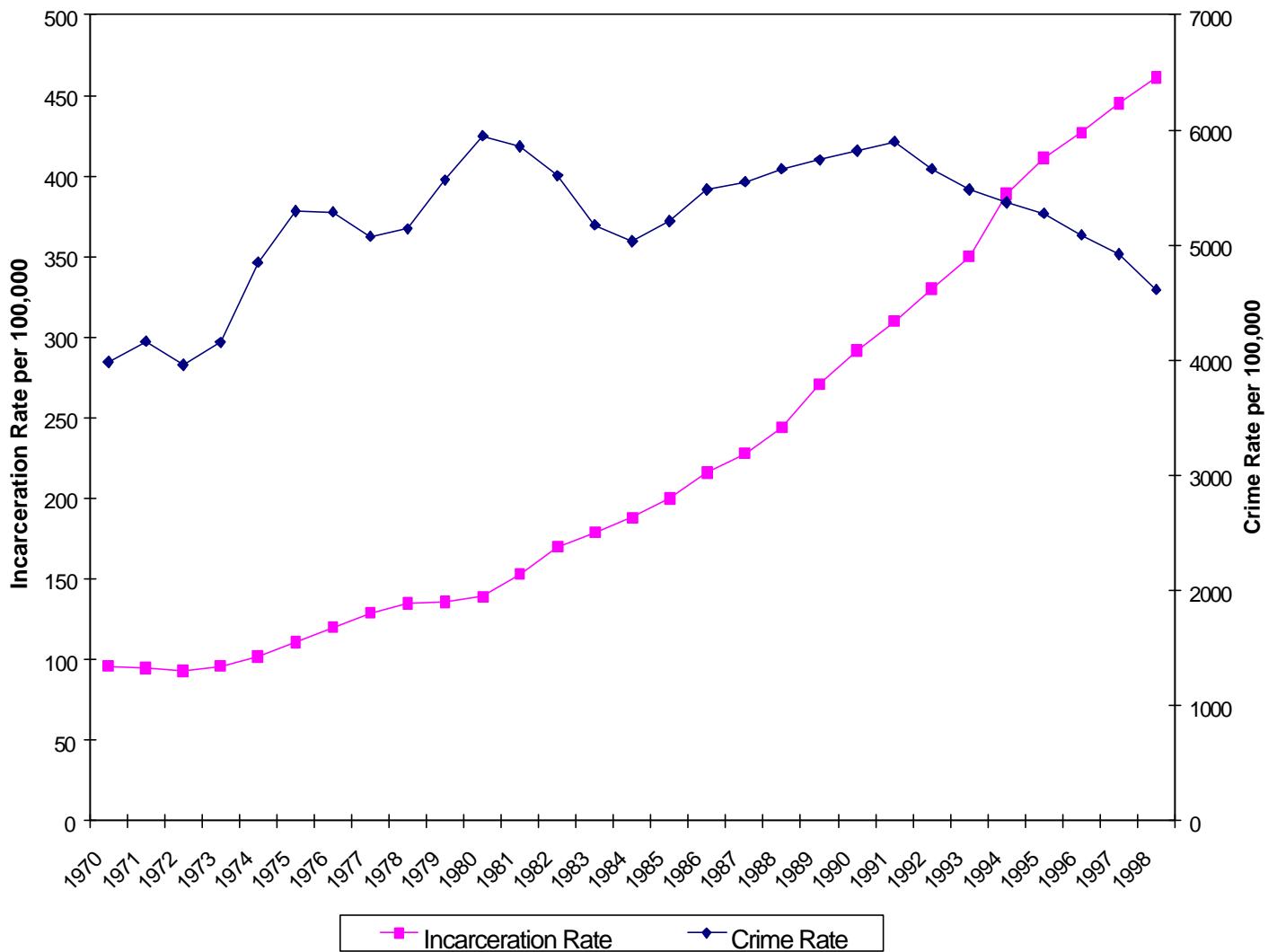
TABLE 6
CHANGES IN INCARCERATION AND CRIME RATES BY STATE, 1984 – 1991

| | 1984-91 Inc. Rate % Change | 1984-91 Crime Rates % Change | | |
|----------------|----------------------------------|---------------------------------|-----------|-----------|
| | | Total | Violent | Property |
| Michigan | 141 | -6 | 6 | -8 |
| Colorado | 139 | -6 | 22 | -8 |
| New Hampshire | 132 | 10 | -11 | 11 |
| New Jersey | 118 | 12 | 20 | 11 |
| Vermont | 118 | 0 | -20 | 0 |
| Connecticut | 108 | 16 | 37 | 14 |
| Kentucky | 105 | 14 | 58 | 9 |
| California | 96 | 5 | 43 | 0 |
| Dist.of Col. | 88 | 25 | 43 | 21 |
| Rhode Island | 88 | 6 | 38 | 3 |
| Ohio | 86 | 18 | 46 | 15 |
| Utah | 77 | 18 | 17 | 18 |
| Oklahoma | 76 | 16 | 43 | 13 |
| Pennsylvania | 76 | 16 | 40 | 13 |
| Missouri | 74 | 26 | 66 | 21 |
| New York | 71 | 12 | 27 | 9 |
| Maine | 71 | 7 | -17 | 8 |
| Massachusetts | 70 | 16 | 41 | 13 |
| Arkansas | 69 | 54 | 85 | 50 |
| Virginia | 68 | 22 | 26 | 21 |
| South Carolina | 67 | 33 | 56 | 29 |
| Illinois | 66 | 16 | 43 | 11 |
| Wyoming | 66 | 19 | 28 | 19 |
| Idaho | 61 | 14 | 23 | 14 |
| AVERAGE | 61 | 16 | 34 | 14 |
| Arizona | 60 | 14 | 30 | 13 |
| Alabama | 54 | 38 | 96 | 30 |
| Nebraska | 53 | 25 | 48 | 23 |
| Montana | 51 | -22 | -41 | -21 |
| South Dakota | 50 | 18 | 24 | 18 |
| Minnesota | 50 | 17 | 49 | 15 |
| Wisconsin | 50 | 7 | 41 | 5 |
| Louisiana | 49 | 26 | 40 | 23 |
| Iowa | 48 | 9 | 53 | 6 |
| Tennessee | 47 | 38 | 63 | 35 |
| Mississippi | 44 | 38 | 38 | 38 |
| New Mexico | 44 | 7 | 21 | 5 |
| Florida | 42 | 25 | 36 | 24 |
| Indiana | 37 | 23 | 66 | 19 |
| Alaska | 37 | -7 | -1 | -7 |
| Georgia | 35 | 44 | 54 | 43 |
| Oregon | 34 | -8 | 0 | -9 |
| Kansas | 34 | 28 | 49 | 26 |
| Texas | 31 | 30 | 66 | 26 |
| Delaware | 31 | 17 | 64 | 13 |
| Maryland | 28 | 19 | 21 | 19 |
| North Dakota | 26 | 8 | 22 | 8 |
| Hawaii | 23 | 9 | 4 | 9 |
| Washington | 17 | 3 | 29 | 2 |
| Nevada | 16 | -4 | 8 | -5 |
| North Carolina | 9 | 46 | 63 | 44 |
| West Virginia | 1 | 14 | 14 | 14 |

Longer Term Trends: 1970 – 1998

In looking back to the beginning of the rise in incarceration in the early 1970s, the relationship to crime rates is ambiguous. After decades of relative stability, the rate of incarceration rose from 96 per 100,000 in 1970 to 452 per 100,000 in 1998 (not including jail inmates) and still continues to rise. The crime rate, by contrast, shows a cyclical path over the years. The cyclical nature of the change also makes it unlikely that the decline in crime from 1991 to 1998 was simply a delayed reaction to the increase in incarceration during the earlier period.

FIGURE 5
CHANGES IN CRIME AND INCARCERATION RATES 1970 - 1998



Even violent crime, which has shown a more consistent rise, has seen both increases and decreases during that period, as seen in Figure 6. The murder rate, which contributes to the violent crime rate, is discussed in more detail below in the section on guns and crime. Again, it is difficult to identify any strong correlation between the changes in incarceration and crime over this longer time frame.

FIGURE 6
VIOLENT CRIME RATE 1970 – 1998



Factors Contributing to the Growth of the Prison Population

While the actual level of crime is not irrelevant to the size of the prison population in a given state, the overwhelming proportion of the increase in recent years is a result of changes in policy and not crime rates. Criminologists Alfred Blumstein and Allen Beck examined the tripling of the inmate population from 1980 to 1996 and concluded that changes in crime explained only 12% of the rise in the prison population, while harsher sentencing policy was responsible for 88% of the increase. This was a result of both a greater propensity to incarcerate offenders upon arrest (51% of the increase) and longer sentences for those sent to prison (37% of the increase).⁴

The most significant policy changes contributing to the inmate population growth during this period are the following:

Drug Offenders

The impact of drug offenders on incarceration rates has been dramatic. In 1984, drug offenders comprised only 7.6%⁵ of state prison populations; by 1998 this percentage had nearly tripled to 20.7%.⁶ (In Federal prisons, the proportion of drug offenders doubled from 29.5% in 1984 to 58% by 1998.⁷) Drug offending was the major component of the overall growth in incarceration between 1984 and 1991 both because of the higher numbers of drug offenders being incarcerated and the longer sentences they received.⁸ Between 1990 and 1998, drug offenders accounted for 19% of the growth in the state prison population.⁹

The number of drug offenders admitted annually to state prisons grew from 19,600 in 1984 to 107,000 in 1998.¹⁰ Rates of admission for drug offenses varied considerably by state. Figures for 1996 show that variations in the proportion of drug offenders ranged from a low of 10% in Maine to a high of 47% in New Jersey.¹¹

While the incarceration of drug offenders has had a significant effect on the growth of the prison population, its effect on crime is far from clear. Drug offenses are not part of the UCR “index” crimes, and because they are “victimless” crimes, they are not reported to the police nor recorded by the National Crime Victimization Survey. One measure of drug crime is drug arrests, which rose from 1,010,000 in 1991 to 1,559,100 in 1998, although this may reflect political and law enforcement priorities as well. Another indicator of drug abuse are household surveys, which show that drugs remain easily available, suggesting that neither the mass arrest nor incarceration of drug offenders has reduced the availability of drugs.¹²

⁴ Alfred Blumstein and Allen Beck, “Population Growth in U.S. Prisons 1980-1996, in *Prisons*, ed. Michael Tonry and Joan Petersilia, University of Chicago Press, 1999.

⁵ *Correctional Populations in the United States, 1993*, US Department of Justice, Bureau of Justice Statistics, October 1995.

⁶ *Prisoners in 1999*, US Department of Justice, Bureau of Justice Statistics, August 2000.

⁷ *ibid.*

⁸ *Correctional Populations, 1994 and Prisoners in 1999*, US Department of Justice, Bureau of Justice Statistics

⁹ *Prisoners in 1999*.

¹⁰ *ibid.*

¹¹ *Punishment and Prejudice: Racial Disparities in the War on Drugs*, Human Rights Watch, May 2000

¹² See, e.g., *Monitoring the Future Survey, 1998*, The National Clearinghouse for Alcohol and Drug Information.

Time Served in Prison

Changes in sentencing policy account for most of the growth in incarceration in recent years. While much of the growth in the 1980s was fueled by increased use of incarceration as a sanction (particularly for drug offenses), the dominant factor now is the length of time served in prison.¹³ Time served has increased as a result of longer sentences, “three strikes,” mandatory minimum sentences and reduction in the use of parole, as well as increased imprisonment of parole violators. Some of these policies have sought to lengthen the period of incarceration for violent offenders, but most have affected non-violent offenders as well. Between 1990 and 1998, the projected average time to be served before first release for people entering prison increased from 38 to 43 months. As a result, while the number of people released from prison increased between 1990 and 1998 from 405,374 to 520,172, the release rate (number released relative to the number in prison) dropped from 37% to 31%¹⁴

Parole Violators

A substantial, and growing, percentage of the admissions to prison each year are parole violators – offenders released from prison who are returned to prison for violating the conditions of their release. Between 1990 and 1998, the number of new court commitments to prison each year grew by only 7.5% (from 323,069 to 347,270) while the number of parole violators admitted rose by 54% (from 133,870 to 206,751).

Of the parole violators who returned to prison in 1997, 60% had been arrested or convicted of a new crime and 40% had committed a technical violation of their parole such as failing a drug test or failing to report to a parole officer. The number of drug offenders returned to state prison rose by 122% from 1990 to 1998, accounting for more than half of the total increase in parole violators returned to prison during that period.¹⁵

¹³ Blumstein and Beck, op. cit.

¹⁴ *Prisoners in 1999*.

¹⁵ *Ibid.*

Factors Contributing to Reduced Crime

It is difficult to establish a strong relationship between the increased use of imprisonment in the 1990s and the falling crime rate. But, in addition to rising incarceration, there have been significant changes in many social and economic factors, as well as shifts in law enforcement, that are likely to have contributed to the decline in crime. While it is difficult to quantify the precise contribution of each variable, the following provides an assessment of the degree of change in some of these key areas.

Economic Expansion

The falling crime rate of the 1990s came at a time when the economy was growing and unemployment had fallen to record low levels. Even in the low-wage sector, where unemployment is generally much higher than in the overall labor market, there has been a dramatic improvement.

Most offenders who are sent to prison have low-level educational attainments and limited job experience. A 1991 survey of state prisoners conducted by the Department of Justice found that 65% of prisoners had not completed high school, 53% earned less than \$10,000 in the year prior to their incarceration, and nearly half were either unemployed or working only part-time prior to their arrest.¹⁶ In addition, many suffer from learning disabilities, mental and emotional problems, and drug and alcohol abuse. Periods of recession in the 1980s and early 1990s raised the unemployment rate in the low-wage sector even more than for the average worker and these rates remained high even as unemployment generally fell in 1988-89 before rising again.

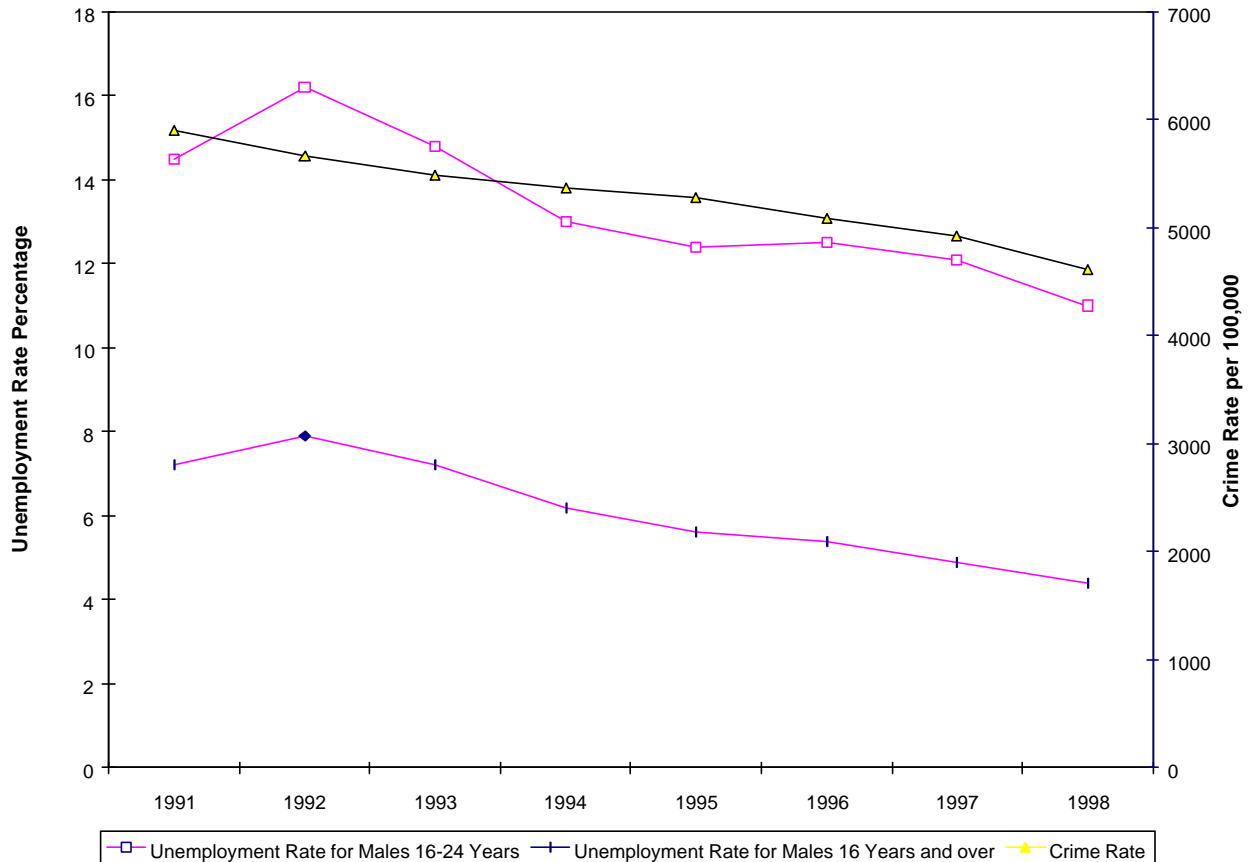
However, the sustained economic recovery which began in 1992 has helped low wage earners. An analysis by the Economic Policy Institute shows that unemployment rates for young men with a high school degree or less generally fell in tandem with the declining crime rate from 1992 to 1998 in all regions of the country, showing the largest decline in the northeast where crime rates also fell most quickly.¹⁷ Another study estimated that the decline in unemployment explained about 30% of the fall in crime rates from 1992 to 1997.¹⁸ As seen in Figure 7, with a lag of about a year at the beginning of the period, the general trends of unemployment and crime nationally are quite consistent for 1991-1998.

¹⁶ *Survey of State Prison Inmates, 1991*, US Department of Justice, Bureau of Justice Statistics, March 1993

¹⁷ Jared Bernstein and Ellen Houston, *Crime and Work: What We Can Learn from the Low-Wage Labor Market*, Economic Policy Institute, 2000.

¹⁸ Richard Freeman and William Rodgers, III, *Area Economic Conditions and the Labor Market Outcomes of Young Men in the 1990's Expansion*, National Bureau of Economic Research, 1999.

FIGURE 7
CRIME RATES AND UNEMPLOYMENT RATES, 1991 – 1998



Economic conditions do not supply the complete explanation for falling crime. The crime rate began its decline in 1991, while unemployment rates for low-wage workers did not begin to decline until 1992 in most regions and a year later in the west. Real wages for low-wage earning men, which had fallen steeply during the recession of the 1980s, did not begin to increase until the mid 1990s. Also, the extent to which young underemployed people continue to earn money through drug dealing will not be reflected in measures of the crime rate.

The economic model of crime – which sees the potential offender as a rational actor making informed choices between the costs (especially incarceration) and benefits of legal versus illegal employment – assumes a level of information, calculation and rationality not generally associated with impetuous adolescents and young males in general, and particularly not when they are also under-educated and substance-abusing as many offenders are. However, one need not accept the economic model in its entirety to find it credible that where legitimate jobs exist, workers are in short supply, and wages are rising, young men are more likely to take a job and less likely to see criminal activity as their only means of earning money.

Another means by which a healthy economy may influence crime rates relates to the perceptions of one's life prospects that are experienced in a community. When economic development and job creation increase in low-income communities, residents may begin to alter their views of their current and future economic prospects. Under such conditions, not only are legitimate work opportunities more available, but there is an increasing sense that these opportunities may continue to be present over time.

The increased availability of better paying jobs also coincided with the decline in crack markets and the community changes discussed below. Whether or not one led directly to the other, it is clear that young people who turned away from drug dealing had legitimate opportunities available to them that had not been there a decade earlier.

Drug Markets/use

Crack cocaine has been found to have been a significant factor in the increase in violent crime in the 1980s, particularly homicide by young men. This was largely a consequence of its introduction to inner cities and the turf wars that developed between rival gangs for dominant shares of a lucrative trade.¹⁹ (The impact of gun homicide on crime rates is discussed below). After the crack cocaine market peaked in the early 1990s, changes in the crack trade appear to have had an impact in reducing crime. The ending of turf battles, the shift of drug trading off the streets to behind closed doors, and declines in the use of crack have all contributed to the reduction in the rates of violent crime associated with the peak of the epidemic.

In addition, the devastating impact of drug misuse by parents, older siblings and neighbors, combined with fear of the violence bred by the drug trade, has been deeply felt by many young people and driven them away from both using and dealing.²⁰ Rather than becoming the generation of "superpredators" that had been predicted by some, young people in inner city communities have contributed to the crime decline of the 1990s. As one ethnographic study of a neighborhood in Brooklyn, New York concluded:

"The overwhelming majority of kids who grew up in Bushwick in the late 1980s and early 1990s responded to the multiple threats of violence, crime, AIDS, and addiction – as most Americans would likely do – by withdrawing from the danger and opting for the relative safety of family, home, church, and other sheltering institutions which persevered during the most difficult years."²¹

¹⁹ Jeff Grogger and Mike Willis, *The Introduction of Crack Cocaine and the Rise in Urban Crime Rates*, National Bureau of Economic Research, Inc., January 1998. Alfred Blumstein, "Youth Violence, Guns, and the Illicit-Drug Industry," *The Journal of Criminal Law and Criminology*, Northwestern University School of Law, Vol. 86, No. 1, Fall 1995.

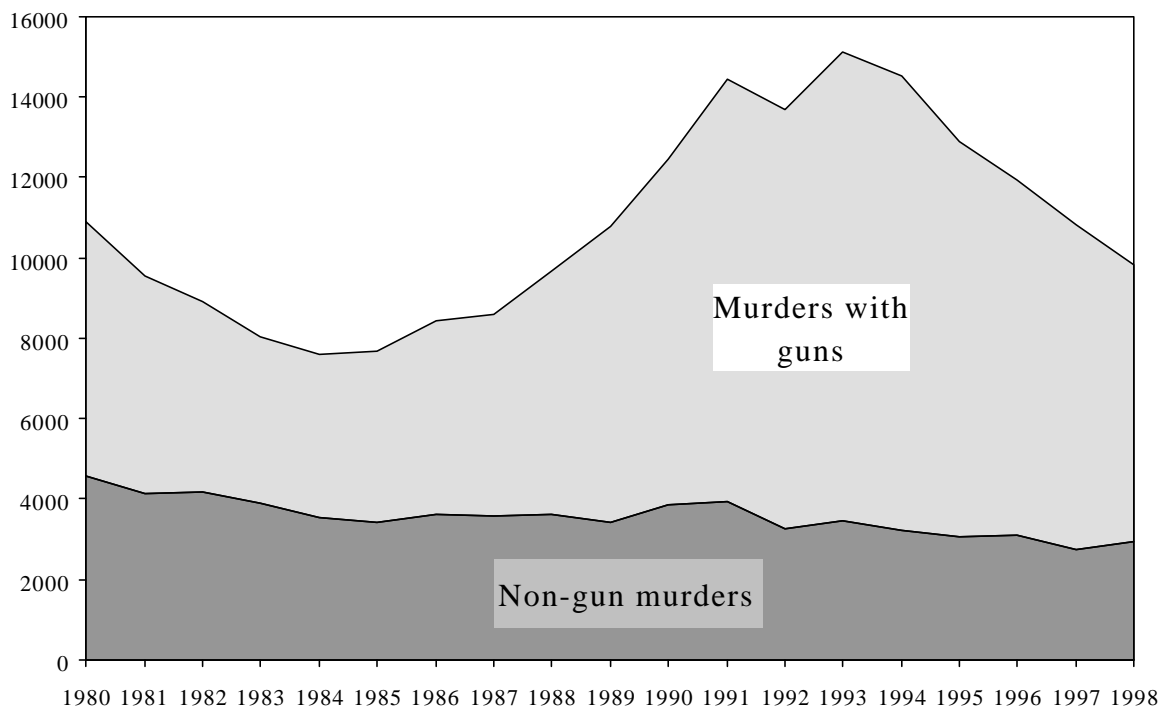
²⁰ Richard Curtis, "The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs, and Youth in the 1990s," *The Journal of Criminal Law and Criminology*, Northwestern University School of Law, Vol. 88, No. 4, Summer 1998.

²¹ *Ibid.*

Guns

While the overall homicide rate increased by 24% from 7.9 (per 100,000) in 1984 to 9.8 in 1991, the homicide offending rate of juveniles and young adults grew dramatically – doubling for the 18-24 age group (from 21.5 to 40.8) and more than trebling for the 14-17 age group (from 8.5 to 26.8). As shown in Figure 8, the increase was almost entirely the result of homicide with guns. As the crack epidemic spread in the 1980s, drug markets were controlled by rival gangs who recruited and armed young men to stake out their turf. As more sellers acquired guns to protect themselves from other armed youngsters, they triggered what Alfred Blumstein and Richard Rosenfeld have characterized as “a classic arms race.”²² Changes in the crack market and the aggressive drive in many cities to keep guns out of the hands of juveniles has brought about a marked decline in the rate of homicide by young people, which has contributed disproportionately to the decline in the violent crime rate.

FIGURE 8
HOMICIDES BY UNDER 25 YEAR-OLDS



²² Alfred Blumstein and Richard Rosenfeld, *Assessing Recent Ups and Downs in U.S. Homicide Rates*, The National Consortium on Violence Research, 1998.

In recent years, other changes in policy and practice have been adopted with the goal of keeping guns out of the hands of juveniles and convicted offenders. These include the 1994 Brady Handgun Violence Prevention Act, which requires federally licensed firearms dealers to impose a waiting period on the purchase of handguns while they conduct a background check on the purchaser; “one gun a month” limitations passed in some states to limit straw purchases by people buying guns on behalf of others prohibited from doing so; and expanded efforts by the police to trace the origin of guns used in crimes.

Demographics

A disproportionate share of crime is committed by young men between the ages of 15 and 24. Therefore, when the proportion of the population within that demographic is high, one might expect that crime would rise. The sharpest increase in crime during the period for which records have been kept was between 1961 and 1969, when the baby-boom generation was in its late teens and twenties (although some of that increase may have reflected more accurate measures of reporting crime).

However, demographics alone do not explain the rise and fall of crime without regard to other factors. There is no historic evidence to show that small fluctuations in the proportion of young males in the population have a significant effect on crime. If they did, crime would have fallen during the 1980s when the young male population was declining, yet in fact crime was rising in that period.

Between 1991 and 1998, the young male (15-24) proportion of the population declined by 5%, from 7.4% to 7%,²³ while the crime rate declined by 22%. Thus, the decline in the proportion of males in their “crime prone” years may have contributed to the decline in crime, but clearly does not represent the full explanation for these changes.

Policing

Changes in policing have been given significant credit for the reduction in crime, particularly in major cities. Problem-oriented policing and community policing have changed the focus of police work from the traditional incident-based model – reacting to a crime that has been committed – to the identification of likely problems and a more proactive intervention to prevent crimes. One of the difficulties in assessing the extent of their contribution is that the changes in policing responses have varied considerably across the country.

- New York initiated a well-publicized policy of “zero tolerance” for “quality of life” crimes such as public drinking, urinating in the street, and graffiti, and routinely stopped and frisked anyone suspected of committing an infraction. The policy was controversial and led to increased complaints against the police, along with allegations of racial targeting and brutality. The city also increased the number of police on the streets, and

²³ Calculated from data supplied by the Population Estimates Program, Population Division, U.S. Census Bureau.

used computers to map out crime and enforcement patterns to enable more strategic targeting of police efforts. Arrests rose and major crime declined.

- San Diego developed a Neighborhood Policing Philosophy, forging links between police and neighborhood residents to identify and solve local problems and enlisting civilian volunteers for crime prevention and victim assistance services. The city saw similar declines in crime to New York together with a *decline* in the number of arrests.²⁴
- Boston's approach involved collaboration between the police and probation departments, a focus on getting guns off the streets, and a close partnership with community leaders and clergy, particularly targeted at reducing youth gang violence. The city's homicides by under-25 year olds declined 77% between 1990 and 1999.

The common denominator between the police tactics in these cities, and many others which experienced dramatic drops in crime, may be the increased focus on having police on the streets, responding to specific local needs and attempting to be proactive in targeting potential problems. However, other cities, most notably Los Angeles, initiated few significant innovations in policing, yet also saw a drop in crime from 1991 to 1998.

²⁴ For a comparison of different policing styles in New York and San Diego, see Judith Greene, "Zero Tolerance: A Case Study of Police Policies and Practices in New York City," *Crime and Delinquency*, Vol. 45, Number 2, April 1999.

Consequences of Mass Incarceration

Although crime rates are down, crime still represents a major concern for Americans and is particularly damaging to the quality of life for residents of poor urban areas. Crime rates are cyclical and are likely to rise again at some time in the future. Indeed there is some preliminary evidence, in rising homicide and violent crime in a few cities, that the current decline may already be reversing.²⁵ For the moment, however, the U.S. is in a fortunate position, with a declining crime rate and a strong economy, to study the lessons of the past and to make careful investments for the future.

Our current incarceration rates come at a very heavy economic and social cost. If this were a necessary price to be paid for reduced crime, some might find it acceptable. But if the decline in crime is not largely attributable to mass incarceration, then these consequences become even more disturbing. Current policies have seen corrections expenditures increase to about \$40 billion per year, which inevitably means less money available for other areas of spending. Any marked downturn in the economy and/or political drive toward large tax cuts will require hard choices among areas of public investment.

The social costs for people who are incarcerated and their families and communities become more substantial each year. Because prisoners come primarily from inner-city communities of color, those communities have lost large proportions of their young men, and increasingly women, to prison and jail. While the removal of some criminal offenders provides benefits to the community in reduced crime, this varies greatly depending on whether the offender is an armed robber or a low-level drug seller. Imprisonment also deprives children of their fathers, women of husbands and partners, and the community of a resource that can provide positive benefits, including supervision of young people, and other elements of informal social control.²⁶ As more young people grow up with parents and siblings incarcerated and a view of time in jail as a normal aspect of one's life experience, the deterrent effect of prison is diminished as well. Among black jail inmates surveyed in 1996, 49% had a family member who had been incarcerated.²⁷ One of every fourteen black children has a parent in state or federal prison.²⁸

The lasting negative impacts on an individual who has been incarcerated may also include:

- Difficulties in finding employment when the disadvantage of a criminal record is added to low educational attainment and limited job experience.
- Inability to obtain some jobs because of licensing and other employment restrictions on ex-offenders.
- Breakup of families through divorce and denial of parental rights.
- Loss of welfare benefits and education loans.
- Loss of voting rights in many states, either temporarily or permanently.

²⁵ Fox Butterfield, *As Murder Rates Edge Up, Concern, but Few Answers*, New York Times, June 18, 2000.

²⁶ Dina Rose and Todd Clear, "Incarceration, Social Capital, and Crime: Implications for Social Disorganization Theory," *Criminology*, Vol. 36, Number 3, 1998.

²⁷ *Correctional Populations in the United States, 1996*, U.S. Department of Justice, Bureau of Justice Statistics, 1999.

²⁸ Christopher J. Mumola, "Incarcerated Parents and their Children," Bureau of Justice Statistics, 2000.

High rates of recidivism suggest that the experience of prison does not provide a significant deterrent to those who have been imprisoned. Further, despite the best efforts of some corrections officials, policymakers have provided little support for the kinds of education, vocational training, counseling and treatment programs that could provide long-term benefits both to ex-offenders and the community.

Even in Texas, where dramatic increases in incarceration were accompanied by a significant decline in crime, the wisdom of this approach has been challenged. In 1994, the Texas Comptroller of Public Accounts, called for a review of the state's sentencing policies, noting the high rate of recidivism as the state "continue[d] to build more incredibly expensive warehouses for criminals. Without major changes in Texas's priorities, the state seems likely to continue on an increasingly expensive and ultimately futile course of action."²⁹ Six years later, the General Counsel to the Texas Department of Criminal Justice, described the state's prison-centered response to the crime problem as a "costly social strategy [that] has not been an unqualified success" and expressed great concern about the damage done to inner city communities that have experienced high rates of incarceration.³⁰

Despite the unprecedented experiment in mass incarceration that has taken place in the past twenty five years, crime rates have fluctuated during that time. Even now, as we celebrate almost ten years of decline, gun homicide rates among juveniles and young adults are higher than in the mid-1980s and the United States still surpasses every other industrialized democracy in its rate of violent crime.

²⁹ *Texas Comptroller Warns of "Prison-Industrial Complex,"* Criminal Justice Newsletter, May 2, 1994.

³⁰ Carl Reynolds, *Cell Block Boom: The Impact of Texas Prison Expansion*, Texas Business Review, February 2000

Public Policy Implications

As our analysis of the relationship between incarceration and crime has shown, increased incarceration is increasingly less effective as a response to crime. To the extent that the prison population has reached record levels as a result of deliberate choices made by policy makers, a different set of choices can reduce crime to levels comparable to those of other democratic nations without imperiling public safety. The outline of such an approach to public policy includes the following:

- *Moratorium on Prison Construction* – During the past quarter century the United States has engaged in an unprecedented explosion of prison construction. Policymakers should implement a moratorium on new construction while alternative crime prevention and control measures are pursued.
- *Repeal Mandatory Sentencing* – Mandatory sentencing laws have been widely found to be ineffective for crime control objectives and have led to injustice and unfairness in sentencing. These laws should be fully reconsidered in regard to whether their stated goals can be justified.
- *Diversion of Non-Violent Offenders* – More than half the national inmate population is comprised of offenders convicted of non-violent drug and property offenses. Greater use of community supervision and resources could be employed to divert many of these offenders from prison.
- *Strengthen Juvenile Courts* – The trend toward increased prosecution and incarceration of juveniles in the adult criminal justice system has been found to severely disadvantage young offenders and to have no positive impact on recidivism. Juvenile courts should be given the necessary resources to handle all but exceptional cases within their jurisdiction.
- *Strengthen Probation and Parole* – Probation and parole services require sufficient support and redesign so that they constitute effective alternatives to long-term incarceration and provide for offender transition to the community.
- *Reverse National Drug Policy* – The “war on drugs” has contributed to a bloated prison system with little impact on substance abuse. Current national priorities that emphasize law enforcement over prevention and treatment should be reversed so that drug abuse is primarily addressed as a public health problem.
- *Build Strong Families and Communities* – As the use of imprisonment has increased, a variety of social problems that contribute to crime have gone largely unaddressed. Policymakers should provide support for mental health services, education, job placement, and other services that can strengthen community life and reduce crime.

While the positive effects of increased incarceration are limited, the harms are clear. The objective of policy changes such as those described above is to support and strengthen the factors which have helped to reduce crime while at the same time working to reduce the use of imprisonment in ways consistent with public safety. After nearly a decade of declining crime rates and a healthy economy, there is no more appropriate time to reconsider such a change of direction.

Methodology

Incarceration rates are for sentenced prisoners under the jurisdiction of State and Federal institutions on December 31 of each year as reported by the Department of Justice Bureau of Justice Statistics (BJS) in the *Sourcebook of Criminal Justice Statistics 1998, Prisoners in 1998* and *Prisoners in 1999*. Sentenced prisoners are those sentenced to more than one year.

By law, offenders in Massachusetts may be sentenced to terms of up to 2.5 years in locally operated jails. Those prisoners are not included in the number of prisoners in the custody of the State of Massachusetts but they are included by BJS when calculating the incarceration rate for the state.

Crime rates are taken from the Federal Bureau of Investigation's Uniform Crime Reporting System (UCR).

In Table 1, the average incarceration rates are rounded to the nearest whole number. In Tables 2 and 4 and Figure 3, states that had above average and below average incarceration rates were grouped together and averages of their changes in incarceration and crime rates were calculated.

The cost data used in Table 5 are national averages and do not represent the actual costs of any state. The capital per-bed cost was the average construction cost of a bed in a medium security institution according to the *1998 Corrections Yearbook*, published by the Criminal Justice Institute.

The unemployment rates used in Figure 7 were obtained from the Department of Labor, Bureau of Labor Statistics (BLS), *Labor Force Statistics from the Current Population Survey*. The unemployment rate statistics used are for males only as they represent by far the larger segment of the prison population. The unemployment rates for the age group 16-24 are annual (non-seasonally adjusted) rates. The unemployment rates for the over 16 age group are seasonally adjusted and the mid-year (June) rates were used.

The homicide rates shown in Figure 8 are from the Bureau of Justice Statistics data on *Homicide Trends in the United States -- Homicides by weapon type and age of offender*. Data on under 14s, 14- 17 and 18-24 age groups were combined to provide the total numbers for under 25 year-olds.

The data used to calculate the demographic changes on page 21 are from the US Census Bureau, Population Division, Population Estimates Program. The number of young males in the 15-24 age group was calculated as a percentage of the total population for the period 1991 – 1998.

| APPENDIX 1 | | | | | | |
|---------------------------|--------------------------|--------|---------|---------------------------------------|-------|-------|
| INCARCERATION 1984 - 1998 | | | | | | |
| | Prison Population | | | Rate of Incarceration | | |
| | # of sentenced prisoners | | | # of prisoners per 100,000 population | | |
| | 1984 | 1991 | 1998 | 1984 | 1991 | 1998 |
| Alabama | 10,246 | 16,400 | 22,655 | 256 | 394 | 519 |
| Alaska | 1,293 | 1,840 | 2,541 | 252 | 345 | 413 |
| Arizona | 7,646 | 14,843 | 23,955 | 247 | 396 | 507 |
| Arkansas | 4,482 | 7,722 | 10,561 | 188 | 317 | 415 |
| California | 41,652 | 98,515 | 159,109 | 162 | 318 | 483 |
| Colorado | 3,231 | 8,392 | 14,312 | 104 | 249 | 357 |
| Connecticut | 3,748 | 8,585 | 12,193 | 119 | 248 | 372 |
| Delaware | 1,546 | 2,473 | 3,211 | 263 | 344 | 429 |
| Dist.of Col. | 3,718 | 7,106 | 9,949 | 649 | 1,221 | 1,913 |
| Florida | 26,759 | 46,531 | 67,193 | 242 | 344 | 447 |
| Georgia | 14,596 | 23,009 | 38,758 | 254 | 342 | 502 |
| Hawaii | 1,330 | 1,766 | 3,670 | 124 | 153 | 307 |
| Idaho | 1,253 | 2,143 | 4,083 | 127 | 205 | 330 |
| Illinois | 17,114 | 29,115 | 43,051 | 149 | 247 | 357 |
| Indiana | 9,063 | 13,576 | 19,016 | 165 | 226 | 321 |
| Iowa | 2,836 | 4,145 | 7,394 | 97 | 144 | 258 |
| Kansas | 4,244 | 5,903 | 8,183 | 173 | 231 | 310 |
| Kentucky | 4,820 | 9,799 | 14,987 | 128 | 262 | 379 |
| Louisiana | 13,659 | 20,003 | 32,227 | 310 | 462 | 736 |
| Maine | 847 | 1,558 | 1,562 | 72 | 123 | 125 |
| Maryland | 12,442 | 17,824 | 21,540 | 285 | 366 | 418 |
| Massachusetts | 4,738 | 8,821 | 10,739 | 84 | 143 | 173 |
| Michigan | 14,604 | 36,423 | 45,879 | 161 | 388 | 466 |
| Minnesota | 2,167 | 3,472 | 5,557 | 52 | 78 | 117 |
| Mississippi | 5,974 | 8,682 | 15,855 | 229 | 330 | 574 |
| Missouri | 8,770 | 15,897 | 24,949 | 175 | 305 | 457 |
| Montana | 964 | 1,478 | 2,734 | 121 | 183 | 310 |
| Nebraska | 1,567 | 2,406 | 3,588 | 95 | 145 | 215 |
| Nevada | 3,488 | 5,823 | 9,651 | 380 | 439 | 542 |
| New Hampshire | 581 | 1,533 | 2,169 | 57 | 132 | 182 |
| New Jersey | 10,363 | 23,483 | 31,121 | 138 | 301 | 382 |
| New Mexico | 1,908 | 3,016 | 4,732 | 133 | 191 | 271 |
| New York | 33,109 | 57,862 | 72,289 | 187 | 320 | 397 |
| North Carolina | 15,219 | 18,272 | 27,193 | 246 | 269 | 358 |
| North Dakota | 375 | 441 | 814 | 54 | 68 | 128 |
| Ohio | 18,619 | 35,744 | 48,450 | 174 | 324 | 432 |
| Oklahoma | 7,872 | 13,340 | 20,892 | 236 | 416 | 622 |
| Oregon | 4,224 | 5,575 | 8,596 | 170 | 228 | 260 |
| Pennsylvania | 12,998 | 23,386 | 36,373 | 109 | 192 | 303 |
| Rhode Island | 891 | 1,749 | 2,175 | 92 | 173 | 220 |
| South Carolina | 9,315 | 17,208 | 21,236 | 284 | 473 | 550 |
| South Dakota | 904 | 1,374 | 2,430 | 127 | 191 | 329 |
| Tennessee | 7,307 | 11,474 | 17,738 | 154 | 227 | 325 |
| Texas | 36,682 | 51,677 | 144,510 | 226 | 297 | 724 |
| Utah | 1,491 | 2,605 | 4,337 | 84 | 149 | 205 |
| Vermont | 378 | 733 | 1,110 | 57 | 124 | 188 |

| | | | | | | | |
|---------------|--------|--------|--------|--|-----|-----|-----|
| Virginia | 10,665 | 19,660 | 27,191 | | 185 | 311 | 399 |
| Washington | 6,821 | 9,156 | 14,154 | | 156 | 182 | 247 |
| West Virginia | 1,579 | 1,502 | 3,478 | | 82 | 83 | 192 |
| Wisconsin | 4,974 | 7,775 | 17,477 | | 105 | 157 | 334 |
| Wyoming | 724 | 1,099 | 1,571 | | 143 | 237 | 327 |

APPENDIX 2

CRIME RATES 1984 - 1998

(# of crimes per 100,000 population)

| | 1984 | | | 1991 | | | 1998 | | |
|----------------|-------|---------|----------|--------|---------|----------|-------|---------|----------|
| | Total | Violent | Property | Total | Violent | Property | Total | Violent | Property |
| Alabama | 3.902 | 431 | 3.471 | 5.366 | 844 | 4.521 | 4.597 | 512 | 4.085 |
| Alaska | 6.115 | 622 | 5.494 | 5.702 | 614 | 5.088 | 4.777 | 654 | 4.123 |
| Arizona | 6.499 | 516 | 5.983 | 7.406 | 671 | 6.735 | 6.575 | 578 | 5.997 |
| Arkansas | 3.368 | 321 | 3.046 | 5.175 | 593 | 4.582 | 4.283 | 490 | 3.793 |
| California | 6.468 | 763 | 5.705 | 6.773 | 1,090 | 5.683 | 4.343 | 704 | 3.639 |
| Colorado | 6.471 | 458 | 6.013 | 6.074 | 559 | 5.515 | 4.488 | 378 | 4.110 |
| Connecticut | 4.629 | 394 | 4.235 | 5.364 | 540 | 4.824 | 3.787 | 366 | 3.402 |
| Delaware | 5.007 | 436 | 4.571 | 5.869 | 714 | 5.155 | 5.363 | 762 | 4.601 |
| Dist.of Col. | 8.591 | 1,722 | 6.870 | 10.768 | 2,453 | 8.315 | 8.836 | 1,719 | 7.117 |
| Florida | 6.821 | 868 | 5.953 | 8.547 | 1,184 | 7.363 | 6.886 | 939 | 5.947 |
| Georgia | 4.498 | 479 | 4.020 | 6.493 | 738 | 5.755 | 5.463 | 573 | 4.890 |
| Hawaii | 5.484 | 232 | 5.253 | 5.970 | 242 | 5.729 | 5.333 | 247 | 5.086 |
| Idaho | 3.672 | 235 | 3.436 | 4.196 | 290 | 3.906 | 3.715 | 282 | 3.433 |
| Illinois | 5.304 | 725 | 4.579 | 6.132 | 1,039 | 5.093 | 4.873 | 808 | 4.065 |
| Indiana | 3.929 | 305 | 3.624 | 4.818 | 505 | 4.313 | 4.169 | 431 | 3.738 |
| Iowa | 3.800 | 199 | 3.601 | 4.134 | 303 | 3.831 | 3.501 | 312 | 3.189 |
| Kansas | 4.339 | 334 | 4.005 | 5.534 | 500 | 5.035 | 4.859 | 397 | 4.462 |
| Kentucky | 2.959 | 278 | 2.681 | 3.358 | 438 | 2.920 | 2.889 | 284 | 2.605 |
| Louisiana | 5.111 | 678 | 4.433 | 6.425 | 951 | 5.474 | 6.098 | 780 | 5.319 |
| Maine | 3.527 | 159 | 3.369 | 3.768 | 132 | 3.636 | 3.041 | 126 | 2.915 |
| Maryland | 5.215 | 792 | 4.422 | 6.209 | 956 | 5.253 | 5.366 | 797 | 4.569 |
| Massachusetts | 4.588 | 524 | 4.065 | 5.322 | 736 | 4.586 | 3.436 | 621 | 2.815 |
| Michigan | 6.556 | 760 | 5.796 | 6.138 | 803 | 5.335 | 4.683 | 621 | 4.062 |
| Minnesota | 3.842 | 212 | 3.630 | 4.496 | 316 | 4.180 | 4.047 | 310 | 3.763 |
| Mississippi | 3.060 | 282 | 2.778 | 4.221 | 389 | 3.832 | 4.384 | 411 | 3.973 |
| Missouri | 4.297 | 461 | 3.836 | 5.416 | 763 | 4.653 | 4.826 | 556 | 4.271 |
| Montana | 4.653 | 238 | 4.415 | 3.648 | 140 | 3.508 | 4.071 | 139 | 3.932 |
| Nebraska | 3.497 | 226 | 3.271 | 4.354 | 335 | 4.020 | 4.405 | 451 | 3.954 |
| Nevada | 6.561 | 629 | 5.933 | 6.299 | 677 | 5.622 | 5.281 | 644 | 4.637 |
| N. Hampshire | 3.138 | 134 | 3.004 | 3.448 | 119 | 3.329 | 2.420 | 107 | 2.313 |
| New Jersey | 4.856 | 528 | 4.328 | 5.431 | 635 | 4.797 | 3.654 | 440 | 3.214 |
| New Mexico | 6.243 | 688 | 5.555 | 6.679 | 835 | 5.845 | 6.719 | 961 | 5.758 |
| New York | 5.577 | 914 | 4.663 | 6.245 | 1,164 | 5.081 | 3.589 | 638 | 2.951 |
| North Carolina | 4.044 | 404 | 3.641 | 5.889 | 658 | 5.230 | 5.322 | 579 | 4.743 |
| North Dakota | 2.583 | 54 | 2.530 | 2.794 | 65 | 2.729 | 2.681 | 89 | 2.592 |
| Ohio | 4.273 | 385 | 3.888 | 5.033 | 562 | 4.471 | 4.328 | 363 | 3.965 |
| Oklahoma | 4.893 | 408 | 4.485 | 5.669 | 584 | 5.085 | 5.004 | 539 | 4.465 |
| Oregon | 6.244 | 506 | 5.738 | 5.755 | 506 | 5.249 | 5.647 | 420 | 5.227 |
| Pennsylvania | 3.060 | 321 | 2.739 | 3.559 | 450 | 3.109 | 3.273 | 421 | 2.852 |
| Rhode Island | 4.774 | 335 | 4.439 | 5.039 | 462 | 4.577 | 3.518 | 312 | 3.206 |
| S. Carolina | 4.663 | 625 | 4.039 | 6.179 | 973 | 5.207 | 5.777 | 903 | 4.874 |
| South Dakota | 2.613 | 148 | 2.465 | 3.079 | 182 | 2.897 | 2.624 | 154 | 2.470 |
| Tennessee | 3.890 | 445 | 3.444 | 5.367 | 726 | 4.641 | 5.034 | 715 | 4.319 |
| Texas | 6.030 | 505 | 5.525 | 7.819 | 840 | 6.979 | 5.112 | 565 | 4.547 |
| Utah | 4.766 | 244 | 4.522 | 5.608 | 287 | 5.321 | 5.506 | 314 | 5.192 |
| Vermont | 3.968 | 145 | 3.823 | 3.955 | 117 | 3.838 | 3.139 | 106 | 3.033 |
| Virginia | 3.784 | 296 | 3.488 | 4.607 | 373 | 4.234 | 3.660 | 326 | 3.335 |
| Washington | 6.102 | 406 | 5.695 | 6.304 | 523 | 5.782 | 5.867 | 429 | 5.439 |
| West Virginia | 2.336 | 168 | 2.168 | 2.663 | 191 | 2.472 | 2.547 | 249 | 2.299 |
| Wisconsin | 4.172 | 197 | 3.976 | 4.466 | 277 | 4.189 | 3.543 | 249 | 3.294 |
| Wyoming | 3.683 | 242 | 3.441 | 4.389 | 310 | 4.079 | 3.808 | 248 | 3.560 |