

MANDATORY PRISON SENTENCES: THEIR PROJECTED EFFECTS
ON CRIME AND PRISON POPULATIONS

Joan Petersilia and Peter W. Greenwood

October 1977

49917

P-6014

MANDATORY PRISON SENTENCES: THEIR PROJECTED EFFECTS
ON CRIME AND PRISON POPULATIONS

Joan Petersilia and Peter W. Greenwood
Criminal Justice Program
The Rand Corporation
Santa Monica, California

NCJRS

October, 1977

AUG 10 1978

ACQUISITIONS

Joan Petersilia is a Research Associate in the Rand Criminal Justice Program, and is the coauthor of *Criminal Careers of Habitual Felons* (book forthcoming) and *The Criminal Investigation Process* (D. C. Heath, 1977). Peter Greenwood is the Director of the Rand Criminal Justice Program, and coauthor of *Criminal Careers of Habitual Felons*, *The Criminal Investigation Process*, and *Prosecution of Adult Felony Defendants*.

Prepared under Grant Number 77-NI-99-0053 from the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

AUTHORS NOTE:

The authors wish to thank Hans Zeisel, James Q. Wilson, Daniel Glaser, and Jan Chaiken for reviewing an earlier draft of this article.

ABSTRACT

Mandatory prison sentences are emerging as a major issue of national debate. During the Ninety-fourth Congress alone (1975-1976), more than thirty separate bills calling for mandatory-minimum sentences were introduced. Most bills limit the mandatory sentencing to specified crimes or categories of criminals. The most common category is the repeat criminal, on the grounds that the greater number of past convictions, the more severe his current sentence should be.

These new sentencing reforms imply greater system costs. It is therefore necessary that such reforms be preceded by an evaluation of the potential benefits in crime reduction against their likely costs in increased prison populations. Advocates of new mandatory sentencing schemes have generally ignored the likely extra burden on the correctional system. Specifically, policymakers need to know *which* type of offender and *what* length of sentence are likely to produce the largest reduction in crime, and the impact that such mandatory penalties will have on the prison population. The research reported here attempted to do both.

The results suggest that mandatory sentences can reduce crime as a result of incapacitation effects, but the increase in prison population entailed by such policies may be unacceptably large. To reduce the level of crime by half, every person convicted of a felony, regardless of prior criminal history would have to be imprisoned for five years. If only defendants who have a prior adult conviction are imprisoned, the crime-reduction effect is about half the effect produced by sentencing every convicted felon to prison. Our analysis suggests that the most efficient policy, in the sense of producing the highest crime reduction and lowest increase in prison population, appears to be a policy of sentencing all convicted felons to 1.2 years of prison. But it reduces the crime rate by 20 percent while raising the prison population 85 percent.

Our analysis also suggests that judges are rather successful in distinguishing among defendants who pose "more serious" and "less serious" risks to the community. A result is that convicted defendants *with* prior

adult records, who are not sentenced to prison, represent less of a risk (on the average) than convicted defendants *without* prior adult records who are similarly not sentenced to prison. The former group are released because the judge has determined they pose little risk; the latter group are released because they have no prior adult criminal record.

Thus, mandatory-minimum sentencing policies that focus only on defendants with prior records, although they may accord better with the notion of just deserts, appear to be less effective in reducing crime than policies that ignore prior record. The former have the effect of requiring a judge to imprison defendants whom he has determined pose little risk.

CONTENTS

ABSTRACT	iii
Section	
I. INTRODUCTION	1
The Impetus For Sentencing Reform	1
Data Base For This Study	4
II. CRIME-REDUCTION EFFECTS	6
Methodology	6
Sample Characteristics	8
Findings	10
The Violent Cohort	10
The Burglary Cohort	13
Entire Sample	14
III. EFFECT ON PRISON POPULATION	18
Methodology	18
Findings	19
IV. CONCLUSIONS AND POLICY IMPLICATIONS	23
REFERENCES	29

I. INTRODUCTION

THE IMPETUS FOR SENTENCING REFORM

Reform of sentencing statutes has recently emerged as a major issue of national debate. New legislation is being considered at both federal and state levels to modify criminal proceedings, particularly sentencing. At the beginning of 1977, thirty states and the federal government were contemplating major revisions to their criminal codes.¹

Two concerns have apparently prompted this interest in the sentencing reform. First, criminologists, legal scholars and political leaders have expressed discontent with excessive disparities in the sentences imposed and served under present statutes. It has been repeatedly shown that persons of similar criminal history convicted of similar crimes are treated differently by the courts. For example, the average prison sentence for persons convicted of bank robbery is 11 years nationwide but 5.5 years in the Northern District of Illinois and 17 years in Georgia.² Much of the blame for the disparity has been placed on the wide latitude allowed judges under current sentencing statutes.

In addition to obvious jurisdictional differences, some empirical evidence suggests that a significant part of the disparity reflects judicial prejudice, conscious or subconscious. A study of sentences for larceny and assault, for example, disclosed that in state courts, 74 percent of the blacks convicted of larceny were sentenced to prison, while only 49 percent of the whites with similar records were imprisoned.³ Many have called for substantial changes in sentencing on the grounds that it is grossly inequitable in current practice.

Second, there is mounting public distress over not only the high rate of violent crimes but also the rise in property crimes such as burglary. Encouraged by the mass media, the public has begun to blame the leniency of the courts for the high level of crime. Many citizens believe that a "get tough" policy in the courtroom would (1) help protect them against serious criminals by imprisoning such

persons for longer periods, and (2) deter other persons from crime because of the harsher sentences they would expect to receive if caught. This notion not only exists in the popular realm but is also being advanced by respected law enforcement personnel. Former U. S. Attorney General Edward H. Levi recently cited the court's failure to imprison enough criminals as one reason for the rising crime rate.⁴

Many advocates of reform are convinced that more certain, more widely publicized and more severe prison sentences for serious offenders will enhance public protection. They cite recent empirical evidence that most serious crime is committed by repeaters and that these recidivists, although repeatedly arrested and convicted for serious crimes, are not consistently imprisoned. Statistics compiled by Rand reveal that 60 percent of those arrested for robbery have a prior felony conviction, but only 48 percent of them are sentenced to prison.⁵

Because of the low probability of prison incarceration after conviction, many experts believe that the growth of crime can be substantially explained by the fact that, given our present use of sanctions, "crime pays." Therefore, an object of any new sentencing scheme must be to raise the "costs" of committing crime. If offenders were certain that if they were convicted for a serious offense they would surely receive a prison sentence, some might judge the penalty too great to risk. In fact, every empirical study relating the certainty of imprisonment to the crime rate has shown that the higher the probability of imprisonment for a major offense, the lower the rate for that offense.⁶

However, even if the deterrent effect failed to reduce crime, increasing the proportion of offenders who go to prison should reduce the level of crime because more offenders would be unable to commit crimes while imprisoned. Researchers have recently begun to estimate the probable reduction in crime if a larger proportion of convicted felons were imprisoned. The estimates vary widely depending on the assumptions made. For instance, it has been suggested that the rate of violent crimes could be reduced by as much as 80 percent if every person convicted of a violent crime were imprisoned for five years.⁷

But another study concluded that "incapacitation makes only a small and modest impact on the violent crime rate; a 4.0 percent drop is the highest estimate obtained in this research."⁸

Regardless of the continuing debate over how crime might be reduced by incapacitation, it appears inevitable that policymakers will alter state sentencing codes in the hope of assuring more certain and equal justice. If it also reduces crime, so much the better.

Two major reform proposals along these lines are receiving serious attention. Both are designed to limit the latitude of sentencing judges. In the first, called "flat-time sentencing," the legislature sets a specific sentence for each crime (or degree of crime), to be imposed by the judge and served in full (although reductions for "good behavior" are possible). The second is the "mandatory-minimum" sentence, which requires that a minimum period of incarceration be served.

The mandatory-minimum scheme appears to be the most popular. During the Ninety-fourth Congress alone ('75-'76), more than thirty separate bills or resolutions calling for mandatory-minimum sentences were introduced. Several states, including Massachusetts, Connecticut, and Missouri, have already enacted statutes requiring mandatory-minimum prison sentences for conviction of certain offenses.

Most proposals limit the mandatory sentencing to specified crimes or categories of criminals. The most common category is the repeat criminal, on the grounds that the greater number of crimes an offender commits, the more severe his sentence should be. Some states begin mandatory sentencing with the second offense,⁹ while others begin it at the third¹⁰ or fourth.¹¹ Other states have abandoned the "quantity of convictions" punishment principle by focusing on particularly dangerous aspects of a crime, such as the use of a weapon,¹² while a final group combines the two philosophies and looks for repetition of more violent crimes.¹³ Whether the prior offense need be a felony or a lesser crime is another point of variation.¹⁴ Similarly, the age of the defendant at the time of the prior offense¹⁵ and the time span between offenses¹⁶ are treated differently in various states.¹⁷

If these reforms are instituted, more criminals will undoubtedly be sent to prison, but most state prisons are now filled to capacity. Thus, prison capacity will probably have to be enlarged. Greater prosecutorial and investigatory resources are likely to be required in a system with less plea bargaining and more severe sentences. Thus, sentencing reform implies greater system costs. It is imperative, therefore, that such reforms be preceded by an evaluation of the potential benefits in reduced crime that would offset these increased costs. Specifically, we must (1) determine how much crime is prevented by imposing sentences of varying length on specific classes of offenders, and (2) predict the impact that mandatory penalties will have on the prison population. The research reported here attempted to do both.

DATA BASE FOR THIS STUDY

We obtained data on a random sample of defendants convicted of a serious offense over a two-year period in the Denver, Colorado, District Court.¹⁸ The sample population consists of 625 persons convicted of burglary, robbery, rape, aggravated assault, homicide, auto theft, selling drugs, and grand larceny from mid-1968 to mid-1970. The sample represents 42 percent of the population available for study.

For each person in the sample, information was collected on personal characteristics, prior criminal record, court disposition of the current offense, and recidivism during a two year follow-up period. All of the data were obtained from secondary sources, that is, various criminal justice records:

- Probation files--personal characteristics; prior juvenile and adult crimes.
- District Court files--status of current cases; final court disposition; prior juvenile and adult crimes.
- Parole files--length of time served on prison sentence; recidivism rates of those released from prison.
- Police department files--rearrest and reconviction.

The collection of data was completed in March 1974; thus four to six years had elapsed since the time of the conviction that placed a person into the sample.

Property-related offenses were the the most common type of crime committed by the sample. Over one-third were prosecuted for burglary and another 20 percent for robbery. About 19 percent of the sample were charged with assaultive acts, and another 10 percent with drug offenses. The remaining 18 percent of the sample were charged with theft (including auto theft) or miscellaneous offenses. Of the 625 convicted persons, 78.9 percent were found guilty as charged; 17.8 percent, guilty of a lesser offense; 1 percent, guilty of a more serious offense; and 2.2 percent, unknown.

The average age of the sample was 26 years. Other characteristics are presented in the next section.

II. CRIME-REDUCTION EFFECTS

In attempting to estimate the effect that mandatory minimum prison sentences would have on the crime rate, we focused on the following questions:

- Crime-Reduction Potential. If defendants convicted of certain felonies were given mandatory prison sentences, how much would the overall crime rate be reduced? The violent crime rate? The burglary rate?
- Optimal Length of Confinement. How long a sentence--one, three, five, more than five years--is necessary to significantly reduce the overall level of crime? The violent crime rate? The burglary rate?
- Optimal "Target Population". Relying on official criminal justice records, which characteristics define subpopulations of offenders for whom an incapacitation policy would be justified?

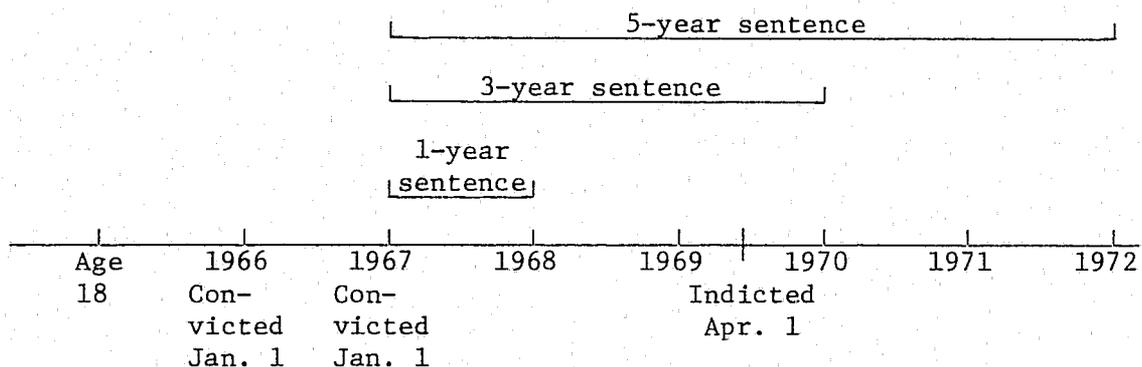
METHODOLOGY

Two analytic techniques have been developed for estimating the incapacitative effects of alternative sentencing policies. The first, a modeling approach, uses a probabilistic model of individual behavior to derive estimates of aggregate incapacitation effects. In addition to a number of assumptions about criminal careers, the model requires independent estimates of offense and arrest rates before any impact assessment can be made. This is a serious disadvantage since empirical estimates of such parameters differ considerably. The second approach, which is adopted in this study, relies on career histories to estimate the probable incapacitation effects if offenders had been sentenced differently in the past.¹⁹ The procedure involves taking a cohort of arrested or convicted offenders, examining their past convictions, and determining case by case whether each offender would have been imprisoned at the time of his current offense if the sentencing policy being

examined had been applied at the time of his last conviction.²⁰ The steps in our analysis were as follows:

1. The sample was divided into three "offense cohorts" based on the offense with which they were officially charged in the 1968-1970 period:²¹
 - Violent*: offenders charged with robbery, rape, aggravated assault, homicide, and kidnapping.
 - Burglary*: offenders charged with burglary.
 - Other Felonies*: offenders charged with auto theft, drug offenses, grand larceny, forgery, and miscellaneous offenses.
2. Each offender's criminal record was examined to determine whether he fell into one of several subgroups of interest. For example, did he have one, two, or three or more prior adult felony convictions? Did he have any prior adult convictions for violent crimes?
3. For each offender, the time interval between the immediately preceding adult felony conviction and the arrest date for the current crime was determined.
4. Several possible sentencing options were hypothetically applied to the defendant's immediately preceding conviction. For example, every person convicted of a robbery who had at least one prior adult conviction was hypothetically given a one-year mandatory prison term for the prior conviction. Then we ascertained whether or not these offenders would have been in prison at the time of their current offense. If so, the current offense was counted as having been prevented by that sentencing policy.

The diagram below illustrates the analytic technique employed, for an offender convicted of robbery on January 1, 1966, and January 1, 1967, and indicted for robbery on April 1, 1969.



This offender's 1969 robbery would be counted as not having been prevented by the 1-year sentence but having been prevented by a 3- or 5-year sentence since he would have been in prison on April 1, 1969.

SAMPLE CHARACTERISTICS

In dividing the sample into cohorts based on the charge of their current crime, we might expect that the persons in the cohorts would differ significantly with respect to prior criminal record or court disposition of the current offense. Tables 1 and 2 show the criminal history and disposition of the case for each offense cohort.

The tables show that the average offender in the burglary cohort was slightly younger than his counterpart in the other cohorts; that the "other felonies" cohort was slightly more likely to have an adult record, probably because it was the oldest group; and that the violent cohort received the most severe sentencing treatment by the courts. The other differences were insignificant.

Table 1
CRIMINAL HISTORY OF SAMPLE, BY COHORT

Cohort	Number of Offenders	Average Age	Av. No. Adult Arrests	Av. Yrs. Conviction Gap ^a	Percentage of Specified Cohort with					
					No Adult Arrest Record	No Adult or Juv. Record	One or More Adult Convctns	Two or More Adult Convctns	Three or More Adult Convctns	Five or More Juvenile Arrests
Violent ^b	240	25.6	1.9	2.8	52	23	39	23	13	23
Burglary ^c	214	24.5	2.6	2.8	47	18	46	27	16	27
Other felonies ^d	171	27.7	3.2	3.0	44	19	68	40	25	22
All felonies	625	25.8	2.1	2.9	47	20	51	30	18	24

^aAverage number of years between current and immediately preceding adult felony conviction.

^bOffenders formally charged with robbery (20% of sample), rape (3%), aggravated assault (12%), homicide (4%), and kidnapping (0.3%).

^cOffenders formally charged with burglary (36% of sample).

^dOffenders formally charged with auto theft (3.4% of sample), drug possession and sale (10.7%), grand larceny (7.2%), arson (0.6%), forgery (3.0%), miscellaneous (0.5%).

Table 2
DISPOSITION OF CURRENT OFFENSE, BY COHORT

Cohort	Percentage of Specified Cohort						Av. Length of Incarceration (years) ^a
	Convicted on Cohort Charges	Given Probation	Given Jail	Given Reformatory	Given Prison	Given Other	
Violent	96	27	9	25	36	2.5	1.3
Burglary	69	28	8	34	25	4	1.1
Other felonies	71	6	25	32	28	8	.9
All felonies	79	22	13	32	30	4	1.1

^aThese averages represent a combination of the percentage of persons who were convicted but did not serve any institutional time, and the average time served by those sentenced to jail, reformatory, and prison.

FINDINGS

The Violent Cohort

We measured the extent that the violent cohort's crimes would have been prevented by the imposition of mandatory prison sentences for their preceding adult felony conviction. Seven hypothetical sentencing policies were considered:

Sentencing Option I: Each offender convicted of an adult felony, violent or not, is sentenced to a mandatory prison term of one, three, or five years.

Sentencing Option II: Each offender convicted of an adult felony whose criminal record shows at least one previous adult conviction is sentenced to a mandatory prison term of one, three, or five years on each conviction after the first. On the first adult conviction the penalty structure remains as under present law.

Sentencing Option III: Each offender convicted of an adult felony whose criminal record shows at least two previous adult convictions is sentenced to a mandatory prison sentence of one, three, or five years after the second conviction. On the first two convictions the penalty structure remains as under present law.

Sentencing Option IV: Each offender convicted of a violent felony is sentenced to a mandatory prison term of one, three, or five years.

Sentencing Option V: Each offender convicted of a violent felony whose criminal record shows at least one previous adult conviction (not necessarily for a violent crime) is sentenced to a mandatory prison term of one, three, or five years after the first conviction. On the first adult conviction the penalty structure remains as under present law.

Sentencing Option VI: Each offender convicted of a violent felony whose criminal record shows at least two previous adult convictions (not necessarily for violent crimes) is sentenced to a mandatory prison term of one, three, or five years after the second conviction. On the first two convictions the penalty structure remains as under present law.

Sentencing Option VII: Each offender convicted of a violent felony whose criminal record shows at least one previous adult conviction for a violent crime is sentenced to a mandatory prison term of one, three, or five years after the first conviction. On the first adult conviction the penalty structure remains as under present law.

Figure 1 shows the percentage of the violent cohort's offenses that would have been prevented if the offender had been sentenced alternatively under

each of the seven mandatory sentencing options for his immediately preceding felony conviction.

Under option I, 10.9 percent of the cohort would have been prevented from committing their violent offense in the 1968-1970 period by a one-year mandatory prison sentence; 22.2 percent would have been prevented by a three-year sentence, and 31 percent by a five-year sentence. The data suggest that the incidence of violent crime might be lessened by one-third if every adult defendant convicted of a felony, regardless of prior record, were imprisoned for a period of five years. The maximum crime reduction effect possible under such a sentencing scheme is 40 percent. The "> 5 years" category on each of the graphs can be interpreted as the maximum benefit derived under the different policies.

The less stringent sentencing options, options II through VII, impose mandatory prison sentences only on defendants whose criminal records contain previous adult convictions. For example, option II mandates imprisonment for persons previously convicted of at least one adult felony; a five-year sentence would have prevented 15.8 percent of the violent offenses.

Even more restrictive sentencing options--for example, those that require the defendant to possess two priors or have convictions for violent offenses--prevent many fewer crimes. Such policies, even with a five-year imprisonment, reduced the violent crimes of the cohort by less than 7 percent.

At this point we need to clarify assumptions. On the surface, these data tell us only that a certain percent of the crimes for which the members of this cohort were officially charged would have been prevented by a particular mandatory-minimum sentence. Given the existing low rates of crime clearance and conviction, this number represents a very small proportion of the total crime reported in a given period. However, the use of this small percentage as a measure of incapacitation implicitly assumes that each of the offenders in the sample committed only one crime--the crime for which he was officially charged. It further assumes that other offenders, not arrested during the two-year period in question, did not experience earlier convictions that would have resulted in their incapacitation during the period.²² Since it has been repeatedly shown that a very small percentage of the crimes an offender commits result in arrest, such assumptions are clearly indefensible.

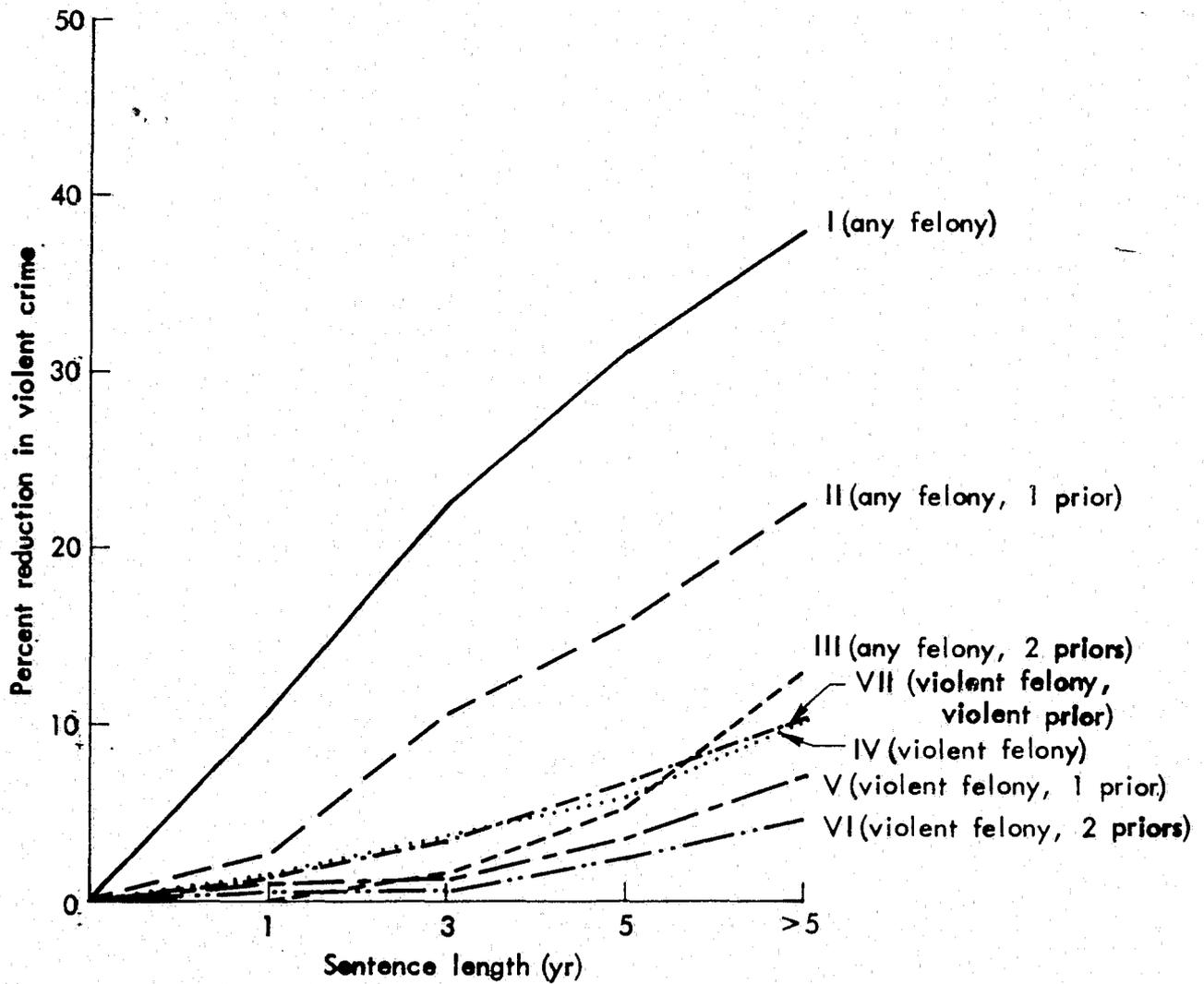


Fig. 1 — Percentage of violent cohort offenses prevented by mandatory sentencing options

A more realistic assumption is that the offenders in this sample represent a random sample of all offenders who were criminally active during the period; that is, in prior record and crime rate, these offenders do not differ significantly from those who remained undetected during the period.

Theoretically, there are two reasons to suspect that a random sample of persons arrested or convicted is not truly representative of all persons who are engaged in crime in a particular period. On the one hand, any random group selected on the basis of an arrest or conviction will tend to overrepresent offenders with higher crime rates; by definition they have a greater likelihood of entering the sample. This biasing effect would tend to make the "random sample" assumption conservative, overrepresenting the high-rate offender. On the other hand, we know that arrestees and convicted persons overrepresent the offenders who commit crimes against victims who can identify them and who therefore have a higher probability of arrest.²³ This bias would tend to make the "random sample" assumption too liberal, in overrepresenting the less sophisticated offender. The available evidence is inadequate for sorting out these two conflicting effects. The "random sample" assumption seems the most reasonable of any we can make.

In the rest of this article we will adopt the "random sample" assumption and will refer to the percentage of cohort crimes prevented as the percentage of all reported crimes prevented. Also, in the model adopted here there are no assumptions concerning the criminal lifetime of offenders or of a Poisson process for crime commissions, as in most studies of incapacitation effects.

The Burglary Cohort

The sentencing schemes applied to the burglary cohort resembled those imposed on the violent cohort. Options I, II, and III were identical; options IV, V, and VI substitute burglary convictions for violent convictions as follows:

Sentencing Option IV: Each offender convicted of a burglary is sentenced to a mandatory prison term of one, three, or five years.

Sentencing Option V: Each offender convicted of a burglary whose criminal record shows at least one previous adult conviction (not necessarily for burglary) is sentenced to a mandatory prison term of one, three, or five years after the first conviction. On the first adult conviction the penalty structure remains as under present law.

Sentencing Option VI: Each offender convicted of a burglary whose criminal record shows at least two previous adult convictions (not necessarily for burglary) is sentenced to a mandatory prison term of one, three, or five years after the second conviction. On the first two convictions the penalty structure remains as under present law.

No option VII was applied to the burglary cohort.

Figure 2 shows the percentage of the 1968-1970 burglary cohort of offenses that would have been prevented by each of the six mandatory sentencing schemes. Comparison of the effects of the identical options I, II, and III in Figs. 1 and 2 suggests that mandatory sentencing may have greater potential for reducing the incidence of burglary than of violent crimes.

Under option I, 42 percent of the burglary cohort would have been prevented from committing their current burglaries if they had been imprisoned five years for their last adult felony conviction; 31 percent would have been prevented with a three-year imprisonment; 14 percent with a one-year imprisonment. The most stringent option (option I, five-year imprisonment) would have prevented nearly half of the burglaries.

Option II, which limits mandatory prison sentences to offenders with at least one prior adult felony conviction, would have prevented few burglaries with one- or three-year imprisonments (1.9 percent and 8.5 percent, respectively). Options IV-VI, which are more conservative, would have prevented few of the burglaries (approximately 1-12 percent).

Entire Sample

Figure 3 presents the percentage of all 1968-1970 felonies that would have been prevented if mandatory prison sentences had been imposed under options I, II, and III for the defendants' immediately preceding adult conviction.

It has been suggested that every person convicted of a serious felony should receive some imprisonment. Sentencing option I measures

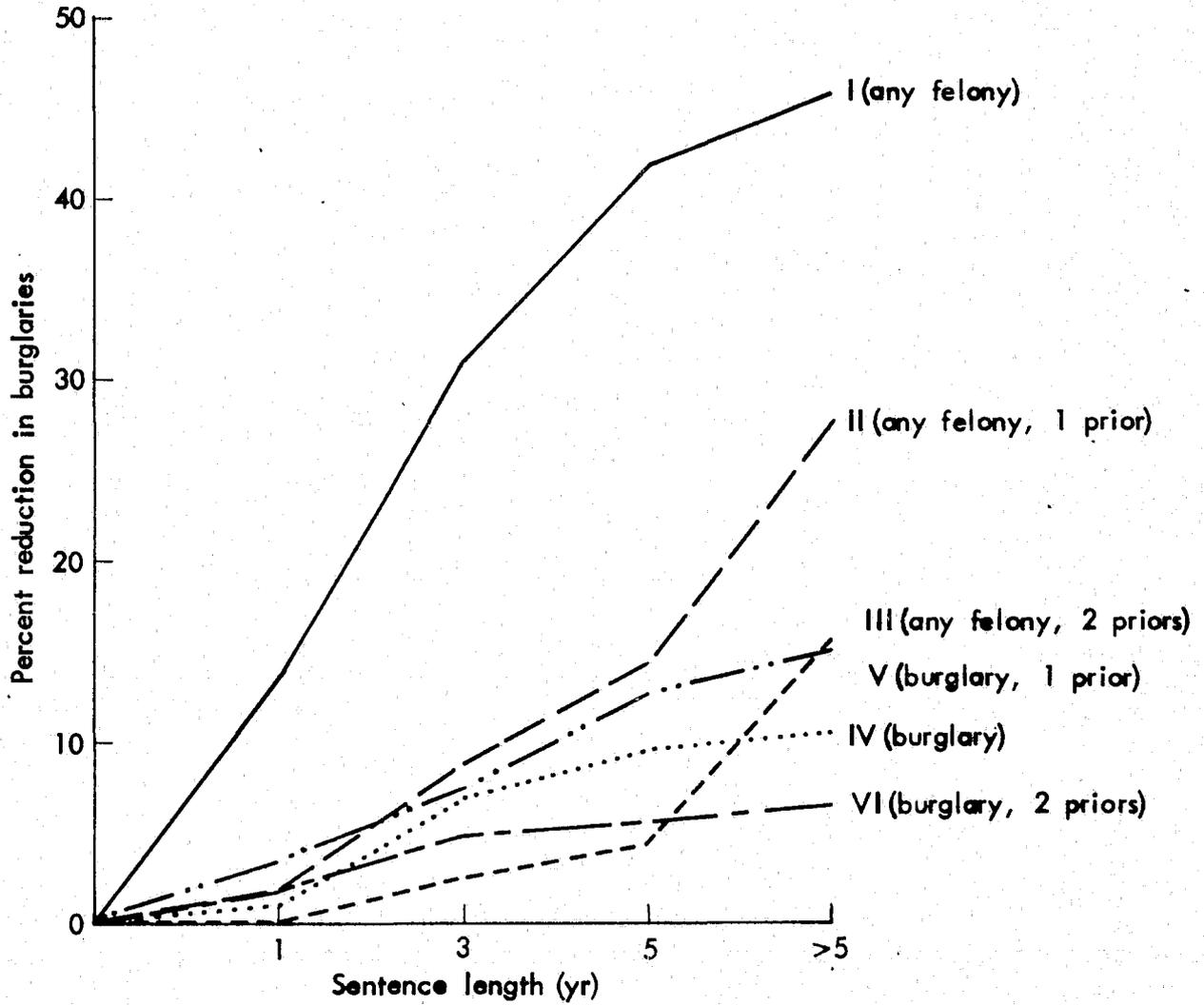


Fig.2 — Percentage of burglary cohort offenses prevented by mandatory sentencing options

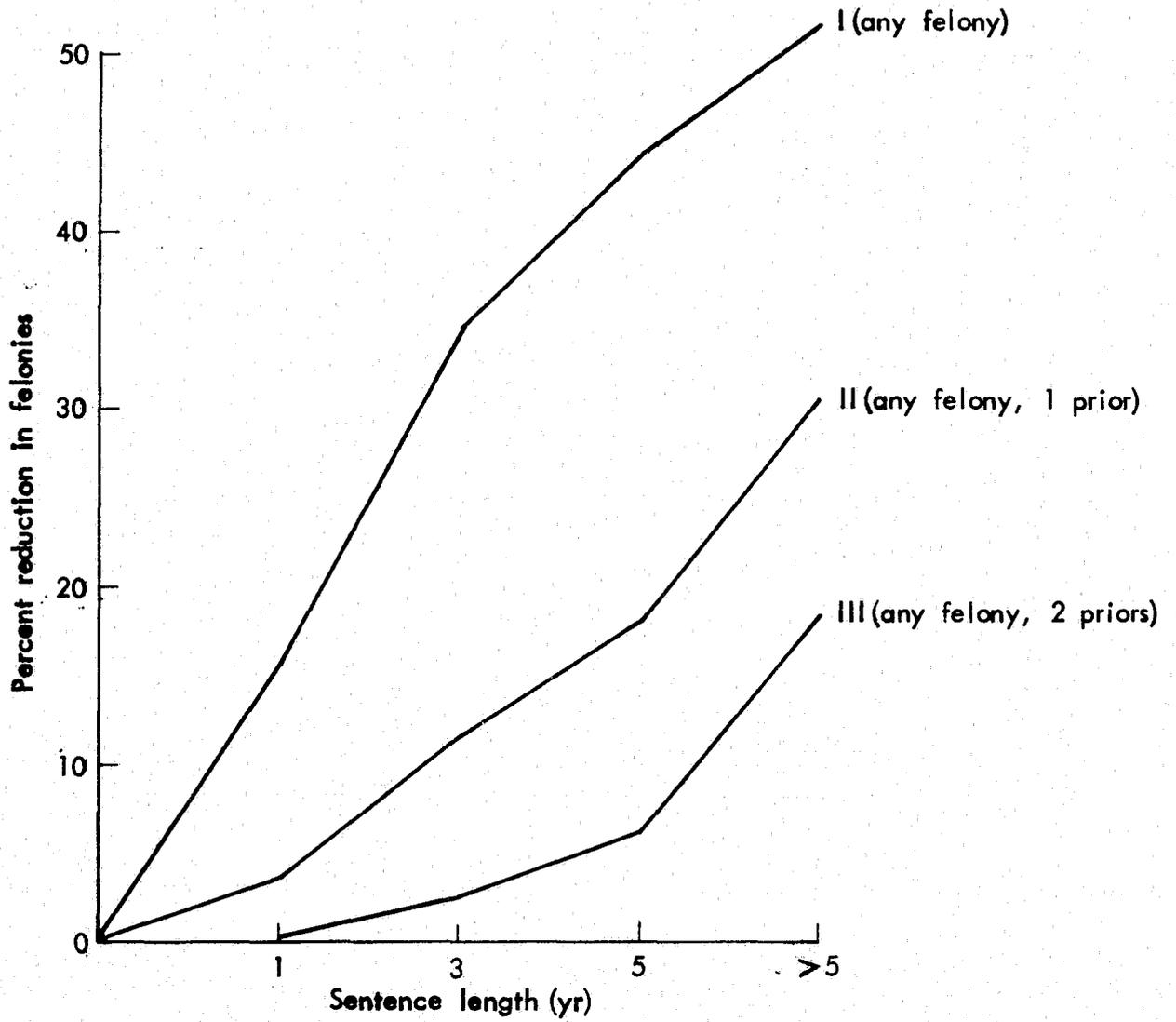


Fig. 3 — Percentage of entire sample's offences prevented by mandatory sentencing options

how many of the entire sample's crimes would have been prevented under this principle. In applying the most stringent form of this option (sentencing *every* person convicted of a felony to five years' imprisonment), we found that only 45 percent of the crimes committed by our sample would have been prevented. Option II, which sentences only persons previously convicted of an adult felony to five years in prison would have prevented only 18 percent of the crimes.

These results leave us pessimistic that mandatory-minimum sentences can easily reduce the crime rate. To reduce the level of crime by half, every person convicted of a felony, regardless of prior criminal history, would have to be imprisoned for five years. If the length of imprisonment were three years, the crime level could be reduced by a third; if it were one year, 15 percent.

To reduce violent crime by one-third, *every* person convicted of a robbery, rape, aggravated assault, homicide, and kidnapping would have to be imprisoned for five years. Even if violent offenders were imprisoned for more than five years, violent crimes would only be reduced by about 40 percent.

The burglary rate could be reduced by nearly half (42 percent) if all defendants were imprisoned five years for their preceding adult conviction. With a three-year imprisonment, crime is reduced by 31 percent.

Some may regard the policy of sentencing every convicted person to prison as too harsh, since it does not take into account the offender's prior involvement in crime. However, these data suggest that if only defendants who have a prior adult conviction are imprisoned, the crime-reduction effect is about half the effect produced by sentencing every convicted felon to prison.

The crime reduction effects discussed here may not be as large as one would have expected. However, it must be remembered that the figures presented above represent only the effects due to incapacitation, and do not take into account additional benefits due to deterrence or rehabilitation. Additionally, the policies considered deal only with adult sentencing, ignoring any alternative policies aimed at juveniles.

III. EFFECT ON PRISON POPULATION

Before deciding on sentencing reforms, policymakers must weigh their projected benefits in crime reduction against their likely costs in increased prison population. Advocates of new mandatory sentencing schemes have generally ignored the likely extra burden on the correctional system.

In this section, we estimate what effect the hypothetical sentencing options discussed in the preceding section would have on the prison population.²⁴ Specifically, we (1) estimate the percentage increase in the prison population if every convicted felon in the sample had been given a prison sentence of one, three, and five years, and (2) estimate the percentage increase if every convicted felon with at least one prior adult conviction had been given a one-, three-, or five-year prison sentence.

In projecting the impact of these mandatory minimum policies on future prison populations, one should take into account that some offenders would have received sentences in excess of the minimum mandated by the new policy. Therefore, applying these mandatory sentences to them would tend to reduce rather than increase the prison population. We have made no attempt to predict the "reduction" effect here. For the most part, the effect would be minimal, since the hypothetical sentences are considerably harsher than those normally imposed.

METHODOLOGY

To estimate the percentage increase in prison population, we proceeded as follows:

1. For each hypothetical sentence (e.g., all persons convicted of a violent felony with one prior adult conviction will receive a three-year sentence), we distinguished three parts of the Denver sample:
 - Those who did not qualify for the sentence (not convicted of a violent felony or had no prior record).

- Those who qualified for the sentence but who were already sentenced to terms longer than the mandatory minimum, and hence would be unaffected by the new policy.
 - Those who qualified for the sentence, had currently received less than the mandatory minimum sentence, and who would be assumed to serve exactly the mandatory minimum.
2. Members of the third group were the only one whose sentences would be increased under the new mandatory-minimum policy. The total (minimum) increase in time to be served by this group is the difference between the mandatory minimum and the average time now served ($S - T_3$), multiplied by the number of offenders in the group (N_3).
 3. The percentage increase in prison population owing to the third group can be estimated as the increase in time to be served (calculated in step 2), divided by the total time to be served by the entire sample, i.e.,

$$\frac{(S - T_3)N_3}{T_1N_1 + T_2N_2 + T_3N_3},$$

where S = mandatory minimum sentence length

T_i = average time served by inmate in group i

N_i = number of inmates in group i .

FINDINGS

Figure 4 shows the percentage increase in the prison population if the entire sample, regardless of prior criminal history, had been given a mandatory minimum sentence of one, three, or five years. The results are shown separately for those convicted of a violent felony, burglary, and all felonies. At the extreme, if every person convicted of a felony had been sentenced to a minimum of five years, the prison population would have increased by 450 percent; if sentenced to a three-year minimum, a 230 percent prison increase; one year, a 50 percent increase.

If every person convicted of a burglary had been sentenced to a minimum of five years, the prison population would have risen by 150 percent; sentenced to three years, a 75 percent increase; one year, a 25 percent increase.

If every person convicted of a *violent* felony had been given a five-year mandatory minimum sentence, the prison population would have risen by 160 percent; with a three-year sentence, an 80 percent increase; and one year, a 25 percent increase.

What would result if only those who had been convicted of at least one prior adult felony received mandatory prison sentences? Figure 5 shows the impact of this more selective policy.

Limiting the mandatory-minimum sentence to persons previously convicted seems to be a more plausible policy option, since the impact on prison populations is more reasonable. If every person in the sample who had at least one prior felony conviction had been sentenced to one year in prison, the prison population would have risen about 15 percent; sentenced to three years, 80 percent; five years, about 190 percent.

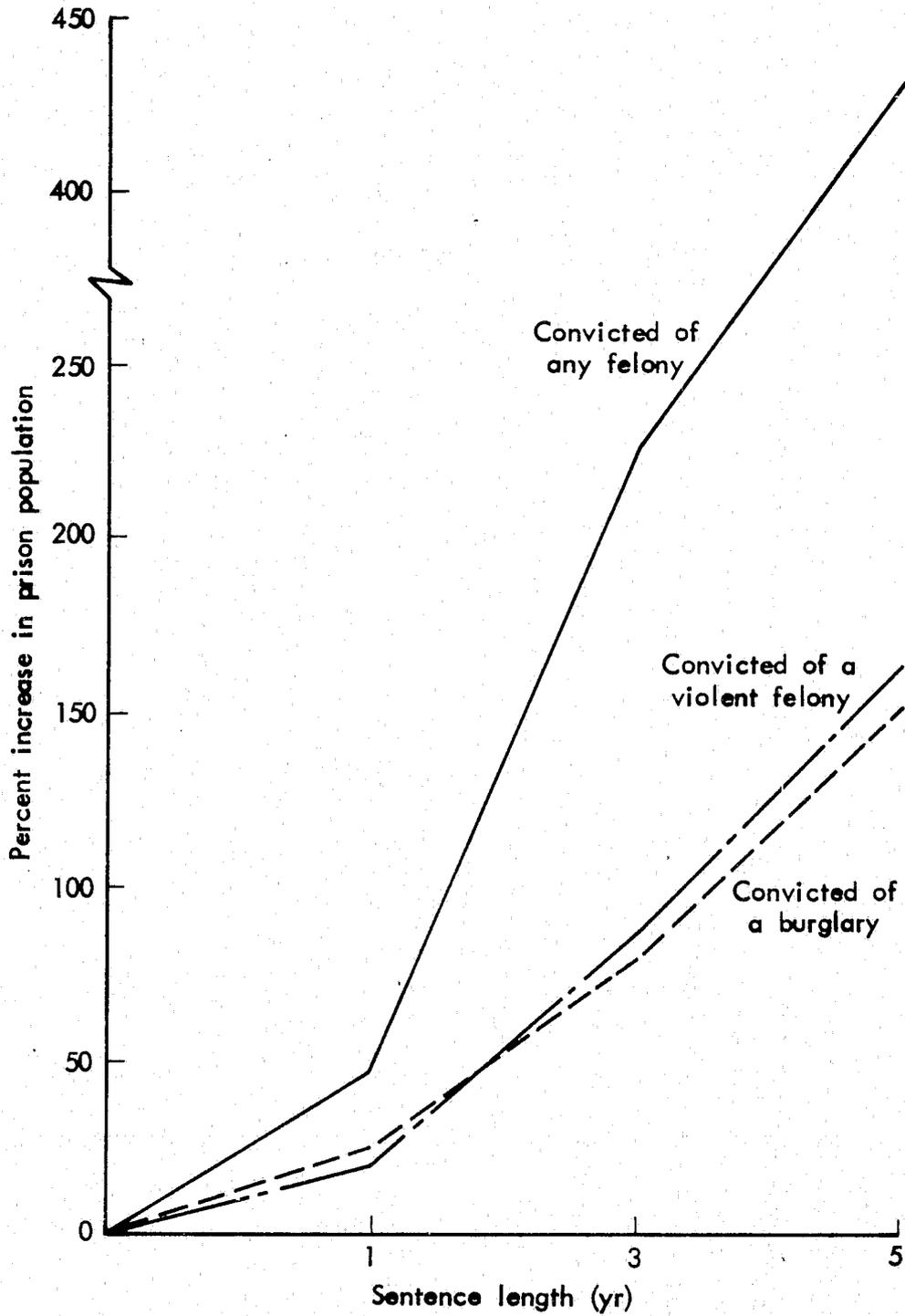


Fig. 4 — Increase in prison population with mandatory minimum sentences for every convicted felon

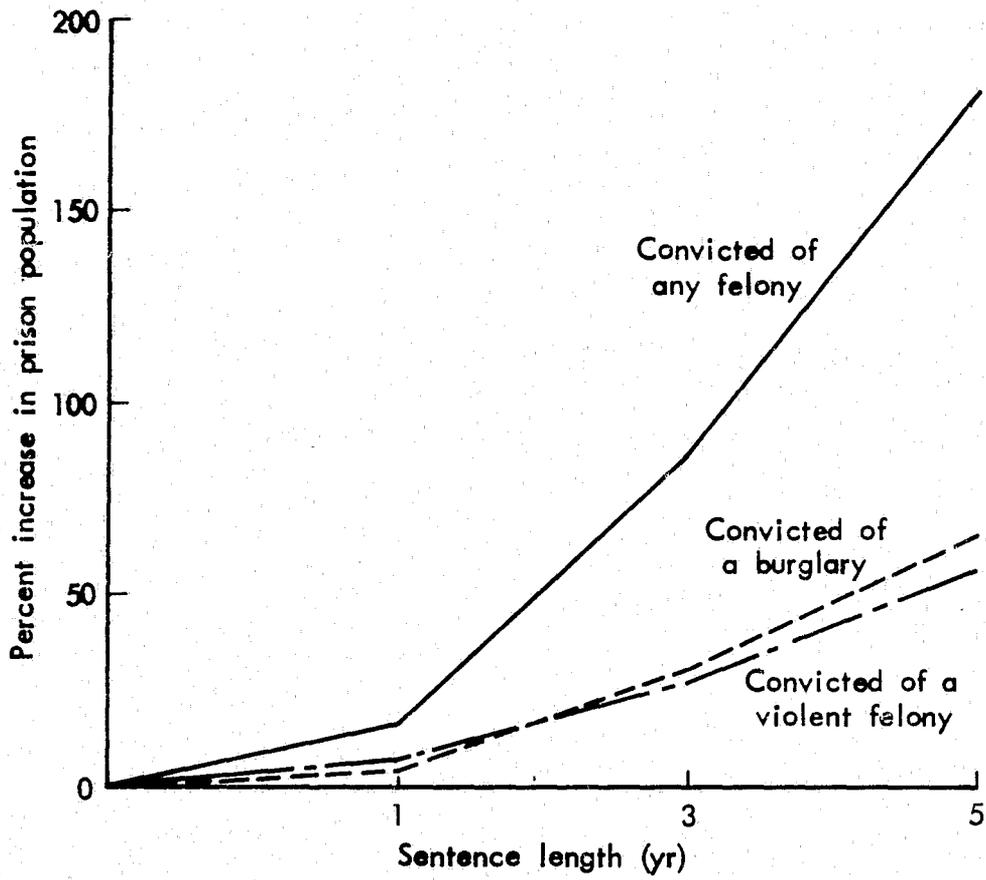


Fig. 5 — Increase in prison population with mandatory minimum sentences for at least one prior conviction

IV. CONCLUSIONS AND POLICY IMPLICATIONS

We have analyzed the impact of various mandatory-minimum sentences on crime rate and on the prison population. The results are summarized in Figures 6 and 7 for the all-felonies cohort and the violent cohort, respectively.

In Figure 6, the lower curve is generated by varying the mandatory-minimum prison term (one year, three years, five years) under sentencing Option I, which imposes the mandatory-minimum on all convicted felons regardless of prior record. The upper curve corresponds to Option II, which imposes the mandatory-minimum term (of alternative lengths) only on convicted felons having at least one prior felony conviction.

Figure 6 clearly reveals the trade-offs between crime rate and prison population under the sentencing alternatives considered. For example, the crime rate would be reduced 15 percent (to 85 percent of the current level) and the prison population would (eventually) increase 50 percent if every person convicted of a felony were imprisoned for one year (Option I). To lower the crime rate by the same 15 percent under Option II, it would be necessary to impose a mandatory-minimum term of approximately four years on felons with a prior conviction, which would raise the prison population by 125 percent.

This finding--that a better crime-reduction/prison population trade-off would result from imprisoning all felons, regardless of prior record, for a short period--may go against expectations that crime could be most effectively controlled by concentrating on the offenders with prior convictions. The apparent paradox is explained when we consider current sentencing policy and recidivism rates. We know that under current sentencing policies, convicted offenders are much more likely to be sentenced to prison if they have a prior criminal record.²⁵ We also know that although the recidivism rate increases with any prior record, this increase is minimal compared with the increase in likelihood of prison commitment.

We have referred earlier to the disparity in the sentences received by defendants with similar criminal records, convicted of

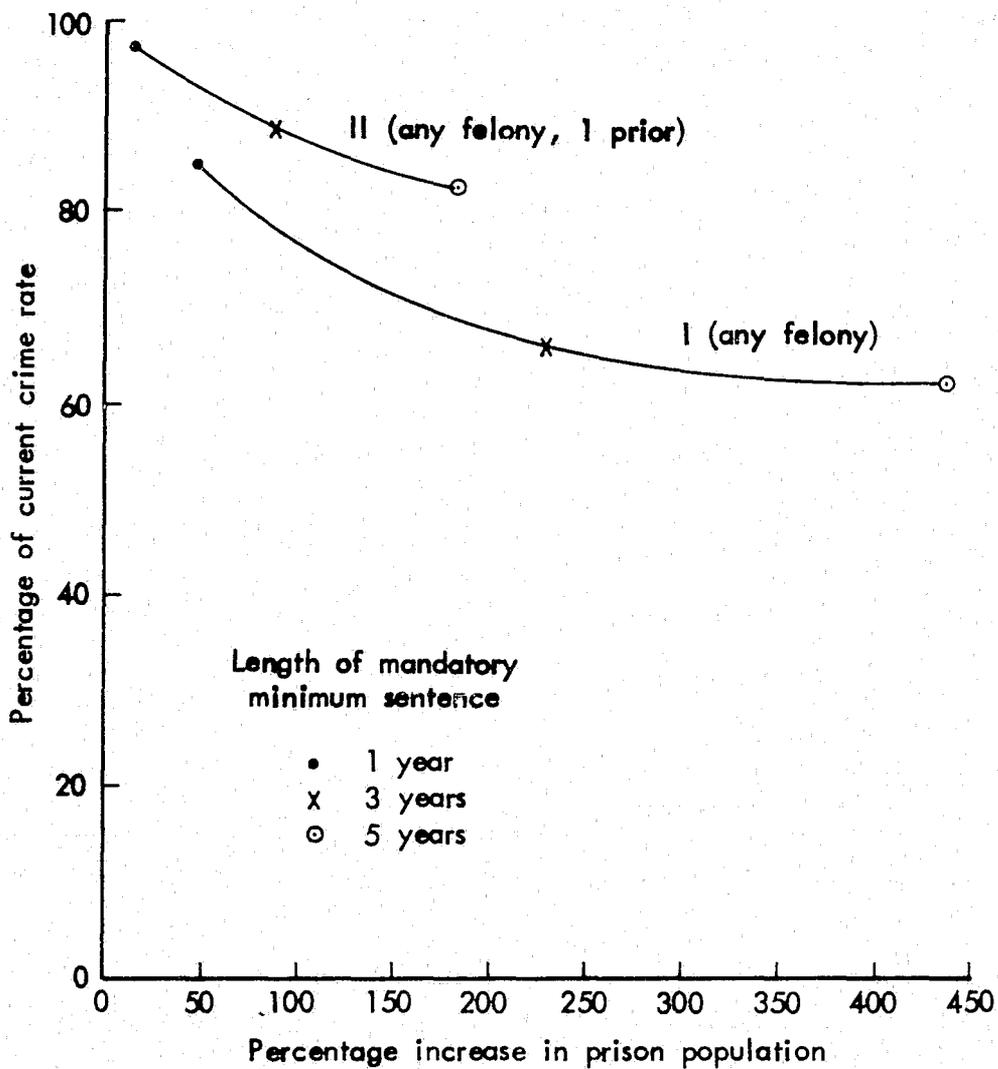


Fig. 6 — Effect on crime rate and prison population of sentencing options I and II and a range of mandatory minimum sentences-- all felonies cohort

similar crimes. Some of the disparity reflects the different philosophies held by different judges. However, disparity is found in the sentencing decisions of even a single judge. With respect to a series of similar defendants convicted of similar crimes, he may give some straight probation, others a prison term, and still others a combination of probation and jail time.

These variations are rarely arbitrary or capricious. In making his sentencing decisions, a judge tries to assess the risk an offender will pose to the community if he is not confined, and the impact that imprisonment would have on him and his future behavior. In so doing, the judge avoids an unjustly mechanical application of sentencing laws based only on the convicted charges and prior record.

For example, not all convicted armed robbers with prior records receive a prison sentence. In distinguishing the cases in which a prison term was imposed from those in which it was not, we would be likely to find systematic differences related to the judge's appraisal of the risk to the community. Those not sentenced to prison would have less serious prior records or better family and community ties, better employment records, etc., than those given prison terms. A broad study of sentencing patterns would probably suggest the following relationships:

1. For a given crime, a higher percentage of convicted defendants with minor prior records avoid prison sentences than do defendants with serious prior records.
2. To avoid a prison sentence, defendants with serious prior records must usually show much better family ties, employment prospects, etc., than defendants with minor prior record.
3. On the average, defendants with serious prior records who are not given prison sentences are a better risk (i.e., have a lower recidivism rate) than those convicted of similar offenses with minor prior records who are not given prison sentences.

The crime-reduction prison population curves depicted in Figure 6 are entirely consistent with these relationships. The defendants

with prior adult criminal records who would be affected by a new mandatory-minimum policy (those now released or given short terms) are on the average a better risk than the defendants who do not have prior records and are now released or given short terms. In other words, a mandatory-minimum policy that focuses on recidivists would force judges to imprison some defendants who would otherwise not have received prison terms because they posed little risk to society despite prior adult convictions.

Figure 7, showing the relation between crime rate and prison population for the violent cohort, addresses four sentencing options. We see that the more restrictive the prior-record condition that defines the group to which the option applies, the smaller its effect on crime rate. For example, a three-year mandatory-minimum under term produces a 22 percent reduction in crime rate under Option I, 11 percent under Option II, 3 percent under Option IV, and 1 percent under Option V--with the corresponding increases in prison population being, respectively, 225, 87, 87, and 27 percent. Contrast these results with those in Figure 6, which showed that a three-year mandatory-minimum term reduces the crime rate by 34 percent under Option I and 12 percent under Option II--while raising the population 225 and 87 percent, respectively.

In summary, mandatory-minimum sentence policies can reduce crime as a result of incapacitation effects, but the increase in prison populations entailed by such policies may be unacceptably large. Our analysis suggests that the most efficient policy, in the sense of producing the highest crime reduction and the lowest increase in prison population, appears to be a policy of sentencing all convicted felons to 1.2 years of prison. But it reduces the crime rate by 20 percent while raising the prison population 85 percent.

Our analysis also suggests that judges are rather successful in discriminating among defendants who pose "more serious" and "less serious" risks to the community. A result is that convicted defendants with prior adult records who are not sentenced to prison represent less of a risk (on the average) than convicted defendants without prior adult records who are similarly not sentenced to prison. The former group

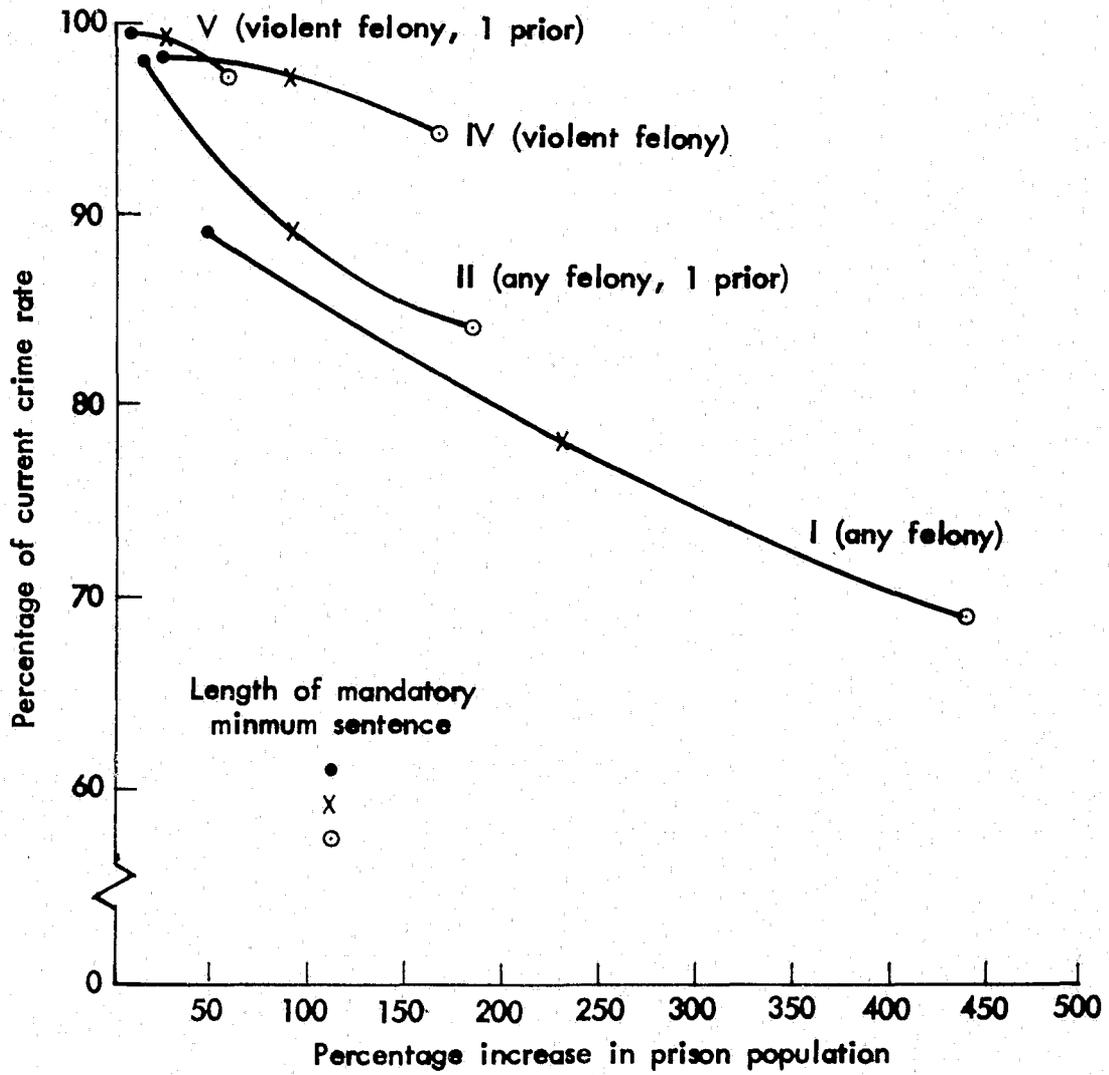


Fig. 7 — Effect on crime rate and prison population of sentencing options I, II, IV and V and a range of mandatory minimum sentences -- violent cohort

are released because the judge has determined they pose little risk; the latter group are released because they have no prior adult criminal record.

Thus, mandatory-minimum sentencing policies that focus only on defendants with prior records, although they may accord better with the notion of just deserts, appear to be less effective in reducing crime than policies that ignore prior record. The former have the effect of requiring a judge to imprison defendants whom he has determined pose little risk.

REFERENCES

1. Compiled from a recent, unpublished survey conducted by the Rand Corporation in 1977.
2. *Crime Control Digest*, June 13, 1977, p. 3.
3. Administration Office of the U. S. Courts, *Federal Offenders in the United States District Courts, 1971*, U. S. Government Printing Office, Washington, D.C.: October 1973, p. 77.
4. Quoted in an article by the Associated Press, *Boston Evening Globe*, September 16, 1975.
5. Peter Greenwood, *The Disposition of Felony Arrests: A Study of Prosecution and Sentencing Policies and Their Effects on Crime*, The Rand Corporation, R-2199-DOJ, August 1977.
6. Charles R. Tittle and Allan R. Rowe, "Certainty of Arrest and Crime Rates," *Social Forces*, Vol. 52, June 1974, pp. 455-67; Gordon Tullock, "Does Punishment Deter Crime?" *The Public Interest*, No. 36, Summer 1974, pp. 103-111. Although these findings are not inconsistent with deterrence theory, there are other possible explanations for these effects that cannot be sorted out with the data currently available.
7. Reuel Shinnar and Shlomo Shinnar, "The Effects of the Criminal Justice System on the Control of Crime: A Quantitative Approach," *Law and Society Review*, Vol. 9, No. 4, 1975
8. Stephan Van Dine, Simon Dinitz, and John Conrad, "The Incapacitation of the Dangerous Offender: A Statistical Experiment," *Journal of Research in Crime and Delinquency*, January 1977,
9. E.g., Alaska Stat. 12.55 .050, (1972); N.Y. Penal Law 70.06 (McKinney Supp. 1975).
10. E.g., Colorado Rev. Stat. Ann. 16-13-101 (1973).
11. E.g., Vermont Stat. Ann. title 13, 11 (1974).
12. Massachusetts Gun Law, enacted 1976.
13. E.g., South Carolina Code Ann. 17-553.1 (1962); Tennessee Code Ann. 40-2801 et seq. (1975).
14. E.g., Massachusetts Gen Laws Ann. ch. 279 25 (1968), Missouri Ann. Stat. 556.280, 290., as amended (Vernon, Cum. Supp. 1975).

15. Compare Kentucky Rev. Stat. Ann. 532.080 (1975) (eighteen) with Oregon Rev. Stat. 161.725 (1975) (over sixteen).
16. Compare Louisiana Rev. Stat. 15.529 (1967) (convictions cannot be more than five years apart) with Minnesota Stat. Ann. 609.155 (1964) (convictions cannot be more than seven years apart).
17. See "Don't Steal a Turkey in Arkansas--The Second Felony Offender in New York," *Fordham Law Review*, Vol. 49, 1976, pp. 76-91, for further discussion of the above statutes.
18. The data were originally collected for the Denver High Impact Anti-Crime Program, reported in "Characteristics and Recidivism of Adult Felony Offenders in Denver." We are grateful to John Carr for giving us access to this data base.
19. We are grateful to Stephan Van Dine, Academy for Contemporary Problems, Columbus, Ohio, for sharing with the authors the methodology he employed in a similar study.
20. We will sometimes speak of preventing the "cohorts' crimes." Those crimes reflect the offenses for which the defendants were originally *charged*--although approximately 20 percent did not result in conviction. It is assumed that persons in the cohort, whether found guilty or not, did in fact commit the charged crime. Thus, a person officially charged with burglary who was convicted of grand theft is assumed to have committed the burglary. If he had been given a mandatory prison sentence on his immediately preceding conviction of a felony, the resulting imprisonment was counted as having prevented the burglary.
21. We sometimes refer to the sample as a whole as the all felonies cohort.
22. In other words, if we use only the crimes for which the offenders in our sample were convicted as a measure of incapacitation, we would be ignoring the crimes of defendants who were released and not subsequently convicted during the period (i.e., the "successful" offender). Given the low probability of arrest and conviction for property crimes, there is reason to believe that their number is substantial.
23. See Vera Institute of Justice, *Felony Arrests: Their Prosecution and Disposition in New York City's Courts* 1977.
24. For simplicity, we do not consider the total prison population but only that deriving from our sample of offenders. Our calculations measure the additional man-years of prison time to be served by the offenders sampled; for convenience, we translate these additional man-years into increases in the prison population. This translation assumes that enough time

passes to achieve a new steady-state prison population, and that the prior offense characteristics of persons convicted do not change significantly.

25. See Greenwood, *Disposition of Felony Arrests: A Study of Prosecution and Sentencing Policies and Their Effects on Crime.*

END