

THE RAND HABITUAL OFFENDER PROJECT:
A SUMMARY OF RESEARCH FINDINGS TO DATE

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PREFACE

This document summarizes findings from the first two years of research on serious habitual offenders performed under Rand's Research Agreements Program grant from the National Institute of Law Enforcement and Criminal Justice. The objectives of this research effort, which is expected to continue for another three years, is to explore the characteristics of habitual offenders; their contribution to the overall crime problem; and alternative means of curtailing their criminal behavior.

Readers who are interested in a more detailed description of this research should refer to the project reports referenced in this paper or contact the authors.

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RESEARCH FOCUS AND APPROACH

In the past few years there has been a growing interest in the topic of career criminals and the development of special procedures to increase the likelihood of their arrest, conviction and length of incarceration. The most frequently cited justifications for this special interest are the assertions that:

1. A small number of chronic recidivists appear to account for a disproportionately large percentage of serious crime.
2. Through plea bargaining or overly lenient sentences, the criminal justice system has failed to protect the community from this type of offender or to impose a level of punishment which is consistent with their continuing criminal behavior.

At the present time there is little agreement on how career criminals should be defined. The label is only given operational meaning as it is employed in various jurisdictions to single out particular defendants for selective apprehension or prosecution efforts. Some jurisdictions limit their definition to only those defendants arrested for a limited number of target crimes who display particular patterns of prior criminal history. Others include any defendants with more than a specified number of arrests.

Regardless of the particular definition which is chosen, career criminals represent an obvious target for those who argue that criminal justice has been too lenient in the past and that harsher penalties are called for in the future. Selective attention to career criminals can also be justified on the grounds that their continuing commitment to a criminal lifestyle is likely to represent a different set of values or attitudes than are found among offenders who have not established extensive records or who only occasionally engage in criminal acts.

At this point in time, the practical utility of focusing either research or operational resources on career criminals remains uncertain. At the very least, it can be argued that career criminals are an appropriate target group for more vigorous prosecution efforts and

harsher sentencing on the basis of just deserts, whether or not this special treatment results in any other significant benefits. Other potential benefits of identification and of selective treatment can only be estimated after we have developed a better understanding of how career criminals differ from the general offender population in such characteristics as the frequency or scope of their criminal activity, their success in avoiding arrest and incarceration, their motivations for crime, and their receptivity to different forms of correctional treatment.

During the past two years, Rand has been conducting a number of studies intended to provide new insights on the problems of career criminals--their characteristics, their criminal behavior, and their interaction with criminal justice agencies. The work is supported by a Research Agreements Program grant from the National Institute of Law Enforcement & Criminal Justice. This paper summarizes findings from the first two years of work and discusses unresolved research issues. Its purpose is to assist those in policy positions or conducting their own research to better understand the career criminal phenomena. At this point in time, we can only speculate as to what changes in public policy might be appropriate.

The findings reported here are the results of several distinct research efforts. One study--reported in J. Petersilia, P. Greenwood, and M. Lavin, *Criminal Careers of Habitual Felons*, The Rand Corporation, R-2144-DOJ, August 1977--sought to reveal the changes that occur in a criminal career over time. It examined a sample of 49 incarcerated male felons drawn from the population of a medium-security California prison. Each was presently convicted for at least one count of armed robbery and had served at least one prior prison term. Judged by the frequency, gravity, and length of their involvement with the law enforcement and criminal justice system, the offenders in this sample could be considered serious career criminals by almost any definition. The study was an analysis of two bodies of data pertaining to the sample: (1) the responses to a structured interview involving over 600 open- and close-ended questions; (2) their official criminal histories. The self-report information was divided into three time

periods by the questionnaire, namely juvenile, young adult, and adult. The topics covered included: family relationships, frequency and type of criminal activity, frequency and type of arrests and convictions, legitimate employment, sources of income, motivations, attitudes, methods of planning and executing criminal acts and avoiding arrest, involvement with drugs and alcohol, use of force and violence, post-release (from incarceration) behavior, and others.

A second study--to be reported in M. Peterson and H. Stambul, with S. Polick, *Doing Crime: A Survey of California Prison Inmates*, The Rand Corporation, R-2200-DOJ (forthcoming in 1978)--was based on a survey of 624 male inmates drawn from five different California correctional facilities, who approximately represented a random sample of all California prison inmates. The survey instrument covered each offender's criminal activity; arrests, convictions and incarcerations; juvenile history and family background; employment; motives for committing crime; perceptions of the benefits and risks that accrue from criminal activity and attitudes toward the criminal justice system. In examining these issues, the survey focused principally on the three year period prior to conviction on the current commitment offense. Respondents' self-reported crimes were used to estimate the prevalence, offense rates, and arrest rates for major felonies among populations of offenders at large and among inmates entering prisons--parameters which can be used to model the incapacitation effects of incarceration. The survey responses were also used to examine the characteristics of career criminals and to develop models for several types of highly active offenders.

A third study analyzed two data sets concerning felony offenders in California in 1973 which were compiled by California's Bureau of Criminal Statistics. The OBTS Arrest File contained arrest-through-disposition information for 11,000 suspects arrested on a felony charge in four Southern California counties; the Superior Court File contained the records of all Superior Court dispositions in California during 1973, approximately 50,000 defendants. This study focused on the relationship between criminal record and case disposition and on the potential effects of sentencing policy changes on crime rates.

The fourth study--reported in J. Petersilia and P. W. Greenwood, *Mandatory Prison Sentences: Their Projected Effects on Crime and Prison Populations*, The Rand Corporation, P-6014-DOJ--was based on a data file pertaining to a cohort of 625 defendants convicted during mid-1968 to mid-1970 in the District Court of Denver, Colorado. The detailed criminal histories for this sample enabled estimates to be made of the percentage reduction in crime commissions that would result from alternative schemes of mandatory sentencing, as well as estimates of the effect such schemes would have on the expected size of prison population.

PATTERNS OF CRIMINAL ACTIVITY

In order to understand the risk or cost to society imposed by different types of offenders it is necessary to describe the kinds of criminal activity in which they engage and the frequency with which specific criminal acts are committed. Both the Criminal Careers and Inmate Survey studies provide such data for imprisoned offenders based on their own self-reports. The 49 respondents in the Criminal Career study reported committing more than ten thousand serious crimes, or an average of 200 each, over a typical career length of about twenty years. The 624 respondents to the Inmate Survey reported committing more than sixteen thousand non-drug crimes during the three year period prior to commencement of their current sentence.

Contrary to many notions of professional criminal behavior, the respondents in both samples exhibited a notable lack of specialization. In the Inmate Survey, half of the respondents reported committing four or more of the eleven major crime types listed* during the three-year window period. Less than ten percent of the sample could be classified as specialists, a category defined as representing an above average commission rate for a single crime type and low rate involvement in no more than two other types of crime. Furthermore, the

* Attempted Murder, Rape, Aggravated Assault (beating), ADW (shot or cut), ADW (threat), Armed Robbery, Burglary, Forgery, Car Theft, Cons, Drug Sales.

relative frequency of different crime types for any offender appears to shift over time. Of the 49 Criminal Career respondents, more than half changed their principal (most frequent) crime type between successive career periods.

The heterogeneity we observed in offense patterns suggests that it is usually misleading to describe an offender by a single offense label (i.e., robber). Furthermore, in describing the criminal activity of individual offenders, it becomes necessary either to construct composite scales summarizing activity across crimes (which requires assigning relative weights to different crime types) or to report prevalence and offense rates for each crime type separately.

INDIVIDUAL OFFENSE RATES

Given the fact that most serious offenders engage in a variety of crime types, the most interesting characteristic of their criminal behavior is the frequency or rate at which they engage in crime. The average rate at which any particular group of offenders engages in crime has a direct bearing on how much crime can be prevented by their apprehension and incarceration.

The average offense rate for any group (expressed in crimes per year) is determined by dividing the total number of crimes reported for that group by the total amount of time the offenders were at risk.*

Table 1 provides a summary picture of the offense rates for a typical cohort of incoming California prisoners.** The first column contains the distribution of offenders by commitment offense. These

*During the three-year window period preceding the current incarceration, most respondents had spent some time in prison or jail and therefore were not "at risk" for committing the types of crimes under consideration here.

**For analyzing incapacitation effects, the offense rates of an incoming cohort are more relevant than a random sample of prison inmates. The characteristics of an incoming cohort were estimated from the data for the inmate sample by using an appropriate weighting scheme, based on differences in sentence length.

figures do not total 100 because some offense categories have been excluded from the table. The second column contains the percentage of offenders who were active for each of the listed crime types. These figures exceed 100 since most offenders were active in more than one crime. The last column contains the average yearly offense rate for the active offenders in each crime type.

Table 1
Estimated Commitment Offense, Prevalence,
and Offense Rates for a Cohort of
Incoming Prisoners

	Percent of Prisoners Committed for This Crime	Percent of Prisoners Active in This Crime	Average Annual Commission Rate For Actives
Homicide	9	9	.27
Rape	3	8	1.35
Robbery	34	37	4.61
Assault	7	59	4.47
Drug Sales	10	48	155.0
Burglary	13	58	15.29
Auto Theft	4	32	5.25
Forgery	4	40	5.56
Cons	-	63	9.45

It is important to note that the distribution of individual offense rates for any one crime is highly skewed with most offenders reporting fairly low rates. For example, in the Inmate Survey the mean annual rate of armed robberies for those respondents who were active in that crime was 3.4 crimes per year. The median rate was only 1.5. The average rate for all armed robbers below the median was 0.7 crimes per year while the rate for those above the median was 9.3.

Another way of displaying offense rates for California prison entrants (and thus the potential for forestalling crime commissions through the use of incarceration) is found in Table 2. Here we classify the prison entrants by the convicted offense types on which their commitment is based and show the mean offense commission rates in each class for: four types of crimes of violence, combined and individually; four types of property crimes, combined and individually; and drug sales.

The picture that begins to emerge from these empirical data is not one of a large number of dedicated criminals consistently pursuing a pattern of serious crime. Rather, the majority of incarcerated offenders appear to commit serious crimes at relatively low rates and in an unspecialized fashion. Less than a third commit crimes at a sufficient rate that their imprisonment will lead to any significant reduction in crime.

This pattern is evident in both the Criminal Career and Inmate Survey samples. In the Criminal Career study we labeled these two different groups *Intermittents* and *Intensives*. The *intensive* offenders were the "heavies" who tended to see themselves as professional criminals. Their criminal activity was sustained over long periods of time and was directed toward some specific purpose, be it high-living, support of a drug habit, or repayment of debts. The *intensives* were more conscious of avoiding arrest and in fact were more successful in avoiding sanctions at all levels for any one crime. Their average crime rate exceeded that of the *intermittents* by a factor of ten. The more frequently encountered *intermittent* offenders did not view themselves as serious criminals. Their criminal activity had an irregular and opportunistic character, and their monetary gain was often quite low. Their responses suggest that they were frequently oblivious to the risk of their criminal acts and consequently they experienced a much higher likelihood of arrest.

This offense rate distribution, which holds for all offense types, could be very important for policy purposes if it were possible to distinguish the more active offenders. Prosecution and sentencing policies would be more effective in reducing crime to the extent that efforts

Table 2

ESTIMATED MEAN ANNUAL OFFENSE COMMISSION RATES FOR CALIFORNIA PRISON ENTRANTS
CLASSIFIED BY TYPE OF COMMITMENT OFFENSES

Commitment Offense Types	Mean Annual Offense Commission Rates ^a for										
	Homicide	Rape	Armed Robbery	Assault	Total - Crimes of Violence	Burglary	Auto Theft	Forgery	Cons	Total - Property Crimes	Drug Sales
Homicide & robbery	0.3	0.07	7.1	4.0	11.5	9.9	3.2	12.6	6.5	32.2	59
Homicide & another crime	0.1	0.05	0.3	1.5	2.0	3.2	0.4	0.2	1.0	4.8	376
Homicide alone	0.3	0.27	0.2	6.5	7.3	1.7	0.3	0.2	3.7	5.9	77
Rape	-	1.23	4.8	2.0	8.0	4.6	0.9	0.2	2.3	8.0	3
Robbery & assault	-	-	1.5	2.5	4.0	3.1	5.3	0.5	0.6	9.5	1
Robbery & burglary	-	0.41	1.8	2.4	4.6	14.6	10.7	2.5	8.3	36.1	26
Robbery & another crime	-	0.09	17.8	4.5	22.4	1.5	1.3	1.7	8.0	12.5	72
Robbery alone	-	0.04	4.9	3.1	8.0	7.2	0.7	1.0	6.0	14.9	34
Assault	-	-	0.7	2.9	3.6	2.5	0.2	1.2	4.0	8.1	167
Burglary	-	0.04	0.6	2.0	2.6	35.9	0.7	1.7	7.9	46.2	40
Drug sales	-	0.04	0.4	1.0	1.4	3.1	0.4	1.0	4.6	9.1	176
Theft	-	0.14	1.3	2.5	3.9	11.5	7.0	2.7	11.3	32.5	17
Fraud	-	-	0.1	0.6	0.7	0.3	-	8.0	6.9	15.2	21
Other	-	0.12	0.6	4.1	4.8	3.4	3.7	8.5	2.5	17.1	22
All commitment offense types	0.03	0.08	1.9	2.6	4.6	8.1	1.6	2.2	5.8	17.7	74

^a These estimated rates are obtained by dividing the number of commissions of the specified offense type in the commitment offense class (including those not active in the specified type) by the total street time of entrants in the commitment offense class. The rates are additive within the commitment offense class.

could be focused on this high rate group. Rehabilitation efforts can be said to be effective if they are successful in transforming offenders from the high rate to the low rate categories, even if the overall rate of recidivism is not reduced. Because of this potential utility, many of the subsequent analysis reported in this paper have been devoted to identifying the characteristics of high offense rate groups.

VARIATIONS IN OFFENSE RATE BY PRIOR RECORD AND AGE

The data from the Inmate Survey provide a unique opportunity to examine the relationship between offense rates and prior record or age. Tables 3 and 4 contain estimated offense rates for entering prisoners classified by adult prior record and juvenile criminal activity.

Table 3

ESTIMATED CRIME COMMISSION RATES FOR PRISON ENTRANTS
BY PRIOR RECORD

(Including those who do not commit the crime)

Offense	Prior Record		
	No Prior Felony Convictions	Prior Felony Conviction(s) Without Imprisonment	Prior Imprisonment
Homicide	.04	.01	.02
Rape	.09	.06	.09
Armed robbery	1.0	2.6	2.0
Assault	1.9	2.4	3.2
Drug sales	22.	95.	87.
Burglary	1.6	12.0	9.0
Auto theft	0.6	1.8	1.9
Forgery	2.6	1.3	2.6
Cons	3.5	6.0	6.8

Table 4

ESTIMATED CRIME COMMISSION RATES FOR PRISON ENTRANTS
BY JUVENILE CRIMINAL ACTIVITY

(Including those who do not commit the crime)

Offense	Juvenile Criminal Activity			
	None	Not Serious	Infrequent Serious	Serious
Homicide	.01	.01	.01	.06
Rape	.03	.07	.12	.12
Armed robbery	0.3	0.8	3.8	2.9
Assault	2.1	1.4	2.6	4.7
Drug sales	24.	78.	77.	153.
Burglary	.5	3.0	17.0	17.7
Auto theft	0.2	0.7	1.5	3.9
Forgery	1.4	0.8	3.2	4.9
Cons	2.2	4.4	7.4	12.8

The pattern of offense rates portrayed in these tables suggest a direct relationship between the severity of an offender's juvenile crimes or adult prior record and the frequency with which he commits crimes. Statistical tests on these data confirm that:

- a) Offenders with felony convictions who continue in crime until a subsequent imprisonment report greater overall criminality and activity in more types of crime than do prisoners without prior felony convictions.

- b) Offenders with prior prison records report the highest offense rates for their active crimes.
- c) For offenders who are eventually imprisoned, the seriousness and frequency of juvenile crimes are systematically and strongly related to the number of crimes in which they are active and their likelihood of high rate criminality.

Furthermore, respondents who committed their first serious crime before age 16 tend to commit more types of crimes and are more likely to be high rate offenders than others.

In looking for the effects of age, that were independent of prior record, we found that overall criminality declined with age. This effect is generally the result of older offenders restricting the types of criminal activity in which they engage rather than reducing their offense rates for crimes in which they remain active.

MOTIVATION FOR CRIME

Inmate Survey respondents were asked to rate the relative importance of a number of potential reasons for committing crime. A factor analysis of these responses yielded three orthogonal factors into which these responses could be grouped.

The motivational factor which was rated by respondents as most important included problems of unemployment, debts, and the need for routine income. This factor was labeled *Economic Duress*. The next most important factor generally reflected hedonistic reasons for crime such as excitement and kicks, money for high-living, money for drugs or alcohol, or good opportunity. This factor was labeled *High Times*. The least important factor, labeled *Temper*, involved motives of temper or passion.

An understanding of the relationship between these sets of motivations and criminality can be useful in several ways. An offender's motivations for crime are clearly related to the problem of finding an appropriate rehabilitation strategy. Post-release job programs or income maintenance programs which are specifically designed to relieve

economic distress may be effective in reducing the criminality of offenders who are primarily motivated by this consideration. However, those offenders who are strongly motivated by a desire for high times are unlikely to be affected by such programs unless their hedonistic values are modified.

On the other hand, policies designed to deal with hedonistic offenders, such as those which seek to increase the deterrent or incapacitation effects of sentencing, may be unnecessarily harsh when applied to offenders who commit crimes primarily because of their economically distressed situation. At a more subjective level, an offender's motives affect how the rest of society perceives and reacts to his crimes. Offenders who commit crimes because of oppressive economic or social conditions may be viewed more sympathetically than those who commit crimes in order to satisfy a desire for drugs or to support hedonistic lifestyles.

In the Inmate Survey, 47 percent of respondents reported that economic distress was an important motivation for their crime; 35 percent reported that high times was important and 14 percent reported that temper was important. A substantial minority rated both economic distress and high times as important. An analysis of the relationship between motivations for crime and criminal activity revealed the following results:

- Respondents who rated high times as important were active in more types of crime and committed crimes at a higher rate than those who rated high times as unimportant.
- Respondents who reported that temper was an important motivation committed significantly more violent crimes, but fewer property crimes, than did respondents who rated temper unimportant.
- Respondents who identified themselves as "boosters", "burglars", "robbers", or "players" were all more likely than other respondents to report that high times was an important motivation.

In summary, offenders' self-perceived motivations for crime appears to have a strong and consistent relationship with the types and amount of crime they commit. Hedonistic desires rather than economic distress

appears to be the motivation that best explains high levels of criminal activity. However, most offenders report committing crimes because of their distressed economic situation, not because of hedonistic motives.

THE EXPECTED UTILITY OF CRIME

Any attempt to explain an offender's propensity toward crime should consider not only the motivations discussed in the previous section, but also the offender's perception of the benefits and risks associated with crime. Deterrence theory and other rational models of criminal behavior posit that the balancing of these perceptions plays an important role in an offender's decision to engage in particular types of crime.

In order to pursue this line of inquiry, respondents to the Inmate Survey were asked to rate the importance of each one of seventeen outcomes, representing a sample of important payoffs or costs that might result from either a criminal or straight life. This list included such items as: Having a lot of money; being my own man; excitement and kicks; having a family, or being arrested. The respondents also indicated their perception of the probability that each outcome would result from their doing crime or going straight. The overall pattern of responses to these items indicated that offenders on the average perceive that desirable monetary outcomes are more likely to result from crime while desirable non-monetary outcomes are more likely to result from a straight life.

Based on their evaluation of all 17 potential outcomes, 37 percent of respondents reported a greater utility from doing crime than from going straight. These offenders also reported committing more different types of crimes and higher offense rates than those who saw a higher utility in going straight.

A more detailed analysis of the responses to these utility items suggests that the full utilitarian model, which includes the costs and benefits from both straight and criminal pursuits, is unnecessarily complex for explaining differences in offense rates. A satisfactory explanation can be obtained by looking solely at the respondent's perceptions of the probability that crime will result in good outcome. Those who perceive a high probability of good outcomes from crime report higher offense rates. Differences in the perception of negative aspects of doing crime have no

significant additional effect. This finding raises questions about the possible deterrent effects of increasing sanctions since individual offense rates appear unrelated to perceptions of risk.

ATTITUDES TOWARD CRIME

As another measure of the respondents' attitudes about crime and criminal justice, the Inmate Survey presented a series of 27 statements for which they were asked to indicate the degree to which they agreed or disagreed with that statement. From their responses to these statements several rather clear patterns of attitudes emerged.

First, most respondents did not reject the importance and value of laws. They overwhelmingly agreed that laws are necessary for public safety. However, despite their abstract appreciation of the law, most respondents had much more negative attitudes toward the courts. They felt that the courts did an inadequate job in protecting defendants' rights and in determining what crime a defendant actually committed.

A factor analysis of the responses to the attitude items identified a set of *professional criminal attitudes* which picture offenders as people: Who enjoy crime; are good at it; who beat the system; and who will continue in crime after they are released. Twenty-four percent of the respondents agreed with more than half of the items on this scale. Agreement was greatest for respondents who reported planning their crimes, who reported that they were successful at crime, and who reported that a substantial proportion of their income came from crime. Those who agreed with this scale were more likely to be high rate offenders.

In summary, some variation in levels of criminal activity between offenders can be explained by the degree to which they accept professional criminal attitudes and related beliefs that they will be successful in crime. Although most offenders agree that continuously active offenders will eventually be caught, they explicitly reject any statement suggesting that they would be deterred by higher penalties.

Individual offense rates show no relationship to different perceptions of the costs and risks of crime. Perhaps the professional

attitudes that characterizes more active criminals, insulate them from deterrence effects. Although they agree that other offenders are likely to be caught, their belief that they are more skilled than others may allow them to substantially discount the risks they face.

SOCIAL STABILITY AND DRUG USE

Although the motivational and attitudinal factors provide a useful means for distinguishing different types of offenders, their most immediate relevance is to basic research aimed at identifying appropriate intervention strategies or explaining individual criminal behavior. For policy applications these psychological variables are difficult if not impossible to measure and they are virtually immune from any direct efforts at imposing change.

On the other hand, social correlates of criminal activity such as employment, residential or family stability, and drug use are normally measurable and frequently considered in sentencing decisions.

In order to measure levels of social stability from the Inmate Survey, a composite scale comprised of the following four constituent elements was developed: Number of different jobs, percent of time employed, number of different residences, and marital status. Positive indications of stability were: One or two jobs, employed at least half of the time, residence in one or two places and being married. Not surprisingly, social stability increased with age. The least stable group averaged 24 years of age. The most stable group averaged 29.

A strong inverse relationship between social stability and criminality was found in almost every possible test of this relationship. The most significant relationship found was that between social stability and property crime rates. Unstable respondents committed crime at much higher rates, were the most hedonistic and held the most consistently criminal attitudes of all respondents.

With regard to the four component indices of stability, employment and residential stability were individually associated with lower crime rates while marital stability was not. Only 14 percent

of the sample were married during the three year period preceding their incarceration, although 56 percent had been married at some time.

Sixty percent of the sample were employed at least half-time during the three years prior to their incarceration. Only 13 percent reported no employment at all. Those offenders employed less than half-time tended to commit monetary crimes at higher rates while they did not differ in the rate of their violent crimes. Similar findings regarding employment emerged from the career study. The better employed offenders were less active in crime and employment stability improved with age.

Two-thirds of the sample had only one or two places of residence during their last year on the street. The transient respondents, those with more than two residences or none at all, were more likely to commit every crime on our list and to commit each at higher rates than were residentially stable respondents.

Forty-two percent of the inmate sample reported using heavy drugs during the three years prior to their current term. The great majority of this group were heroin users with the reported median cost of their habit being \$85 per day. Across all offense types, drug users were active in more different types of crime and committed crimes at higher rates. Drug users tended to be socially unstable and to have had more extensive juvenile records. There was no relationship between age or adult criminal record and drug use.

CRIMINAL JUSTICE CONTACTS

One set of milestones which define a criminal career are those contacts with criminal justice agencies that can represent substantial interruptions in the offender's criminal behavior pattern. These contacts provide the principal opportunity for any selective treatment based on an offender's characteristics and prior behavior. Our analysis of respondents' self-reports and official record data allow us

to describe in some detail how the nature of these contacts may vary over an offender's career.

The probability of arrest and incarceration are measures of one particular risk that offenders face when they continue to engage in crime. In order to establish estimates of these parameters for different groups of offenders, it is necessary to have some picture of their underlying criminal activity, such as that provided by the self-reported crime data from our two sets of interviews.

Table 5 contains estimated probabilities of arrest for some of the principal crime types covered in the Inmate Survey. These figures represent the likelihood that any single crime will result in an arrest.

Table 5

ESTIMATED PROBABILITIES OF ARREST
FOR ACTIVE OFFENDERS

Crime	Probability of Arrest
Rape	.10
Armed Robbery	.21
Assault	.10
Burglary	.07
Forgery	.06
Drug Sales	.002

There is no evidence to suggest that an offender's probability of arrest decreases over time. In fact, if anything, the likelihood of arrest appears to be slightly higher for those offenders who are over thirty. The Inmate Survey revealed no consistent pattern between adult prior record and the probability of arrest.

Significant differences in probability of arrest appear to be explained best by the seriousness of the offenders' juvenile records.

Those who reported serious criminal activity as juveniles appear to have substantially lower probabilities of arrest than those who did not. There was also a strong relationship between race and probability of arrest. Blacks and chicanos have arrest probabilities two to three times that of whites.

A relationship between probability of arrest and frequency of crime was disclosed in the data from our Criminal Career Study. Intermittent offenders, who committed crimes at approximately one-tenth the rate of the intensives, had an average probability of arrest that was approximately five times greater than that of the latter. The pattern of arrests and offenses disclosed in the Inmate Survey is not inconsistent with this finding but did not yield statistical significance.

Once arrested, a defendant's prior record has traditionally been used as a basis for selective prosecution and sentencing. Official record data collected in the Criminal Career Study disclosed that both conviction and incarceration rates increased substantially over the offender's career. While 50 percent of all early adult convictions resulted in some incarceration, this number increased to 71 percent for convictions in their later adult periods.

Analysis of adult felony arrest disposition patterns in California reveals the underlying basis for this increasing likelihood of incarceration with career progression. The California OBTS data distinguished arrestees by four categories of prior record: "None", an absence of any adult arrest; "minor" at least one arrest but no sentence in excess of 90 days or two year's probation; "major", at least one conviction resulting in a term in excess of 90 days or two year's probation; and "prison", at least one commitment to state prison.

The likelihood of conviction, about 40 percent for all arrests in the sample, did not appear to vary systematically with prior record. However, we did observe that cases against defendants with less serious records tended to drop out earlier in the prosecution process.

Once convicted, the likelihood of receiving a prison sentence increased substantially with the seriousness of the defendant's prior record. For robbery defendants who were convicted, the likelihood of prison commitment increased from 16 percent for those with minor records to 72 percent for those with prior prison records. For convicted burglary defendants, the likelihood of prison commitment

increased from essentially zero for defendants with minor records to 23 percent for those with prior prison commitments.

The end result of this pattern of increasing sentence severity with prior record can be observed in "percentage time at risk" statistics for career offenders. The respondents in the Criminal Career Study were "at risk", or free from incarceration approximately 61 percent of the time during their early adult career periods--a period covering roughly six years. Time at risk for their later adult periods decline to an average of 32 percent.

In summary, the picture portrayed by both aggregate statistics and individual case histories is consistent. The majority of career criminals face a pattern of arrests and incarcerations reflecting a substantial increase in severity over time, resulting in greatly diminished time periods at risk.

ESTIMATING INCAPACITATION EFFECTS

One of the frequently expressed motives for concentrating law enforcement and prosecution resources on career criminals is the assertion that by removing these offenders from the community for longer periods of time, a substantial number of crimes will be prevented. The reduction in crime which can be attributed to the temporary segregation of offenders from the larger society has been denoted in the literature as the *incapacitation effect* of incarceration.

Career criminal programs can result in some level of crime reduction through incapacitation effects in two distinct ways. First, even though career criminals may represent no greater potential risk of future crimes than other offenders, special programs that increase the average sentence length for career criminals, and hence the total prison population, will result in some incapacitation effects which can be calculated on the basis of average offender behavior. Secondly, to the extent that career criminals represent a greater than average risk of future crime, concentration of prosecution efforts on career criminals can result in an increase in the average incapacitation effect for any given incarceration level.

Our understanding of differences in offender behavior and our

ability to model the impact of selective sentencing policies is not sufficiently advanced that we are able to clearly distinguish these two effects at the present time. The analyses described in this section were undertaken in order to provide some approximate estimates of the relationship between various sentencing policies, incapacitation effects, and prison population.

Two analytic techniques have been developed for estimating the potential incapacitation effects that can result from changes in sentencing policy. One uses a mathematical model to estimate the reduction in time at risk for an average offender that results from changes in such system parameters as the probability of arrest, conviction rate, or average sentence length. Potential reductions in crime are then determined by using an estimate of the average rate at which offenders would have committed crime while they were unincarcerated.

The second approach relies on career histories for an arrest or conviction cohort that allow the analyst to look back in time and hypothetically resentence offenders for earlier convictions. This approach allows one to determine what percent of those crimes attributable to cohort members would have been prevented if harsher sentencing policies had been in effect at the time of the earlier conviction, and by inference, the percentage by which total crime might be reduced.

The modeling approach was used to estimate potential changes in the rate of robbery and burglary in California under different sentencing policies. This method of analysis was made feasible by the availability of empirical data on recent sentencing policy and individual offense rates that were generated by our interviews.

The model we utilized was developed by Avi-Itzhah and Shinnar and has the form:*

$$A/P = \frac{1}{1 + \lambda (qJS)}$$

* Benjamin Avi-Itzhah and Reuel Shinnar, "Quantitative Models in Crime Control," *Journal of Criminal Justice*, Volume 1, 1973, and Reuel Shinnar and Shlomo Shinnar, "The Effects of the Criminal Justice System and the Control of Crime: A Quantitative Approach," *Law and Society Review*, Volume 9, Number 4, 1975, pp. 581-611.

where:

1. Offenders commit crimes at the specified (Poisson) rate λ when not incarcerated.*
2. Offenders are subject to arrest and conviction with the specified probability q ; and to incarceration given a conviction with the specified probability J .
3. Actual time served given an incarceration is exponentially distributed with mean S .
4. Length of individual criminal careers is exponentially distributed with mean T .
5. $P = \lambda T$ represents the number of crimes an average offender would commit if he were never incarcerated.
6. A represents the number of crimes an average offender would commit in a jurisdiction whose criminal justice system characteristics are described by the policy parameters q , J and S .

Using this model we generated estimates of the effective crime rate (A/P) that would result from a number of different sentencing policies. A description of these policies and the resulting estimates are contained in Table 6.

The direct costs to the state, and the political feasibility of any specific sentencing option, can be measured by its impact on the incarcerated population size. Option 4, which specifies a three year commitment for all convicted defendants, if applied exclusively to burglary, would result in a 500 percent increase in the number of offenders incarcerated for this crime and a 50 percent decrease in the burglary rate. A similar policy for robbery (three year sentence for everyone convicted) would result in a 20 percent reduction in robberies and a 70 percent increase in the number of robbery defendants

*The term "Poisson" implies that intervals between criminal acts have independent and identical exponential distributions with parameters λ , which is not affected by age or experience.

Table 6

EFFECTIVE CRIME RATE FOR ALTERNATIVE SENTENCING POLICIES
EXPRESSED AS A PERCENTAGE OF THE RATE EXPERIENCED
UNDER CALIFORNIA SENTENCING POLICY IN 1973

Policy Option	Robbery ^a	Burglary ^b
1. One year of prison for every convicted defendant	122	84
2. One year of jail for every convicted juvenile or adult with no prior convictions; three years of prison for convicted adults with one or more priors	93	68
3. Same as 2 except five years of prison for every convicted adult with one or more priors	75	57
4. Three years of prison for every convicted defendant	80	52
5. Five years of prison for every convicted defendant	58	38
6. Same as current policy but with probability of conviction raised to 0.80 ^c	69	87

Note: The effective crime rate is shown as a percentage of the current rate under existing policy. The sentencing policies apply to only those defendants convicted of the specified offense (robbery or burglary).

- a. assumes $\lambda = 5$ and $q = .076$ (except for option 6 where $q = .16$)
- b. assumes $\lambda = 10$ and $q = .044$ (except for option 6 where $q = .08$)
- c. The current probability of conviction given an arrest was .38 for robbery and .44 for burglary.

incarcerated. A 50 percent reduction in robberies would require at least a 200 percent increase in the incarcerated robber population and average terms exceeding five years.

The legislative method for increasing sentence severity frequently involves adopting mandatory-minimum sentences for defendants with specified characteristics who are convicted of a selected list of crimes. For instance, a mandatory-minimum sentence may be specified for any defendant convicted of a crime involving a firearm, or any defendant who has been convicted of a felony during the preceding ten years.

The effects of any mandatory-minimum policy will be mitigated to the extent that prosecutors fail to charge or judges fail to find those specific elements of prior record or current criminal activity that will invoke the mandatory sentence. Indeed, the possibilities for selective charging and plea bargaining are one of the principal deficiencies that are normally cited to argue against such policies.

A special data file which was prepared in Denver, Colorado allowed us to examine the potential incapacitation effects of various mandatory-minimum sentencing policies. The data file contained detailed prior record information for a cohort of 625 convicted defendants. The basic approach of this analysis involved looking back at each defendant's prior convictions and determining whether or not he would have been incarcerated at the time of his current offense if a specific mandatory-minimum sentence had been imposed.

An analysis of various mandatory-minimum sentence lengths and target groups revealed results which are quite consistent with our California analysis in that very large increases in prison populations are required in order to achieve significant reductions in crime. A one year mandatory-minimum for any felony conviction would result in a 50 percent increase in the prison population and a 15 percent reduction in crime. Three year minimum sentences would increase the prison population by 225 percent and reduce crime by approximately 35 percent.

One means of comparing different mandatory-minimum policies is their relative efficiency in terms of the amount of crime reduction achieved by a given increase in prison population size. Those policies that result in greater crime reduction can be said to be more efficient. Our analysis revealed that mandatory-minimum policies which

focus on defendants with prior convictions are less efficient than those that do not.

This finding does not imply that defendants with prior records pose less risk of future crime than those without. Rather it suggests that defendants with prior records, who currently receive sentences less than the mandatory-minimum, present less risk of future crime on the average, than defendants without a prior record who receive less than the mandatory-minimum term. Since defendants with prior records are much more likely to be incarcerated, under existing policy, than those without, this finding suggests that judges are somewhat successful in discriminating among these defendants according to risks in determining those that need not be incarcerated.

CONCLUDING REMARKS

Our findings to date provide some indication of the types of offenders who represent the most serious risk to society. In general, those characteristics which are associated with high levels of criminality, juvenile record, drug use, social stability, etc., are the same characteristics which are associated with high levels of recidivism. Our examination of the psychological items from the survey revealed that most high rate offenders have a consistent set of attitudes that favor criminal activities over legitimate employment.

The ability to accurately identify high rate offenders, before the fact, remains problematic. Using regression analysis to determine the independent effects for all of the variables described in the preceding sections, we were able to account for no more than 40 percent of the variance in individual crime rates. The best predictive variables were those involving self-description and other psychological measures. Limiting the analysis to only those independent variables which are public information, the amount of variance explained dropped to 25 percent.

Our analyses of arrest probabilities and disposition patterns suggest that career offenders who continue to engage in serious crime are increasingly subject to extended periods of incarceration as

their career progresses. Furthermore, our estimates of incapacitation effects suggest significant reductions in crime, from incapacitation effects alone, will require very large increases in prison populations.

Our research raises questions about the value of concentrating more law enforcement or sentencing effort on older career offenders, when in fact these offenders are already being dealt with in a rather severe fashion. There may be a serious inconsistency in the relatively lenient treatment afforded first-time adult offenders (who may in fact have extensive juvenile records) as compared to harsher terms handed down to defendants with extensive records. Our data suggest that it may be those young adults, who are entering the most active period of their career, on whom the system should attempt to concentrate incapacitation effects rather than on the older offender who is usually burning-out.

Our research to date has been based almost exclusively on anonymous surveys of California prison inmates or official record sources. This limitation raises several questions about how broadly the findings can be interpreted: Do offender characteristics or patterns of criminal activity vary substantially among jurisdictions or regions of the country? To what degree are the behavioral and psychological characteristics we have identified stable over time or predictive of future criminal activity? How do the characteristics of prison inmates compare with convicted offenders who receive less severe sentences?

Other questions which need to be addressed before career criminal or incapacitation policy issues can be carefully considered include: To what degree are those offender characteristics associated with high rates of criminal activity currently reflected in prosecution and sentencing decisions? To what degree are high rate offenders or those with unique correctional needs identified for special correctional treatment?

We are currently engaged in research that addresses these questions. The Inmate Survey is being replicated in several other states and expanded to include jail as well as prison populations. Criminal history and correctional treatment information will be merged with the

survey responses to validate the self-reports and provide additional background data.

Prosecution and sentencing policies are being examined in several jurisdictions to determine the impact of specific offender characteristics on charging, plea bargaining, and sentence decisions. Finally, analytic models are being developed that will allow a more systematic exploration of the relationship between sentencing policy and crime rates.

END