Guideline-Based Justice

The Implications for Racial Minorities

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PREFACE

This report presents the findings and recommendations of the second phase of a Rand study funded by the National Institute of Corrections, Department of Justice, to explore the effects of various criminal-justice processes on racial minorities. The first report in the series, *Racial Disparities in the Criminal Justice System*, The Rand Corporation, R-2947-NIC, June 1983, by Joan Petersilia, compared the treatment of white and minority offenders at key decision points in the system, from arrest through release from custody. That report found suggestive evidence of minorities being treated more harshly than white offenders at sentencing.

This follow-on study delves deeper into the sentencing process, focusing on the use of classification instruments and formal sentencing and parole guidelines. The movement toward guideline-based justice is gaining impetus throughout the country, and the authors have attempted to assess how classification instruments and guidelines might affect the future sentencing of minority defendants.

The study also addresses the issue of recidivism prediction. The authors attempt to predict recidivism using all the factors in the database, and then examine how much predictive accuracy would be lost if they had used only those factors that are not statistically correlated with race.

The final report in the series will take a more comprehensive look at the effects of race on imprisonment decisions in California, based on detailed offender and offense data that have become available since the first report was published.

The results of the study should be of interest to researchers who are investigating the operations of the criminal-justice process, and to policymakers who are considering the adoption of formal classification systems to guide sentencing, parole, and probation supervision decisions.
BACKGROUND AND ISSUES

The racial composition of the nation's prison population has led to charges that the criminal-justice system discriminates against minorities. Although blacks comprise only 12 percent of the national population, they account for almost 50 percent of the prison population. Critics of the system claim that this racial disproportion results from discrimination, that the system treats minority offenders more harshly than it does white offenders. However, recent research tends to back up the opposing view that there is simply more serious criminality in the black than in the white community. Several studies have found that two factors, seriousness of crimes and the offenders' prior criminal records, explain most of the apparent racial disparity in prison sentencing.

The distinction between racial discrimination and racial disparity in sentencing is important—and is often overlooked in research on this issue and in the ongoing debate. Racial discrimination occurs if system officials make ad hoc decisions based on race rather than clearly defined standards. Racial disparity occurs when legitimate standards are applied but have different results for different racial groups. This distinction is especially crucial in evaluating the potential effectiveness of sentencing reform.

Concern with racial inequity in recent years has given impetus to a sentencing reform movement. Proponents of the movement argue that discrimination can affect sentencing because judges have traditionally had broad discretionary leeway in their sentencing decisions. Curbing that discretion through some type of sentencing reform would, theoretically, eliminate racial discrimination and thus racial disparities in sentencing.

One type of reform that has been widely adopted is the use of sentencing guidelines. Many states now have such guidelines, as well as guidelines for parole decisions and decisions concerning the level of probationer supervision. The rationale for the parole and probation guidelines is the same as that for sentencing guidelines: Making probation and parole decisions according to objective standards should result in equitable treatment of all offenders, regardless of race. This report describes the results of a study undertaken to test these assumptions.
Ideally, guidelines should use criteria that reflect the goals of sentencing, probation supervision, and parole. The major objective of sentencing is just deserts—making sure that the punishment fits the crime. A secondary but compelling objective is incapacitation—reducing street crime by imprisoning serious criminals for as long as is reasonably justified.

Probation supervision and parole decisions, in contrast, are primarily based on the probability that the offender will commit new crimes when he returns to the community—that is, his probability of recidivism. Consequently, probation supervision and parole decision-makers are concerned with “predicting” recidivism. The distinctions between the two types of decisionmaking are becoming less clear, however. Because of overcrowding in the nation's prisons, predicting recidivism is beginning to be a de facto concern of sentencing as well, since judges have increasingly had to consider probation for serious offenders. Under these circumstances, sentencing guidelines should be adopted that gauge the likelihood of recidivism, as well as establishing just deserts and reflecting concern with incapacitation.

Prior Rand research indicated that some factors correlated with recidivism are also highly correlated with race in some offender samples. Consequently, using these factors to “predict” recidivism is the functional equivalent of using race itself. For example, long-term unemployment is generally thought to predict recidivism, and it also happens to be higher in the black population. Obviously, making sentencing, supervision, or parole decisions on the basis of race is ethically unconscionable and legally untenable. However, policymakers face a real dilemma: If these factors really do predict recidivism, can the guidelines afford to ignore them, despite their racial correlation?

To address the assumptions and issues involved, we have attempted to answer the following questions:

- What factors are actually included in sentencing, probation supervision, and parole guidelines across the country?
- How strongly do the commonly used factors correlate with both race and recidivism for different subsets of the offender population (i.e., all convicted felons, probationers, parolees)?
- How accurately can we predict recidivism using only factors that are not racially correlated?
- Can sentencing reform overcome racial disparities without jeopardizing other objectives of the guidelines?
DATA AND METHODS

The data for this study come from several sources. The factors in currently used guidelines were obtained primarily from information supplied by the National Council on Crime and Delinquency (NCCD), and the American Justice Institute. Both organizations recently conducted surveys to identify agencies that use formal instruments in sentencing, parole release, and probation decisions. We contacted these agencies, obtained copies of the instruments they used, and asked them about other jurisdictions that have implemented such systems. We collected information from these additional agencies and also reviewed relevant published literature. To determine the extent to which particular factors are being used, we tallied the items in the identified classification instruments. We must emphasize that new classification instruments are rapidly being developed and old ones are being modified, so these tallies represent the situation at the time of our study and are not necessarily accurate for systems that have evolved since then.

We established the extent to which the factors being used are correlated with race and recidivism, using data supplied by the California Board of Prison Terms (CBPT). This database contains very detailed information on over 16,500 offenders convicted of felonies in California in 1980. Some of these offenders were sentenced to prison and some to probation; thus we could compute race and recidivism correlations for three subsets of the offender population—all convicted felons, probationers, and prisoners.

To assess the accuracy with which recidivism could be predicted using these factors, we tracked a subset of the original CBPT sample for an average period of 31 months. This subset comprised 511 probationers and 511 prisoners originally convicted in Los Angeles and Alameda counties. We also obtained state “rap sheets” for these offenders and recorded subsequent arrests, convictions, and incarcerations. The dependent variable used in our recidivism prediction analyses was the presence of any arrest in the follow-up period.

CONCLUSIONS

Our findings suggest that the use of guidelines does not overcome racial disparities in sentencing, supervision, and parole decisions. Paradoxically, it may widen them, for reasons that are complex and probably intractable.

Civil libertarians have long claimed that system decisions should be made primarily on the basis of the current conviction crime, along with
any aggravating or mitigating circumstances. They would disallow consideration of “status” factors, that is, noncriminal characteristics of the offender, including employment history, education, living arrangements, and alcohol or drug abuse. However, our analysis shows that many of these factors also correlate with recidivism. Thus, it may be justifiable to include these factors in the guidelines, given the crime-control objectives of sentencing. Critics have argued that because many of these factors also correlate with race, guidelines using them will unfairly penalize minorities.

Many states have barred the use of status factors for that reason. Our survey showed that they are almost never included in formal sentencing guidelines (i.e., those that affect the prison/probation decision), although probation supervision and parole release guidelines do use some of them. But of the status factors listed above, only employment works to the disadvantage of blacks. In California, whites are more likely than blacks to have (formally recorded) drug and alcohol problems.

Why, then, do we say that the problem of reducing racial disparities is probably intractable? The answer lies in the other objectives of sentencing, probation supervision, and parole decisions. To establish just deserts, incapacitate offenders who pose the most serious threat to public safety, and use prison space most effectively, guidelines must include factors that indicate how seriously criminal an offender is, such as the seriousness of his crime, aggravating characteristics (e.g., weapon use, victim injury), and features of his prior criminal record. Our analysis shows that many of these criminal factors correlate with recidivism. However, many of them also correlate with race, for our sample. For example, “having served time in a juvenile institution” and “having a conviction before age 16” are often used in formal guidelines, are good predictors of recidivism, and are correlated with race. A similar situation exists in nearly all of the measures dealing with prior criminal record.

Can predictors of recidivism be omitted from the guidelines, regardless of their racial “taint,” if the ultimate objective is to identify offenders with a high risk of recidivism? We addressed this issue directly by attempting to predict recidivism, using all the factors in our database, and then examining how much predictive accuracy we would lose if we used only those factors that do not correlate significantly (in a statistical sense) with race.

The analysis showed that when we used all the factors in our comprehensive database, our accuracy in predicting rearrests was seldom greater than 70 percent—less than a 20 percent improvement over what would be predicted by chance. We believe there is a natural
ceiling on accuracy in criminological prediction—at about 70 to 75 percent—and that research along these lines may not be worthwhile to pursue.

The key issue for this study is: In view of the inaccuracy of current predictors of recidivism, how much would be lost by omitting the racially correlated factors? Without them, is it still possible to adequately assess an offender’s risk of recidivism? The use of only factors that are not racially correlated increased our predictive accuracy from 3 to 9 percent above chance; including racially correlated factors as well increased predictive accuracy only another 5 to 12 percent.

These figures can be considered in two ways: It could be argued that the elimination of racially correlated factors would improve the equity of guidelines without greatly degrading the prediction of recidivism. Or it could be argued that in the interest of public safety, it is vital to use whatever will improve prediction to any degree. One’s interpretation depends heavily on how one views the objectives of sentencing, probation, and parole and on one’s expectations for reform efforts.

Our findings suggest that a basic truth must be acknowledged if sentencing reform is to go forward. Guidelines are intended to overcome racial discrimination—and they probably do. However, they cannot be expected to overcome racial disparities in sentencing where serious criminality is disproportionately high in the black population. Noncriminal status factors related to race can be eliminated, and the guidelines will still identify high-risk criminals about as well as they now do. But it is not possible to omit racially correlated factors that reflect criminal seriousness unless society is willing to have all serious offenders treated less severely because many of them are black.

Under the circumstances, it is clear that we cannot expect sentencing reform to change the realities faced by the criminal-justice system. Research has established that the socioeconomic conditions associated with crime are more prevalent among blacks than among whites. And demographic trends (e.g., mobility, fertility) appear to be reinforcing the difference. As long as these conditions and trends continue, the prison population is likely to become even blacker—with or without sentencing reform. The need to seriously address the problems that contribute to black criminality in our society is becoming increasingly apparent.

In the meantime, however, there can be little doubt that classification instruments are profoundly influencing criminal-justice decision-making, and their growth will almost certainly continue. Therefore, policymakers must begin to examine the impact of the use of such instruments on minority offenders. At a minimum, we strongly urge
researchers and policymakers in each state to discuss openly the objectives of their guidelines and to establish the correlation of the commonly used factors with both recidivism and race for the intended criminal population. We believe this effort is necessary because it would allow policymakers to assess how the guidelines they develop will affect public safety and the future racial composition of prison populations. Further, it will cause the people responsible for these important decisions to address the equity issue in an informed light. If policymakers decide to use classification guidelines for sentencing and parole decisions, they should be prepared for a possible increase in the percentage of minorities in the prison population.

The issues we address—and raise—in this study are highly complex and highly charged, politically, ethically, and legally. Each state and jurisdiction will have to approach them in its own context, considering its own priorities and purposes, especially in light of its objectives for each kind of guideline.
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I. INTRODUCTION

Recent data from the U.S. Bureau of Justice Statistics indicate that on any given day, more than 5 percent of all black males in their twenties in the United States are in state prison. Over a lifetime, about 15 percent of all black males in this country can be expected to serve some time in an adult prison. By comparison, less than 0.5 percent of white males in their twenties are in prison on any one day, and only 2 to 3 percent of the white males will be imprisoned during their lifetime (BJS, 1985). This disparity has focused renewed attention on the issue of racial discrimination in the criminal-justice system. Some contend that these numbers are further evidence that the system overtly discriminates against minority offenders, treating them more harshly than it does mature, white, middle-class offenders.

Critics of the system argue that sentencing reform can mitigate this apparent discrimination by limiting the customary discretion exercised by the courts and parole boards. Immune from review, judges and parole boards have had broad discretion in deciding who goes to prison and for how long. This discretion, the argument goes, has ultimately resulted in substantial race and class disparities. The establishment of well-articulated sentencing procedures, therefore, should result in more equitable treatment of all offenders, the elimination of racial discrimination in sentencing, and a better racial balance in prison populations.

This belief has spurred a nationwide movement toward sentencing reform.\(^1\) A recent commission on sentencing noted, “American sentencing laws and practices underwent more extensive changes in the 1975–1980 period than in any other 5-year period in American history” (Blumstein et al., 1983, p. 126).

These changes have taken many forms. By 1985, at least 25 states had enacted determinate sentencing statutes, 10 states had abolished their parole boards, and 35 states had mandatory minimum sentence laws. Of particular importance for the present study, many states and jurisdictions had established formal guidelines for sentencing decisions (e.g., prison vs. probation, length of sentence), for determining supervision levels for parolees and probationers, and for parole release.

These guidelines are generally embodied in formal classification instruments that combine certain weighted criteria to achieve an

\(^1\)The movement for sentencing reform has received further impetus from the fact that “individualized” sentencing has not been demonstrated to either rehabilitate or deter offenders (Sechrest, 1979; Blumstein, 1978).
overall offender-summary score, which is then linked to a specific, narrow range of sentences or dispositions. These scores are expected to help judges and other criminal-justice practitioners make more consistent and uniform decisions and to guarantee equal treatment for all offenders, regardless of race.

However, many criminal-justice researchers and practitioners doubt that sentencing reform alone can overcome racial disparities in sentencing, community supervision, and time served. The radical improvements in data collection and statistical analysis made possible by computer technology have enabled analysts to test more rigorously for racial effects at these and other decision points in the system. It has been shown that such factors as seriousness of crimes and prior criminal records explain much of the difference between black and white imprisonment rates. Indeed, several recent studies have observed that racial disparities in punishment result less from discrimination than from the disproportion of blacks committing more serious crimes.\(^2\)

These results do not constitute an argument against guideline-based sentencing reform. However, they do implicitly challenge some of the basic assumptions behind the demand for such reforms, and they call for a reassessment of what this particular type of sentencing reform can, and should, be expected to accomplish.

To begin with, the rationale for sentencing reform begs an important question: Is the racial disparity in our prisons evidence of racial discrimination or of racial differences in crime and criminality? The distinction is important and is often missed in policy discussions. Racial discrimination occurs if system officials make ad hoc decisions based on race rather than on clearly defined objective standards. Thus, strongly enforced guidelines could preclude purely discriminatory decisions. However, racial disparity occurs when such standards are applied but have different results for different racial groups. And sentencing reform may not be able to overcome this disparity.

The rationale for sentencing reform also begs another question: Does racial parity take precedence over other objectives of sentencing, probation, and parole decisions? As crime has worsened and public concern has risen, “just deserts” and “incapacitation” have become the major objectives. The courts are concerned with making the punishment fit the crime (and the criminal) and with protecting the public by incarcerating offenders who are most likely to reoffend when they return to the community. Given these objectives, sentencing and

\(^2\)In a recently completed review of 57 racial-discrimination studies, Gary Kleck concluded: “For the vast majority of offenses, jurisdictions, and judges, race exerted no statistically significant effect on adult criminal sentencing when legally relevant variables were controlled for, either for capital or noncapital crimes” (Kleck, 1985).
parole decisions have traditionally been based on criteria that not only weigh the relative deserts of an offender, but also reflect the risk he poses to the community when released. Research has identified numerous criminal and noncriminal factors that correlate strongly with recidivism.

In developing guidelines, most jurisdictions have attempted to ensure fair and objective sentencing by including only factors that correlate with criminal seriousness and recidivism. Therein lies the dilemma for reform: If, as research suggests, many of these factors also correlate strongly with race, using them is the functional equivalent of using race as a criterion. As one observer notes, "If we base sentencing decisions on various factors that correlate highly with race, it will have the same effect as using race itself as an indicator. That would undoubtedly be ethically inappropriate" (Coffee, 1975). However, will eliminating racially correlated factors jeopardize the primary objectives of sentencing? Can the officials who are responsible for sentencing effectively weigh just deserts and predict recidivism without using such factors?

This dilemma forms the basis of the "equity-vs.-accuracy" debate over sentencing reform. One theme in that debate has been the role played by so-called "status" factors—noncriminal factors such as education, employment, alcohol abuse, etc.—in the decisions. Many of these factors apparently correlate with recidivism, and many of them also correlate highly with race. For example, long-term unemployment is generally thought to help predict recidivism and it also happens to be higher in the black population. Thus, when employment is considered in sentencing decisions, blacks are more likely than whites to be identified as high risks for release and are more likely to be given jail or prison sentences.³

Because status factors often do not reflect personal culpability, reformers have argued that these factors should not be considered, regardless of their correlation with recidivism. The appropriate alternative would seem to be to use factors that do represent personal culpability—i.e., the seriousness of an offender’s conviction crime(s) and his prior record—and that also identify offenders who present a high risk of returning to crime when they return to the streets. Another viewpoint is that if any factor helps to assess an offender's

³For most factors, the distinction between criminal and status factors is clear; however, drug use is an exception. On the one hand, drug use is under the control of the individual, easy to measure, and illegal. It is also highly correlated with recidivism and is routinely used in criminal-justice decisionmaking. On the other hand, drug use in itself is not dangerous criminal conduct. And some may argue that drug use is beyond the individual’s control (Moore, 1984).
threat to public safety, it should be used, regardless of racial correlation.

This equity-vs.-accuracy debate accepts two assumptions that we believe should also be examined: first, that the system cannot eliminate racially correlated factors from sentencing and parole decisions without seriously jeopardizing the objectives of just deserts and public safety; and second, that factors found to correlate with recidivism predict recidivism accurately, and that ignoring them would degrade the sentencing guidelines' predictive accuracy and their ability to achieve the sentencing objective of incapacitation.

This study examines:

- The factors that are actually included in sentencing, probation supervision, and parole guidelines across the country.
- The degree of correlation between the commonly used factors and both race and recidivism for different subsets of the offender population (i.e., all convicted felons, probationers, parolees).
- The accuracy with which recidivism can be predicted using only factors that are not racially correlated.
- Whether sentencing reform can overcome racial disparities without jeopardizing other objectives of the guidelines.

In Section II we present a brief history of sentencing, probation, and parole guidelines; describe their form; and identify the criteria most often used in sentencing, community supervision, and parole decisions. In Section III we identify the criteria that correlate with race and demonstrate how removing them from the statistical models affects prediction of recidivism. Finally, the conclusions and implications of the study are discussed in Section IV.
II. THE DEVELOPMENT AND NATURE OF FORMAL GUIDELINES

The appropriate use of discretion is one of the most troublesome issues for sentencing reform. On the one hand, unguided discretion can produce arbitrary, unconsidered decisions that fail to achieve sentencing objectives and cause inequitable treatment of offenders. On the other hand, rigid and mechanical rules can also have unjust and inequitable results. Attempting to steer a reasonable middle course, many states have adopted empirically based guidelines or classification instruments. These guidelines are designed to curb discretion and ensure rational, consistent, and equitable decisions, without preventing consideration of individual case factors. They generally specify the criteria to be used in sentencing, probation, or parole decisions and link them to a specific range of penalties.

For the purposes of this study, classification instruments or guidelines are defined as written forms containing a fixed set of variables, ratings on which are combined into an overall summary score for use in offender classification. Such instruments include the Vera Scale, used to classify pretrial defendants for release on their own recognizance; Base Expectancy Tables, used to screen offenders for risk of recidivism; the NIC Model Probation System, used to assign offenders to different levels of community supervision; and the Federal Parole Guidelines, used to reduce disparities in parole-release decisions. Though these instruments emphasize different criteria and were created for different purposes, they all serve to structure decisionmaking so that the resulting decisions become more objective, more uniform, and less discretionary.

In the past, many of these guidelines were simply “aids” to decisionmaking. However, they are now being used in a more prescriptive fashion. Because they impose criteria and make criminal-justice decisions more visible, their effects are being evaluated and are prompting changes in the rules regarding decisions. Consequently, it is important

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1The material in this section draws heavily on information in American Justice Institute (1978), Vols. 2 and 4.

2For a detailed discussion of parole guidelines, see Gottfredson et al. (1978); sentencing guidelines are described in Kress (1980), Rich et al. (1982), and Knapp (1982); and Clear and O'Leary (1982) provide an overview of probation supervision guidelines. Here, we present only a brief overview of how the systems were developed, the types of factors they commonly use, and the extent of their use.
to look carefully at the potential effects of the various guidelines on the
treatment of racial minorities.

The development and nature of the guidelines currently in use for
sentencing, probation supervision, and parole decisions are discussed
below, along with the criteria most often used in these decisions.³

PAROLE RELEASE GUIDELINES

The use of classification instruments for sentencing, bail, and proba-
tion supervision has become widespread only since the 1970s, but
parole classification has a long history. In 1923, the Illinois Parole
Board sponsored the pioneering efforts of Warner, Hart, and Burgess
to predict parolee recidivism (Burgess et al., 1928). These researchers
believed that parole decisionmaking could be made more scientific if
parole boards employed the kinds of actuarial methods used by
insurance companies to assess the risks of policy coverage. Toward
this end, they examined the records of 3,000 parolees and identified 22
factors associated with a below-average recidivism rate. By summing
the number of “favorable” factors that described a parolee, Burgess
established score classes and calculated the average probability of
parole success for those in each class. The result was what Burgess
called an “experience table,” a classification instrument for assessing
the probability of parole recidivism. Thus began a criminological
research tradition characterized by the development of increasingly
sophisticated instruments for predicting criminal behavior.

Indeed, most parole prediction research has consisted of refinements
and elaborations of Burgess’ basic method. Attempts have been made
to improve statistical methods for weighting and combining prediction
factors, to refine prediction for particular kinds of offenders, and to
refine prediction for particular levels of “risk,” but the underlying
actuarial approach is basically the same as that developed by Burgess.

Despite the early efforts of researchers to improve the tools for
predicting parole behavior, parole boards were resistant to using such
tools in their deliberations. Regardless of the “accuracy” researchers
could claim for classification instruments, parole boards believed that
they were based on the single criterion of success or failure and that
they overlooked additional and possibly more important criteria, in
particular, prison infractions and offense severity. Further, “experience

³Although many bail and pretrial-release guidelines are in operation nationally, they
are not examined here because we do not have a database built on a population sufficient
to test racial bias in the variables. However, the analysis of sentencing and parole guide-
lines is in many respects applicable to both bail and pretrial release, as well.
tables" tended to produce decisions diametrically opposed to those often made by the parole boards. Because offense severity is often inversely related to recidivism, use of experience tables would require parole boards to set early release dates for offenders they—and the public—believed least deserving of them. For example, murderers typically have a low risk of recidivism, but because of the severity of their crimes, most persons believe that they deserve lengthy punishment.

It eventually became clear that an instrument that included risk of recidivism as well as "just deserts" considerations was needed. Therefore, in 1972, the U.S. Department of Justice funded a three-year effort to develop a classification system that would be acceptable to parole boards. The research, conducted by Donald Gottfredson, Leslie Wilkins, and Peter Hoffman, in cooperation with the U.S. Parole Commission, represented a significant departure from previous research on parole classification. The instrument they developed took into account three factors: seriousness of current crime, likelihood of recidivism, and prison behavior. Parole boards judged the first two items the most important, so the researchers developed separate scales for offense severity and parole prognosis, conceptualizing them as vertical and horizontal axes of a two-dimensional decision "matrix." The horizontal or parole-prognosis scale, called a "salient-factor score," was a Burgess-type prediction instrument. The vertical scale measured offense severity.

By studying previous cases, the researchers computed time-to-be-served ranges for each combination of offense severity and parole prognosis. For example, the guidelines adopted by the U.S. Parole Commission provide that an offender whose offense was of "low moderate" seriousness, such as fraud or drug possession, and who has a "good" parole prognosis, as measured by the salient-factor score, should normally serve from 12 to 16 months in prison before release on parole; an offender with the same class of offenses but a "poor" parole prognosis should normally serve from 20 to 25 months. These guidelines are now used in 14 states, the District of Columbia, and the federal system. The U.S. Parole Commission's decision matrix, after which most of the other parole guidelines are modeled, is reproduced in Appendix A.

The matrix approach represented an important advance over earlier experience tables. First, a multidimensional parole classification scheme could take into account a variety of policy dimensions. Second, it allowed parole authorities to tailor their guidelines to their particular offender populations. The guidelines also could be tailored to the

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4Parole boards may depart from the guidelines if special features of a case justify a sentence outside the normal range. However, the reasons for imposing a longer or shorter sentence must be stated.
correctional population, i.e., when prisons became full, the scores that would qualify an inmate for parole could be adjusted.

As the use of classification devices spread among parole boards, it became clear that the matrix approach was applicable not only to parole classification, but also to decisionmaking at a variety of other points in the criminal-justice process. The matrix was versatile enough to incorporate the dimensions and variables associated with the particular decision to which it was applied. Thus, the Law Enforcement Assistance Administration asked Gottfredson and his colleagues to devise a means of structuring discretion in sentencing as well.

SENTENCING GUIDELINES

A feasibility study of the application of parole guidelines to sentencing was begun by Gottfredson and Wilkins in 1974, and most of the sentencing guidelines subsequently developed and implemented across the nation followed the Gottfredson-Wilkins model.

Gottfredson and Wilkins approached sentencing as they had parole. Unlike parole guidelines, however, sentencing guidelines needed to address not only the length of incarceration, but also the prison-vs.-probation decision.

The researchers began by analyzing past sentencing practices to identify those factors most strongly associated with variations in sentencing. Using this information, they computed the median time served for a combination of offense type and offender scores.

Judges were then given the descriptive statistical information for their own jurisdictions to help them decide whether they wanted the information that was being used to continue to be used. Through an iterative process between researchers and the judiciary, formal sentencing guidelines were constructed for a number of test sites.

In general, the sentencing guidelines adopted the matrix system used in the parole guidelines. Most of the current sentencing guidelines have two major dimensions, criminal history and crime seriousness. The rows in the matrix typically correspond to different types of current offenses, usually ordered by seriousness. The columns correspond to an offender score, which is usually a function of prior record (number and types of incarcerations, etc.) but which may also include extralegal characteristics (e.g., employment status, education, and the presence or absence of drug use). Each cell of the matrix indicates the range of months or years of incarceration considered appropriate for offenders with that particular combination of offense and offender score. Factors such as amount of property stolen, injury
inflicted, and vulnerability of the victim often justify some variation in
length of sentence imposed. Presenting the sentence recommendations
in the form of a narrow range permits the judge some discretion within
the guidelines. As an illustrative case, the worksheet used for calculating
offender and offense scores and one of the matrices from the
Denver guidelines are reproduced in Appendix B.

Most jurisdictions do not legally require judges (or parole boards) to
stay within the range specified by the guidelines; some leeway is
usually allowed for cases in which special circumstances should be con-
sidered. However, some jurisdictions limit the range of deviation from
the guidelines, and most require that judges state and justify (in writ-
ing) their reasons for departing from the guidelines. In most states, a
sentencing commission monitors the use of guidelines and departures
from their standards.

Four states—Minnesota, Pennsylvania, Utah, and Washington—
have established statewide sentencing guidelines with specific recom-
mendations on both the prison/probation decision and the length of
prison terms. Six other states—Maryland, Massachusetts, Rhode
Island, Vermont, Wisconsin, and New Jersey—have sentencing guide-
lines that currently apply to certain jurisdictions or to a limited range
of offenses.

Because sentencing guidelines operate at a point in the process
before the vast majority of offenders are screened out for nonincarcera-
tive sentences, they have the potential for a broader and more signifi-
cant impact on case decisions than do parole guidelines.

PROBATION SUPERVISION GUIDELINES

Classification instruments began to influence probation field services
in the mid-1970s, when several probation departments became
interested in trying to use “base expectancies” to assign probationers to
different levels of supervision based on their “risk” of recidivism.

Probation departments' initial incentives to adopt formal classifica-
tion procedures differed from those of other agencies. The probation
departments were in serious need of an appropriate and systematic way
to allocate their limited staff resources (Baird, 1979). However, proba-
bation is primarily rehabilitation-oriented, and probation officers were
immediately uncomfortable making workload decisions based on reci-
divism predictors. They saw some of the more “hopeful” cases (i.e.,
first offenders) being singled out for “minimal” supervision, while the
more hardened career criminals would be subjected to more extensive
supervision. To develop a more balanced approach, they incorporated
a "needs assessment" instrument in their classification process. Most probation classification instruments now use a combination of recidivism-prediction and needs-assessment scores to assign levels of community supervision.

Although probation agencies were late in jumping onto the "classification bandwagon," an explosion of classification systems is now occurring in probation. As Clear and Gallagher recently observed: "Ten years ago, a minority of probation agencies had formal classification systems; today the vast majority has some form of paper-driven offender classification" (Clear and Gallagher, 1985).

Almost all of the classification instruments in use are modeled after the system developed by the Wisconsin Department of Corrections with the assistance of the National Institute of Corrections, commonly referred to as the NIC Model Probation System. The system is based on a risk/needs assessment instrument which is completed on each probationer at regular intervals. Separate forms classify (1) the probationer's risk of committing further crime and (2) the level of casework need that must be addressed. The risk scale is derived primarily from analyses of factors that are correlated with recidivism, including prior arrests, employment patterns, age at first conviction, and the nature of the current offense. The needs assessment focuses on indicators such as emotional stability, financial management, family relationships, and health. The risk/needs assessment scores are used to "place" the client at a specific level of supervision (i.e., intensive, medium, or minimum). These levels impose corresponding restrictions on liberty, as well as requirements for contact between offenders and probation officers. The NIC-Wisconsin Model Probation System is reprinted in Appendix C.

**FACTORS USED IN THE GUIDELINES**

There can be little doubt that classification instruments are profoundly influencing criminal-justice decisionmaking, and their growth will almost certainly continue. Therefore, policymakers must begin to examine the impact of the use of such instruments on minority offenders. Our results suggest that if policymakers decide to use classification guidelines for sentencing and parole decisions, they must anticipate a possible increase in the percentage of minorities in the prison population.

To address this issue in an informed light, we must first examine the instruments now in use to identify and test the items they contain for their correlation with race.
Table 2.1 shows the criteria that were most commonly used in sentencing, probation supervision, and parole guidelines at the time of our study.6 We must emphasize that new classification instruments are rapidly being developed and old ones are being modified, making it difficult to characterize them definitively. Most of them, however, are patterned after the most widely used scales: the Gottfredson-Wilkins model for sentencing; the NIC-Wisconsin model for probation; and the Federal Parole Guidelines for parole. We have categorized the factors according to criminal record, nature of current crime, social factors, and prison behavior. The table also indicates how widely each criterion is used.

It is clear from Table 2.1 that as an offender moves through the system, the number of criteria used for decisions increases. Further, there are some interesting patterns across the guideline types. Only two of the criteria are used in more than 50 percent of the guidelines of all three types: number of adult and juvenile convictions, and whether the offender was on parole or probation at the time of arrest. However, victim injury, violence, and the number of prior incarcerations figure strongly in both sentencing and parole guidelines.6

From the perspective of racial disparities, it is particularly significant that none of the identified sentencing guidelines use social status criteria, although such items are used often in parole and community supervision guidelines. This suggests that concern about the influence

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6The information in Table 2.1 was derived from a number of sources. Copies of sentencing and parole guidelines used by states are sent each year to the National Council on Crime and Delinquency (NCCD). The NCCD information for 1983 was tallied in the Bureau of Justice Statistics bulletin, “Setting Prison Terms” (BJS, 1983), and all the materials sent by the individual states were also forwarded to Rand by the NCCD. Rand summarized this information, identifying the items that comprised each instrument. We updated the information in 1985 by contacting each state that had forwarded information to the NCCD, as well as states that we were told had implemented a formal classification instrument since 1983. Probation supervision guidelines were examined in a similar manner. However, our original list of agencies that had implemented formal guidelines came from the American Justice Institute's project on “Classification Instruments for Criminal Justice Decisions.” The AJI publication Probation/Parole Supervision lists the 23 probation/parole agencies in the country that used instruments in 1979. We contacted these agencies, updated their department information, and asked them for information on other jurisdictions implementing such systems.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Sentencing</th>
<th>Community Supervision</th>
<th>Parole Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal record</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of parole/probation revocations</td>
<td>*</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Number of adult and juvenile arrests</td>
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<tr>
<td>Age at first arrest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of arrest crimes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of adult and juvenile convictions</td>
<td>***</td>
<td>**</td>
<td>***</td>
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<tr>
<td>Age at first conviction</td>
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<td>Nature of prior convictions</td>
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<td>Repeat of conviction types</td>
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<td></td>
<td></td>
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<tr>
<td>Number of previous felony sentences</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Number of previous probation/parole sentences</td>
<td>**</td>
<td>**</td>
<td></td>
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<tr>
<td>Number of juvenile incarcerations</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Number of jail terms served</td>
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<td></td>
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<tr>
<td>Number of prison terms served</td>
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<tr>
<td>Number of incarcerations served</td>
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<td>***</td>
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<tr>
<td>Age at first incarceration</td>
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<td>Length of current term</td>
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<tr>
<td>Commitment free period evidenced</td>
<td>***</td>
<td>**</td>
<td>**</td>
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<tr>
<td>On probation/parole at arrest</td>
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<td>**</td>
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<tr>
<td>Nature of Current Crime</td>
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<tr>
<td>Multiple conviction crimes</td>
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<tr>
<td>Involves violence</td>
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<tr>
<td>Is property crime</td>
<td>***</td>
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<td>***</td>
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<tr>
<td>Weapon involved</td>
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<tr>
<td>Victim injured</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Victim/offender forcible contact</td>
<td>***</td>
<td></td>
<td>**</td>
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<tr>
<td>Social Factors</td>
<td></td>
<td></td>
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<tr>
<td>Current age</td>
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<td></td>
<td>**</td>
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<td>Educational level</td>
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<tr>
<td>Employment history</td>
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<tr>
<td>Mental health status</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Family relationships</td>
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<td></td>
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<tr>
<td>Living arrangements</td>
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<tr>
<td>Drug use</td>
<td>***</td>
<td></td>
<td>**</td>
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<tr>
<td>Juvenile use/abuse</td>
<td>**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol use/abuse</td>
<td></td>
<td></td>
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<tr>
<td>Companions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address changes last year</td>
<td>***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
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<td>Financial status</td>
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<td>Prison Behavior</td>
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<td></td>
<td></td>
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<tr>
<td>Infractions</td>
<td></td>
<td></td>
<td>**</td>
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<tr>
<td>Program participation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Release plan formulated</td>
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<td></td>
<td></td>
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<tr>
<td>Escape history</td>
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<td></td>
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</tbody>
</table>

NOTE: *** = 75 percent or more of those instruments identified used this factor; ** = 50 to 74 percent of those instruments identified used this factor; * = 25 to 49 percent of those instruments identified used this factor.
that social, or noncriminal, factors have on sentencing (at least as evidenced in formal sentencing guidelines) may be overstated, while the effect of such factors on parole and probation decisions may merit closer attention. It also seems to reflect the different emphasis at each decision point: The primary objective of sentencing remains just deserts, while probation and parole emphasize crime prevention through prediction of recidivism.
III. GUIDELINE CRITERIA AND RACIAL EFFECTS

Because the sentencing guidelines do not appear to rely heavily on social status factors, one might conclude that they are less likely than parole or probation guidelines to incorporate racial bias. If this were correct, it might provide a rationale for eliminating such factors from all guidelines. However, when we analyzed the frequently used guideline criteria for correlations with race and recidivism, we found that the issue was not so simple.

ESTABLISHING CORRELATIONS WITH RACE AND RECIDIVISM

Data and Methodology

We have limited the analyses in this report to the effects of guideline criteria on blacks, because the black/white differences have the greatest relevance for the greatest number of states.1

To establish the extent to which variables correlated with both race and recidivism, we needed data on a large sample of felons, both prisoners and probationers, who were convicted in the same year, to determine whether the criteria that weighed most heavily in each guideline correlated with race for the particular offender population the guideline is designed to affect. This eliminates the possibility of bias in the sample caused by characteristics that may differ between, say, probationers and imprisoned offenders. We know, for instance, that probationers and prisoners, on the whole, have different characteristics: Probationers generally have committed less serious crimes and have fewer prior criminal convictions. Therefore, it is important to assess whether each guideline criterion is racially correlated for its intended population.

We used data originally provided by the California Board of Prison Terms (CBPT), which collected detailed information on every person sentenced to state prison in California in 1980, and the same information for a sample of adult males who were sentenced to probation after conviction for certain (imprisonable) felonies. From this information, we selected for our database information on approximately 16,500

1Although the results are not presented here, we conducted the same types of analyses for Hispanics as well.
males convicted in Superior Court in 17 California counties of robbery, assault, burglary, larceny/theft, forgery, or drug possession/sale. The database contains extensive information for each offender, in the following categories:

- Criminal history information and social status characteristics such as demographics, drug and alcohol use, and employment history.
- Important aspects of the case (e.g., number of conviction counts, weapon used, victim injured, accomplices, whether the victim was known by or related to the offender).
- Details describing the court's handling of the case (e.g., type of attorney, whether the offender obtained pretrial release, whether the case was settled by plea or trial).
- Final outcome (type and length of sentence imposed).

We tracked a subset of 511 sentenced probationers and 511 released prisoners for an average of 31 months to determine their subsequent recidivism, defined here as any arrest during the follow-up period. Thus, our complete database includes very detailed offender and

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2These 17 counties are among the most heavily populated in California and account for nearly 80 percent of the felony convictions in the state. Approximately 65 percent of the 16,500 offenders received probation; the remaining 35 percent received prison sentences. Approximately 40 percent were white (including Caucasians, Indians, Chinese, Japanese, other Asians, and other), 32 percent were black, and 28 percent were Hispanic. The analyses reported here exclude Hispanics. These data were analyzed earlier to investigate whether certain characteristics distinguish those who receive probation from those who receive prison sentences for the same crime (see Petersilia et al., 1985, for a description of these findings and the characteristics of the database).

3A detailed description of the follow-up prisoner and probationer samples is given in Petersilia and Turner, How Imprisonment Affects Criminal Careers, The Rand Corporation (forthcoming). Briefly, we selected probationers and prisoners from Los Angeles and Alameda Counties who were comparable in terms of county of conviction, conviction offense, and a general measure of the probability of imprisonment. The follow-up sample was not intended to be a random sample from the larger 17-county sample; rather, it consists of the higher-risk probationers and the lower-risk prisoners. Approximately 45 percent of the follow-up sample were black, 26 percent were white, and 27 percent were Hispanic.

4The maximum follow-up period for a probationer extended from the time he was granted probation in 1980 until May 1, 1983 (when the data were sent to Rand). However, since 80 percent of the probationers spent some time in jail, we subtracted one-half of their imposed jail sentence (an estimate of jail time served) from the follow-up period. The resulting mean and median follow-up time for probationers was 31 months. The prisoners in our sample also had been sentenced in 1980. In August 1984, we received rap-sheet information for prisoners who had been released from their 1980 prison term for at least 2 years. The mean and median follow-up period for the prisoners was 38 months. In order to have similar follow-up periods for both groups, we considered only arrests that occurred before January 15, 1984, thus creating an average follow-up period of 31 months for both probationers and prisoners.
offense information, as well as recidivism information on a sample of persons convicted of serious crimes in California in 1980.

To establish racial correlation, we tested the criteria used in sentencing guidelines on all convicted offenders, those used in probation guidelines on probationers, and those used in parole guidelines on prisoners.\(^5\)

We looked at the degree to which specific items were related to race in two ways. First, we compared the means and proportions for the different races for probationers alone, for probationers combined with prisoners (i.e., all convicted felons), and for prisoners. The complete results of these tabulations for blacks and whites are presented in Appendix D.

The following racial differences were the most pronounced for all three populations:

1. More blacks than whites have a juvenile conviction before age 16.
2. More blacks than whites have served time in a juvenile institution.
3. Among probationers and all convicted felons, more blacks than whites are on probation or parole at the time of the current arrest.
4. Whites tend to have a higher incidence of alcoholism and a slightly higher incidence of drug addiction than blacks.
5. Whites were more likely than blacks to have previously known their victims.

Second, to provide a more comprehensive picture of racial correlation with guideline variables, we then correlated each of the guideline variables with race (i.e., with "being black") for each of the three offender populations. The race correlation coefficients are shown in columns 1, 3, and 5 of Table 3.1. We repeated this procedure to establish the correlation of the different variables with rearrest. These results are shown in columns 2, 4, and 6 of Table 3.1.

We were particularly interested in identifying items that correlate with race but do not correlate strongly with recidivism. These items would be "suspect," since they would result in harsher treatment of minorities, without necessarily identifying offenders with a higher probability of rearrest. These items are highlighted in Table 3.1. If recidivism prediction were the sole purpose of criminal-justice decision-making, these items might be inappropriate. However, within the

\(^5\)Some of the items identified in Table 3.1 were not present in our database, so we could not empirically test their racial correlation. For example, we could not test particular crime type of prior convictions or in-prison behavior.
framework of just deserts, some of these factors may be considered legitimate (e.g., any victims vulnerable).

Results

Although many of the correlations we found between items and race reach statistical significance, they are nevertheless small. The largest ones have a correlation coefficient of not more than 0.23, which explains less than 6 percent of the total variation between race and recidivism. Second, although some status factors are shown to be correlated with race, they are not among those most widely used (see Table 2.1). The few “racially tainted” social status factors are outnumbered by criteria based on seriousness of the crime and prior record. Moreover, with the exception of employment, the other social status criteria that are racially correlated work to the disadvantage of white offenders. Among probationers, 8 percent of the whites were alcoholics, while only 3 percent of the blacks were; 4 percent of the whites were drug abusers, compared with only 2 percent of the blacks.

Third, while none of the formal sentencing guidelines we identified used social status factors, they still result in racial disparity for the population involved. Many of the criteria based on seriousness of the crime and prior record correlate with race for all convicted offenders. These findings are consistent with the results of our “means-and-proportions” analyses (see Appendix D). For example, 52 percent of the black offenders convicted of felonies in 1980 were on probation or parole when arrested, versus 41 percent of the white offenders; 20 percent of the black offenders had injured their victims, versus 12 percent of the whites; 28 percent of the black offenders’ crimes involved weapons, versus 22 percent of the white offenders’ crimes. Thus, some of the most widely used factors are in fact racially correlated, but they also relate to criminal behavior and not social status and are therefore regarded as “legitimate.”

Fourth, we had expected to find fewer racially correlated criteria for prisoners than for probationers or all convicted felons. We reasoned that prison sentences implied that the offenders, regardless of race, would have lengthy prior records and serious conviction crimes. However, this was not the case. Of the racially correlated characteristics for prisoners, six were status-related factors, and of those six, “drug addict,” “mental problems,” and “alcoholic” affected white prisoners adversely. The other racially correlated criteria were all based on criminal factors, and most of them were also racially correlated for all convicted offenders and probationers: prior juvenile convictions, current crime being violent, victim injured, weapon involved, having vulnerable victims, and being “on juvenile probation/parole at arrest.”
Table 3.1  
RACIAL CORRELATIONS AND RECIDIVISM PREDICTIONS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Probationers</th>
<th>All Convicted Felons</th>
<th>Prisoners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prior Criminal Record</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of juvenile convictions</td>
<td>.15</td>
<td>.23</td>
<td>.15</td>
</tr>
<tr>
<td>Number of adult convictions</td>
<td>.11</td>
<td>.16</td>
<td>.07</td>
</tr>
<tr>
<td>Conviction before age 16?</td>
<td>.15</td>
<td>.16</td>
<td>.15</td>
</tr>
<tr>
<td>Number of probation terms</td>
<td>.11</td>
<td>.16</td>
<td>.08</td>
</tr>
<tr>
<td>Number of juvenile incarcerations</td>
<td>.15</td>
<td>.15</td>
<td>.14</td>
</tr>
<tr>
<td>Number of jail terms</td>
<td>.14</td>
<td>.16</td>
<td>.11</td>
</tr>
<tr>
<td>Number of prison terms</td>
<td>.06</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td>Incarceration before age 16?</td>
<td>.09</td>
<td>.11</td>
<td>.10</td>
</tr>
<tr>
<td>Number of probation revocations</td>
<td>.07</td>
<td>.12</td>
<td>.04</td>
</tr>
<tr>
<td>On adult probation/parole?</td>
<td>.06</td>
<td>.20</td>
<td>.06</td>
</tr>
<tr>
<td>On juvenile probation/parole?</td>
<td>.10</td>
<td>.02*</td>
<td>.10</td>
</tr>
<tr>
<td>Out of incarceration 1 year or less?</td>
<td>.12</td>
<td>.23</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Current Crime Characteristics</strong></td>
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<td></td>
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<tr>
<td>Number of conviction counts</td>
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<td>.02*</td>
<td>.02*</td>
</tr>
<tr>
<td>Violent offense?</td>
<td>-.06*</td>
<td>-.05*</td>
<td>.10</td>
</tr>
<tr>
<td>Property offense?</td>
<td>-.01*</td>
<td>.15</td>
<td>-.07</td>
</tr>
<tr>
<td>Weapon involved?</td>
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<td>.07</td>
</tr>
<tr>
<td>Injury involved?</td>
<td>.07</td>
<td>-.05*</td>
<td>.10</td>
</tr>
<tr>
<td>Any accomplices?</td>
<td>.01*</td>
<td>.04*</td>
<td>.02*</td>
</tr>
<tr>
<td>Know or related to victim?</td>
<td>-.06</td>
<td>-.11</td>
<td>-.09</td>
</tr>
<tr>
<td>Drugs involved in offense?</td>
<td>.05</td>
<td>-.10</td>
<td>-.05</td>
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<td>Any victims vulnerable?</td>
<td>.02*</td>
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<td>.05</td>
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<td><strong>&quot;Status&quot; Factors</strong></td>
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<td>High school graduate?</td>
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<td>-.05*</td>
<td>.00*</td>
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<tr>
<td>Employed?</td>
<td>-.04</td>
<td>-.11</td>
<td>-.03</td>
</tr>
<tr>
<td>Married?</td>
<td>.02*</td>
<td>-.06*</td>
<td>.00*</td>
</tr>
<tr>
<td>Lives with spouse/kids?</td>
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<td>.00*</td>
</tr>
<tr>
<td>Mental problems?</td>
<td>-.04</td>
<td>.00*</td>
<td>-.05*</td>
</tr>
<tr>
<td>Drug addict?</td>
<td>-.04</td>
<td>.00*</td>
<td>-.02*</td>
</tr>
<tr>
<td>Alcoholic?</td>
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<tr>
<td>Age (older)</td>
<td>.01*</td>
<td>-.14</td>
<td>-.01*</td>
</tr>
</tbody>
</table>

NOTE: The racial correlations are based on a 17-county sample. Blacks were given a value of 1, whites were given a value of 0, and the correlation between a race dummy and each variable was computed. The correlations with rearrest are based on a 2-county recidivism sample. Any arrest was given a value of 1, no arrest was given a value of 0, and the correlation between an arrest dummy and each variable was computed.  
*Variable not correlated significantly with black/rearrest at least p < .05.
These findings suggest that the concern over racial correlation and the use of social status factors in sentencing may be exaggerated. For probationers, only 5 of the 15 most frequently used criteria reflect status factors. Of those, three are racially correlated, but only one (employment history) affects blacks adversely. For prisoners, only 6 of the 32 most frequently used criteria reflect status. In short, the most frequently used and racially correlated status criteria are drug abuse, alcohol abuse, and employment, and employment affects blacks adversely only when used in guidelines for community supervision and sentencing decisions, not for parole release. Consequently, dropping status factors from guidelines would do very little to reduce racial disparities in sentencing, probation supervision, and parole decisions. It might, in fact, increase them by removing criteria that make a greater number of white offenders look like bad risks.

Unfortunately, the racial correlation of other frequently used criteria appears to create a much more complex problem for sentencing reform. As Table 3.1 shows, many of these racially correlated factors are also associated with recidivism—not only in this particular sample, but in other research as well.\(^6\) Placing offenders with these criminal factors on probation under light supervision or on parole involves a high risk of recidivism. Nevertheless, these factors are racially correlated, and their expanded use may actually increase racial disparities in sentencing, probation supervision, and prison time served.

**PREDICTING RECIDIVISM: EQUITY VERSUS PREDICTIVE ACCURACY**

If, as the literature assumes, factors *strongly correlated with recidivism* are strong predictors of recidivism, the system faces a real dilemma. Can strong predictors of recidivism be omitted from guidelines—regardless of their racial “taint”—if the ultimate objective is “crime control” or identifying offenders with a high risk of recidivism? We addressed both the assumption and the dilemma by attempting to predict recidivism, using all the available factors, and examining how much predictive accuracy we would lose if we used only those factors that do *not correlate significantly with race* in our recidivism predictions.

\(^6\)Nearly all of our prior-record measures were correlated with being black. Blacks possessed more serious and lengthy criminal histories. Prior record has consistently been shown to be the best predictor of future criminality (see Gottfredson and Gottfredson, review for National Research Council (forthcoming)).
Methodology

We approached the analysis in two ways. First we ordered all variables appearing in Table 3.1 in terms of the absolute value of the race correlation coefficient (columns 1, 3, and 5). "Tainted" variables are defined as those significantly correlated with race (at \( p < .05 \)). We then "stepped in" each variable (using stepwise logistic regression), starting with the least racially correlated, and examined how much of the variance in subsequent rearrests we could explain. This allowed us to see if any particular variable added substantially to our ability to predict rearrest. We also compared the amount of variance explained by using only the nonracially correlated items with that obtained using all the variables. These results are presented in Appendix E. Overall, the adjusted R-square for each of the three offender populations remains low even when all the available variables are considered. For the "all convicted felons" sample, the "untainted" factors account for about 1 percent of the variance; the addition of all the "tainted" factors raises the adjusted R-square to 0.08. We see similar results when probationers and prisoners are considered separately. No individual factor in any case increases the adjusted R-square by more than 3 percent. Knowing the offender is black does not increase the adjusted R-square for probationers or all convicted felons. It does, however, increase the adjusted R-square for prisoners by 2 percent.

This approach provides us with a measure of overall predictive ability, but does not give us a clear picture of how accurately rearrest can be predicted using the "untainted" versus "tainted" factors.

Our second analysis directly assesses prediction accuracy. Our base rate for comparison is the percent accuracy that would have resulted on the basis of "chance" (i.e., what would be predicted in the absence of any information). We first considered the ability to accurately predict who would be arrested using only the few untainted variables for each population (those identified as not significantly correlated with black in Table 3.1).

---

Footnotes:

7 For this analysis, we used the recidivism sample of all convicted felons, probationers, and prisoners. Each regression analysis was done for blacks vs. whites for each of the three offender populations.

8 We used the LOGIST program written by Frank Harrell (SAS Supplemental User's Guide, 1985) for these analyses. The values shown are analogous to the adjusted R-square values in an OLS regression.

9 The "by chance" percentages range from 53 to 60 percent. Chance is 50 percent only if the overall probability of the event occurring is actually 50 percent. The "percent accurate by chance" rate for arrests is calculated as (percent arrested \times percent arrested) + (percent not arrested \times percent not arrested).
We measured the accuracy of our statistical predictions by adding the percentage of those actually arrested for whom we predicted an arrest and the percentage of those who did not get arrested for whom we predicted no new arrest. After determining our accuracy using the untainted items, we then included the tainted items (those significantly correlated with race), divided into five major groups: (1) crime characteristics, (2) prior-record characteristics, (3) other factors (e.g., drug and alcohol use), (4) demographics, and (5) race. We assessed the accuracy of our predictions by successively adding the factors from each of the five groups.¹⁰

Crime characteristics include the number of conviction counts, whether the crime was a property offense, whether the crime was a violent offense (robbery or assault), whether the victim was known by or related to the offender, whether accomplices were involved, whether drugs were involved, whether any victims were vulnerable (e.g., elderly or handicapped), whether there was any injury involved, and whether or not a weapon was involved.

Prior-record factors include the number of prior prison terms, the number of probation revocations, whether the offender was on adult probation at the time of his 1980 arrest, whether the offender was on juvenile probation or parole at the time of his 1980 arrest, the number of prior adult convictions, the number of prior probation terms, the number of jail terms, whether the offender was incarcerated prior to age 16, whether the offender was convicted prior to age 16, whether the offender had been released from incarceration less than 12 months prior to his 1980 arrest, the number of prior juvenile convictions, and the number of prior juvenile incarcerations.

The “other factors” group includes whether the offender had mental problems (measured by a summary variable), whether the offender was employed at the time of his 1980 arrest, whether the offender was a drug addict, and whether the offender was an alcoholic.

Demographics include whether the offender is married, whether he has a high school education, whether he lives with his spouse and/or children, and his age. Race is defined as whether or not the offender is black.

These groups are ordered in terms of the “sensitivity” of the factors. For example, if crime characteristics increase the accuracy of predicting subsequent recidivism, we may want to include them even if they were correlated with race, because of the concept of just deserts. The inclusion of demographic factors correlated with race, however, would be more problematical, even if they help us predict rearrest.

¹⁰Because only six or seven of the factors are untainted, for each offender group, we measured their accuracy as a group, rather than dividing them into crime characteristics, prior record characteristics, other factors, and demographics.
Results

Figure 3.1 presents the results of this analysis. These results challenge the assumption that a statistical model based on factors associated with recidivism will necessarily accurately predict recidivism. Using all the factors in our database, many of which correlate significantly with recidivism, our accuracy in predicting recidivism was seldom greater than 70 percent—about 20 percent greater than chance.

While these results are disappointing, they are not surprising. A growing body of research indicates that even sophisticated statistical methods and very detailed information have not significantly improved researchers' ability to predict future criminal behavior (see Moore et al., 1984). The best prediction instruments still produce three or four "false positives" (offenders predicted to recidivate who subsequently do not) for every "true positive," or correct prediction. As a result, many researchers have concluded that further research along these lines does not seem worthwhile to press.

The key issue for this study is, then, considering the inaccuracy of even the best predictions of recidivism today, how much would be lost by omitting the racially correlated factors from sentencing, probation, and parole supervision guidelines? The issue is not whether prediction guidelines could (or should) be used, but the extent to which the state would be sacrificing predictive efficiency to promote racial equity if racially correlated factors were omitted.

Figure 3.1 shows that using only "untainted" items results in a predictive accuracy of rearrests for all convicted offenders of about 60 percent (3 percent above chance); for probationers, 61 percent (6 percent above chance); and for prisoners, 69 percent (9 percent above chance). The improvement in accuracy (above the level of chance) is statistically significant at $p < .05.11$

Accuracy continues to increase as additional sets of racially tainted factors are included. Adding tainted factors relating to crime characteristics, prior record, other factors, and demographics increases predictive accuracy to at most 74 percent. For probationers, tainted factors increase accuracy 12 percent over untainted factors alone; for all convicted felons, these factors increase accuracy 10 percent; and for prisoners, accuracy is increased less than 5 percent. For all three populations, the difference in accuracy when the tainted factors are added is

11Chi-squares from logistic regression models were chi-square (6) = 17.84 for prisoners, chi-square (7) = 22.23 for probationers, and chi-square (6) = 17.76 for prisoners and probationers combined.
NOTE: The "demographics" category excludes race. Race does not increase our recidivism prediction for probationers. It does increase our accuracy by at most 1 percent for all convicted felons and prisoners. In our sample, 63.1 percent of the probationers were actually rearrested; 68.2 percent of all convicted felons were rearrested; and 72.8 percent of prisoners were rearrested.

Fig. 1—Ability to accurately predict rearrests
statistically significant.\textsuperscript{12} In short, using only the untainted factors increased our predictive accuracy 3 to 9 percent above chance; including the tainted factors as well increased our predictive accuracy another 5 to 12 percent.

There are two ways of considering these figures: It could be argued that guidelines would improve equity by eliminating racial correlates, without greatly degrading the prediction of recidivism. Or it could be argued that, considering the possible consequences for public safety, it is vital to use whatever will improve prediction to any degree. One's interpretation will depend heavily on how one views the objectives of sentencing, probation, and parole and on one's expectations for reform efforts.

\textsuperscript{12} Chi-squares differences for the logistic regression models containing untainted factors alone and the models containing tainted and untainted factors were chi-square (23) = 53.68 for prisoners, chi-square (22) = 77.25 for probationers, and chi-square (23) = 128.87 for all convicted felons.
IV. CONCLUSIONS AND IMPLICATIONS

The criminal-justice system is increasingly adopting decisionmaking guidelines as a means to make sentencing and parole decisions fair and consistent for all offenders. The inclusion of social status factors (such as education, employment, and alcohol abuse) in guidelines has been criticized because such factors more obviously introduce race and class bias into the decisions. Further, they often have little to do with an offender's personal culpability or criminal seriousness.

However, our findings reveal that the concern over racially correlated status factors may be exaggerated. Most sentencing guidelines now exclude them and rely on criteria associated with criminal seriousness. This emphasis implies that sentencing and sentencing guidelines are more concerned with just deserts than with probable recidivism and are primarily based on the assumption that the most seriously criminal offenders should be incapacitated. In contrast, probation and parole guidelines often include noncriminal status factors, suggesting that these guidelines are more concerned with predicting an offender's likely behavior in the community than with just deserts. Although some of the commonly used status factors are racially correlated, some of them, in fact, work to the disadvantage of white offenders (for example, white offenders are more likely than blacks to be alcoholics and drug abusers).

These findings do not mean that sentencing guidelines can be expected to result in less racial disparity, however. Although they are primarily based on factors related to conviction crime(s) and prior criminal record, factors that correlate significantly with recidivism, many of these factors are also correlated with race. If, as is true in our sample, black offenders are convicted of more serious crimes and have more prior convictions, use of the guidelines could well increase racial disproportion in sentencing. This may explain Minnesota's experience: After statewide sentencing guidelines were established, the minority population in prison increased significantly (Knapp, 1984).

Our statistical analyses also bring into question the assumptions that factors correlated with recidivism can accurately predict recidivism, and that omitting those that also correlate with race would seriously degrade predictive accuracy. Using all the factors available, we could not predict rearrests with much more than 70 percent accuracy—less than a 20 percent improvement over what would be predicted by chance. Omitting the factors that also correlated with
race decreased accuracy by 5 to 12 percentage points. (Deleting only the racially correlated, noncriminal status factors reduced accuracy by about 1 percent.)

These findings suggest that, depending on the objectives of the guidelines, policymakers should no longer consider the problem of equity vs. accuracy as an either-or dilemma. If ensuring public safety by predicting recidivism is the objective, guidelines could omit some racially correlated criteria without greatly reducing predictive accuracy. However, if just deserts is the objective, predicting recidivism is basically beside the point. The factors associated with serious criminality may indeed also correlate with recidivism, but the courts and the public are not concerned with that correlation when they judge that an offender is a serious criminal who should be given a severe sentence.

The debate over equity vs. accuracy ignores a basic truth that must be acknowledged if progress is to be made in sentencing reform: The guidelines may overcome discrimination, but they cannot be expected to overcome racial disparities in sentencing where serious criminality is disproportionately high in the black population. Guidelines can omit status factors related to race and still identify high-risk criminals with nearly the degree of accuracy they now achieve, but they cannot omit racially correlated criteria that reflect criminal seriousness unless society is willing to have all serious offenders treated less severely because many of them are black.¹

Further, we believe that the issue of degrading predictive accuracy by omitting factors is, after a point, moot. There may be a natural ceiling on accuracy in criminological prediction. Using the most comprehensive data and advanced statistical techniques, research has not been able to predict recidivism with more than 70 percent accuracy. Given that criminal behavior is strongly influenced by opportunism, contextual factors, and offenders' emotional and psychological makeup, it may be that research along these lines is not worthwhile to press. Moreover, unless models can be developed that achieve complete accuracy, there will always be legal and ethical bars to using prediction for such purposes as selective incapacitation.

¹Some believe that the recording of factors relating to serious criminality may itself reflect racial discrimination. For example, it could be that even though blacks and whites engaged in similar crimes, blacks have a higher probability of arrest. However, comparisons of self-reported crime commission rates with offenders' arrest records showed no racial differences in the probability of being arrested for serious crimes (Petersilia et al., 1983). Hindelang (1978), comparing victimizations with arrests, found similar results. However, a substantial body of research has consistently found that race and class play a large role in police and court processing of juveniles (Black, 1980). Minority youths are more likely to be arrested and formally prosecuted than whites, who are more likely to be released to their parents' custody.
This does not mean that the courts should abandon incapacitation as an objective. The factors that identify serious criminality (e.g., juvenile record) also correlate with recidivism, so using them to establish just deserts also achieves the objective of incapacitation. This effect makes the debate over what factors can be included under a just deserts model vs. an incapacitation model academic: Regardless of which sentencing philosophy is being served, the factors used often overlap.

Although our analyses qualify some basic assumptions in the debate over sentencing reform, the issues remain highly complex and highly charged, politically, ethically, and legally. Each state and jurisdiction will have to approach these issues in its own context, considering its own priorities and purposes, especially in light of its particular objectives for each kind of guideline.

Racial discrimination is clearly unacceptable. But whether the system chooses to tolerate racial disparities that result from imposing uniform, “legitimate” sentencing criteria is a local policy matter. We recommend that researchers and policymakers in each state discuss openly the objectives of their guidelines and establish the correlation of commonly used factors with both recidivism and race for their criminal populations. We believe this effort would be worthwhile because it would allow policymakers to assess how the guidelines they develop will affect sentencing objectives, public safety, and the racial composition of prisons. Further, it will cause the people responsible for these important decisions to address the equity issue in an informed light.
Appendix A

U.S. PAROLE COMMISSION GUIDELINES

<table>
<thead>
<tr>
<th>Offense characteristics: severity of offense behavior (examples)</th>
<th>Offender characteristics: parole prognosis (salient factor score)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very good (10 to 8)</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
</tr>
<tr>
<td>Gambling law violations (no managerial or proprietary interest)</td>
<td>&lt;=6 months</td>
</tr>
<tr>
<td>Marijuana/hashish, possession with intent to distribute/sale [very small scale (e.g., less than 10 lbs. of marijuana/less than 1 lb. of hashish/less than .01 liter of hash oil)]</td>
<td>&lt;=6 months</td>
</tr>
<tr>
<td><strong>Low moderate</strong></td>
<td></td>
</tr>
<tr>
<td>Counterfeit currency or other medium of exchange [(passing/possession) less than $2,000]</td>
<td>&lt;=6 months</td>
</tr>
<tr>
<td>Property offenses (forgery/fraud/theft from mail/embezzlement/interstate transportation of stolen or forged securities/receiving stolen property with intent to resell) less than $2,000</td>
<td>&lt;=8 months</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td></td>
</tr>
<tr>
<td>Property offenses (theft/forgery/fraud/embezzlement/interstate transportation of stolen or forged securities/income tax evasion/receiving stolen property) $2,000-$19,999</td>
<td>10-14 months</td>
</tr>
</tbody>
</table>

1Reprinted with the permission of the U.S. Parole Commission, Department of Justice.
<table>
<thead>
<tr>
<th>Offender characteristics: parole prognosis (salient factor score)</th>
<th>Very good (10 to 8)</th>
<th>Good (7 to 6)</th>
<th>Fair (5 to 4)</th>
<th>Poor (3 to 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smuggling/transporting of alien(s) (YOUTH RANGE)</td>
<td>(8-12) months</td>
<td>(12-16) months</td>
<td>(16-20) months</td>
<td>(20-26) months</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involuntary manslaughter (e.g., negligent homicide) (ADULT RANGE)</td>
<td>14-20 months</td>
<td>20-26 months</td>
<td>26-34 months</td>
<td>34-44 months</td>
</tr>
<tr>
<td>Property offenses (theft, forgery, fraud, embezzlement, interstate transportation of stolen or forged securities, income tax evasion, receiving stolen property) (YOUTH RANGE)</td>
<td>(12-16) months</td>
<td>(16-20) months</td>
<td>(20-26) months</td>
<td>(26-32) months</td>
</tr>
<tr>
<td>$20,000-$100,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Very high</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robbery (1 or 2 instances) (ADULT RANGE)</td>
<td>24-36 months</td>
<td>36-48 months</td>
<td>48-60 months</td>
<td>60-72 months</td>
</tr>
<tr>
<td>Breaking and entering/burglary of residence; or breaking and entering of other premises with hostile confrontation with victim (YOUTH RANGE)</td>
<td>(20-26) months</td>
<td>(26-32) months</td>
<td>(32-40) months</td>
<td>(40-48) months</td>
</tr>
<tr>
<td>Extortion (threat of physical harm (to person or property))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggravated felony (e.g., robbery; weapon fired or injury of a type normally requiring medical attention) (ADULT RANGE)</td>
<td>40-52 months</td>
<td>52-64 months</td>
<td>64-78 months</td>
<td>78-100 months</td>
</tr>
<tr>
<td>Opiates, possession with intent to distribute/sale (managerial or proprietary interest and very large scale (e.g., offense involving more than 50 grams but not more than 1 kilogram (1000 grams) of 100% pure heroin or equivalent amount)) (YOUTH RANGE)</td>
<td>(50-40) months</td>
<td>(40-50) months</td>
<td>(50-60) months</td>
<td>(60-76) months</td>
</tr>
<tr>
<td>GREATEST II</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggravated felony—serious injury (e.g., robbery; injury involving substantial risk of death or protracted disability, or disfigurement) or extreme cruelty/brutality toward victim</td>
<td>52+ months</td>
<td>64+ months</td>
<td>78+ months</td>
<td>100+ months</td>
</tr>
<tr>
<td>Aircraft hijacking (YOUTH RANGE)</td>
<td>(40+) months</td>
<td>(50+) months</td>
<td>(60+) months</td>
<td>(75+) months</td>
</tr>
</tbody>
</table>

Specific upper limits are not provided due to the limited number of cases and the extreme variation possible within category.
**Figure 1. Salient factor score**

**Item A: Prior convictions/adjudications (adult or juvenile)**
- None = 5
- One = 2
- Two or three = 1
- Four or more = 0

**Item B: Prior commitment(s) of more than thirty days (adult or juvenile)**
- None = 2
- One or two = 1
- Three or more = 0

**Item C: Age at current offense/prior commitments**
Age at commencement of the current offense:
- 26 years of age or more = 5*
- 20-25 years of age = 1*
- 19 years of age or less = 0

* EXCEPTION: If five or more prior commitments of more than thirty days (adult or juvenile), place an “x” here ___ and score this item = 0.

**Item D: Recent commitment-free period (three years)**
- No prior commitment of more than thirty days (adult or juvenile) or released to the community from last such commitment at least three years prior to the commencement of the current offense = 1
- Otherwise = 0

**Item E: Probation/parole/confine ment/escape status violator this time**
- Neither on probation, parole, confinement, or escape status at the time of the current offense; nor committed as a probation, parole, confinement, or escape status violator this time = 1
- Otherwise = 0

**Item F: Heroin/opiate dependence**
- No history of heroin/opiate dependence = 1
- Otherwise = 0

**Total score**

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*U.S. PAROLE COMMISSION GUIDELINES*
Appendix B

SENTENCING GUIDELINES FOR DENVER, COLORADO

Guideline Sentence Worksheet

<table>
<thead>
<tr>
<th>Offender</th>
<th>Docket Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judge</td>
<td>Date</td>
</tr>
<tr>
<td>Offense(s) Convicted Of:</td>
<td></td>
</tr>
</tbody>
</table>

OFFENSE CLASS (MOST SERIOUS OFFENSE)

A. Intraclase Rank
   0 = No injury
   1 = Injury
   2 = Death

B. Seriousness Modifier
   0 = No weapon
   1 = Weapon
   0 = No sale of drugs
   1 = Sale of drugs

C. Victim Modifier (Crime Against Person)
   0 = Unknown victim
   -1 = Known victim

OFFENDER SCORE

A. Current Legal Status
   0 = Not on probation/parole, escape
   1 = On probation/parole, escape

B. Prior Juvenile Convictions
   0 = No convictions
   1 = 1-3 convictions
   2 = 4 or more convictions

C. Prior Adult Misdemeanor Convictions
   0 = No convictions
   1 = 1-3 convictions
   2 = 4 or more convictions

D. Prior Adult Felony Convictions
   0 = No convictions
   1 = 1 conviction
   2 = 2 or more convictions

E. Prior Adult Probation/Parole Revocations
   0 = None
   2 = One or more revocations

F. Prior Adult Incarcerations (Over 30 Days)
   0 = None
   1 = 1 incarceration
   2 = 2 or more incarcerations

Guideline Sentence

Actual Sentence

Reasons (if actual sentence does not fall within guideline range):

1 Reprinted by permission from Sentencing by Mathematics (Rich, et al., 1982).
<table>
<thead>
<tr>
<th>Offender Score</th>
<th>0-1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5-8</th>
<th>9-10</th>
<th>11-13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-7 yr minimum</td>
<td>7-9 yr minimum</td>
<td>10-12 yr minimum</td>
<td>12-15 yr minimum</td>
<td>12-15 yr minimum</td>
<td>17-22 yr minimum</td>
<td>17-22 yr minimum</td>
</tr>
<tr>
<td></td>
<td>8-10 yr maximum</td>
<td>12-15 yr maximum</td>
<td>15-20 yr maximum</td>
<td>15-20 yr maximum</td>
<td>15-20 yr maximum</td>
<td>35-40 yr maximum</td>
<td>35-40 yr maximum</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Out</td>
<td>7-9 yr minimum</td>
<td>7-9 yr minimum</td>
<td>7-9 yr minimum</td>
<td>8-10 yr minimum</td>
<td>17-22 yr minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Out</td>
<td>5-7 yr minimum</td>
<td>5-7 yr minimum</td>
<td>5-7 yr minimum</td>
<td>8-10 yr minimum</td>
<td>17-22 yr minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
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<td>12-15 yr maximum</td>
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<td></td>
<td></td>
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<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Out</td>
<td>Out</td>
<td>Out</td>
<td>Out</td>
<td>5-7 yr minimum</td>
<td>8-10 yr minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
<td>12-15 yr maximum</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
<td>maximum</td>
</tr>
</tbody>
</table>
### Appendix C

**WISCONSIN OFFENDER RISK/NEEDS ASSESSMENT**

<table>
<thead>
<tr>
<th>Client Name</th>
<th>Client Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probation/Parole Case Number</td>
<td>Institution Release Date</td>
</tr>
<tr>
<td>Probation/Parole Case Release Date</td>
<td>Agent Last Name</td>
</tr>
</tbody>
</table>

Select the appropriate answer and enter the associated weight in the score column. Total all scores to arrive at the risk assessment score.

| Number of Address Changes in Last 12 Months: | 0 None | 1 One | 2 Two or more |
| Percentage of Time Employed in Last 12 Months: | 0 0% or more | 1 40%-59% | 2 Under 40% | 3 30% or more |
| Alcohol Usage/Problems: | 0 No apparent problems | 2 Moderate problems | 4 Serious problems |
| Other Drug Usage/Problems: | 0 No apparent problems | 1 Moderate problems | 2 Serious problems |
| Attitude: | 0 Motivated to change, receptive to assistance | 3 Dependent or unwilling to accept responsibility | 5 Rationales behavior, negative, too motivated to change |
| Age at First Conviction: | 0 24 or older | 2 20-22 | 4 19 or younger |
| Number of Prior Periods of Probation/Parole Supervision: | 0 None | 4 One or more |
| Number of Prior Probation/Parole Revocations: | 0 None | 4 One or more |
| Number of Prior Felony Convictions: | 0 None | 2 One | 4 Two or more |
| Corrections or Juvenile Adjudications for: | 2 Burglary | 2 Theft |
| | 2 Auto theft | 2 Robbery |
| | 3 White-collar crimes | 3 Forgery |
| | 15 Yes | 0 No |

**TOTAL SCORE**

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1Reprinted with permission of the Department of Health and Social Services, Madison, Wisconsin.

**NOTE:** Persons scoring 0–7 are low risk; 8–14, moderate risk; 15+, high risk.

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## ASSESSMENT OF OFFENDER NEEDS

<table>
<thead>
<tr>
<th>Academic/Vocational Skills</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate skills:</td>
<td>Low skill level</td>
</tr>
<tr>
<td>High school or above skill level</td>
<td>Minimal skill level</td>
</tr>
<tr>
<td>0 able to handle everyday requirements</td>
<td>2 causing minor adjustment problems</td>
</tr>
<tr>
<td>3 Unemployability or unemployment or major difficulties</td>
<td>6 virtually unemployed; needs training</td>
</tr>
<tr>
<td>Financial Management</td>
<td></td>
</tr>
<tr>
<td>0 No current problems</td>
<td>Situational or minor difficulties</td>
</tr>
<tr>
<td>3 Major disorganization or stress</td>
<td></td>
</tr>
<tr>
<td>Marital/Family Relationships</td>
<td></td>
</tr>
<tr>
<td>Relatively stable</td>
<td></td>
</tr>
<tr>
<td>0 No recent relationships</td>
<td></td>
</tr>
<tr>
<td>3 Some disorganization or stress for improvement</td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td></td>
</tr>
<tr>
<td>Exceptionally well</td>
<td></td>
</tr>
<tr>
<td>0 No signs of emotional instability; appropriate emotional responses</td>
<td></td>
</tr>
<tr>
<td>4 Symptoms present but not severe functioning; e.g., excessive anxiety</td>
<td></td>
</tr>
<tr>
<td>Alcohol Usage</td>
<td></td>
</tr>
<tr>
<td>No interference</td>
<td>Occasional abuse; some disruption of functioning</td>
</tr>
<tr>
<td>0 with functioning</td>
<td>6 Frequent abuse; serious disruption; needs treatment</td>
</tr>
<tr>
<td>Other Drug Usage</td>
<td></td>
</tr>
<tr>
<td>No interference</td>
<td>Occasional substance abuse; some disruption of functioning</td>
</tr>
<tr>
<td>0 with functioning</td>
<td>5 Frequent substance abuse; serious disruption; needs treatment</td>
</tr>
<tr>
<td>Mental Ability</td>
<td></td>
</tr>
<tr>
<td>Able to function</td>
<td>Some need for assistance; potential for adjustment</td>
</tr>
<tr>
<td>0 Independency</td>
<td>3 Deficiencies severely limit independent functioning</td>
</tr>
<tr>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>Sound physical health; seldom ill</td>
<td></td>
</tr>
<tr>
<td>0 Handicapped or ill; interferes with functioning or return to normal basis</td>
<td></td>
</tr>
<tr>
<td>2 Serious handicap or chronic illness; needs frequent medical care</td>
<td></td>
</tr>
<tr>
<td>Sexual Behavior</td>
<td></td>
</tr>
<tr>
<td>No problem</td>
<td>Real or perceived real or perceived problem</td>
</tr>
<tr>
<td>0 Disfunction</td>
<td>3 Subtle or minor problems</td>
</tr>
<tr>
<td>5 Real or perceived chronic or severe problems</td>
<td></td>
</tr>
</tbody>
</table>

**AGEN'TS IMPRESSION OF CLIENT'S NEEDS**

| Low                      | 3 Medium |
| 5 Maximum               |       |

*Use the reverse side to list any special circumstances which should influence the level of supervision.*
## Appendix D

### OFFENDER CHARACTERISTICS IN 17-COUNTY CALIFORNIA SAMPLE: MEANS AND PROPORTIONS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Probationers</th>
<th>All Convicted Felons</th>
<th>Prisoners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black (N = 2743)</td>
<td>White (N = 4113)</td>
<td>Black (N = 4852)</td>
</tr>
<tr>
<td>Number of juvenile convictions</td>
<td>1.1</td>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Number of adult convictions</td>
<td>2.6</td>
<td>2.1</td>
<td>3.5</td>
</tr>
<tr>
<td>% with conviction before age 16</td>
<td>21.8</td>
<td>10.9</td>
<td>24.7</td>
</tr>
<tr>
<td>Number of probation terms</td>
<td>1.6</td>
<td>1.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Number of juvenile incarcerations</td>
<td>3.0</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Number of jail terms</td>
<td>1.5</td>
<td>0.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Number of prison terms</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>% with incarceration before age 16</td>
<td>5.3</td>
<td>2.0</td>
<td>8.2</td>
</tr>
<tr>
<td>Number of probation revocations</td>
<td>2.4</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>% on adult probation/parole</td>
<td>36.4</td>
<td>28.4</td>
<td>43.6</td>
</tr>
<tr>
<td>% on juvenile probation/parole</td>
<td>6.8</td>
<td>2.8</td>
<td>8.4</td>
</tr>
<tr>
<td>% out of incarceration 1 year or less</td>
<td>26.1</td>
<td>16.4</td>
<td>33.7</td>
</tr>
<tr>
<td>Number of conviction counts</td>
<td>1.1</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>% convicted of violent offense</td>
<td>16.7</td>
<td>12.8</td>
<td>28.4</td>
</tr>
<tr>
<td>% convicted of property offense</td>
<td>74.4</td>
<td>78.6</td>
<td>63.5</td>
</tr>
<tr>
<td>% with weapon involved in offense</td>
<td>17.5</td>
<td>14.0</td>
<td>28.4</td>
</tr>
<tr>
<td>% with injury involved</td>
<td>13.6</td>
<td>9.4</td>
<td>19.8</td>
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<tr>
<td>% with accomplices</td>
<td>45.9</td>
<td>45.3</td>
<td>48.3</td>
</tr>
<tr>
<td>% knowing or related to victim</td>
<td>15.3</td>
<td>21.7</td>
<td>13.5</td>
</tr>
<tr>
<td>% with drugs involved in offense</td>
<td>10.6</td>
<td>13.7</td>
<td>9.2</td>
</tr>
<tr>
<td>% with vulnerable victims</td>
<td>5.6</td>
<td>3.8</td>
<td>8.2</td>
</tr>
<tr>
<td>% high school graduates</td>
<td>47.2</td>
<td>46.4</td>
<td>48.2</td>
</tr>
<tr>
<td>% employed</td>
<td>36.6</td>
<td>40.6</td>
<td>35.1</td>
</tr>
<tr>
<td>% married</td>
<td>28.2</td>
<td>26.1</td>
<td>26.2</td>
</tr>
<tr>
<td>% living with spouse/children</td>
<td>17.9</td>
<td>17.0</td>
<td>18.6</td>
</tr>
<tr>
<td>% with mental problems</td>
<td>3.3</td>
<td>3.7</td>
<td>2.7</td>
</tr>
<tr>
<td>% drug addicts</td>
<td>2.2</td>
<td>3.6</td>
<td>5.2</td>
</tr>
<tr>
<td>% alcoholics</td>
<td>3.1</td>
<td>7.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Mean age (years)</td>
<td>26.1</td>
<td>26.0</td>
<td>26.6</td>
</tr>
</tbody>
</table>

**NOTE:** The white category includes whites, Indians, Chinese, Japanese, and other Asians. These 17 counties account for approximately 80 percent of the state's felony convictions.

*Weighted sample sizes. (See Peter Hall et al., *Granting Felons Probation: Public Risks and Alternatives*, op. cit., for discussion of weighting scheme.)
Appendix E

ABILITY TO PREDICT RECIDIVISM:
REGRESSION RESULTS

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Any accomplices?</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>High school graduate?</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Age</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Mental problems?</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Lives with spouse/kids?</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Property offense?</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Married?</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Employed?</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Number of convictions counts</td>
<td>.02</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Drug addict?</td>
<td>.02</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Drugs involved in offense?</td>
<td>.03</td>
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<tr>
<td>Any victims vulnerable?</td>
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<td>.01</td>
<td>.01</td>
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<tr>
<td>Weapon involved?</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
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<tr>
<td>Violent offense?</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Injury involved?</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Number of probation revocations</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Number of prison terms</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Know or related to victim?</td>
<td>.05</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>On adult probation/parole</td>
<td>.07</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Incarceration before age 16?</td>
<td>.06</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Alcohol</td>
<td>.06</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>On juvenile probation/parole</td>
<td>.06</td>
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<td>.01</td>
</tr>
<tr>
<td>Number of probation terms</td>
<td>.06</td>
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<td>.01</td>
</tr>
<tr>
<td>Number of adult convictions</td>
<td>.05</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Out of incarceration 1 year or less</td>
<td>.05</td>
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<tr>
<td>Number of jail terms</td>
<td>.05</td>
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<tr>
<td>Number of juvenile incarcerations</td>
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</tr>
<tr>
<td>Number of juvenile convictions</td>
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<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Conviction before age 16?</td>
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<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Black?</td>
<td>.06</td>
<td>.01</td>
<td>.01</td>
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</tbody>
</table>

NOTE: The italicized items are racially correlated for their respective populations. The dependent variable in the logistic regression models was "any arrest" in the average 31-month follow-up period. The recidivism models used the black and white offenders in the Los Angeles and Alameda County samples (n = 728).
REFERENCES


REFERENCE


Myers, Samuel L., Jr., Methods of Measuring and Detecting Discrimination in Punishment, Graduate School of Public and International Affairs, University of Pittsburgh, 1985.


