A Validation and Comparative Evaluation of Four Predictive Devices for Classifying Federal Probation Caseloads

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A VALIDATION AND COMPARATIVE EVALUATION OF FOUR PREDICTIVE DEVICES FOR CLASSIFYING FEDERAL PROBATION CASELOADS

A Report to the Committee
of the Judicial Conference of the United States
on the Administration of the Probation System

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Federal Judicial Center
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I. INTRODUCTION

The federal probation system requires the probation officer to "classify persons under supervision into maximum, medium, and minimum supervision categories dependent upon the nature and seriousness of the original offense, extent of prior criminal history, and social and personal background factors in the individual case."[1] Although general criteria for making the classification decision are outlined, no single method of classification is required.[2] In fact, survey data collected by the Probation Division of the Administrative Office of the United States Courts in 1974 and by the Research Division of the Federal Judicial Center in 1977 indicated that a variety of caseload classification methods were being used by federal probation offices. These caseload classification methods ranged from purely subjective assessments to statistical prediction devices such as the California BE61A.[3] In only a few instances had any effort

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1. Administrative Office of the United States Courts, Guide to Judiciary Policies and Procedures: Probation Manual, vol. X-A, § 4004 (transmittal 7, Feb. 15, 1979).
The reader should note that changes have occurred in the probation system's methods of classification since this report and the research it describes were completed (in early 1980); see note 4 infra.

2. Id. at § 7418 (transmittal 4, Sept. 1, 1978).

3. See appendix A infra.

been made to systematically evaluate the validity or reliability of the methods being used. As a result, the extent to which classification decisions correlated with successful supervision outcomes was not known.

The Judicial Conference Committee on the Administration of the Probation System is considering which of the several available predictive models to recommend for use by federal probation officers.[4] At the request of the committee, the Center undertook, with the assistance and cooperation of the Probation Division, an evaluation of the comparative validity of the BE61A and three other predictive models used by probation officers to classify their caseloads.

Purpose of the Report

This report discusses the results of our analysis and the conclusions we have reached about the usefulness of the four predictive models as probation classification tools. It is intended to raise a number of major questions that must be addressed before an administrative policy based on the results can be formed. The specific purposes of this report can be summarized as follows:

1. To provide an overview of the study's approach, its methodology, and its limitations

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4. The results of the present study, along with its recommendations, were reported to the Committee on the Administration of the Probation System, which subsequently approved the recommendations and reported its action to the Judicial Conference.

The study's major recommendation, that the U.S.D.C. 75 Scale be used nationally to assist probation officers in classifying caseloads, was implemented by the Probation Division in January

2. To identify and discuss the implications of a number of problems encountered as a result of the unavailability of certain data in the supervision case files

3. To present the results of our comparative evaluation of four base expectancy scales, aimed at answering the following questions:

a. Of the four models evaluated, which appears to be the best predictor for all cases in the sample as a whole? That is, which of the four appears to be the "best national predictive model"?

b. Does the best national model also predict well for probationers and parolees, the two largest groups of clients supervised by probation officers?

c. Does the best national model predict equally well for each of the individual districts studied?

d. How do the classifications of the best national model compare with the actual risk classifications made by the probation officers in the sample cases?

We believe that the answers to these questions will provide the committee with the necessary information to inform its decision as to which model or models it should consider for possible use by probation officers. In addition, we expect that the results of the present analysis will point to additional questions that should be considered in subsequent research.

Limitations of the Study

Classification, not supervision. The reader should bear in mind that this study is principally concerned with the caseload classification process. It is not an evaluation of the supervi-

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1981. Prior to implementation, however, the U.S.D.C. 75 was field tested in five probation offices. On the basis of the results of this field test, the U.S.D.C. 75 was modified and renamed the Risk Prediction Scale 80 (RPS 80). The RPS 80 is now being used as the principal caseload classification method in the federal probation system.

sion process. Although the issue of how best to classify a probation caseload is obviously related to the supervision process, we could not examine this relationship without systematic case file data about the extent of supervision received by the offenders in our sample. In the absence of such data, we could not, for example, control for any differences in the quality or even quantity of supervision contact. Thus, for the supervision outcomes presented in this study to have any meaning, they must be interpreted on the basis of either of two assumptions.

One assumption is that the offenders in our sample received an amount of supervision that corresponded to the category (maximum, medium, or minimum) into which they were classified by the probation officers.[5] This assumption is consistent with our general view of how the supervision process should work: Maximum cases should receive more supervision than medium or minimum cases, with offenders in the latter category receiving the least amount of supervision. When we find that most of the offenders with unfavorable supervision outcomes are classified by officers as maximum-risk cases, we can conclude, among other things, that the classification decisions are correct. Our assumption leads us to question, however, whether variations in the amount of supervision received by offenders in the different risk cate-

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5. Tables 21-44 in appendix D infra provide comparisons of the officers' original classifications of offenders with the category assignments made by each of the models. If one accepts this first assumption, these tables can afford a general picture of the effect of supervision on expected outcome.

gories are correct. Differences in the intensity of supervision, from one classification level to the next, are intended somehow to lessen the risk of repeat offenses; that is, more attention is given to maximum-risk offenders to reduce the likelihood that they will commit new offenses. Although it is unreasonable to expect supervision to produce favorable outcomes for all maximum-risk offenders, to expect it to reduce unfavorable outcomes for these cases below the levels observed in this study may be more reasonable. A policy choice as to what constitutes an acceptable level of unfavorable adjustment for maximum-risk offenders will have to be made at some point. That choice should be guided by additional research beyond the capabilities of this study.

An alternative assumption is that there were no differences in the quantity and quality of supervision received by the offenders in our sample. This assumption runs counter to the notion that offenders with extensive criminal records or special needs for rehabilitative services should receive more of the officers' time and effort. Yet, because the chronological entries in the case files were inadequate, we cannot state that any of the offenders received special attention. But if we assume that the amount of supervision was constant for the entire sample, we can expect the violation rate to show an increase as we move from the lowest-risk to the highest-risk classifications. This is the pattern we observed in our sample, a finding which suggests, with support from the case file data, that more supervision is needed for the higher-risk cases.

Comparison of four models only. Although a variety of subjective and statistical methods are currently being used by federal probation officers to classify their caseloads, no systematic evaluation of these methods has been undertaken. This study only attempts to evaluate four of the existing methods, comparing risk classifications made by officers in a sample of eight districts with risk classifications that would have been derived had one of these four models been used. A related concern, that of using a predictive device for sentence recommendations by probation officers, might be addressed by future research.

Supervision adjustment. We did not look at what the offenders in the sample did after supervision had ended because the study was not concerned with the issue of postsupervision adjustment. We only followed offenders' progress through their release from supervision, whether the release occurred at the end of the total probation or parole period imposed or sooner because of revocation or early release.

Our decision not to follow the progress of offenders who were released early, at least through the complete period of supervision imposed, could potentially have caused us to identify an individual as having a "favorable" outcome when in fact the outcome assessment should have been "unfavorable" because of an incident that occurred after early release but prior to the termination of the original supervision period imposed. However, one can assume that only those offenders who are already being

supervised at minimum intensity and who have already exhibited excellent adjustment are considered for early release. Any errors in our outcome assessments should therefore be minimal. In any case, because an evaluation of the appropriateness of the early-release decision would have gone beyond the primary issue of the potential for favorable adjustment while under supervision, we did not address that question in this study. Both the early-release decision and the broader issue of postsupervision behavior are obviously questions that should be addressed by future research.

Organization of the Report

This report is organized into three main parts. In the remainder of this chapter, we attempt to acquaint the reader with the nature of the four predictive models studied, discussing the basic features of each model and noting the major limitations concerning their use. The next chapter details the study's methodology, describing the procedures used in selecting the probation offices from which data were collected and in selecting the sample of offenders, the development of the data collection instrument, the outcome criteria employed, the computation of risk scores according to the models, and the statistical techniques used in the data analysis. The third chapter presents the results of analyses aimed at identifying which of the four models produced the best results for the entire sample as well as for subgroups divided by district, type of offender, and type of offense.

What Is a Base Expectancy Scale or Probation/Parole Prediction Device?

The term "base expectancy scale" (BES) broadly refers to a forecasting tool. Generally, such a tool is developed by using objective methods to distill from a large array of potentially relevant background characteristics those specific items that, either singly or in combination, are most useful in accurately predicting an outcome event for a large "construction" sample of subjects. The selected items become the elements of the scale, and the point values associated with the items reflect the weight each element has, relative to all the other elements, in determining the final profile. An individual subject for whom a profile or score is computed can then be identified with a group of subjects in the original construction sample who exhibited similar profiles or obtained comparable scores. The known ratio of outcomes achieved by this comparison group is used to predict the outcome of the individual subject.

Depending on the outcome event chosen, the type of background information available, and the specific construction sample used, this general process can result in many distinct models, each with its own set of elements and weighting scheme. The predictive power of a particular base expectancy scale is determined by the extent to which the outcome predicted for a group of subjects corresponds to their actual outcomes. It is possible, therefore, to compare the predictive powers of a number of expectancy scales on the basis of their respective abilities

to identify accurately those cases that result in a particular outcome.

Predictive scales have been used since 1923 to estimate the likelihood of violation or nonviolation of parole by an offender.[6] This use of base expectancy scales in the corrections area is, of course, a special application of a general methodology used by social scientists for some time under the labels of predictive devices, actuarial instruments, or experience tables.

Predictive Models Selected for Evaluation and Validation

We began this study by attempting to identify as many probation or parole prediction models as possible. More than two dozen such models were identified, most of which had been developed as parole prediction devices. We selected four models for a validation and comparative evaluation based on data collected from federal probation and parole case files. The four models selected for this study were:

1. the California BE61A (Modified), developed by the state of California
2. the Revised Oregon Model, developed by the United States Probation Office for the District of Oregon
3. the United States Parole Commission's Salient Factor Score, and
4. the U.S.D.C. 75 Scale, developed by the United States Probation Office for the District of Columbia.

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6. E. Burgess, The Workings of the Indeterminate Sentence Law and the Parole System (1928); L. Ohlin, Selection for Parole (1951); Hart, Predicting Parole Success, 14 J. Crim. L. & Criminology 405-413 (1923); Tibbits, Success and Failure on

These four models were chosen because, with few exceptions, the data needed for completing items in the models were expected to be contained in the typical probation case file. In addition, a considerable amount of information, such as construction and validation studies and user's manuals, was readily available on many aspects of each model.

Two of the models, the BE61A and the Salient Factor Score, are parole models, having been constructed on the basis of samples of state or federal parolees. The original version of the BE61A (BE61) was developed by the California Department of Corrections, using a sample of California state parolees. The Salient Factor Score was developed by the United States Parole Commission. It has been modified since its first use in the early 1970s. The other two models are probation models. The Revised Oregon Model was developed in 1974 by the United States Probation Office for the District of Oregon, using a construction sample of probationers under supervision in that district. Similarly, the U.S.D.C. 75 Scale was developed and validated on a sample of federal probationers by the United States Probation Office for the District of Columbia.

The four models contain a number of common items (appendix A infra presents the contents of each of the four scales). As is the case with most probation or parole prediction devices, these

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Parole Can Be Predicted, 22 J. Crim. L. & Criminology 11-50 (1931); Warner, Factors Determining Parole from the Massachusetts Reformatory, 14 J. Crim. L. & Criminology 172-207 (1923).

models are heavily dependent on items relating to the offender's prior criminal record. In addition, all contain social or economic stability variables such as employment history, residential stability, and drug or alcohol involvement. Table 1 presents a substantive grouping of the items found in each of the models.

A noticeable difference among the models relates to the overall number of items each model contains. The Revised Oregon and the BE61A each contain several items that are repeated in multiple versions. Obviously, the more items a scale contains, the more likely the information necessary to score it will be missing from the data files. For example, in 37.6 percent of the cases, at least one item of the Revised Oregon (which has seventeen items) could not be scored because of missing information. In contrast, in only 17.5 percent of the cases, at least one item of the U.S.D.C. 75 (which contains six items) could not be scored because of missing information.[7]

At the outset, it should be noted that all four models contain items that may be sensitive to the influence of the offender's race or sex. This raises some important ethical considerations, which are discussed at the end of chapter three.

As used in this report, the term "caseload classification" refers to the process of organizing individual clients into supervision categories based on the nature and severity of the of-

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7. For a fuller explanation of the calculation of scores and of the methods used to deal with missing data, see appendix B infra.

TABLE 1

SUBSTANTIVE GROUPING OF MODEL ITEMS

	Revised Oregon		Calif. BE61A		Salient Factor		U.S.D.C. 75	
Category	Item	Points	Item	Points	Item	Points	Item	Points
Drug abuse								
Opiate	B	9	B	9 Adjustment[a]	F	1	D	9 ACA[b]
Other controlled substance	I	5						
Alcohol	G	6	F	6				
Employment	H	6	H	6	G	1	E	3
	K	6	I	4				
	L	4						
Prior record								
Arrest free	A	12	A	12			B	4
Prior arrests	P	4	L	4			C	10
Prior convictions					A	1,2,3		
Prior incarcerations	C	8	C	8	B	1,2		
Prior failures	E	7			E	1		
Instant offense	Q	25	ACA[b]		D	1		
Prior offenses	D	4	D	4				
			G	5				
Age								
Instant offense							A	7
First arrest	J	5						
First incarceration					C	1,2		
Education	O	4	ACA[b]				ACA[b]	
Family								
Record	F	6	E	6				
Ties	M	5						
Living arrangement	N	5	K	4				
Aliases			J	5				
Total possible points		99		76		11		33
Risk assessment or potential adjustment scale	Max 00-49 Med 50-75 Min 76-99		Max 00-36 Med 37-56 Min 57-76		Poor 0-3 Fair 4-5 Good 6-8 Very Good 9-11		Poor 0-9 Good 10-19 Excellent 20-33	

[a]This item can adjust a minimum- or medium-risk assignment based on risk score to a medium-risk assignment.

[b]ACA = automatic category assignment (the BE61A and U.S.D.C. 75 contain special items that bypass the calculation of a risk score and automatically assign a case to the excellent-risk category).

fense of conviction, extent of prior criminal history, and other personal characteristics, needs, and problems. Classification is one of the most critical stages of the supervision process. A probation or parole prediction model holds considerable prospect as a tool for assisting the probation officer in deciding how much time and effort should be devoted to various categories of offenders. It is through the process of classifying his or her caseload that the officer should arrive at a determination regarding the extent of supervisory attention each offender should receive.

II. METHODOLOGY

Selection of Probation Offices

We considered a number of issues in determining the criteria to employ in selecting the probation offices from which to collect data. The first concerned whether a predictive device would be equally valid in different probation offices; that is, would a single device predict equally well for offenders from various regions of the country? Researchers have suggested that the validity of a particular predictive device in a specific district is likely to be affected by the peculiarities of the locality, such as differences in offender group characteristics and experiences.[8] Although not identifying specific local factors that may influence outcomes, these researchers note that evaluations of statistical classification instruments such as base expectancy scales should be based on research conducted individually by each probation office, rather than on research conducted across several locales. However, the lack of necessary resources would make it infeasible for each of the ninety-five federal probation offices to undertake such evaluations of one or more of the devices. We therefore included a regional selection criterion

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8. Hemple, Webb, & Reynolds, Researching Prediction Scales for Probation, 40 Fed. Probation 33-36 (1976).

aimed at allowing us to evaluate the models based on data collected from offices in several different geographic areas.

A second selection criterion related to the size of a probation office's caseload. Each of the federal probation offices (excluding Hawaii, Puerto Rico, and the territorial possessions) was categorized as large, medium, or small, based on the total number of offenders received for supervision in 1974. We focused on cases received in 1974 because we needed a universe of offenders with recent but completed terms of supervision.

To allow comparison of the officers' classification decisions with those indicated by the models, we used a third selection criterion--that the district did not currently use one of the four models being evaluated to classify its caseloads.

On the basis of the above criteria, we selected a sample of eight districts for study: District of Rhode Island, Eastern District of New York, Eastern District of Pennsylvania, Northern District of Georgia, Southern District of Texas, District of Nebraska, Northern District of California, and Western District of Washington. These eight probation offices provided a mix of regions and a mix of large, medium, and small offices.[9]

Table 2 presents a breakdown of offenders received for supervision into major offender categories by sampled district for fiscal 1974 and 1975.

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9. See appendix E infra at table 45 for more details about the geographic groupings of the offenders in the sample.

TABLE 2

OFFENDERS RECEIVED FOR SUPERVISION BY MAJOR OFFENDER CATEGORY AND SAMPLED DISTRICT FOR FISCAL 1974 AND 1975

			Offender Category				
District	Year	Total Received[a]	Court Probation	U.S. Magistrate Probation	Mandatory Release	Parole[b]	Other[c]
R.I.	1974	102	54.9%	24.5%	6.9%	11.8%	2.0%
	1975	102	62.7	22.6	2.9	11.8	0.0
E.D.N.Y.	1974	1,045	67.1	0.0	7.9	23.5	1.4
	1975	959	53.6	0.0	8.9	35.1	2.4
E.D. Pa.	1974	996	54.1	29.6	3.8	10.7	1.7
	1975	1,245	49.6	30.5	2.8	13.6	3.5
N.D. Ga.	1974	706	47.2	20.4	10.5	19.3	2.7
	1975	794	37.9	27.1	10.5	22.3	2.3
S.D. Tex.	1974	887	50.4	20.0	6.2	18.8	4.6
	1975	1,177	38.5	31.9	4.2	23.2	2.2
Neb.	1974	129	79.1	0.0	8.5	12.4	0.0
	1975	132	69.7	0.8	6.1	22.7	0.8
N.D. Cal.	1974	864	49.3	26.2	6.1	15.3	3.1
	1975	888	41.1	27.7	6.6	20.0	4.5
W.D. Wash.	1974	435	46.7	12.6	9.9	30.1	0.7
	1975	484	43.6	9.3	10.3	34.1	2.5

SOURCE: Administrative Office of the United States Courts, 1974 and 1975 Annual Reports of the Director at table E-1.

[a] Less transfers to other districts.

[b] Includes special parole terms.

[c] Includes military parolees and individuals with deferred prosecutions.

Selection of the Offender Sample

We compiled a list of all offenders received for supervision in 1974 in each of the eight districts, using the criminal probation system master record data tapes of the Administrative Office. The following criteria defined the universe of offenders from which the sample was drawn:

1. The offender was received for supervision in one of the eight districts at some point in 1974. This criterion was expected to yield the largest number of recent cases closed as of the time of the data collection (1978). Selecting cases received during an earlier year would have caused complications because of significant changes that occurred in the probation system in 1974. Selecting those of a later year would likely have yielded a sample with a larger percentage of offenders with unexpired terms of supervision at the time of the data collection.

2. The offender received a period of supervision of at least six months. Previous experience with probation case files suggested that offenders with fewer than six months of court-imposed probation were likely to be unsupervised. Such cases would thus not yield the required data.

3. The offender was not a corporation. Although a corporation can be a proper subject of probation, no corporate offenders were included in the sample.

4. The offender was a civilian probationer or parolee. Probationers and parolees constitute the two largest groups of offenders supervised by probation officers. Pretrial services cases, individuals with deferred prosecutions, and military parolees were not sampled. The total number of individuals in each of these three groups meeting other selection criteria was expected to be very small.

Computer printouts listed all persons meeting the above criteria for each district. A systematic sample of 300 offenders, plus a replacement sample of 300, was then drawn from each district's listing. However, in the Districts of Rhode Island and

Nebraska, where the total number of offenders meeting the criteria was less than 300, the entire lists were used to ensure comparably large samples. (In Rhode Island, the list of offenders received for supervision in 1975 was also used.) The final sample obtained after data collection, coding, and review totaled 1,621 cases.

Tables 3, 4, and 5 present further descriptive pictures of the overall sample of offenders. The ratio of probationers to parolees in this sample is very similar to that of the total offender population at risk in the years following 1974.

TABLE 3

COMPOSITION OF SAMPLE BY DISTRICT AND OFFENDER CATEGORY

	Probationers		Parolees		Mixed[a]
District	Number Selected	Data Available[b]	Number Selected	Data Available[b]	Data Available[b]
R.I.	155	106	57	24	2
E.D.N.Y.	240	173	60	51	18
E.D. Pa.	224	182	76	68	11
N.D. Ga.	225	223	75	69	8
S.D. Tex.	219	126	81	80	--
Neb.	120	53	20	9	--
N.D. Cal.	255	134	45	41	7
W.D. Wash.	218	155	82	77	4
Total	1,656	1,152	496	419	50

[a]Initially selected as either probationers or parolees. Upon closer examination, these offenders were found not to be distinctly either. For the most part, they were offenders who served both a parole and a probation term during the period of study.

[b]Actual number of cases for which necessary data were available. These 1,621 cases make up the analysis sample on which findings of this study are based.

TABLE 4

DISTRIBUTION OF MAJOR OFFENSE CATEGORIES BY DISTRICT

	Offense Category						
District	Robbery	Assault	Burglary	Fraud	Forgery	Narcotics	Other
R.I.	1	4	28	37	13	10	39
Row %	0.8	3.0	21.2	28.0	9.8	7.6	29.5
E.D.N.Y.	7	0	41	59	14	39	87
Row %	2.9	0.0	16.9	22.3	5.8	16.1	35.9
E.D. Pa.	10	3	63	50	25	50	60
Row %	3.8	1.1	24.1	19.2	9.6	19.2	23.0
N.D. Ga.	6	2	95	37	16	28	116
Row %	2.0	0.7	31.7	12.3	5.3	9.3	38.6
S.D. Tex.	11	0	58	23	26	39	49
Row %	5.3	0.0	28.2	11.2	12.6	18.9	23.8
Neb.	0	0	12	19	10	8	25
Row %	0.0	0.0	19.4	30.6	16.1	12.9	21.0
N.D. Cal.	8	4	35	33	21	42	47
Row %	4.4	2.2	19.2	18.1	11.5	23.1	21.4
W.D. Wash.	6	3	38	42	17	72	58
Row %	2.5	1.3	16.1	17.8	7.2	30.5	24.6

NOTE: The offense category refers to the offense of conviction leading to the probation or parole supervision term.

Data Collection Instrument

A data collection instrument consisting of eighty-two variables was developed.[10] The instrument contained items covering all elements found in the four predictive models as well as items aimed at capturing other information about the offender's background and needs at the time supervision began.

We recognized at the outset that the amount of supervision received by each offender in the sample was an important variable

10. This instrument is available from the Center's Information Services Office.

TABLE 5

DISTRIBUTION OF RACE IN SAMPLE CASES

Race	Number of Cases	Percentage
White	982	60.6
Black	498	30.7
Spanish-American	58	3.6
American Indian	15	.9
Oriental	6	.4
Other	7	.4
Data missing	55	3.4

in explaining differences in supervision outcomes. We therefore structured the data collection format to allow for coding of information about the offender's supervision experiences and the extent of personal and collateral contact with the probation officer, as well as general data about the officer who supervised the offender.

The data collection instrument was pretested in two districts using actual probation case files. On the basis of the pretest, a number of additions and adjustments were made to the instrument. Data for the entire sample were collected during the summer of 1978.

Outcome Criteria

Two levels of outcome criteria were used, both representing essentially the same definitions of favorable or unfavorable outcome of probation or parole. For all offenders with unfavorable outcomes, an additional measure, the amount of violation-free time, was also considered. By including this measure, we hoped to avoid having to follow a simple dichotomous (success/failure)

approach in evaluating the outcomes predicted by the models. Criteria used to define favorable probation or parole outcome on the first level were (a) that no new convictions occurred during the period of supervision (minor traffic violations excepted), and (b) that the case terminated as scheduled, or earlier by court order, without supervision being revoked or without a warrant for arrest being issued. In instances in which a probation or parole violation hearing was held and the individual was returned to supervision but did not receive an additional period of supervision, the outcome was considered favorable on this level.

Criteria used to define unfavorable outcome on the first level were (a) that the offender's probation or parole was revoked because of the issuance of a warrant for arrest, a conviction for a new offense, or a technical violation, or (b) that a violation hearing was held, and the offender was ordered returned to supervision for an extended term.

A second level of criteria was employed as a possible measure of favorable or unfavorable outcome. In a number of instances, the offender's case file indicated that there had been an arrest or conviction for a new offense or that a technical violation had occurred, but did not indicate whether the event had been brought to the attention of the judge or the Parole Commission; the offender's period of supervision appeared to have terminated as originally scheduled. Although there could be a variety of explanations for such occurrences, we chose to identify these cases as having unfavorable outcomes for evaluation

purposes. We did this only for instances in which the occurrence of the new arrest, new conviction, or technical violation made the case look very much like an unfavorable level-one outcome. For all eight districts, this second method of outcome determination boosts the percentage of cases with unfavorable outcomes at level two twelve points higher than this percentage at level one. The number of offenders with unfavorable outcomes at level two, therefore, is more than double the number of those with unfavorable outcomes at level one.

Computing Risk Scores

In general, four risk scores were computed for every offender according to the scoring directions for each of the base expectancy scales. Each score resulted from adding the number of points earned for each component or item of the model. Missing or imprecise data frequently made it impossible to determine the points for a particular component directly (that is, from the data elements specifically designed to address that component). If direct determination for a component could not be made but an alternate method employing related data elements could be identified, determination was made according to the alternate method.[11]

If direct determination for a component could not be made and either no alternate method could be identified or the alternate method did not provide the necessary data, the component was

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11. All model components for which alternate computation methods could be identified are listed and discussed in appendix B infra.

marked as undetermined and was not included in the computation of risk scores. When more than four components of the Revised Oregon or the BE61A were undeterminable for a particular offender, the risk score was considered incalculable and a missing-data value was assigned to that offender. More than two undeterminable items for the Salient Factor Score or the U.S.D.C. 75 led to assignment of a missing-data value.

Using the risk scores calculated for the four models, we then determined risk category assignments according to the category boundaries specified by each model. If an offender's record had been assigned a missing-data value because of an incalculable risk score, zero was assigned as the corresponding category value to indicate that a valid category assignment could not be made. If adding the total points associated with undetermined model components to the calculated risk score would cause a case to cross a category boundary, zero was again assigned as the category value. This procedure ensured that all category values were valid even if complete risk scores could not be calculated.

Two of the models, California BE61A and U.S.D.C. 75, contain special components that bypass the calculation of a risk score and automatically assign a case to an excellent-risk category. If a case met these special criteria, the automatic category assignment took precedence over the category assignment that would have resulted based on risk score.

Statistical Measures Employed

Two statistical measures, Pearson's product-moment correla-

tion coefficient (r) and Kendall's rank correlation coefficient (tau),[12] are frequently cited in the data analysis sections of this report. Pearson's r is a measure of the strength and direction of the linear relationship between two interval variables. Kendall's tau provides a similar estimate of the relationship between two ranked variables. The value of each statistic can range from -1 to +1, with the absolute value indicating the strength of the relationship and the sign indicating whether the relationship is direct (+) or inverse (-).

Correlations based on risk scores were estimated by Pearson's r, while those based on risk category variables were estimated by Kendall's tau. Tests of significance were done for all correlation coefficients discussed in this report, and probability estimates (p) are always indicated.

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12. These two statistical measures and a third, the Mean Cost Rating (MCR), are discussed more fully in appendix C infra.

III. FINDINGS AND CONCLUSIONS

Comparison of Risk Scores and Supervision Outcomes

The first step in determining whether one or more of the models was valid for our sample was to compare the pattern of actual supervision outcomes observed for offenders grouped according to model risk scores with the expected pattern over the range of possible scores. (The expected pattern is that percentage of favorable outcomes increases as assessment of risk decreases.)

Tables 6 and 7 display these outcome patterns for each model.[13] In general, each of the models predicted quite well. That is, with minor aberrations, as one moves from the lower model scores (representing poorer risks) to the higher model scores (representing better risks), the percentage of offenders with favorable outcomes increases substantially, at both level one and level two. Three of the models, Revised Oregon, Salient Factor Score, and U.S.D.C. 75, are very selective in identifying the poorer-risk cases. The results obtained for the BE61A must be considered in light of the lack of information about cases

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13. The results shown in tables 6 and 7 cannot be directly compared with the classification decisions made by the probation officers, since their decisions were not expressed in terms of a quantifiable scale.

TABLE 6

MODEL RISK SCORES BY LEVEL-ONE SUPERVISION OUTCOME FOR THE NATIONAL SAMPLE

Revised Oregon												
Score		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	Overall
N		1	5	13	30	55	83	125	175	158	268	913
% Favorable		100.0	40.0	69.2	70.0	83.6	69.9	80.8	96.0	96.8	98.1	90.0
Calif. BE61A												
Score			37-41	42-46	47-51	52-56	57-61	62-66	67-71	72-76	ACA*	Overall
N			13	10	28	22	28	48	15	74	605	843
% Favorable			92.3	80.0	75.0	81.8	100.0	100.0	100.0	94.6	94.5	94.0
Salient Factor												
Score	1	2	3	4	5	6	7	8	9	10	11	Overall
N	2	11	26	46	57	85	87	124	199	295	261	1,193
% Favorable	100.0	63.6	69.2	76.1	71.9	76.5	67.8	88.7	92.0	93.9	98.9	88.4
U.S.D.C. 75												
Score	0-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	ACA*	Overall
N	68	43	67	40	51	110	96	45	43	80	605	1,248
% Favorable	55.9	55.8	80.6	82.5	74.5	90.0	90.6	97.8	97.7	93.8	94.5	88.6

NOTE: Only cases for which a valid risk score could be calculated are included in this table. (For example, the first group of scores for the California BE61A is 37-41 because all cases in the maximum-risk category (0-36) had one or more missing-data items. The high percentage of favorable outcomes for this model is, in part, attributable to the fact that only the better-risk cases are included here.)

*Scores were not computed for cases meeting the automatic category assignment (ACA) criteria of these two models. These offenders were directly classified as minimum-risk cases.

TABLE 7

MODEL RISK SCORES BY LEVEL-TWO SUPERVISION OUTCOME FOR THE NATIONAL SAMPLE

Revised Oregon Score	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	Overall
N	1	5	16	31	63	86	134	187	165	271	959
% Favorable	100.0	20.0	37.5	61.3	60.3	54.7	64.9	78.6	89.1	95.6	78.4

Calif. BE61A Score		37-41	42-46	47-51	52-56	57-61	62-66	67-71	72-76	ACA*	Overall
N		15	10	31	23	28	51	15	76	633	882
% Favorable		33.3	80.0	64.5	60.9	78.6	90.2	93.3	88.2	85.8	84.2

Salient Factor Score	1	2	3	4	5	6	7	8	9	10	11	Overall
N	2	12	27	52	64	92	96	133	210	307	263	1,258
% Favorable	100.0	58.3	51.9	55.8	56.3	60.9	47.9	71.4	79.5	86.0	96.2	77.0

U.S.D.C. 75 Score	0-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	ACA*	Overall
N	75	50	71	42	57	118	108	47	43	80	633	1,324
% Favorable	34.7	42.0	64.8	61.9	63.2	74.6	73.1	93.6	88.4	88.8	85.8	76.9

NOTE: Only cases for which a valid risk score could be calculated are included in this table. (For example, the first group of scores for the California BE61A is 37-41 because all cases in the maximum-risk category (0-36) had one or more missing-data items. The high percentage of favorable outcomes for this model is, in part, attributable to the fact that only the better-risk cases are included here.)

*Scores were not computed for cases meeting the automatic category assignment (ACA) criteria of these two models. These offenders were directly classified as minimum-risk cases.

with low scores, all of which were eliminated from the tables because of missing data. The selectivity of the other three models suggests that they are valid, in that they do accurately differentiate between better-risk and poorer-risk offenders. Figures 1 through 4 present a more vivid display of the patterns shown in tables 6 and 7.

Table 8 shows the strengths of the relationship between the scores calculated for each of the models and outcomes at each of the two outcome levels. The differences in the correlation coefficients are not particularly large. The two models that show the strongest relationship between scores and outcomes are the Revised Oregon and the U.S.D.C. 75. The strength of the relationship for the latter model is particularly significant in that we excluded offenders for whom a risk category was automatically assigned. This suggests that the other five components of the U.S.D.C. 75 are in fact good predictors. Of the offenders automatically identified by the BE61A or the U.S.D.C. 75 as excellent risks (high school education or better and no history of opiate use), 95 percent had favorable level-one outcomes and 86 percent had favorable level-two outcomes.

Automatic category assignment. Further analysis of those cases meeting the automatic category assignment criteria indicates that the majority obtained risk scores on all of the models that would have resulted in a minimum-risk assignment. Table 9 presents the distribution of category assignments by level-one outcome for the 605 offenders automatically assigned to the excellent-risk category by the BE61A or the U.S.D.C. 75. The

FIGURE 1

Revised Oregon Model: Risk Score Group
by Percentage of Favorable Level-One and Level-Two Outcomes

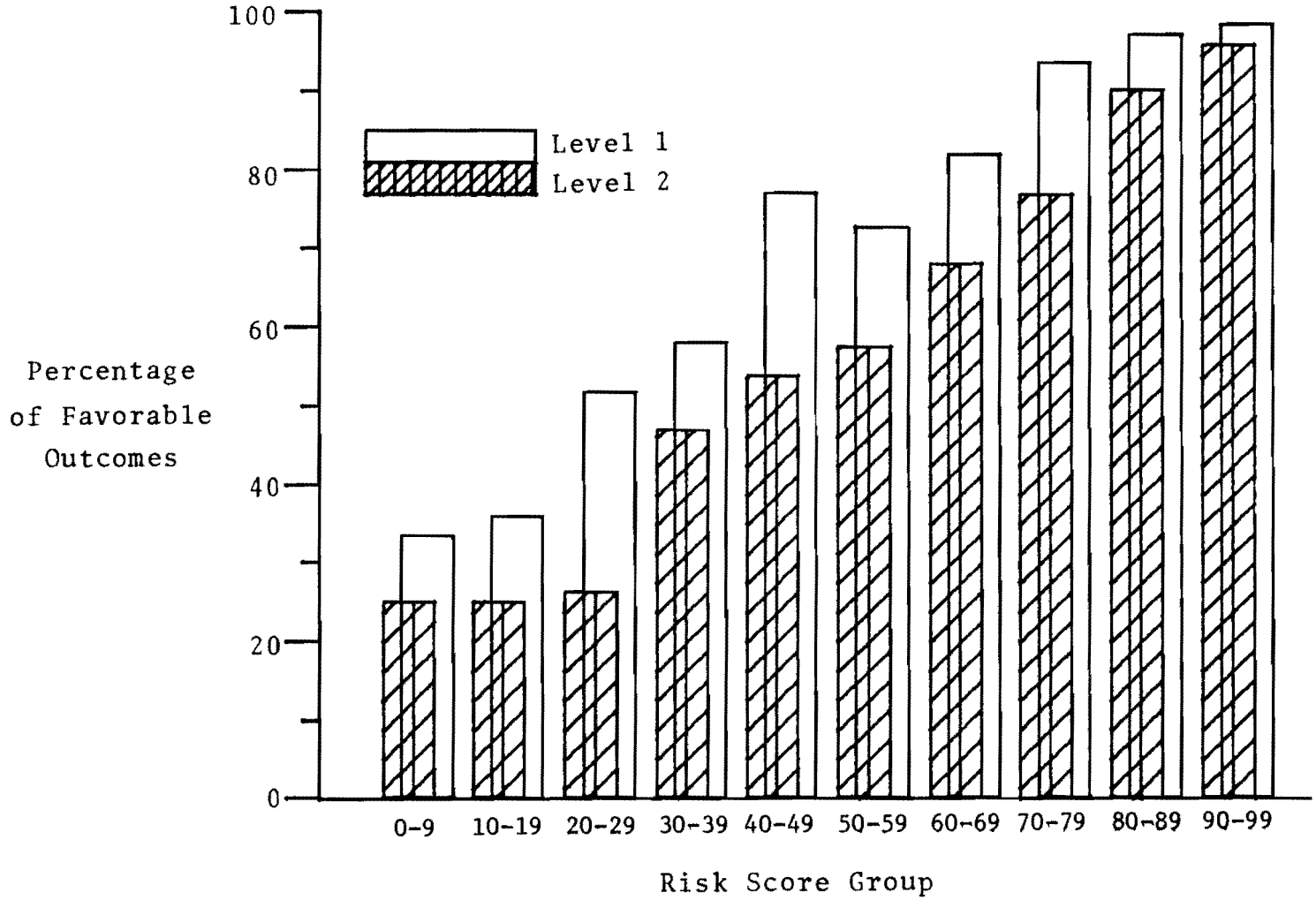


FIGURE 2

California BE61A: Risk Score Group
by Percentage of Favorable Level-One and Level-Two Outcomes

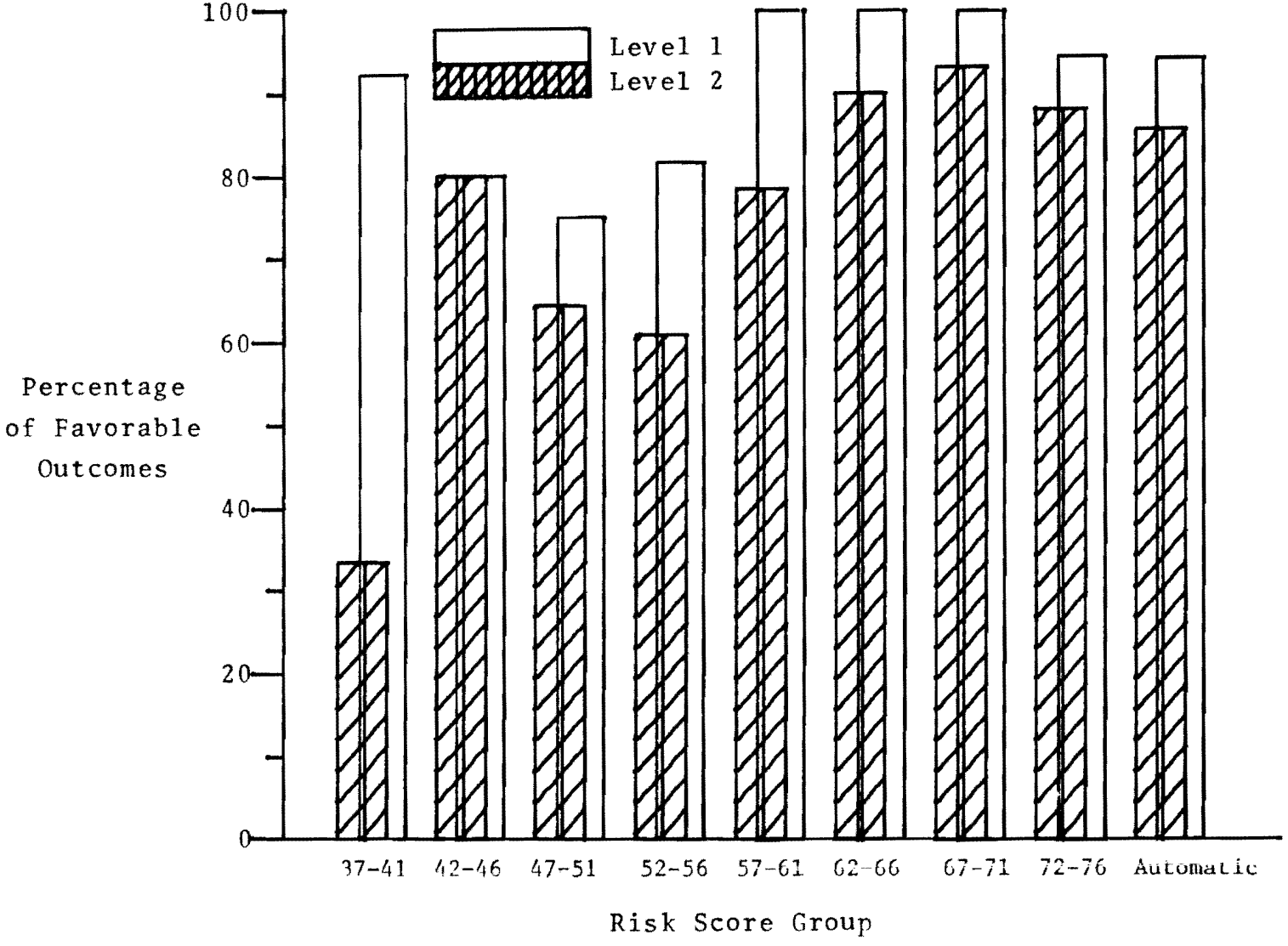


FIGURE 3

Salient Factor Score: Risk Score Group
by Percentage of Favorable Level-One and Level-Two Outcomes

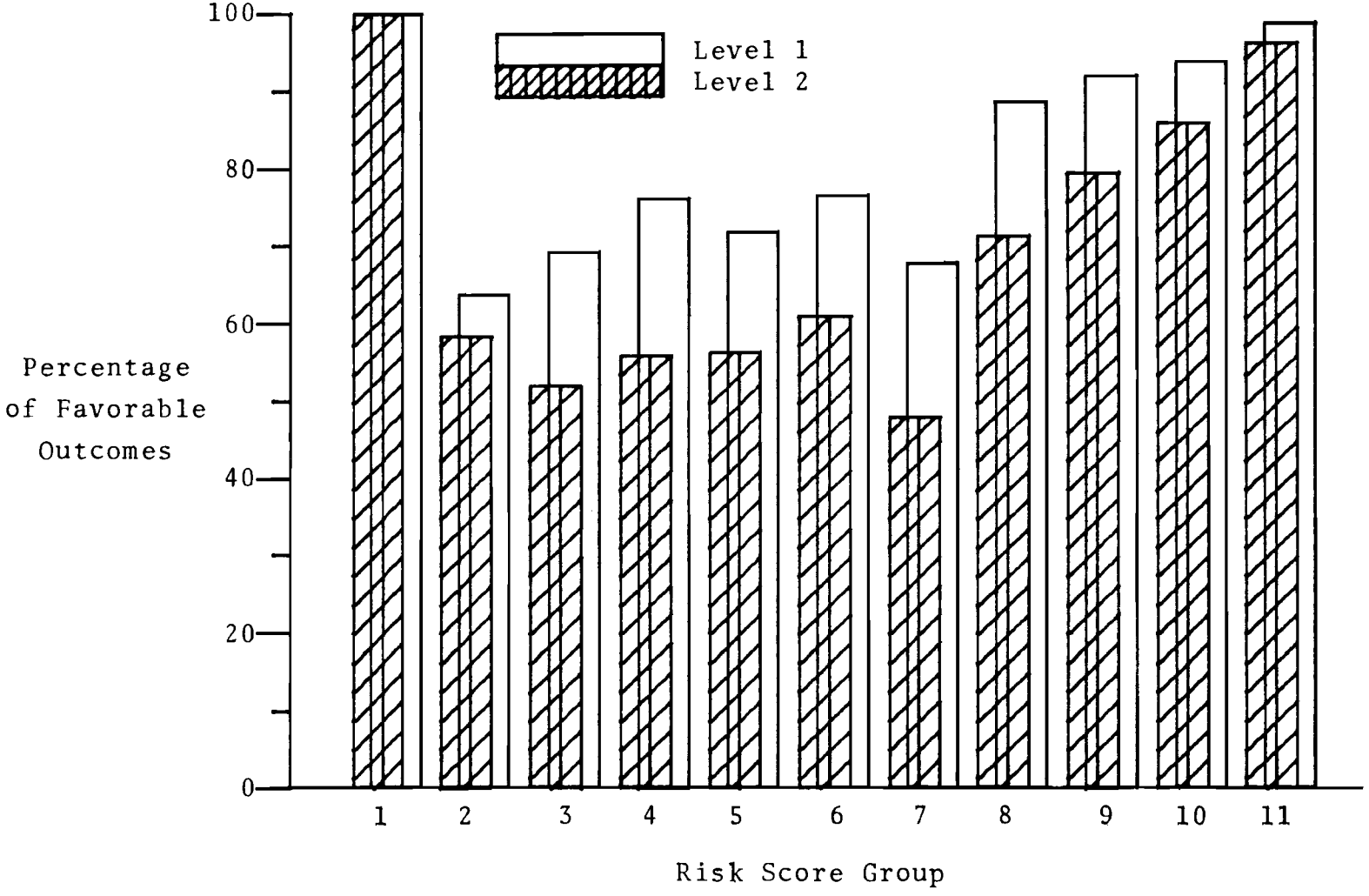


FIGURE 4

U.S.D.C. 75 Scale: Risk Score Group
by Percentage of Favorable Level-One and Level-Two Outcomes

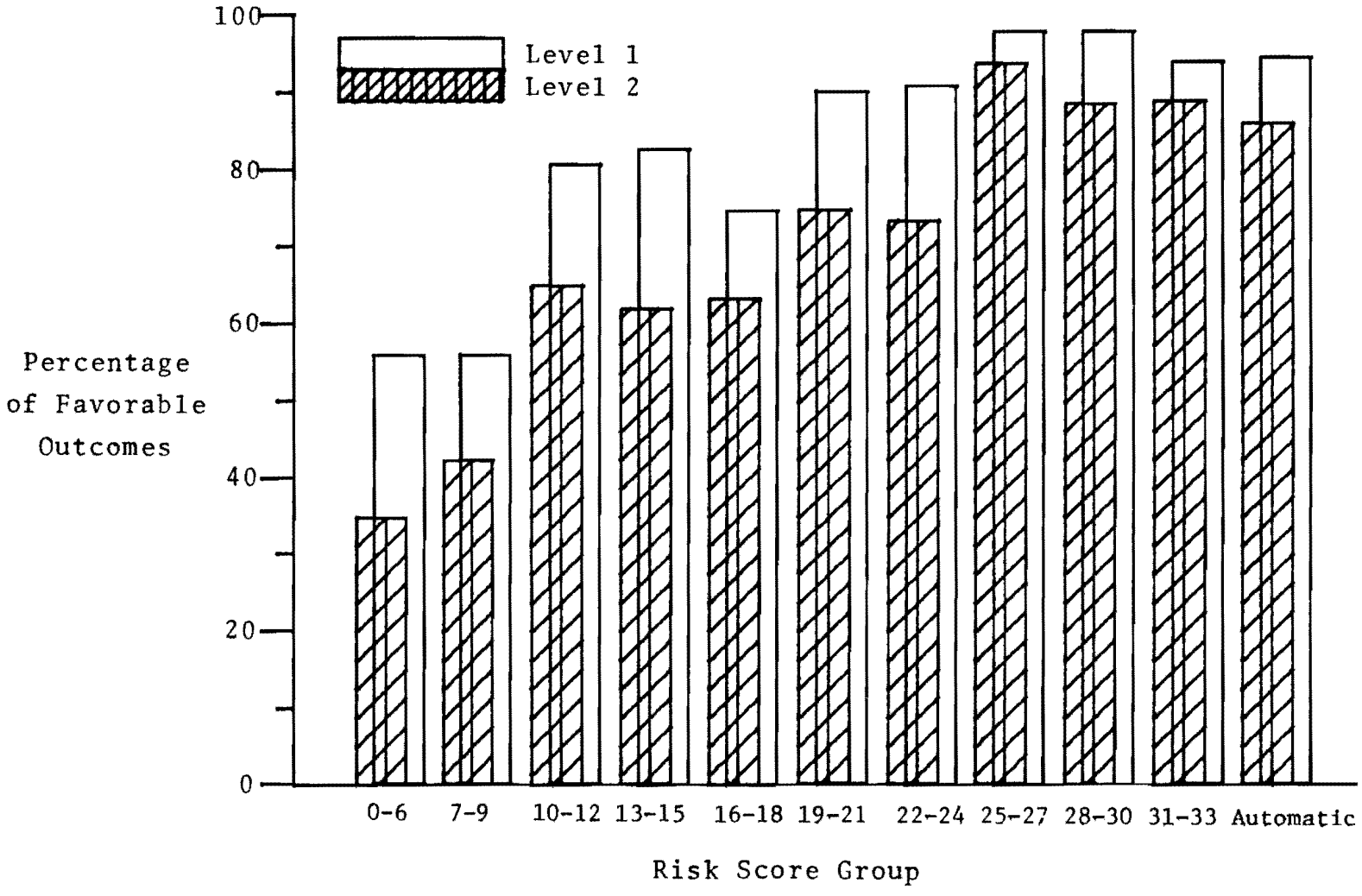


TABLE 8

CORRELATION COEFFICIENTS FOR MODEL RISK SCORES AND SUPERVISION OUTCOMES BY OUTCOME LEVEL

Outcome	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
Level 1	-.32	-.21	-.29	-.34
(N*)	(913)	(238)	(1,193)	(643)
Level 2	-.37	-.33	-.33	-.36
(N*)	(959)	(249)	(1,258)	(691)

NOTE: Pearson correlation coefficients (r) are cited. Probability estimates (p) are less than or equal to .001 for all coefficients shown.

*Note that the number of cases shown for the BE61A and U.S.D.C. 75 models differs from that shown in tables 6 and 7. Coefficients were computed on those offenders for whom a score could be calculated. Excluded here, as in the previous tables, are those offenders with missing data for any elements needed to compute the model scores. Also excluded are the automatic category assignment cases for the BE61A and U.S.D.C. 75. Since the sample sizes vary considerably from model to model, an effort was made to obtain a common sample consisting only of cases containing valid scores for all four models. This resulted in a substantially reduced population, producing the following coefficients:

Outcome	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
Level 1 (N = 207)	-.26	-.26	-.32	-.25
Level 2 (N = 218)	-.36	-.38	-.40	-.34

A marked increase in the population occurs if a valid score on the BE61A is not required and that model is dropped from the analysis, producing the following coefficients:

Outcome	Revised Oregon	Salient Factor	U.S.D.C. 75
Level 1 (N = 475)	-.30	-.23	-.31
Level 2 (N = 506)	-.31	-.21	-.33

TABLE 9

MODEL CATEGORY ASSIGNMENTS BY LEVEL-ONE OUTCOME FOR OFFENDERS MEETING THE BE61A AND U.S.D.C. 75 AUTOMATIC CATEGORY ASSIGNMENT CRITERIA

	Favorable Outcome		Unfavorable Outcome		Total	
Category	N	Row %	N	Row %	N	Col %
Revised Oregon						
Maximum	13	81.3	3	18.8	16	2.6
Medium	104	84.6	19	15.4	123	20.3
Minimum	417	98.1	8	1.9	425	70.2
Unclassifiable	38	92.7	3	7.3	41	6.8
Calif. BE61A						
Maximum	7	87.5	1	12.5	8	1.3
Medium	94	83.9	18	16.1	112	18.5
Minimum	409	98.1	8	1.9	417	68.9
Unclassifiable	62	91.2	6	8.8	68	11.2
Salient Factor						
Poor	5	100.0	0	0.0	5	0.8
Fair	22	81.5	5	18.5	27	4.5
Good	81	87.1	12	12.9	93	15.4
Very Good	448	97.4	12	2.6	460	76.0
Unclassifiable	16	80.0	4	20.0	20	3.3
U.S.D.C. 75						
Maximum	12	66.7	6	33.3	18	3.0
Medium	86	85.1	15	14.9	101	16.7
Minimum	455	97.8	10	2.2	465	76.9
Unclassifiable	19	90.5	2	9.5	21	3.5

assignments for the two models were made as if the automatic category assignment feature of these models did not exist.

Type of offender. When we controlled for the type of offender (probationer or parolee), as shown in table 10, we found generally the same coefficient patterns for parolees at outcome level one as were observed for the sample as a whole. The level-two outcomes for probationers showed no essential diffe-

TABLE 10

CORRELATION COEFFICIENTS FOR MODEL RISK SCORES BY TYPE OF OFFENDER AND LEVEL-ONE AND LEVEL-TWO SUPERVISION OUTCOME

Outcome	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
Probationers				
Level 1	-.30	-.24	-.31	-.32
(N*)	(668)	(184)	(863)	(425)
Level 2	-.34	-.35	-.35	-.34
(N*)	(699)	(193)	(904)	(451)
Parolees				
Level 1	-.28	-.13[a]	-.21	-.29
(N*)	(226)	(47)	(295)	(194)
Level 2	-.37	-.34[b]	-.26	-.34
(N*)	(240)	(49)	(318)	(215)

NOTE: Pearson r values are cited; $p \leq .001$ except where noted.

*The total number of cases is adjusted to exclude cases with automatic category assignments or missing data for calculating model scores.

[a] $p > .05$.

[b] $p < .01$.

ences among the models in predictive ability. Ironically, the Salient Factor Score (developed for parolees) yielded better predictions for probationers than it did for parolees. While this can possibly be explained by the distribution of the sample, both the Revised Oregon and the U.S.D.C. 75 had higher correlation coefficients for parolees.

Intercorrelations among model risk scores. All four models were originally constructed on the same type of sample--namely,

TABLE 11

INTERCORRELATIONS OF MODELS BASED ON RISK SCORES

Model	Calif. BE61A	Salient Factor	U.S.D.C. 75
Revised Oregon (N)	.86 (227)	.75 (996)	.78 (551)
Calif. BE61A (N)		.54 (253)	.79 (256)
Salient Factor (N)			.61 (700)

NOTE: Pearson r values are cited; $p \leq .001$.

offenders who were either probationers or parolees--and all are aimed at predicting essentially the same outcome. Consequently, they all contain very similar predictor items.[14] We computed correlation coefficients to determine the extent to which the models' risk scores are intercorrelated. Table 11 presents the results of the statistical comparison of the models for all cases on the national level. The Revised Oregon and BE61A models show the greatest intercorrelation (.86). As depicted in figures 5, 6, and 7, the Revised Oregon is highly correlated with each of the other models as well. The U.S.D.C. 75 has the next highest correlations with each of the other models.

Comparison of Risk Categories and Supervision Outcomes

Up to this point, our analysis has focused on the predictive powers of the four models based on calculated risk scores. However, scores are only a starting point. All the models also

14. For a comparison of model items, see table 1 supra.

FIGURE 5

Risk Scores: Revised Oregon Model by U.S.D.C. 75 Scale

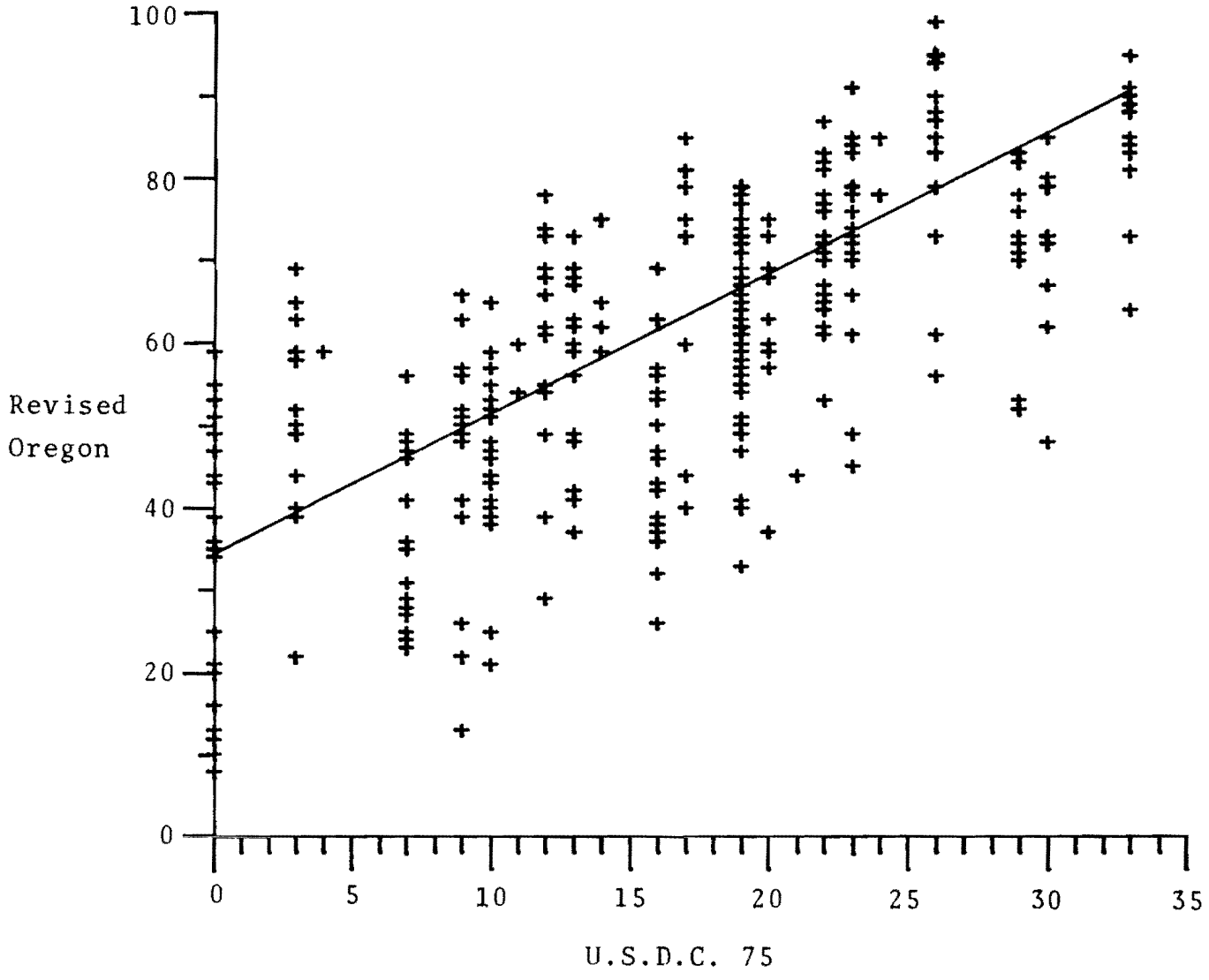


FIGURE 6

Risk Scores: Revised Oregon Model by California BE61A

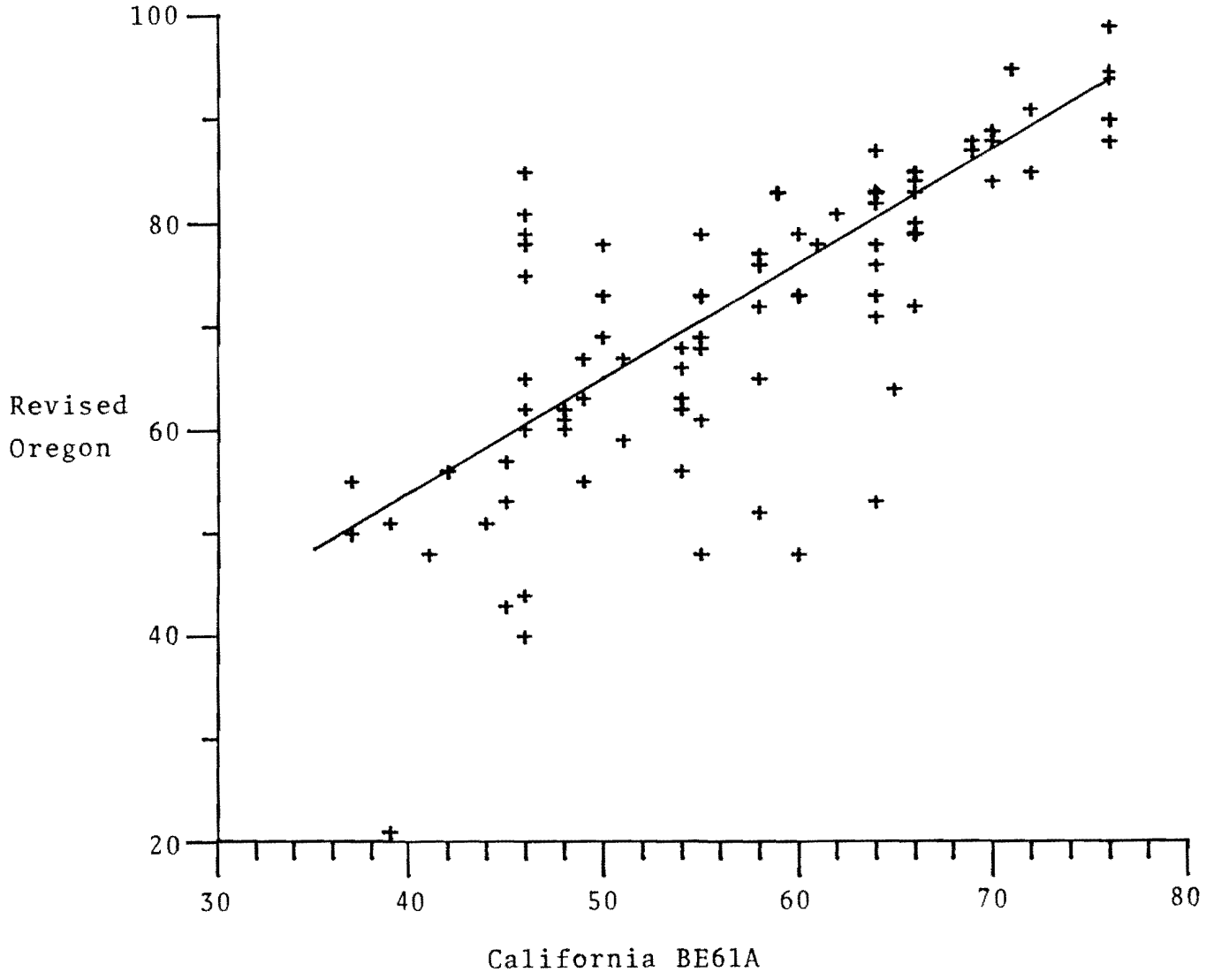
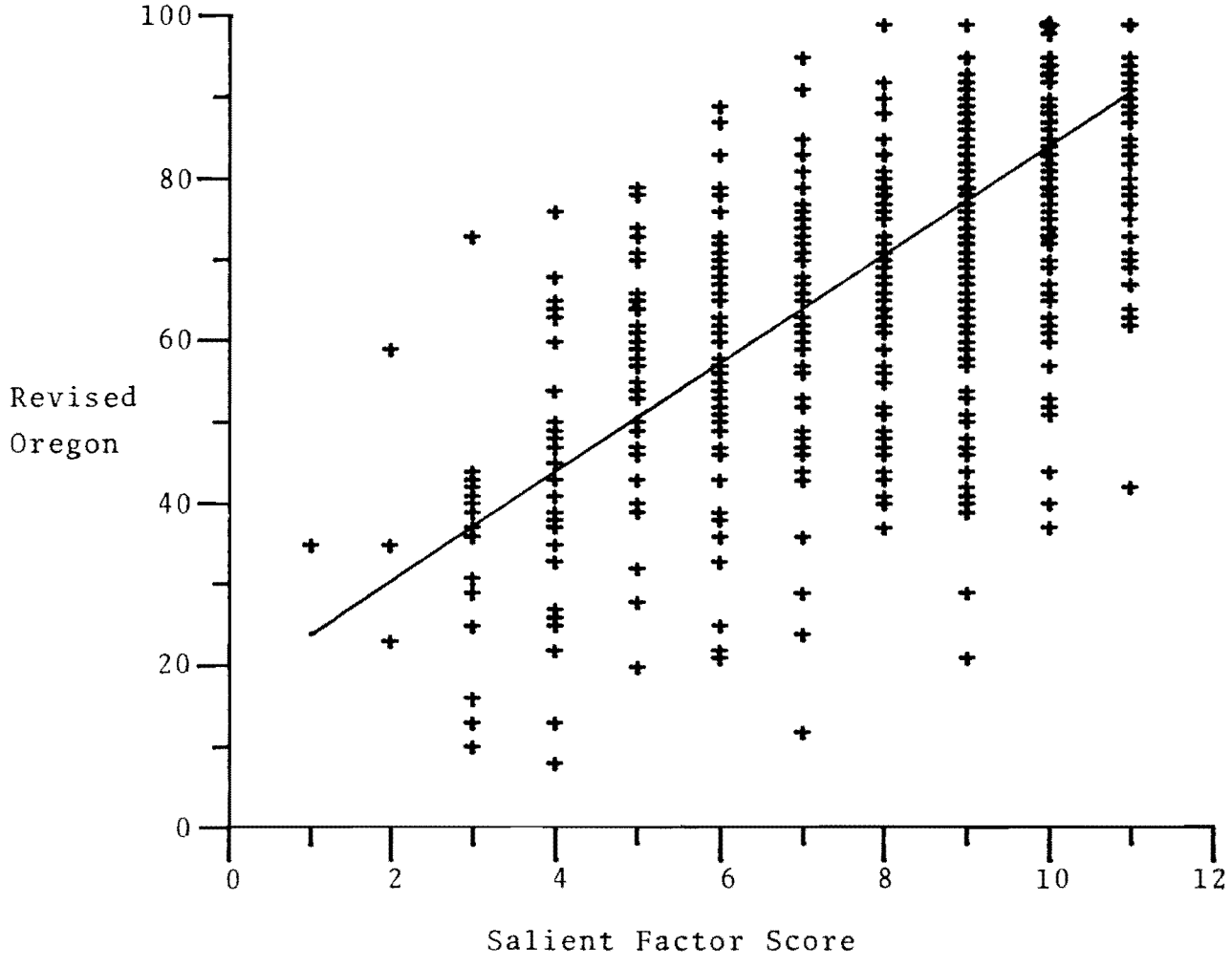


FIGURE 7

Risk Scores: Revised Oregon Model by Salient Factor Score



group scores into fewer, more generalized risk categories.[15] In the practical application of base expectancy scales to the probation system, these categories are a more useful and manageable measure of risk because they transfer more directly into existing classification and supervision levels. The remainder of our analysis thus concentrates on the comparative power of the four models when risk categories are used as the predictive measure.[16]

Intercorrelations among models' category assignments and officers' classifications. The use of risk categories enabled us to directly compare the risk assessments of the four models with the supervision classifications initially made by probation officers in the districts under study. Table 12 presents the intercorrelations of the models' category assignments and the officers' classifications. The highest intercorrelation is between the BE61A and the U.S.D.C. 75 (.89), with the Revised Oregon and the BE61A showing the next highest intercorrelation (.72). The officers' classifications are most highly correlated with the Revised Oregon (.45), but their correlations with the models are generally lower than those among the models themselves.

These intercorrelations are important because they indicate

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15. For the actual correspondence of scores to categories defined by each of the models, see table 1 supra.

16. Using categories instead of scores increases substantially the number of cases that can be included in the analysis because valid category assignments could be determined in several instances in which scores could not be calculated. For a full discussion of the procedures used to determine scores and categories, see appendix B infra.

TABLE 12

INTERCORRELATIONS OF MODEL CATEGORY ASSIGNMENTS AND OFFICER CLASSIFICATIONS

Classification Method	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
Calif. BE61A	.72			
(N)	(1,283)			
Salient Factor	.53	.40		
(N)	(1,369)	(1,307)		
U.S.D.C. 75	.65	.89	.38	
(N)	(1,382)	(1,342)	(1,418)	
Officer Classification	.45	.35	.32	.34
(N)	(1,286)	(1,246)	(1,315)	(1,345)

NOTE: Kendall tau values are cited; $p \leq .001$.

the capacity of the four models to classify the same offender similarly (the higher the intercorrelation between two models, the more likely they will make the same risk assessment for an individual). The strength of the relationships among the models reflects the similarities of the scales' items, as shown earlier in table 1. The lower intercorrelations between the officers' classifications and the models' category assignments highlight the fact that the officers employ criteria that are different from those of the models in making their subjective classification decisions.

Comparison of supervision outcomes and expected outcomes. Table 13 shows the percentage of offenders with favorable and unfavorable outcomes at each outcome level in comparison with the

TABLE 13

MODEL CATEGORY ASSIGNMENTS AND OFFICER CLASSIFICATIONS
BY LEVEL-ONE AND LEVEL-TWO SUPERVISION OUTCOME

	Level-One Outcome						Level-Two Outcome					
	Favorable		Unfavorable		Total		Favorable		Unfavorable		Total	
Category	N	Row %	N	Row %	N	Col %	N	Row %	N	Row %	N	Col %
Revised Oregon												
Maximum	116	63.0	68	37.0	184	14.4	95	45.9	112	54.1	207	15.3
Medium	345	80.4	84	19.6	429	33.6	295	63.7	168	36.3	463	34.2
Minimum	647	97.7	15	2.3	662	51.9	627	91.5	58	8.5	685	50.6
Total	1,108	86.9	167	13.1	1,275		1,017	75.0	338	24.9	1,355	
Calif. BE61A												
Maximum	63	59.4	43	40.6	106	8.6	51	42.1	70	57.9	121	9.2
Medium	222	77.8	63	22.1	285	23.0	189	60.2	125	39.8	314	23.9
Minimum	800	94.5	47	5.5	847	68.4	756	85.8	125	14.2	881	66.9
Total	1,085	87.6	153	12.4	1,238		996	75.7	320	24.3	1,316	
Salient Factor												
Poor	32	72.7	12	27.3	44	3.4	25	54.3	21	45.7	46	3.3
Fair	79	71.2	32	28.8	111	8.5	68	54.8	56	45.2	124	8.9
Good	253	76.4	78	23.6	331	25.3	214	58.1	154	41.8	368	26.5
Very Good	779	94.7	44	5.3	823	62.9	741	87.1	110	12.9	851	61.3
Total	1,143	87.3	166	12.7	1,309		1,048	75.4	341	24.6	1,389	
U.S.D.C. 75												
Maximum	66	51.2	63	48.8	129	9.7	50	34.5	95	65.5	145	10.2
Medium	222	80.4	54	19.7	276	20.7	191	63.5	110	36.5	301	21.2
Minimum	872	94.2	54	5.8	926	69.6	824	84.9	147	15.1	971	68.5
Total	1,160	87.2	171	12.8	1,331		1,065	75.2	352	24.8	1,417	
Officer Classification												
Maximum	126	58.6	89	41.4	215	16.7	95	38.6	151	61.4	246	17.8
Medium	579	88.0	79	12.0	658	51.0	530	75.0	176	24.9	706	51.2
Minimum	408	97.6	10	2.4	418	32.3	392	91.8	35	8.2	427	30.9
Total	1,113	86.2	178	13.8	1,291		1,017	73.7	362	26.3	1,379	

NOTE: The total number of cases shown for each model varies from the maximum possible of 1,621 because of two factors that operated, singly or in combination, to reduce the number of cases included in a specific computation: Cases were excluded in computing risk scores because of missing background data, and cases were excluded because of missing or unusable outcome information. At level one, there were 26 cases with missing outcome data, 13 cases in which supervision was not completed, and 153 cases in which outcome was undeterminable; at level two, there were 25 cases with missing outcome data, 11 cases in which supervision was not completed, and 58 cases in which outcome was undeterminable. There were fewer exclusions at level two because an unfavorable outcome could be determined for those cases in which a new conviction occurred even though official outcome data were ambiguous or missing.

outcome patterns expected on the basis of the models' category assignments and the officers' supervision classifications. Note that all the models rate a majority of offenders as minimum risks, with 52 percent thus categorized by the Revised Oregon and 70 percent thus categorized by the U.S.D.C. 75. These categorizations are reasonable because, according to case file data, approximately 87 percent of all offenders completed supervision favorably. For all the models, the percentage of offenders with favorable outcomes follows the expected pattern: In general, this percentage increases as the assessment of risk decreases. (Note, however, that the percentages for the three higher-risk categories of the Salient Factor Score are very similar.)

The concept of expected outcome patterns is just as critical to understanding the present analysis of risk categories as it was to understanding the earlier analysis of risk scores. The assumption is that the offenders assigned by the models to the maximum-risk category will demonstrate a higher percentage of unfavorable outcomes than will those offenders assigned to the medium- or minimum-risk categories. Conversely, the offenders identified by the models as minimum risks are expected to demonstrate a higher percentage of favorable outcomes than are those identified as medium or maximum risks. With such a dichotomous outcome measure, there is very little expectation with respect to the absolute percentage of favorable outcomes for offenders placed in the medium-risk category--only that their percentage should be somewhere between the other two.

The models' use of extreme categories. Ideally, a base expectancy scale would accurately identify all offenders who will have unfavorable outcomes and assign them to the maximum-risk category, placing all others in the minimum-risk category. Such a perfect discrimination of outcomes would yield a coefficient of one on the Kendall tau ranked correlation computations. No mathematical model can do this in the real world. The usefulness of a model, therefore, lies in how successfully it uses these extreme categories, or in the "correctness" or "appropriateness" of its assignments. Table 14 compares the four models in terms of the appropriateness of their assignments of offenders to the extreme risk categories.

The U.S.D.C. 75 model identified 75 percent of the offenders who actually demonstrated favorable outcomes as minimum risks. At the same time, it identified 37 percent of those offenders with unfavorable outcomes as maximum risks. This model showed the best overall use of the minimum-risk category and the second-best use of the maximum-risk category, using the medium category less frequently than the other models.

The best use of the maximum-risk category was shown by the Revised Oregon Model, which assigned 41 percent of offenders with unfavorable outcomes to this category. However, the Revised Oregon was the least discriminating in assigning offenders with favorable outcomes to the minimum-risk category (58 percent). Moreover, the Revised Oregon used the medium-risk category more frequently than did the other models.

TABLE 14

COMPARATIVE ASSESSMENT OF THE APPROPRIATENESS
OF MODEL RISK CATEGORY ASSIGNMENTS FOR THE NATIONAL SAMPLE

Model	Total Favorable Outcomes	No. Favorable in Minimum-Risk Category	% Favorable in Minimum-Risk Category	Total Unfavorable Outcomes	No. Unfavorable in Maximum-Risk Category*	% Unfavorable in Maximum-Risk Category*
Level 1						
Revised Oregon	1,108	647	58.4	167	68	40.7
Calif. BE61A	1,085	800	73.7	153	43	28.1
Salient Factor	1,143	779	68.2	166	44	26.5
U.S.D.C. 75	1,160	872	75.2	171	63	36.8
Level 2						
Revised Oregon	1,017	627	61.7	338	112	33.1
Calif. BE61A	996	756	75.9	320	70	21.9
Salient Factor	1,048	741	70.7	341	77	22.6
U.S.D.C. 75	1,065	824	77.4	352	95	27.0

*The "poor" and "fair" categories of the Salient Factor Score were collapsed into one "maximum" category for easier comparisons.

Overall predictive power. Table 15 compares the predictive power of the four models based on risk categories, at both outcome levels for the complete national sample (predictive power is estimated by Kendall's tau). Although none of the coefficients are strikingly high, and some are very close, the Revised Oregon consistently produces the best estimates among the four models. At outcome level one, the U.S.D.C. 75 has the second highest values among the models for all three offender groups. At outcome level two, however, second place is distributed among the U.S.D.C. 75, the Salient Factor Score, and the BE61A. The data also show that the predictive power of the officers' initial

TABLE 15

CORRELATION COEFFICIENTS FOR MODEL CATEGORY ASSIGNMENTS AND OFFICER CLASSIFICATIONS BY TYPE OF OFFENDER AND LEVEL-ONE AND LEVEL-TWO SUPERVISION OUTCOME

Outcome	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases					
Level 1	-.26	-.20	-.19	-.22	-.25
(N)	(1,275)	(1,238)	(1,309)	(1,331)	(1,291)
Level 2	-.37	-.29	-.29	-.29	-.36
(N)	(1,355)	(1,316)	(1,389)	(1,417)	(1,379)
Probationers					
Level 1	-.23	-.18	-.17	-.19	-.22
(N)	(922)	(903)	(943)	(964)	(931)
Level 2	-.33	-.24	-.27	-.26	-.34
(N)	(972)	(951)	(992)	(1,019)	(987)
Parolees					
Level 1	-.26	-.21	-.16	-.23	-.22
(N)	(317)	(299)	(328)	(328)	(332)
Level 2	-.38	-.35	-.25	-.32	-.30
(N)	(346)	(328)	(358)	(358)	(367)

NOTE: Kendall tau values are cited; $p < .001$.

classifications rivals the predictive power of the models. Although the Revised Oregon exhibits superior values for all but one calculation (probationers at level two), the officers' classifications yield especially good coefficients for all cases combined at both outcome levels. However, these coefficients trail behind those of the U.S.D.C. 75 and the Revised Oregon for the parolee subgroup at both outcome levels. Despite the pattern of ranks among the models, note that the raw values of all the coefficients are higher at level two than at level one.

Predictive power for restricted samples. Every offender for whom a valid category value and a known outcome existed was included in the statistical computation of the tau estimates reported in table 15. This procedure allowed us to compute estimates on the largest possible valid sample for each model. However, it caused the size of the samples to vary from model to model, since each of the models was affected differently by missing data, and valid category values for every offender could not always be determined for all four models. An effort was made to control for the possibility that these variations in samples, rather than actual differences in the models' predictive abilities, account for the coefficient patterns shown in table 15. We drew a restricted sample for which valid categories could be determined for all four models[17] and recomputed the correlation

17. An additional restriction on this sample was that offenders who were not under supervision for the entire period imposed because of early release from supervision (287 cases) were excluded. This eliminated a possible source of error in the outcome portion of the calculation as well.

coefficients. The results are displayed in table 16. The patterns are essentially the same as those presented in table 15. The Revised Oregon again has the highest coefficients, and values at level two are again higher than those at level one. For all three offender groupings, BE61A and U.S.D.C. 75 values are all but indistinguishable. The Salient Factor performs equivalently to the BE61A and the U.S.D.C. 75 for all offenders combined, but produces better estimates for probationers and poorer estimates for parolees.

Further refining this "all models" sample, we attempted to

TABLE 16

CORRELATION COEFFICIENTS FOR MODEL CATEGORY ASSIGNMENTS BY TYPE OF OFFENDER AND SUPERVISION OUTCOME--RESTRICTED SAMPLE*

Outcome	N	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
All cases					
Level 1	816	-.26	-.21	-.21	-.22
Level 2	875	-.36	-.28	-.29	-.28
Probationers					
Level 1	564	-.23	-.18	-.20	-.18
Level 2	600	-.31	-.22	-.27	-.22
Parolees					
Level 1	227	-.24	-.22	-.14[a]	-.22
Level 2	249	-.36	-.32	-.21	-.34

NOTE: Kendall tau values are cited; $p \leq .001$ except where noted.

*See the text for an explanation of the restrictions on this sample.

[a] $p < .01$.

TABLE 17

CORRELATION COEFFICIENTS FOR MODEL CATEGORY ASSIGNMENTS BY MONTHS OF SUPERVISION AND SUPERVISION OUTCOME--RESTRICTED SAMPLE*

Outcome	N	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75
6-12 Months					
Level 1	257	-.30	-.25	-.24	-.25
Level 2	265	-.33	-.25	-.24	-.26
13-24 Months					
Level 1	275	-.22	-.18	-.15	-.21
Level 2	288	-.27	-.18	-.22	-.21
25-36 Months					
Level 1	209	-.32	-.28	-.31	-.28
Level 2	232	-.47	-.37	-.41	-.37
37 or More Months					
Level 1	62	+.14[a]	+.17[a]	+.09[a]	+.18[a]
Level 2	77	-.08[a]	-.09[a]	-.04[a]	-.02[a]

NOTE: Kendall tau values are cited; $p \leq .01$ except where noted.

*See the text for an explanation of the restrictions on this sample.

[a] $p > .05$.

control for the time-at-risk factor by grouping offenders according to length of supervision imposed.[18] As presented in table 17, the reliable coefficients yield the same patterns as the

18. This procedure could also be seen as providing groups based on a very rough "offense severity" measure, assuming that the length of supervision imposed has a strong positive correlation with the severity of the offense. We were not able, however, to assess and rank the severity of instant offenses for all offenders in our sample; therefore, we cannot demonstrate that such a correlation exists.

previous two tables[19] (note that table 17 is based only on all offenders because separating probationers and parolees resulted in subgroups too small to provide any meaningful differences).

Violation-free time. Up to this point, all of the analyses have been based on the use of the dichotomous (favorable or unfavorable) outcome measure discussed earlier in chapter two. Obviously, there were varying degrees of favorable or unfavorable adjustment among the offenders in our sample. It has been suggested, for example, that

> the typical rehabilitative process for criminal offenders seems to involve a series of gradual steps away from their past levels and types of criminalistic behavior and toward law-abiding behavior.[20]

Clearly, an offender who commits a violation in the eighteenth month of a twenty-month period of supervision can be viewed as having had a somewhat more favorable adjustment than one who commits a violation much earlier in the period of supervision. Although both may ultimately be characterized as having unfavorable supervision outcomes, the offender with the longer period of violation-free supervision is a better example of the achievement of the rehabilitative ideal. This assumes, of course, that both committed similar violations.

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19. The probability estimates associated with some of the coefficients listed in table 17, specifically those for offenders with more than thirty-six months of supervision imposed, are too high to rule out that the correlations are due to chance population variations.

20. Moberg & Erison, A New Recividism Outcome Index, 35 Fed. Probation 51 (1972).

We attempted to apply this concept of violation-free time to our analysis of the appropriateness of each model's risk predictions. For each offender, two variations of violation-free time were calculated. The first calculation was based on the amount of time the offender was under supervision before an actual violation occurred.[21] The second calculation was based on violation-free time as a percentage of the amount of supervision imposed.[22] Again, the purpose of this analysis was to determine whether the four models could be distinguished in their abilities to identify those offenders who experienced difficulties at different points in the supervision process.

With very minor variations, the analysis yielded results consistent with the patterns observed in earlier analyses. The Revised Oregon and the U.S.D.C. 75, respectively, gave the best and next-best predictions.

It is important to note that the data analyses reported so far have largely concentrated on patterns. In comparing the

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21. For this calculation, we used the following categories of violation-free time: one month or less, two to six months, seven to twelve months, thirteen to eighteen months, nineteen to twenty-four months, twenty-five to thirty months, thirty-one to thirty-six months, thirty-seven or more months, and no violation. Persons with no violations were placed in the highest category, irrespective of the number of months of supervision imposed. Predictive power was assessed by Kendall's tau.

22. Percentage of violation-free time was categorized as follows: 25 percent or less of the period of supervision was violation free, 26 to 50 percent was violation free, 51 to 75 percent was violation free, 76 to 99 percent was violation free, and no violation occurred. Predictive power was assessed by Kendall's tau.

models with each other and with the officers' classifications, our primary focus has been on relative predictive power rather than absolute predictive power. In considering the coefficients presented herein, two observations become apparent. First, although the coefficients are not very high, the absolute magnitude of most of them is within the middle range of possible values. Second, there is consistency among the coefficients within a sample, although they vary as one moves from one sample to the next. When the coefficients are high, they are high for all the models as well as the officers' classifications. When the values are low, they are, again, low across the board. This fluctuation simply reveals that it is harder to predict outcomes for some populations than it is for others, a difficulty that extends equally to subjective and objective techniques.

The Best National Predictive Models

In consistency as well as in raw values, the Revised Oregon Model clearly provides the best predictions of supervision outcome for the national sample. For all offenders combined and for the parolee subgroup, the U.S.D.C. 75 Scale provides the second-best predictions, particularly at outcome level one. Although the Salient Factor Score often generates high coefficients for the probationer subgroup, and the BE61A occasionally matches or exceeds the U.S.D.C. 75 in values, neither of these two models displays a pattern equivalent in consistency to that of the U.S.D.C. 75.

Concentrating, then, on the Revised Oregon and the U.S.D.C.

75, which have intercorrelations of .78 for risk scores and .65 for risk categories, table 18 presents a comparison of the category assignments made by these models. Of the 1,230 cases for which valid category values could be determined for both models, 879 (71.5 percent) received the same category assignment. For the cases not assigned identically by the two models, the U.S.D.C. 75 more frequently assigned offenders (272, or 22.1 percent) to the next lowest risk category.

Does the National Pattern Hold for Individual Probation Offices?

Having concluded that the Revised Oregon and the U.S.D.C. 75 are the best national predictors, we then attempted to determine whether the two models would predict equally well for offenders

TABLE 18

RISK CATEGORY ASSIGNMENTS BY LEVEL-ONE SUPERVISION OUTCOME FOR THE REVISED OREGON MODEL AND THE U.S.D.C. 75 SCALE

	U.S.D.C. 75 Risk Category			
Revised Oregon Risk Category	Maximum	Medium	Minimum	Unclassifiable
Maximum				
Favorable	40	52	17	7
Unfavorable	42	15	3	8
Medium				
Favorable	22	131	174	18
Unfavorable	15	30	31	8
Minimum				
Favorable	0	21	622	4
Unfavorable	0	1	14	0
Unclassifiable				
Favorable	4	18	59	
Unfavorable	6	8	6	

from each of the eight probation offices in our sample. In addition, we wanted to evaluate the models on the basis of predictions made for offenders from probation offices grouped accrding to geographic location, size of the office, and incidence of certain types of crimes in the office's sample.[23] This analysis was aimed at determining whether variations among the offices would warrant the use of different models in different districts.

District-level analysis. Tables 47 through 54 (in appendix E infra) present the correlations, as estimated by Kendall's tau coefficients,[24] between the models' risk assessments and the offenders' supervision outcomes by district office. In addition, the tables contain correlations between supervision outcomes and officers' classifications of the offenders in the sample. These correlations should be interpreted with caution, however, because in some instances the number of offenders in a certain subgroup for a particular district was simply too small to allow for a meaningful calculation of the statistics. Although all coefficients are included in the tables whenever possible, the number of cases on which they are based is always indicated.

The results for the individual probation offices do not indicate a pattern as clear as that observed for the entire sample.

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23. For a list of the districts that constitute the various groups, see appendix E infra at table 45.

24. Mean Cost Rating (MCR) coefficients are also presented in these tables to provide a basis for comparing the predictive efficiency of these models. For a full discussion of the MCR, see appendix C infra.

The differences in the predictive powers of the models are not very great. For most of the offices in the sample, only minor differences could be detected in the models' abilities to predict outcomes for probationers and parolees. Generally, the model that was the best predictor for a district's entire sample was also the best predictor for the probationer and parolee subgroups. The Revised Oregon has the highest or second highest tau coefficients for the following districts: Eastern Pennsylvania, Northern Georgia, Southern Texas, Nebraska, Northern California, and Western Washington. The U.S.D.C. 75 seems to be the best predictor for Rhode Island, with the BE61A yielding the next-best predictions for that office. For Eastern New York, the BE61A and the U.S.D.C. 75 seem to be the best and second-best predictors, respectively.

For several districts, the tau coefficients for the officers' classifications are as high as or even higher than those for any of the models. The classifications made by probation officers in the Northern District of Georgia and the Northern District of California, for example, yield higher tau coefficients than do any of the models (although the Revised Oregon appears to be a somewhat better predictor for parolees). The observed strength of the relationship between the officers' classifications and actual supervision outcomes in these districts may be attributable to a number of factors, such as the use of some other statistically valid classification method.

Geographic location. Tables 55, 56, and 57 (in appendix E

infra) present tau coefficients by outcome level for offenders grouped according to the geographic location of their probation offices. We were primarily interested in determining whether geographic or regional variations might affect the predictive abilities of the models. Northern California, Western Washington, and Nebraska formed the western group; Eastern Pennsylvania, Eastern New York, and Rhode Island made up the eastern group; and Northern Georgia and Southern Texas constituted the southern group. For all three geographic groups, the Revised Oregon and the U.S.D.C. 75 have the highest coefficients among the four models. For the western and southern groups, the officers' classifications for all offenders and for the probationer subgroup show the highest coefficients. The Revised Oregon has somewhat higher coefficients for parolees in the western group and for outcome level two in the southern group.

Size of office. A similar pattern emerged when we considered the models' predictions for large, medium, and small probation offices. Among the models, the Revised Oregon consistently shows the highest tau values, while the BE61A and the U.S.D.C. 75 share second place. The statistics for these groups are presented in tables 58, 59, and 60 (in appendix E infra).

Type of offense. Correlation coefficients for the final grouping of districts based on incidence of supervision terms for violent, white-collar, and narcotics-related crimes among the offender sample are presented in tables 61 through 69 (in appendix E infra). Again, the Revised Oregon appears to be the best

overall predictor. The other three models show no consistent pattern of differences in their respective predictive powers for each of the district groupings. Although in some cases the officers' classifications correlate better with supervision outcome than do the risk assessments of any of the models, they just as frequently show the least amount of correlation, especially with respect to the parolee subgroup.

Recommendation for the Use of the U.S.D.C. 75 Scale

Although the results of most of the analyses point to the Revised Oregon as the best predictor, our recommendation is that the next-best predictor, the U.S.D.C. 75, be used to classify probation caseloads. This recommendation is based on three general considerations: (1) The predictive power of the U.S.D.C. 75 is very similar to, and in some instances better than, that of the Revised Oregon; (2) the administrative costs anticipated for use of the U.S.D.C. 75 are considerably lower than those anticipated for use of the Revised Oregon; and (3) the U.S.D.C. 75 contains fewer items that raise ethical questions than does the Revised Oregon.

The ethical considerations deserve further discussion. In essence, there are two categories of items that raise ethical concerns. The first category includes objective items that may differentially affect minority populations but that concern actions for which the individual is traditionally held personally responsible. The second category includes items that not only invite the subjective interpretation of the classifying officer

but also concern actions or situations for which it is unclear that any individual should be penalized, regardless of whether or not the items differentially impact minority groups.

Both categories of items can be very predictive. But it is questionable, especially with respect to items in the second group, whether any increase in the predictive power of the model offsets the potential unfairness to the offender. All of the models contain items that fall into the first category; employment and education variables are typical. The Revised Oregon (and the BE61A), however, also includes items of the second type: Examples include no family criminal record (item F), meaningful family ties (item M), and favorable living arrangement (item N). The U.S.D.C. 75 Scale's exclusion of the second category of items works in favor of its recommendation, since the trade-off seems to be a small amount of predictive power.

A final note on ethical considerations. There is another item, arrests, that arguably falls into both categories discussed above. Seen as an indicator of prior criminality, the number and frequency of arrests is certainly something for which an individual traditionally holds personal responsibility. In addition, the item is objective, at least in the sense that the classifying officer uses objectively compiled arrest information to reach a decision. However, at least three elements associated with arrest data make arrests a more subjective and questionable item: (1) The decision to arrest is discretionary; (2) arrest data are not always available and are frequently not very well documented;

and (3) arrests, rather than arrests leading to conviction, may not be a valid indicator of criminal activity given that arrests are frequently dismissed.

Unfortunately, since both the Revised Oregon and the U.S.D.C. 75 use arrests rather than convictions as the indicator of prior criminality,[25] it is not possible to recommend one model over the other based on this item. However, their use of this item highlights the fact that no base expectancy scale is perfect--either in construction or in predictive power. The most we can do at this point is to recommend the model that provides the best balance of valid construction and predictive power and to acknowledge that further research is necessary to try to improve this balance.

It is anticipated that the use of a statistical prediction device, instead of a purely subjective classification technique, will allow a measure of policy control over specific items and the weight each is to be given in the classification decision. In addition, use of a predictive model will allow for data gathering that can ultimately be used to improve the classification process, a benefit that would not necessarily result if purely subjective classification techniques were to continue to be used. A model's potential for improved accuracy in prediction, coupled with its consistency in classifying offenders and its potential for enhancing the prospects of future research on supervision,

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25. The BE61A also uses arrests. The Salient Factor Score is the only model studied that uses prior convictions only.

provides further support for our recommendation that such a model be used. Based on the present study's findings, we recommend the U.S.D.C. 75 as the predictive model with the most potential for realizing these goals.

Assessing Supervision Effects

As noted previously, the absence of case file information on supervision activity precludes an assessment of the relationship between the classification of offenders and observed outcomes. We have seen that there is a substantial correlation between probation officers' classifications and those generated by the models under study. We do not know, however, whether the supervision received by offenders classified as maximum risks in one district is the same as that received by those classified as maximum risks in another district. Indeed, we do not even know that all offenders classified as maximum risks in a single district are given the same supervision. We expect that there is considerable variation in the content of supervision programs for similarly classified offenders despite the Probation Division's efforts to provide guidance. We also expect that such variation occurs in those districts that presently use one or another of the predictive devices studied in this project. Consequently, classifications derived from a predictive model will not necessarily produce more uniform supervision than classifications made subjectively by probation officers.

At the present time, therefore, any attempt to assess the effects of supervision on probation or parole outcomes is

thwarted by the interrelationship of two significant factors--the classification decision and the supervision content decision. To the extent that these two factors vary together, it will remain impossible to assess effectively the individual effect of either factor on the outcomes of probation or parole. At least one must be held constant and the other rigorously documented if the effect of either factor is to be ascertained.

The above problem is one of the major arguments for adopting a single consistent and uniform classification device. If we knew that all offenders classified as maximum risks in district A were like all offenders similarly classified in district B, and we had adequate data on the supervision programs for offenders in both districts, we could assess the effects of differences in supervision programs. We recommend uniformity in classification because it is easier to introduce, implement, and control than is uniformity in supervision content. We do not suggest that uniformity in supervision content is not desirable, however; we only observe that it is not necessary for research on supervision effects if the classification variable is held constant.

Uniformity in classification cannot be expected, by itself, to alter the overall outcome picture. If it is the case that a certain classification decision presently triggers identical supervision practice in all districts, uniform classification would precipitate change in outcomes only if supervision content does make a difference. Failure to find such change after implementation of uniform classification procedures can be expected, how-

ever, if supervision content is and remains variable across districts.

Imposition of uniform supervision content decisions simultaneously with imposition of uniform classification procedures would continue to mask the separate effects unless a controlled experiment were undertaken. We see serious moral, ethical, and legal problems with such an effort. This is not to say that the masking problems could not be resolved through other methodological innovations. But, those innovations are not necessary if, rather than imposing supervision uniformity, a policy of meticulous and rigorous documentation of the naturally varying supervision activity were undertaken simultaneously with the introduction of a uniform classification device.

We recognize that documentation of supervision activity would be both threatening and burdensome to the probation system. At the same time, we recognize that continued resource allocation will depend at some point on demonstrating that supervision content makes a difference. Resource allocation is not simply a question of self-preservation for the probation system, it is also critical if adequate services are to continue for the benefit of offenders and society. Furthermore, the issue is not the simple question, Is supervision good? with its equally simplistic yes/no answer. The question is rather, What supervision, for whom, where, under what conditions, and with what results?

Implementation of uniform classification procedures would provide the opportunity to begin answering the latter question.

Three years after implementation, uniform classification accompanied by documentation of supervision activity could provide more information about the effects of supervision than has been accumulated in all past studies. It might simply confirm what every judge and probation officer already believes, but if so, it would also provide confirmation for those decision makers without the experience of judges and probation officers.

IV. SUMMARY OF FINDINGS AND RECOMMENDATIONS

The major findings of this study are as follows:

1. The classification decisions made by probation officers in the cases sampled were highly correlated with actual supervision outcomes. To the extent that classification can be considered a predictor of outcomes, our data indicated that probation officers are doing a good job of correctly identifying the high-risk offenders. Moreover, we found only minor differences in the accuracy of classifications for probationers and parolees.

2. Although we found a strong relationship between the officers' classifications and the offenders' supervision outcomes, we were unable to reach any systematic conclusions about the impact of the supervision process on the observed outcomes. This limitation resulted from the poor quality of the case file data on the supervision received by offenders in the sample. Chronological case file entries were, more often than not, too brief to provide a clear indication of the nature and extent of supervision activity. The format of the chronological records varied considerably, even within districts, and we often encountered single record entries that attempted to summarize, in abbreviated fashion, activity spanning periods of more than six months. These records were not very useful for establishing the quantity or quality of contact, nor did they offer clear indications of

all the significant occurrences in a case. Similarly, most of the files for the sample cases did not include supervision plans.

3. A related finding concerns the question of whether officers are informing the court of all instances of suspected or actual criminal behavior by clients under supervision. In approximately 12 percent of the cases, we found clear indications that the probation officer knew that a client had been arrested, and even convicted, for criminal activity while under supervision. Yet, we could find no indication in the files that the new criminal activity had been reported to the court or the United States Parole Commission. There were frequent instances in which the probationer or parolee had repeatedly failed to file monthly report forms or had left the jurisdiction without notice to the officer. In many of these situations, we could find no indication that the officer had filed a violation report or had petitioned the court or the Parole Commission for a revocation of supervision.

4. Each of the four predictive models evaluated was found to be valid for our data set. The results supporting the validity of each model were strongest at the national level. Each model consistently assigned poorer-risk scores to those offenders who in fact demonstrated unsuccessful supervision outcomes. And offenders identified by the models as being in the better-risk category showed the highest percentage of favorable outcomes.

5. In a comparison between the models' relative abilities to predict outcomes for probationers and outcomes for parolees,

we found that the models were slightly better at predicting outcomes for parolees; however, the pattern of differences among the models was similar for both groups of offenders.

6. For all offenders on a national basis, the Revised Oregon Model and the U.S.D.C. 75 Scale gave, respectively, the best and the second-best predictions. However, the two models were distinguishable in their relative capacities to correctly identify the appropriate risk category for offenders according to actual supervision outcomes. Our analysis showed that the Revised Oregon identified the largest percentage of offenders with unfavorable outcomes as maximum risks. This model, however, was the least accurate of the four models in assigning offenders with favorable outcomes to the minimum-risk category. The U.S.D.C. 75 was slightly less accurate than the Revised Oregon in identifying offenders with unfavorable outcomes as maximum risks, but was the most accurate of the four models in classifying offenders with favorable outcomes as minimum risks.

7. Our findings were not as clear-cut when we attempted to identify the best predictor for each district in our sample. We evaluated and compared the accuracy of each model based on statistical estimates calculated for each district individually. In addition, the models were evaluated for groups of offenders aggregated according to the geographic location and size of the district of supervision. Finally, we compared the models' predictions for offenders in offices grouped according to percentage of supervision terms for violent, white-collar, and narcotics-

related crimes. Generally, the Revised Oregon gave the best predictions for all variations of the district-level analysis.

On the basis of the results of the validation and comparative evaluation of the four predictive models, we make the following recommendations:

1. The U.S.D.C. 75 Scale should be used in each of the ninety-five districts as the principal method for classifying probationers, as well as parolees for whom a maximum supervision level has not been mandated by the United States Parole Commission. Although the Revised Oregon Model was found to be the best overall predictor, we do not recommend its use for these reasons:

   a. The Revised Oregon contains a total of seventeen prediction elements. The relatively large number of elements in the model means that extensive information, some of which is not routinely gathered during a presentence investigation, is required to develop offenders' risk scores. The U.S.D.C. 75, in comparison, contains only six elements, about which information is routinely collected.

   b. Fewer sequential calculations are required to compute a risk score with the U.S.D.C. 75 than with the Revised Oregon. The smaller number of calculations means that the risk of incorrectly calculating an offender's score, or of being unable to calculate a valid score because of missing information, is not as great for the U.S.D.C. 75 as it is for the Revised Oregon.

   c. Because the Revised Oregon contains a number of ele-

ments that may be sensitive to the influence of the offender's race or sex, especially in areas not traditionally viewed as having an independent, overriding relevance to recidivism, a number of ethical issues would probably have to be considered if this model were to be used. Three of the items in the model are particularly troublesome in this regard. Item F penalizes the offender if at least one member of his or her immediate family has a criminal record. Item M gives the offender credit if he or she has a verifiably close relationship with some member of his or her family. Similarly, item N gives credit if the offender has a "favorable living arrangement." Because we did not intend to change or improve any of the models, we did not examine how much each of these items contributed to the overall predictive power of the model. The U.S.D.C. 75 does not contain any nonessential elements that appear to be as sensitive to the influence of race or sex.

2. In general, we recommend that probation officers be required to use the U.S.D.C. 75 Scale for classifying offenders. Obviously, there will be instances in which the officer's professional judgment indicates a classification that differs from that of the model. We recommend that a policy be adopted regarding when an officer would be allowed to supervise an offender at a level other than that assigned by the model. It is imperative that a single approach to classification be used consistently among districts. Should an officer find factors suggesting an

offender be given a classification other than that indicated by the model, he or she should be required to state the specific reasons for the departure. Such statements would provide the means for eventual review and modification of the predictive device.

3. We could not evaluate what the optimal amount of personal and collateral contact is for offenders in each risk category. We recommend, therefore, that the minimum contact levels currently recommended in the supervision guidelines[26] be maintained for each risk category.

4. We strongly recommend that the Committee on the Administration of the Probation System and the Probation Division consider adopting new policies governing the format, content, and uniformity of case file entries on supervision activity. If an evaluation of overall supervision effectiveness is ever to be undertaken, it is imperative that there be useful and accurate data about supervision. The present lack of useful data exposes the entire probation system to the criticism that it cannot demonstrate any effects of its primary activity--the supervision of offenders to reduce further criminal behavior.

5. Finally, we recommend that supervisory staff monitor line officers more closely to ensure that violations of probation or parole are promptly reported to the court or Parole Commission. The data collected in this study indicate that in about 12

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26. See note 1 supra at § 7419 (transmittal 4, Sept. 1, 1978).

percent of the cases, officers did not inform the court or Parole Commission of further criminal acts by offenders under supervision.

APPENDIX A:

CONTENTS OF THE FOUR PREDICTIVE MODELS

CALIFORNIA BE61A (MODIFIED)

Instructions: Before using the BE61A, screen the individual case, and if possible, place it in the category which is given. If the two categories listed below do not relate to the case, then use the BE61A for classification. Please circle the appropriate category below.

(1) Instant offense is gambling--place in "A" category.

(2) Twelfth grade education or better--place in "A" category (do not include GED).

If the case received an "A" classification because the offense is gambling or because of a high school education, but there is a history of hard drug usage, do not place in "A" category. Use the scale to determine classification.

Characteristics		Points
A.	Arrest-free period of five (5) or more consecutive years	12 _____
B.	No history of opiate usage*	9 _____
C.	Few jail commitments (none, one or two)	8 _____
D.	Most recent conviction or commitment does not involve checks, forgery, or burglary	7 _____
E.	No family criminal record	6 _____
F.	No alcohol involvement	6 _____
G.	First arrest not for auto theft	5 _____
H.	Twelve (12) months steady employment within one (1) year prior to arraignment for present offense	6 _____
I.	Four (4) to eleven (11) months steady employment prior to arraignment for present offense. (If given six (6) points on item H, add also four (4) points for this item.)	4 _____
J.	No aliases	5 _____
K.	Favorable living arrangement	4 _____
L.	Few prior arrests (none, one or two)	4 _____
	Sum of points 76	_____

*If the case receives no points because of a history of hard drug usage and the total score (sum of points) otherwise places the case in an "A" or "B" category, the case should be given a "B" classification.

Scale for Potential Adjustment

C	B	A
00-36	37-56	57-76

Revised: 9-75

REVISED OREGON MODEL

Characteristics		Points
A.	Arrest-free period of five or more consecutive years	12 _____
B.	No history of opiate usage	9 _____
C.	Few periods of incarceration (none, 1, or 2)	8 _____
D.	Most recent conviction does not involve checks, forgery, or burglary	7 _____
E.	No previous probation or parole failures	7 _____
F.	No family criminal record	6 _____
G.	No alcohol involvement	6 _____
H.	Presently employed or otherwise productively occupied	6 _____
I.	No history of drug abuse or extensive use of marijuana	5 _____
J.	First arrest occurred after the age of 14	5 _____
K.	Twelve months steady employment within one year prior to arraignment for present offense	6 _____
L.	Four to eleven months steady employment prior to arraignment for present offense. (If given 6 points on item K, also add 4 points for this item.)	4 _____
M.	Meaningful family ties	5 _____
N.	Favorable living arrangement	5 _____
O.	High school graduate or equivalency	4 _____
P.	Few prior arrests (none, 1, or 2)	4 _____
	Subtotal	_____
Q.	If the offender's present crime involves one of the following, deduct 25 points from the subtotal: 1. Any crime of violence. 2. Sale of "hard" narcotics for profit. 3. Extortion.	_____
	Total points . . .	_____

Scale to Determine Degree of Supervision Required

Maximum	Medium	Minimum
C	B	A
00-49	50-75	76-99

SALIENT FACTOR SCORE

Characteristics	Points
Item A No prior convictions (adult or juvenile) = 3 One prior conviction = 2 Two or three prior convictions = 1 Four or more prior convictions = 0	_____
Item B No prior incarceration (adult or juvenile) = 2 One or two prior incarcerations = 1 Three or more prior incarcerations = 0	_____
Item C Age at first commitment (adult or juvenile): 26 or older = 2 18 - 25 = 1 17 or younger = 0 *If no prior commitments, treat instant offense as first commitment	_____
Item D Instant offense did not involve auto theft or check(s) (forgery/larceny) = 1 Instant offense involved auto theft (X), or check(s) (Y), or both (Z) = 0	_____
Item E Never had parole revoked or been committed for a new offense while on parole, and not a probation violator this time = 1 Has had parole revoked or been committed for a new offense while on parole (X), or is a probation violator this time (Y), or both (Z) = 0 *Treat instant offense as violation/commitment if now under supervision	_____
Item F No history of heroin or opiate dependence = 1 Otherwise = 0	_____
Item G Verified employment (or full-time school attendance) for a total of at least 6 months during the last 2 years in the community = 1 Otherwise = 0	_____
Total score	_____

Parole Prognosis

Very Good	Good	Fair	Poor
9-11	6-8	4-5	0-3

U.S.D.C. 75 SCALE

Instructions: If the client has a high school degree (exclude GED) and no history of opiate abuse, check the box to the right, ignore items A through E, and place the client in the excellent-risk category. ☐

Otherwise use items A through E to determine the rating.

Characteristics		Points
A.	28 years of age or older at time of instant conviction	7 _____
B.	Arrest-free period of five (5) or more consecutive years	4 _____
C.	Few prior arrests (none, one, or two)	10 _____
D.	No history of opiate usage	9 _____
E.	At least four (4) months steady employment prior to arraignment on present offense . . .	3 _____
	Sum of points 33	_____

Scale for Potential Adjustment

Risk	Classification	Frequency of Personal Contact
(0-9) Poor	Maximum (C)	Three times per month
(10-19) Good	Medium (B)	Once a month
(20-33) Excellent	Minimum (A)	Quarterly

APPENDIX B:

PROCEDURES USED TO COMPUTE MODEL RISK SCORES

Computing Risk Scores

In general, four risk scores were computed for every offender in the sample according to the scoring directions for each of the four predictive models. Each score resulted from adding the number of points earned for each component or item of the model. Missing or imprecise data frequently made it impossible to determine the points for a particular component directly (that is, from the data elements specifically designed to address that component). If direct determination for a component could not be made but an alternate method employing related data elements could be identified, the determination was made according to the alternate method. All model components for which alternate calculation methods could be identified are listed in the section on calculation alternatives at the end of this appendix.

If direct determination for a component could not be made and either no alternate method could be identified or the method did not provide the necessary data, the component was marked as undetermined and was not included in the computation of risk scores. When more than four components of the Revised Oregon or the BE61A were undeterminable for a particular offender, the risk score was considered incalculable and a missing-data value was assigned. More than two undeterminable items for the Salient Factor Score or the U.S.D.C. 75 also led to assignment of a missing-data value. The choice of whether to place the cutoff

point for undetermined items at two or four was guided by the total number of items in each of the models. Table 19 presents information on how frequently individual items in a scale could not be determined, and table 20 shows the impact of undetermined items on the determination of valid category assignments.

Two of the models, BE61A and U.S.D.C. 75, contain automatic category assignment components. If an offender meets the necessary criteria, he or she is automatically assigned to the minimum-risk category. For both models, an offender is automatically assigned if he or she has at least a twelfth-grade education and no history of opiate use. In addition, the BE61A contains a second criterion that automatically classifies an offender with an instant conviction for gambling and no opiate use history as an excellent risk.

In the present study, an individual who met the automatic category assignment criteria listed for either of the two models was assigned a risk score for the appropriate model equal to the score falling at the midpoint of the minimum-risk category (BE61A, 66; U.S.D.C. 75, 26). Such assignments were made only to facilitate certain computer calculations, however; when risk score information is given in this report, this special group of offenders is listed separately. Also, since this preemptive method was essentially one of risk category assignment and no true risk score could be given, these offenders were eliminated from the sample when statistical calculations based on risk scores were made.

TABLE 19

PERCENTAGE OF CASES IN WHICH INDIVIDUAL MODEL ITEMS WERE UNDETERMINABLE

	Revised Oregon		Calif. BE61A		Salient Factor		U.S.D.C. 75	
Category	Item	Percentage	Item	Percentage	Item	Percentage	Item	Percentage
Drug abuse								
Opiate	B	5.3	B	5.3	F	5.3	D	5.3
Other controlled substance	I	6.3						
Alcohol	G	0.0	F	0.0				
Employment	H	9.4	H	6.0	G	8.7	E	10.7
	K	6.0	I	14.3				
	L	14.3						
Prior record								
Arrest free	A	0.6	A	0.6			B	0.6
Prior arrests	P	3.1	L	3.1			C	3.1
Prior convictions					A	3.1		
Prior incarcerations	C	2.7	C	2.7	B	2.7		
Prior failures	E	2.9			E	2.7		
Instant offense	Q	0.1	ACA*	0.1	D	0.1		
Prior offenses	D	0.0	D	0.0				
			G	50.3				
Age								
Instant offense							A	1.0
First arrest	J	5.1						
First incarceration					C	3.3		
Education	O	2.6	ACA*	2.6			ACA*	2.6
Family								
Record	F	2.0	E	2.0				
Ties	M	5.5						
Living arrangement	N	11.8	K	11.8				
Aliases			J	0.5				

*ACA = automatic category assignment (the BE61A and U.S.D.C. 75 contain special items that bypass the calculation of risk scores and automatically assign a case to the excellent-risk category).

TABLE 20

INFLUENCE OF UNDETERMINED MODEL ITEMS ON CATEGORY ASSIGNMENTS

	Revised Oregon		Calif. BE61A		Salient Factor		U.S.D.C. 75	
Cases	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
With one or more items missing	610	37.6	1,014	62.6	290	17.9	283	17.5
Exceeding undetermined items cutoff*	41	2.5	22	1.4	34	2.1	7	0.4
Without valid category assignment								
Excl. ACA component	188	11.6	308	19.0	151	9.3	143	8.8
Incl. ACA component			231	14.3			119	7.3

NOTE: Items that were part of the automatic category assignment (ACA) components of the BE61A and U.S.D.C. 75 were not included in the analyses presented in the first two rows of this table.

*The cutoff for the Revised Oregon and the BE61A was four items, for the Salient Factor and the U.S.D.C. 75, two items.

If an offender did not meet the automatic category assignment criteria or if missing data made it impossible to determine if the criteria were met, a risk score was calculated in the usual manner. For the BE61A, after a risk score was determined from the twelve basic items, a final adjustment to the score was made in certain cases. The scale's directions indicate that if a score would normally place an offender in the minimum- or medium-risk category but there is a history of opiate use, the offender should be assigned to the medium-risk category. Therefore, if the original risk score was already associated with the medium-risk category, no score adjustment was necessary. However, if the original risk score was associated with the minimum-risk category, twenty points were deducted from the score. Regardless of the original score, this deduction automatically placed the final score within the medium-risk category's boundaries while maintaining a distribution among the scores related to their original values.[27] If information on drug use was missing, the artificial "thirteenth" item was marked undeterminable and a point value of -20 was used in the missing-data tests (described subsequently).

The risk scores calculated for the four models were then

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27. A similar adjustment is indicated in the Revised Oregon (item Q); however, this model gives a specific adjustment value of -25, unlike the vague directions given in the BE61A. Also, the Revised Oregon's adjustment applies to all offenders and has more diverse criteria. The obvious reason for this adjustment is to move the offender into the next highest risk category. Note, however, that this intent is thwarted if the client happens to score exactly seventy-five points.

associated with risk category values according to the category boundaries specified for each model (for example, Salient Factor risk scores 9-11 are associated with the best-risk category). Any records containing a missing-data value for a risk score were given a category value of zero, indicating that a valid category assignment could not be made. In records for which a risk score had been computed with one or more model items still undetermined, a test was made to see if addition of the points associated with the missing-data items,[28] singly or in combination, would change the risk category value already assigned (that is, would alter the risk score sufficiently that it would cross over a category boundary). If such a change could occur, the risk category value was adjusted to zero, and the record was not included in the statistical calculations for the model. If addition of these points would not change the assigned risk category value, the value was considered valid and was used in all statistical calculations, although the true risk score remained unknown. Statistical calculations based on risk scores were performed only for cases in which all items were determined.

These procedures were designed to minimize the number of records eliminated from each model's sample while maintaining the validity of the data. However, they resulted in different sample sizes for each of the four models, which varied according to

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28. If different numbers of points were associated with a single item (e.g., item A on the Salient Factor Score), the highest possible number of points was used unless some other factor clearly indicated that this number of points was unattainable.

whether the calculation variables were risk scores or risk category values. To control for the possible effects of varying sample sizes on the patterns we discerned, we performed secondary calculations at several points in the analysis, using a reduced sample for which valid values could be determined for all four models.

Calculation Alternatives

In most instances, the information needed to determine if the criterion for a model item was satisfied (and thus if the indicated points should be awarded) or not satisfied (and thus if zero points should be awarded) was available from one or more variables in the data collection instrument[29] designed to address that item directly. In a few cases, however, because of missing or imprecise data, different variables in the instrument had to be combined and substituted for the original variables in order to make a complete determination. The direct method of calculation was used whenever possible. Listed below are the model items for which alternate calculation methods were available.

Arrest-free period occurs as item A in the Revised Oregon and the BE61A and as item B in the U.S.D.C. 75. If there were no prior adult felony or misdemeanor arrests, the criterion period was considered satisfied.

Total number of prior incarcerations occurs in the Revised

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29. This instrument is available from the Center's Information Services Office.

Oregon (item C), BE61A (item C), and Salient Factor (item B). If the total number of prior adult felony or misdemeanor arrests was less than or equal to the criterion indicated, the criterion was considered satisfied.

Age at first arrest occurs in the Revised Oregon (item J). If the offender's age at first arrest was unknown, but a prior arrest was definitely indicated and the age at the time of the instant offense was less than the criterion of fourteen years, the item was considered calculable and no points were awarded (as required by the model).

Twelve months of steady employment within one year of arraignment for instant offense occurs in the Revised Oregon (item K) and the BE61A (item H). If the offender's employment status for the year prior to arraignment for the instant offense was described as "other" and at the time of the instant offense the offender was attending school full-time, was attending school part-time and working part-time, or was described as physically or mentally incapable of working, the employment criterion was considered satisfied.

Four to eleven months of steady employment prior to arraignment for instant offense occurs in the Revised Oregon (item L) and the BE61A (item I). There was no direct method of calculating this item; however, if the value for months of steady employment for the two-year period prior to arraignment was greater than four and the offender was employed full-time when the instant offense occurred, or if he or she was in school full-time

or in school part-time and working part-time when the instant offense occurred, regardless of work history, the employment criterion was considered satisfied.

Six months of verified employment or full-time school attendance during last two years in the community occurs in the Salient Factor Score (item G). The length of time in school could not be determined directly; however, if the employment criterion could not be met but the offender was in school full-time or in school part-time and working part-time when the instant offense occurred, the criterion was considered satisfied.

Four months of steady employment prior to arraignment for instant offense occurs in the U.S.D.C. 75 (item E). There was no single variable in the data collection instrument that matched this item exactly. The criterion was considered satisfied, however, if the offender was coded as having been steadily employed for the year just prior to the instant offense; if there were four or more consecutive months of employment during the two-year period prior to arraignment and the individual was employed full-time when the instant offense occurred; if the offender was steadily self-employed for the two years prior to arraignment; or if he or she was in school full-time, or in school part-time with part-time employment, when the instant offense occurred.

Age at first incarceration occurs in the Salient Factor Score (item C). If prior incarcerations had occurred but the age at the first incarceration could not be determined and the age at the time of the instant offense was less than eighteen, the item

was considered determinable and, as required by the model, no points were awarded. If in the same situation the age at instant offense was between eighteen and twenty-five, the item was marked as undeterminable; however, the highest number of points associated with this item was reduced from two to one because it was clear that even if the item were determinable, the two-point level would not be attained (see note 28 supra).

First arrest not for auto theft occurs in the BE61A (item G). Data on the type of offense at first arrest were not specifically collected. Therefore, this item was only determinable in two situations: If there were no prior arrests, the values coded for the instant offense variable were used to determine whether the criterion for awarding points was satisfied, and if there was only one prior arrest, the values for the prior offense were used. If the number of prior arrests was not known or was greater than one, the component was considered undeterminable. This single item was an important factor leading to decreased sample sizes for the California BE61A, especially in calculations based on risk scores.

APPENDIX C:

STATISTICAL MEASURES EMPLOYED IN THE STUDY

Three statistical measures are cited in this report: Pearson's product-moment correlation coefficient (r), Kendall's rank correlation coefficient (tau), and an efficiency estimate developed by Berkson, the Mean Cost Rating (MCR).[30]

Pearson's product-moment correlation coefficient. Pearson's r is a measure of the strength and direction of the linear relationship between two variables, both of which must be measured on an interval-level scale. Basically, it estimates to what degree the values of one variable increase (or decrease), at a consistent rate, as the values of a second variable increase. It is also a measure of the expected accuracy of predicting the value of one variable from the known value of a second variable. The values of r range from -1 to +1, with the sign indicating whether the correlation is positive (high values of the first variable tend to be associated with high values of the second) or negative (high values of the first variable tend to be associated with low values of the second). The strength of the relationship is denoted by the absolute distance of r from zero. The farther the coefficient is from zero (in either direction), the stronger the correlation and the better the predictions of unknown values of one variable from known values of the other are likely to be. A

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30. Berkson, "Cost-Utility" as a Measure of the Efficiency of a Test, 42 J. Am. Statistical A. 246 (1947).

coefficient close to zero indicates that a linear relationship between the two variables is lacking.[31]

As mentioned above, Pearson's r is an appropriate estimate of the strength of an association only when both variables are measured on an interval scale. This means that the values assumed must reflect not only a linear order--that is, higher values consistently being associated with possessing more (or less) of the quality being measured (for example, when measuring temperature, a value of fifty degrees indicates a greater level of heat than does a value of forty-five degrees)--but also equal intervals of measurement--that is, a difference of one unit being associated with the same amount of change regardless of where it occurs on the scale (for example, a temperature of forty-eight degrees is the same amount hotter than forty-seven degrees as eighty-eight degrees is hotter than eighty-seven degrees).

Risk scores obtained by summing the points earned for each of the components in the models can be considered interval variables. Thus, in this study, correlations between the models based on risk scores were estimated by Pearson's r.[32]

The dichotomous outcome variables indicating whether the

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31. Squaring the computed r value produces another statistic, r^2, which is often used in conjunction with r. This new value is an estimate of the proportion of the total variance in one variable that can be explained by the observed variance in a second variable.

32. Pearson r values and the probability estimates (one-tailed) associated with them were generated using the PEARSON CORR procedure of the Statistical Package for the Social Sciences (SPSS).

criteria for a favorable outcome were met were also considered to be measurable on an interval scale. The reasons are (a) that meeting these criteria can be considered "higher" or "better" than not meeting them and (b) that with only two values the one interval must be equal to itself. In the special case when the strength of the relationship between a continuous variable and a dichotomous variable is being estimated, the correlation coefficient is often termed a point-biserial *r*. The reader should be aware, however, that the point-biserial *r* is not different from the Pearson *r*, but rather is the same estimate made on data that exhibit a particular configuration.

Kendall's rank correlation coefficient. When a variable meets the measurement condition requiring that the values reflect a linear order but does not demonstrate equal intervals, it is said to be measured at the ordinal level, or ranked. The risk categories for each of the models are ordinal measurements. Since order is the critical condition, the dichotomous outcome variables can also be considered ordinal variables even though they also meet the more stringent interval-level criteria.

Kendall's rank correlation coefficient (tau) provides an estimate of the strength of association between two ranked variables. As with Pearson's *r*, the value of tau can range from -1 to +1, with the absolute value indicating the strength of the relationship and the sign indicating if the relationship is direct (+) or inverse (-).

Tau values were calculated whenever risk category variables

were used in a correlation analysis. Two different equations were used to calculate tau values, depending on the data configurations.[33] If the two variables had an equal number of categories (for example, when correlating Revised Oregon risk category values with the probation officers' supervision classifications, both of which have three categories--maximum, medium, and minimum), tau_b estimates were calculated. If the two variables had an unequal number of categories (for example, when correlating Revised Oregon category values with outcome, which has only two levels--favorable and unfavorable), tau_c estimates were calculated. Both estimates contain correction factors for ties (for example, when multiple offenders are placed in the same risk category), but tau_c makes an additional correction for the inequality of the number of categories.[34]

Mean Cost Rating. The Mean Cost Rating is a measure of how efficiently known values of one ranked variable can be used to predict the value of a second dichotomous variable, where efficiency is defined in terms of the relationship of cost to util-

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33. Kendall tau values and the probability estimates (one-tailed) associated with them were generated as part of the statistical output from the CROSSTABS procedure of the Statistical Package for the Social Sciences (SPSS).

34. Tau_a values are used mainly when the objective is to determine how accurately a second ranking of items reflects an original true ordering. For example, if a person is asked to order a set of items by weight, when none of the items weigh the same, tau_a is the measure of how accurate the subject's ranking is with respect to the true ranking by weight. No correction for ties is made in the calculation of tau_a, since no two items should fall at the same rank.

ity.[35] Utility is the proportion of subjects correctly identified with outcome X (true positives), and cost is the proportion of subjects incorrectly identified with outcome X (false positives). The first step in calculating the MCR is to determine the cost and utility associated with using each value of the independent variable as the cutoff point, such that all subjects with category values less than or equal to the cutoff are predicted to achieve outcome X and all subjects with values greater than the cutoff are predicted to achieve outcome Y. Once the individual cost and utility values are computed, a weighted mean cost for every standard interval delimited by an ordered pair of predictor values (starting with the pair zero and one) can be calculated.[36] Summing these weighted mean costs provides the total mean cost (MC) measured over all intervals of utility. The Mean Cost Rating is thus an index of overall efficiency, and is derived according to the equation MCR = | 1 - 2MC |. The values of MCR range from zero to one, and the larger the absolute value

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35. The Mean Cost Rating (MCR) is a statistical measure currently used almost exclusively in probation and parole prediction research. MCR values are listed in tables 46-69 to provide a point of comparison with other research in the field. However, the data analysis does not refer to these values, since it is unclear that the Mean Cost Rating is a useful or appropriate statistic for prediction research.

36. With cost (C) and utility (U) values at both the upper limit of the interval (i) and the lower limit of the interval (i-1), the weighted mean cost (WMC) over the interval is calculated by the equation $WMC = (1/2)(C_i + C_{i-1})(U_i - U_{i-1})$. For a fuller explanation of the calculation of MCR, see Inciardi, Babst, & Koval, Computing Mean Cost Ratings (MCR), 10 J. of Research in Crime & Delinquency 22 (1970).

of MCR, the better the overall trade-off of cost and utility is estimated to be.[37]

Tests of significance were done for all correlation coefficients cited in this report, and probability estimates are always indicated.[38] Specific significance testing was not done for MCR values. It has been suggested, however, that the MCR is sufficiently related to Kendall's tau that the normal deviate probability estimate calculated for tau values is an appropriate measure of the significance of MCR values calculated on the same sample.[39]

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37. MCR values were generated with a special computer program, using the calculation equation given in Lancucki & Tarling, The Relationship between Mean Cost Rating and Kendall's Rank Correlation Coefficient, in D. Gottfredson, L. Wilkins, & P. Hoffman, Guidelines for Parole and Sentencing 199 (1978).

38. To determine statistical significance, the statistical value computed for the sample is compared with the range of values that is possible for a population for which an alternate hypothesis--usually the null hypothesis that there is no relationship--is true. If the probability of obtaining for the comparison population the same value obtained for the sample is small enough to satisfy the researcher, then "significance" can be claimed. A probability value of .05 (one chance in twenty) is commonly used as the highest acceptable level for claiming significance. More stringent levels of .01 or .001 are also frequently used.

39. Lancucki & Tarling, supra note 37.

APPENDIX D:

TABLES 21 TO 44--DISTRIBUTION OF OUTCOMES BY MODEL CATEGORY ASSIGNMENTS AND OFFICER CLASSIFICATIONS

TABLE 21

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR ALL CASES: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	116 (63.0)	Max:	42	68 (37.0)	Max:	34	184 (14.4)	Max:	76
		Med:	58		Med:	20		Med:	78
		Min:	5		Min:	3		Min:	8
		Unk:	11		Unk:	11		Unk:	22
Medium risk	345 (80.4)	Max:	50	84 (19.6)	Max:	35	429 (33.6)	Max:	85
		Med:	200		Med:	44		Med:	244
		Min:	71		Min:	2		Min:	73
		Unk:	24		Unk:	3		Unk:	27
Minimum risk	647 (97.7)	Max:	19	15 (2.3)	Max:	2	662 (51.9)	Max:	21
		Med:	260		Med:	5		Med:	265
		Min:	307		Min:	5		Min:	312
		Unk:	61		Unk:	3		Unk:	64
Total	1,108 (86.9)	Max:	111	167 (13.1)	Max:	71	1,275 (100.0)	Max:	182
		Med:	518		Med:	69		Med:	587
		Min:	383		Min:	10		Min:	393
		Unk:	96		Unk:	17		Unk:	113

TABLE 22

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR ALL CASES: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	95 (45.9)	Max: 30 Med: 53 Min: 5 Unk: 7	112 (54.1)	Max: 56 Med: 35 Min: 4 Unk: 17	207 (15.3)	Max: 86 Med: 88 Min: 9 Unk: 24
Medium risk	295 (63.7)	Max: 38 Med: 173 Min: 63 Unk: 21	168 (36.3)	Max: 57 Med: 91 Min: 11 Unk: 9	463 (34.1)	Max: 95 Med: 264 Min: 74 Unk: 30
Minimum risk	627 (91.5)	Max: 18 Med: 248 Min: 300 Unk: 61	58 (8.5)	Max: 7 Med: 27 Min: 18 Unk: 6	685 (50.6)	Max: 25 Med: 275 Min: 318 Unk: 67
Total	1,017 (75.1)	Max: 86 Med: 474 Min: 368 Unk: 89	338 (24.9)	Max: 120 Med: 153 Min: 33 Unk: 32	1,355 (100.0)	Max: 206 Med: 627 Min: 401 Unk: 121

TABLE 23

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR ALL CASES: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	63 (59.4)	Max:	25	43 (40.6)	Max:	20	106 (8.6)	Max:	45
		Med:	26		Med:	14		Med:	40
		Min:	6		Min:	3		Min:	9
		Unk:	6		Unk:	6		Unk:	12
Medium risk	222 (77.9)	Max:	31	63 (22.1)	Max:	26	285 (23.0)	Max:	57
		Med:	134		Med:	32		Med:	166
		Min:	40		Min:	0		Min:	40
		Unk:	17		Unk:	5		Unk:	22
Minimum risk	800 (94.5)	Max:	45	47 (5.5)	Max:	18	847 (68.4)	Max:	63
		Med:	337		Med:	18		Med:	355
		Min:	345		Min:	6		Min:	351
		Unk:	73		Unk:	5		Unk:	78
Total	1,085 (87.6)	Max:	101	153 (12.4)	Max:	64	1,238 (100.0)	Max:	165
		Med:	497		Med:	64		Med:	561
		Min:	391		Min:	9		Min:	400
		Unk:	96		Unk:	16		Unk:	112

TABLE 24

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR ALL CASES: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	51 (42.1)	Max:	18	70 (57.9)	Max:	33	121 (9.2)	Max:	51
		Med:	22		Med:	25		Med:	47
		Min:	6		Min:	3		Min:	9
		Unk:	5		Unk:	9		Unk:	14
Medium risk	189 (60.2)	Max:	20	125 (39.8)	Max:	45	314 (23.9)	Max:	65
		Med:	114		Med:	69		Med:	183
		Min:	38		Min:	3		Min:	41
		Unk:	17		Unk:	8		Unk:	25
Minimum risk	756 (85.8)	Max:	38	125 (14.2)	Max:	35	881 (66.9)	Max:	73
		Med:	319		Med:	53		Med:	372
		Min:	331		Min:	27		Min:	358
		Unk:	68		Unk:	10		Unk:	78
Total	996 (75.7)	Max:	76	320 (24.3)	Max:	113	1,316 (100.0)	Max:	189
		Med:	455		Med:	147		Med:	602
		Min:	375		Min:	33		Min:	408
		Unk:	90		Unk:	27		Unk:	117

TABLE 25

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR ALL CASES: SALIENT FACTOR SCORE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Poor risk	32 (72.7)	Max:	14	12 (27.3)	Max:	5	44 (3.4)	Max:	19
		Med:	14		Med:	6		Med:	20
		Min:	1		Min:	1		Min:	2
		Unk:	3		Unk:	0		Unk:	3
Fair risk	79 (71.2)	Max:	25	32 (28.8)	Max:	17	111 (8.5)	Max:	42
		Med:	38		Med:	9		Med:	47
		Min:	9		Min:	2		Min:	11
		Unk:	7		Unk:	4		Unk:	11
Good risk	253 (76.4)	Max:	38	78 (23.6)	Max:	42	331 (25.3)	Max:	80
		Med:	133		Med:	26		Med:	159
		Min:	60		Min:	3		Min:	63
		Unk:	22		Unk:	7		Unk:	29
Very good risk	779 (94.7)	Max:	32	44 (5.3)	Max:	9	823 (62.9)	Max:	41
		Med:	351		Med:	26		Med:	377
		Min:	322		Min:	4		Min:	326
		Unk:	74		Unk:	5		Unk:	79
Total	1,143 (87.3)	Max:	109	166 (12.7)	Max:	73	1,309 (100.0)	Max:	182
		Med:	536		Med:	67		Med:	603
		Min:	392		Min:	10		Min:	402
		Unk:	106		Unk:	16		Unk:	122

TABLE 26

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR ALL CASES: SALIENT FACTOR SCORE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Poor risk	25 (54.3)	Max:	11	21 (45.7)	Max:	10	46 (3.3)	Max:	21
		Med:	11		Med:	9		Med:	20
		Min:	1		Min:	1		Min:	2
		Unk:	2		Unk:	1		Unk:	3
Fair risk	68 (54.8)	Max:	20	56 (45.2)	Max:	29	124 (8.9)	Max:	49
		Med:	34		Med:	19		Med:	53
		Min:	9		Min:	2		Min:	11
		Unk:	5		Unk:	6		Unk:	11
Good risk	214 (58.2)	Max:	26	154 (41.8)	Max:	67	368 (26.5)	Max:	93
		Med:	117		Med:	60		Med:	177
		Min:	53		Min:	11		Min:	64
		Unk:	18		Unk:	16		Unk:	34
Very good risk	741 (87.1)	Max:	25	110 (12.9)	Max:	19	851 (61.3)	Max:	44
		Med:	329		Med:	64		Med:	393
		Min:	313		Min:	20		Min:	333
		Unk:	74		Unk:	7		Unk:	81
Total	1,048 (75.4)	Max:	82	341 (24.6)	Max:	125	1,389 (100.0)	Max:	207
		Med:	491		Med:	152		Med:	643
		Min:	376		Min:	34		Min:	410
		Unk:	99		Unk:	30		Unk:	129

TABLE 27

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR ALL CASES: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	66 (51.2)	Max: 25 Med: 29 Min: 10 Unk: 2	63 (48.8)	Max: 33 Med: 22 Min: 1 Unk: 7	129 (9.7)	Max: 58 Med: 51 Min: 11 Unk: 9
Medium risk	222 (80.4)	Max: 37 Med: 127 Min: 36 Unk: 22	54 (19.6)	Max: 20 Med: 27 Min: 3 Unk: 4	276 (20.7)	Max: 57 Med: 154 Min: 39 Unk: 26
Minimum risk	872 (94.2)	Max: 52 Med: 379 Min: 360 Unk: 81	54 (5.8)	Max: 21 Med: 22 Min: 6 Unk: 5	926 (69.6)	Max: 73 Med: 401 Min: 366 Unk: 86
Total	1,160 (87.2)	Max: 114 Med: 535 Min: 406 Unk: 105	171 (12.8)	Max: 74 Med: 71 Min: 10 Unk: 16	1,331 (100.0)	Max: 188 Med: 606 Min: 416 Unk: 121

TABLE 28

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR ALL CASES: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	50 (34.5)	Max: 15 Med: 23 Min: 10 Unk: 2	95 (65.5)	Max: 49 Med: 37 Min: 2 Unk: 7	145 (10.2)	Max: 64 Med: 60 Min: 12 Unk: 9
Medium risk	191 (63.5)	Max: 28 Med: 108 Min: 34 Unk: 21	110 (36.5)	Max: 35 Med: 61 Min: 6 Unk: 8	301 (21.2)	Max: 63 Med: 169 Min: 40 Unk: 29
Minimum risk	824 (84.9)	Max: 45 Med: 358 Min: 346 Unk: 75	147 (15.1)	Max: 40 Med: 65 Min: 27 Unk: 15	971 (68.5)	Max: 85 Med: 423 Min: 373 Unk: 90
Total	1,065 (75.2)	Max: 88 Med: 489 Min: 390 Unk: 98	352 (24.8)	Max: 124 Med: 163 Min: 35 Unk: 30	1,417 (100.0)	Max: 212 Med: 652 Min: 425 Unk: 128

TABLE 29

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PROBATIONERS: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	50 (60.2)	Max: 15 Med: 26 Min: 3 Unk: 6	33 (39.8)	Max: 15 Med: 9 Min: 2 Unk: 7	83 (9.0)	Max: 30 Med: 35 Min: 5 Unk: 13
Medium risk	232 (81.4)	Max: 30 Med: 126 Min: 62 Unk: 14	53 (18.6)	Max: 23 Med: 26 Min: 1 Unk: 3	285 (30.9)	Max: 53 Med: 152 Min: 63 Unk: 17
Minimum risk	544 (98.2)	Max: 10 Med: 208 Min: 277 Unk: 49	10 (1.8)	Max: 0 Med: 3 Min: 5 Unk: 2	554 (60.1)	Max: 10 Med: 211 Min: 282 Unk: 51
Total	826 (89.6)	Max: 55 Med: 360 Min: 342 Unk: 69	96 (10.4)	Max: 38 Med: 38 Min: 8 Unk: 12	922 (100.0)	Max: 93 Med: 398 Min: 350 Unk: 81

TABLE 30

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PROBATIONERS: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	40 (46.0)	Max: 9 Med: 24 Min: 3 Unk: 4	47 (54.0)	Max: 24 Med: 11 Min: 3 Unk: 9	87 (9.0)	Max: 33 Med: 35 Min: 6 Unk: 13
Medium risk	194 (62.6)	Max: 20 Med: 107 Min: 55 Unk: 12	116 (37.4)	Max: 42 Med: 58 Min: 9 Unk: 7	310 (31.9)	Max: 62 Med: 165 Min: 64 Unk: 19
Minimum risk	525 (91.3)	Max: 9 Med: 197 Min: 270 Unk: 49	50 (8.7)	Max: 4 Med: 23 Min: 18 Unk: 5	575 (59.2)	Max: 13 Med: 220 Min: 288 Unk: 54
Total	759 (78.1)	Max: 38 Med: 328 Min: 328 Unk: 65	213 (21.9)	Max: 70 Med: 92 Min: 30 Unk: 21	972 (100.0)	Max: 108 Med: 420 Min: 358 Unk: 86

TABLE 31

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PROBATIONERS: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	28 (57.1)	Max:	9	21 (42.9)	Max:	10	49 (5.4)	Max:	19
		Med:	11		Med:	6		Med:	17
		Min:	4		Min:	2		Min:	6
		Unk:	4		Unk:	3		Unk:	7
Medium risk	141 (77.9)	Max:	17	40 (22.1)	Max:	17	181 (20.0)	Max:	34
		Med:	81		Med:	18		Med:	99
		Min:	34		Min:	0		Min:	34
		Unk:	9		Unk:	5		Unk:	14
Minimum risk	644 (95.7)	Max:	20	29 (4.3)	Max:	8	673 (74.5)	Max:	28
		Med:	259		Med:	12		Med:	271
		Min:	308		Min:	5		Min:	313
		Unk:	57		Unk:	4		Unk:	61
Total	813 (90.0)	Max:	46	90 (10.0)	Max:	35	903 (100.0)	Max:	81
		Med:	351		Med:	36		Med:	387
		Min:	346		Min:	7		Min:	353
		Unk:	70		Unk:	12		Unk:	82

TABLE 32

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PROBATIONERS: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	23 (44.2)	Max: 6 Med: 10 Min: 4 Unk: 3	29 (55.8)	Max: 15 Med: 7 Min: 2 Unk: 5	52 (5.5)	Max: 21 Med: 17 Min: 6 Unk: 8
Medium risk	117 (59.4)	Max: 10 Med: 66 Min: 32 Unk: 9	80 (40.6)	Max: 28 Med: 42 Min: 3 Unk: 7	197 (20.7)	Max: 38 Med: 108 Min: 35 Unk: 16
Minimum risk	608 (86.6)	Max: 15 Med: 244 Min: 295 Unk: 54	94 (13.4)	Max: 20 Med: 42 Min: 25 Unk: 7	702 (73.8)	Max: 35 Med: 286 Min: 320 Unk: 61
Total	748 (78.7)	Max: 31 Med: 320 Min: 331 Unk: 66	203 (21.3)	Max: 63 Med: 91 Min: 30 Unk: 19	951 (100.0)	Max: 94 Med: 411 Min: 361 Unk: 75

TABLE 33

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PROBATIONERS: SALIENT FACTOR SCORE

	Favorable Outcome		Unfavorable Outcome		Total	
Model Category	N (Row %)	Officer Classification	N (Row %)	Officer Classification	N (Col. %)	Officer Classification
Poor risk	13 (76.5)	Max: 3 Med: 7 Min: 1 Unk: 2	4 (23.5)	Max: 2 Med: 2 Min: 0 Unk: 0	17 (1.8)	Max: 5 Med: 9 Min: 1 Unk: 2
Fair risk	39 (68.4)	Max: 12 Med: 17 Min: 5 Unk: 5	18 (31.6)	Max: 11 Med: 5 Min: 1 Unk: 1	57 (6.0)	Max: 23 Med: 22 Min: 6 Unk: 6
Good risk	164 (78.1)	Max: 21 Med: 79 Min: 52 Unk: 12	46 (21.9)	Max: 24 Med: 14 Min: 3 Unk: 5	210 (22.3)	Max: 45 Med: 93 Min: 55 Unk: 17
Very good risk	633 (96.1)	Max: 17 Med: 272 Min: 288 Unk: 56	26 (3.9)	Max: 3 Med: 15 Min: 4 Unk: 4	659 (69.9)	Max: 20 Med: 287 Min: 292 Unk: 60
Total	849 (90.0)	Max: 53 Med: 375 Min: 346 Unk: 75	94 (10.0)	Max: 40 Med: 36 Min: 8 Unk: 10	943 (100.0)	Max: 93 Med: 411 Min: 354 Unk: 85

TABLE 34

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PROBATIONERS: SALIENT FACTOR SCORE

	Favorable Outcome		Unfavorable Outcome		Total	
Model Category	N (Row %)	Officer Classification	N (Row %)	Officer Classification	N (Col. %)	Officer Classification
Poor risk	10 (58.8)	Max: 2 Med: 6 Min: 1 Unk: 1	7 (41.2)	Max: 3 Med: 3 Min: 0 Unk: 1	17 (1.7)	Max: 5 Med: 9 Min: 1 Unk: 2
Fair risk	33 (51.6)	Max: 9 Med: 15 Min: 5 Unk: 4	31 (48.4)	Max: 19 Med: 9 Min: 1 Unk: 2	64 (6.5)	Max: 28 Med: 24 Min: 6 Unk: 6
Good risk	135 (59.0)	Max: 12 Med: 67 Min: 46 Unk: 10	94 (41.0)	Max: 41 Med: 33 Min: 10 Unk: 10	229 (23.1)	Max: 53 Med: 100 Min: 56 Unk: 20
Very good risk	601 (88.1)	Max: 12 Med: 254 Min: 279 Unk: 56	81 (11.9)	Max: 10 Med: 45 Min: 20 Unk: 6	682 (68.8)	Max: 22 Med: 299 Min: 299 Unk: 62
Total	779 (78.5)	Max: 35 Med: 342 Min: 331 Unk: 71	213 (21.5)	Max: 73 Med: 90 Min: 31 Unk: 19	992 (100.0)	Max: 108 Med: 432 Min: 362 Unk: 90

TABLE 35

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PROBATIONERS: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	38 (50.0)	Max:	13	38 (50.0)	Max:	19	76 (7.9)	Max:	32
		Med:	13		Med:	13		Med:	26
		Min:	10		Min:	1		Min:	11
		Unk:	2		Unk:	5		Unk:	7
Medium risk	130 (81.8)	Max:	17	29 (18.2)	Max:	13	159 (16.5)	Max:	30
		Med:	77		Med:	13		Med:	90
		Min:	27		Min:	2		Min:	29
		Unk:	9		Unk:	1		Unk:	10
Minimum risk	694 (95.2)	Max:	24	35 (4.8)	Max:	10	729 (75.6)	Max:	34
		Med:	286		Med:	16		Med:	302
		Min:	321		Min:	5		Min:	326
		Unk:	63		Unk:	4		Unk:	67
Total	862 (89.4)	Max:	54	102 (10.6)	Max:	42	964 (100.0)	Max:	96
		Med:	376		Med:	42		Med:	418
		Min:	358		Min:	8		Min:	366
		Unk:	74		Unk:	10		Unk:	84

TABLE 36

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PROBATIONERS: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	29 (34.9)	Max: 7 Med: 10 Min: 10 Unk: 2	54 (65.1)	Max: 28 Med: 19 Min: 2 Unk: 5	83 (8.1)	Max: 35 Med: 29 Min: 12 Unk: 7
Medium risk	107 (62.6)	Max: 11 Med: 63 Min: 25 Unk: 8	64 (37.4)	Max: 21 Med: 35 Min: 5 Unk: 3	171 (16.8)	Max: 32 Med: 98 Min: 30 Unk: 11
Minimum risk	656 (85.8)	Max: 19 Med: 269 Min: 308 Unk: 60	109 (14.2)	Max: 24 Med: 49 Min: 25 Unk: 11	765 (75.1)	Max: 43 Med: 318 Min: 333 Unk: 71
Total	792 (77.7)	Max: 37 Med: 342 Min: 343 Unk: 70	227 (22.3)	Max: 73 Med: 103 Min: 32 Unk: 19	1,019 (100.0)	Max: 110 Med: 445 Min: 375 Unk: 89

TABLE 37

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PAROLEES: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	55 (63.2)	Max:	23	32 (36.8)	Max:	17	87 (27.4)	Max:	40
		Med:	27		Med:	11		Med:	38
		Min:	2		Min:	1		Min:	3
		Unk:	3		Unk:	3		Unk:	6
Medium risk	105 (77.8)	Max:	20	30 (22.2)	Max:	12	135 (42.6)	Max:	32
		Med:	70		Med:	17		Med:	87
		Min:	8		Min:	1		Min:	9
		Unk:	7		Unk:	0		Unk:	7
Minimum risk	90 (94.7)	Max:	9	5 (5.3)	Max:	2	95 (30.0)	Max:	11
		Med:	48		Med:	2		Med:	50
		Min:	25		Min:	0		Min:	25
		Unk:	8		Unk:	1		Unk:	9
Total	250 (78.9)	Max:	52	67 (21.1)	Max:	31	317 (100.0)	Max:	83
		Med:	145		Med:	30		Med:	175
		Min:	35		Min:	2		Min:	37
		Unk:	18		Unk:	4		Unk:	22

TABLE 38

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PAROLEES: REVISED OREGON MODEL

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	48 (45.3)	Max:	19	58 (54.7)	Max:	28	106 (30.6)	Max:	47
		Med:	24		Med:	24		Med:	48
		Min:	2		Min:	1		Min:	3
		Unk:	3		Unk:	5		Unk:	8
Medium risk	94 (65.7)	Max:	18	49 (34.3)	Max:	15	143 (41.3)	Max:	33
		Med:	62		Med:	32		Med:	94
		Min:	7		Min:	2		Min:	9
		Unk:	7		Unk:	0		Unk:	7
Minimum risk	89 (91.8)	Max:	9	8 (8.2)	Max:	3	97 (28.0)	Max:	12
		Med:	47		Med:	4		Med:	51
		Min:	25		Min:	0		Min:	25
		Unk:	8		Unk:	1		Unk:	9
Total	231 (66.8)	Max:	46	115 (33.2)	Max:	46	346 (100.0)	Max:	92
		Med:	133		Med:	60		Med:	193
		Min:	34		Min:	3		Min:	37
		Unk:	18		Unk:	6		Unk:	24

TABLE 39

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PAROLEES: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	31 (60.8)	Max:	15	20 (39.2)	Max:	8	51 (17.1)	Max:	23
		Med:	13		Med:	8		Med:	21
		Min:	2		Min:	1		Min:	3
		Unk:	1		Unk:	3		Unk:	4
Medium risk	70 (76.1)	Max:	13	22 (23.9)	Max:	8	92 (30.8)	Max:	21
		Med:	47		Med:	14		Med:	61
		Min:	6		Min:	0		Min:	6
		Unk:	4		Unk:	0		Unk:	4
Minimum risk	138 (88.5)	Max:	23	18 (11.5)	Max:	10	156 (52.2)	Max:	33
		Med:	73		Med:	6		Med:	79
		Min:	32		Min:	1		Min:	33
		Unk:	10		Unk:	1		Unk:	11
Total	239 (79.9)	Max:	51	60 (20.1)	Max:	26	299 (100.0)	Max:	77
		Med:	133		Med:	28		Med:	161
		Min:	40		Min:	2		Min:	42
		Unk:	15		Unk:	4		Unk:	19

TABLE 40

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PAROLEES: CALIFORNIA BE61A

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification	Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification	Total N (Col. %)	Total Officer Classification
Maximum risk	25 (39.7)	Max: 12 Med: 10 Min: 2 Unk: 1	38 (60.3)	Max: 15 Med: 18 Min: 1 Unk: 4	63 (19.2)	Max: 27 Med: 28 Min: 3 Unk: 5
Medium risk	62 (59.6)	Max: 10 Med: 42 Min: 6 Unk: 4	42 (40.4)	Max: 15 Med: 27 Min: 0 Unk: 0	104 (31.7)	Max: 25 Med: 69 Min: 6 Unk: 4
Minimum risk	132 (82.0)	Max: 21 Med: 70 Min: 31 Unk: 10	29 (18.0)	Max: 15 Med: 11 Min: 2 Unk: 1	161 (49.1)	Max: 36 Med: 81 Min: 33 Unk: 11
Total	219 (67.8)	Max: 43 Med: 122 Min: 39 Unk: 15	109 (33.2)	Max: 45 Med: 56 Min: 3 Unk: 5	328 (100.0)	Max: 88 Med: 178 Min: 42 Unk: 20

TABLE 41

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PAROLEES: SALIENT FACTOR SCORE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Poor risk	15 (65.2)	Max:	10	8 (34.8)	Max:	3	23 (7.0)	Max:	13
		Med:	4		Med:	4		Med:	8
		Min:	0		Min:	1		Min:	1
		Unk:	1		Unk:	0		Unk:	1
Fair risk	37 (75.5)	Max:	11	12 (24.5)	Max:	4	49 (14.9)	Max:	15
		Med:	21		Med:	4		Med:	25
		Min:	4		Min:	1		Min:	5
		Unk:	1		Unk:	3		Unk:	4
Good risk	78 (72.9)	Max:	16	29 (27.1)	Max:	17	107 (32.6)	Max:	33
		Med:	52		Med:	11		Med:	63
		Min:	7		Min:	0		Min:	7
		Unk:	3		Unk:	1		Unk:	4
Very good risk	131 (87.9)	Max:	15	18 (12.1)	Max:	6	149 (45.4)	Max:	21
		Med:	73		Med:	11		Med:	84
		Min:	29		Min:	0		Min:	29
		Unk:	14		Unk:	1		Unk:	15
Total	261 (79.6)	Max:	52	67 (20.4)	Max:	30	328 (100.0)	Max:	82
		Med:	150		Med:	30		Med:	180
		Min:	40		Min:	2		Min:	42
		Unk:	19		Unk:	5		Unk:	24

TABLE 42

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PAROLEES: SALIENT FACTOR SCORE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Poor risk	12 (48.0)	Max:	9	13 (52.0)	Max:	6	25 (7.0)	Max:	15
		Med:	2		Med:	6		Med:	8
		Min:	0		Min:	1		Min:	1
		Unk:	1		Unk:	0		Unk:	1
Fair risk	33 (60.0)	Max:	9	22 (40.0)	Max:	8	55 (15.4)	Max:	17
		Med:	19		Med:	10		Med:	29
		Min:	4		Min:	1		Min:	5
		Unk:	1		Unk:	3		Unk:	4
Good risk	71 (57.3)	Max:	14	53 (42.7)	Max:	24	124 (34.6)	Max:	38
		Med:	48		Med:	26		Med:	74
		Min:	6		Min:	1		Min:	7
		Unk:	3		Unk:	2		Unk:	5
Very good risk	125 (81.2)	Max:	13	29 (18.8)	Max:	9	154 (43.0)	Max:	22
		Med:	69		Med:	19		Med:	88
		Min:	29		Min:	0		Min:	29
		Unk:	14		Unk:	1		Unk:	15
Total	241 (67.3)	Max:	45	117 (32.7)	Max:	47	358 (100.0)	Max:	92
		Med:	138		Med:	61		Med:	199
		Min:	39		Min:	3		Min:	42
		Unk:	19		Unk:	6		Unk:	25

TABLE 43

DISTRIBUTION OF LEVEL-ONE OUTCOMES FOR PAROLEES: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	28 (56.0)	Max:	12	22 (44.0)	Max:	12	50 (15.2)	Max:	24
		Med:	16		Med:	9		Med:	25
		Min:	0		Min:	0		Min:	0
		Unk:	0		Unk:	1		Unk:	1
Medium risk	80 (77.7)	Max:	17	23 (22.3)	Max:	6	103 (31.4)	Max:	23
		Med:	47		Med:	13		Med:	60
		Min:	8		Min:	1		Min:	9
		Unk:	8		Unk:	3		Unk:	11
Minimum risk	156 (89.1)	Max:	26	19 (10.9)	Max:	11	175 (53.4)	Max:	37
		Med:	85		Med:	6		Med:	91
		Min:	34		Min:	1		Min:	35
		Unk:	11		Unk:	1		Unk:	12
Total	264 (80.5)	Max:	55	64 (19.5)	Max:	29	328 (100.0)	Max:	84
		Med:	148		Med:	28		Med:	176
		Min:	42		Min:	2		Min:	44
		Unk:	19		Unk:	5		Unk:	24

TABLE 44

DISTRIBUTION OF LEVEL-TWO OUTCOMES FOR PAROLEES: U.S.D.C. 75 SCALE

Model Category	Favorable Outcome N (Row %)	Favorable Outcome Officer Classification		Unfavorable Outcome N (Row %)	Unfavorable Outcome Officer Classification		Total N (Col. %)	Total Officer Classification	
Maximum risk	21 (35.6)	Max:	8	38 (64.4)	Max:	19	59 (16.5)	Max:	27
		Med:	13		Med:	18		Med:	31
		Min:	0		Min:	0		Min:	0
		Unk:	0		Unk:	1		Unk:	1
Medium risk	74 (64.3)	Max:	16	41 (35.7)	Max:	11	115 (32.1)	Max:	27
		Med:	42		Med:	25		Med:	67
		Min:	8		Min:	1		Min:	9
		Unk:	8		Unk:	4		Unk:	12
Minimum risk	149 (81.0)	Max:	24	35 (19.0)	Max:	16	184 (51.4)	Max:	40
		Med:	81		Med:	16		Med:	97
		Min:	33		Min:	2		Min:	35
		Unk:	11		Unk:	1		Unk:	12
Total	244 (68.2)	Max:	48	114 (31.8)	Max:	46	358 (100.0)	Max:	94
		Med:	136		Med:	59		Med:	195
		Min:	41		Min:	3		Min:	44
		Unk:	19		Unk:	6		Unk:	25

APPENDIX E:

TABLES 45 TO 69--COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS FOR SUPERVISION OUTCOME BY MODEL CATEGORY ASSIGNMENTS AND OFFICER CLASSIFICATIONS: DISTRICT-LEVEL ANALYSES

TABLE 45

SAMPLED DISTRICTS INCLUDED IN GROUPINGS PRESENTED IN TABLES 46 THROUGH 69

Grouping	R.I.	E.D. Pa.	E.D.N.Y.	N.D. Ga.	S.D. Tex.	N.D. Cal.	W.D. Wash.	Neb.
Geographic								
Eastern	X	X	X					
Southern				X	X			
Western						X	X	X
Size								
Small	X						X	X
Medium				X	X	X		
Large		X	X					
Violent crime								
High incidence		X			X	X		
Medium incidence	X						X	
Low incidence			X	X				X
White-collar crime								
High incidence	X							X
Medium incidence		X	X			X		
Low incidence				X	X		X	
Narcotics-related crime								
High incidence						X	X	
Medium incidence		X	X		X			X
Low incidence	X			X				

TABLE 46

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR THE NATIONAL SAMPLE

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.26 (1,275)	-.20 (1,238)	-.19 (1,309)	-.22 (1,331)	-.25 (1,291)
	2	-.37 (1,355)	-.29 (1,316)	-.29 (1,389)	-.29 (1,417)	-.36 (1,379)
MCR (N)	1	.57 (1,275)	.46 (1,238)	.43 (1,309)	.49 (1,331)	.52 (1,291)
	2	.49 (1,355)	.39 (1,316)	.39 (1,389)	.39 (1,417)	.46 (1,379)
Probationers						
Tau (N)	1	-.23 (922)	-.18 (903)	-.17 (943)	-.19 (964)	-.22 (931)
	2	-.33 (972)	-.24 (951)	-.27 (992)	-.26 (1,019)	-.34 (984)
MCR (N)	1	.62 (922)	.50 (903)	.48 (943)	.51 (964)	.56 (931)
	2	.48 (972)	.36 (951)	.40 (992)	.37 (1,019)	.48 (984)
Parolees						
Tau (N)	1	-.26 (317)	-.21 (299)	-.16 (328)	-.23 (328)	-.22 (332)
	2	-.38 (346)	-.35 (328)	-.25 (358)	-.32 (358)	-.30 (367)
MCR (N)	1	.39 (317)	.33 (299)	.24 (328)	.36 (328)	.34 (332)
	2	.43 (346)	.39 (328)	.28 (358)	.37 (358)	.32 (367)

NOTE: For all statistics, $p \leq .01$.

TABLE 47

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR THE DISTRICT OF RHODE ISLAND

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.15 (105)	-.18 (99)	-.10[a] (109)	-.19 (107)	-.11 (111)
	2	-.28 (111)	-.32 (106)	-.25 (116)	-.34 (114)	-.20 (118)
MCR (N)	1	.53 (105)	.60 (99)	.33 (109)	.60 (107)	.41 (111)
	2	.50 (111)	.53 (106)	.42 (116)	.56 (114)	.36 (118)
Probationers						
Tau (N)	1	-.12 (87)	-.13 (85)	-.05[b] (90)	-.10 (90)	-.12 (92)
	2	-.24 (90)	-.25 (89)	-.20 (94)	-.23 (94)	-.24 (96)
MCR (N)	1	.57 (87)	.58 (85)	.22 (90)	.46 (90)	.61 (92)
	2	.49 (90)	.48 (89)	.39 (94)	.45 (94)	.47 (96)
Parolees						
Tau (N)	1	-.14[b] (16)	-.14[b] (13)	-.29[b] (17)	-.44[a] (15)	.00[b] (17)
	2	-.28[b] (19)	-.27[b] (16)	-.36[b] (20)	-.56[a] (18)	.00[b] (20)
MCR (N)	1	.23 (16)	.20 (13)	.40 (17)	.57 (15)	.00 (17)
	2	.32 (19)	.28 (16)	.40 (20)	.58 (18)	.00 (20)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 48

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE EASTERN DISTRICT OF NEW YORK

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau(N)	1	-.07 (183)	-.10 (182)	-.03[b] (191)	-.08 (199)	-.06[b] (161)
	2	-.16 (193)	-.24 (191)	-.12 (200)	-.18 (209)	-.10[a] (166)
MCR (N)	1	.49 (183)	.44 (182)	.19 (191)	.38 (199)	.25 (161)
	2	.35 (193)	.50 (191)	.26 (200)	.36 (209)	.20 (166)
Probationers						
Tau (N)	1	-.09 (126)	-.16 (129)	-.03[b] (133)	-.11 (140)	-.12[a] (113)
	2	-.13 (132)	-.26 (135)	-.12 (139)	-.20 (147)	-.17 (117)
MCR (N)	1	.52 (126)	.52 (129)	.15 (133)	.40 (140)	.36 (113)
	2	.27 (132)	.50 (135)	.25 (139)	.38 (147)	.29 (117)
Parolees						
Tau (N)	1	-.08[a] (44)	(39)*	-.09[a] (44)	-.05[b] (45)	+.01[b] (40)
	2	-.32 (47)	-.24 (41)	-.12[b] (46)	-.11[b] (47)	+.05[b] (41)
MCR (N)	1	.91 (44)	(39)*	.98 (44)	.55 (45)	.10 (40)
	2	.62 (47)	.67 (41)	.27 (46)	.24 (47)	.11 (41)

NOTE: Except where noted, $p \leq .01$.

*No failures were recorded, so coefficients could not be computed.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 49

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.39 (196)	-.34 (184)	-.31 (202)	-.37 (199)	-.32 (202)
	2	-.48 (211)	-.46 (198)	-.41 (217)	-.44 (215)	-.42 (219)
MCR (N)	1	.59 (196)	.53 (184)	.50 (202)	.57 (199)	.52 (202)
	2	.52 (211)	.49 (198)	.45 (217)	.47 (215)	.42 (219)
Probationers						
Tau (N)	1	-.38 (143)	-.32 (135)	-.30 (144)	-.31 (144)	-.34 (148)
	2	-.47 (151)	-.43 (142)	-.36 (151)	-.39 (152)	-.45 (156)
MCR (N)	1	.65 (143)	.54 (135)	.56 (144)	.55 (144)	.60 (148)
	2	.54 (151)	.47 (142)	.42 (151)	.44 (152)	.51 (156)
Parolees						
Tau (N)	1	-.33[a] (44)	-.36[a] (41)	-.25[a] (49)	-.34[a] (46)	-.17[b] (49)
	2	-.42 (51)	-.53 (48)	-.37 (57)	-.49 (54)	-.18[b] (58)
MCR (N)	1	.39 (44)	.43 (41)	.29 (49)	.40 (46)	.21 (49)
	2	.42 (51)	.53 (48)	.37 (57)	.50 (54)	.18 (58)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 50

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE NORTHERN DISTRICT OF GEORGIA

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.27 (219)	-.22 (216)	-.23 (216)	-.26 (233)	-.31 (254)
	2	-.42 (242)	-.27 (240)	-.30 (240)	-.33 (258)	-.44 (282)
MCR (N)	1	.60 (219)	.55 (216)	.54 (216)	.62 (233)	.61 (259)
	2	.54 (242)	.37 (240)	.39 (240)	.43 (258)	.55 (282)
Probationers						
Tau (N)	1	-.20 (170)	-.18 (170)	-.17 (169)	-.22 (183)	-.26 (193)
	2	-.31 (184)	-.21 (185)	-.18 (184)	-.25 (199)	-.35 (210)
MCR (N)	1	.58 (170)	.60 (170)	.56 (169)	.65 (183)	.66 (193)
	2	.47 (184)	.33 (185)	.28 (184)	.38 (199)	.52 (210)
Parolees						
Tau (N)	1	-.31[a] (44)	-.15[b] (39)	-.22[b] (41)	-.29[a] (43)	-.23[a] (54)
	2	-.44 (53)	-.14[b] (48)	-.34[a] (50)	-.34 (52)	-.38 (65)
MCR (N)	1	.41 (44)	.23 (39)	.29 (41)	.43 (43)	.29 (54)
	2	.45 (53)	.15 (48)	.34 (50)	.35 (52)	.39 (65)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 51

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE SOUTHERN DISTRICT OF TEXAS

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.21 (176)	-.10[a] (173)	-.11[a] (180)	-.13 (180)	-.21 (186)
	2	-.37 (187)	-.21 (183)	-.19 (191)	-.24 (192)	-.33 (199)
MCR (N)	1	.47 (176)	.24 (173)	.25 (180)	.30 (180)	.46 (186)
	2	.48 (187)	.28 (183)	.25 (191)	.32 (192)	.43 (199)
Probationers						
Tau (N)	1	-.18 (109)	-.07[a] (108)	-.06[b] (111)	-.13 (110)	-.11 (117)
	2	-.33 (115)	-.08[b] (112)	-.18 (116)	-.19 (116)	-.27 (123)
MCR (N)	1	.75 (109)	.38 (108)	.26 (111)	.53 (110)	.43 (117)
	2	.53 (115)	.14 (112)	.29 (116)	.31 (116)	.43 (123)
Parolees						
Tau (N)	1	-.12[b] (67)	-.09[b] (65)	-.01[b] (69)	-.08[b] (70)	-.26 (69)
	2	-.28[a] (72)	-.32 (71)	-.05[b] (75)	-.25[a] (76)	-.29 (76)
MCR (N)	1	.17 (67)	.12 (65)	.01 (69)	.12 (70)	.36 (69)
	2	.31 (72)	.35 (71)	.05 (75)	.27 (76)	.31 (76)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 52

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE DISTRICT OF NEBRASKA

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.31 (53)	-.31 (51)	-.08[b](53)	-.17[b](54)	-.37 (51)
	2	-.47 (56)	-.44 (55)	-.31[a](57)	-.30[a](58)	-.40 (55)
MCR (N)	1	.48 (53)	.46 (51)	.12 (53)	.27 (54)	.55 (51)
	2	.49 (56)	.45 (55)	.32 (57)	.32 (58)	.41 (55)
Probationers						
Tau (N)	1	-.23[a](44)	-.18[a](44)	-.10[b](45)	-.13[b](45)	-.30 (43)
	2	-.49 (47)	-.40 (48)	-.36 (49)	-.35 (49)	-.41 (47)
MCR (N)	1	.43 (44)	.34 (44)	.19 (45)	.25 (45)	.56 (40)
	2	.52 (47)	.42 (48)	.38 (49)	.37 (49)	.43 (47)

NOTE: Because of extremely small sample sizes, reliable coefficients could not be computed for parolees. Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 53

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE NORTHERN DISTRICT OF CALIFORNIA

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.22 (143)	-.13 (142)	-.20 (149)	-.17 (150)	-.26 (119)
	2	-.23 (144)	-.13[a] (142)	-.23 (150)	-.15 (151)	-.33 (119)
MCR (N)	1	.50 (143)	.35 (142)	.45 (149)	.40 (150)	.58 (119)
	2	.39 (144)	.26 (142)	.38 (150)	.28 (151)	.52 (119)
Probationers						
Tau (N)	1	-.20 (111)	-.09[a] (108)	-.20 (115)	-.15 (115)	-.24 (90)
	2	-.23 (112)	-.10[a] (108)	-.24 (116)	-.16 (116)	-.30 (90)
MCR (N)	1	.57 (111)	.29 (108)	.50 (115)	.39 (115)	.68 (90)
	2	.46 (112)	.26 (108)	.45 (116)	.34 (116)	.61 (90)
Parolees						
Tau (N)	1	-.17[b] (28)	-.17[b] (31)	-.14[b] (30)	-.11[b] (31)	-.15[b] (25)
	2	-.07[b] (28)	-.12[b] (31)	-.08[b] (30)	+.02[b] (31)	-.19[b] (25)
MCR (N)	1	.30 (28)	.32 (31)	.31 (30)	.24 (31)	.27 (25)
	2	.08 (28)	.14 (31)	.11 (30)	.02 (31)	.21 (25)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 54

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR THE WESTERN DISTRICT OF WASHINGTON

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.29 (200)	-.22 (191)	-.22 (209)	-.24 (209)	-.28 (207)
	2	-.38 (211)	-.23 (201)	-.34 (218)	-.23 (220)	-.39 (221)
MCR (N)	1	.55 (200)	.44 (191)	.43 (209)	.46 (209)	.53 (207)
	2	.48 (211)	.29 (201)	.44 (218)	.30 (220)	.49 (221)
Probationers						
Tau (N)	1	-.26 (132)	-.20 (124)	-.26 (136)	-.24 (137)	-.27 (135)
	2	-.34 (141)	-.19 (132)	-.41 (143)	-.22 (146)	-.42 (145)
MCR (N)	1	.56 (132)	.49 (124)	.57 (136)	.49 (137)	.56 (135)
	2	.43 (141)	.25 (132)	.52 (143)	.27 (146)	.51 (145)
Parolees						
Tau (N)	1	-.34 (65)	-.24[a] (64)	-.14[b] (70)	-.23 (69)	-.27 (70)
	2	-.48 (67)	-.36 (66)	-.27 (72)	-.30 (71)	-.36 (74)
MCR (N)	1	.52 (65)	.37 (64)	.24 (70)	.37 (69)	.44 (70)
	2	.61 (67)	.45 (66)	.36 (72)	.39 (71)	.46 (74)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 55

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS IN WESTERN REGION

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.27 (396)	-.20 (384)	-.19 (411)	-.21 (413)	-.29 (377)
	2	-.34 (411)	-.23 (398)	-.29 (425)	-.22 (429)	-.40 (395)
MCR (N)	1	.52 (396)	.42 (384)	.38 (411)	.41 (413)	.56 (377)
	2	.45 (411)	.31 (398)	.39 (425)	.30 (429)	.50 (395)
Probationers						
Tau (N)	1	-.24 (287)	-.15 (276)	-.22 (296)	-.19 (297)	-.27 (268)
	2	-.33 (300)	-.19 (288)	-.35 (308)	-.22 (311)	-.41 (282)
MCR (N)	1	.54 (287)	.39 (276)	.49 (296)	.42 (297)	.60 (268)
	2	.45 (300)	.27 (288)	.47 (308)	.30 (311)	.53 (282)
Parolees						
Tau (N)	1	-.31 (102)	-.27 (102)	-.11[b] (108)	-.21 (109)	-.28 (103)
	2	-.37 (104)	-.31 (104)	-.18[a] (110)	-.21 (111)	-.34 (107)
MCR (N)	1	.45 (102)	.39 (102)	.17 (108)	.34 (109)	.43 (103)
	2	.45 (104)	.37 (104)	.23 (110)	.27 (111)	.40 (107)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 56

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS IN EASTERN REGION

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.26 (484)	-.23 (465)	-.19 (502)	-.24 (505)	-.20 (474)
	2	-.37 (515)	-.37 (495)	-.31 (533)	-.35 (538)	-.29 (503)
MCR (N)	1	.62 (484)	.55 (465)	.48 (502)	.56 (505)	.47 (474)
	2	.51 (515)	.51 (495)	.44 (533)	.47 (538)	.40 (503)
Probationers						
Tau (N)	1	-.25 (356)	-.23 (349)	-.15 (367)	-.20 (374)	-.21 (353)
	2	-.33 (373)	-.34 (366)	-.26 (384)	-.30 (393)	-.31 (369)
MCR (N)	1	.66 (356)	.55 (349)	.45 (367)	.51 (374)	.53 (353)
	2	.49 (373)	.48 (366)	.39 (384)	.43 (393)	.44 (369)
Parolees						
Tau (N)	1	-.27 (104)	-.28 (93)	-.28 (110)	-.33 (106)	-.13[a] (106)
	2	-.42 (117)	-.50 (105)	-.39 (123)	-.46 (119)	-.14[a] (119)
MCR (N)	1	.48 (104)	.51 (93)	.48 (110)	.55 (106)	.22 (106)
	2	.49 (117)	.58 (105)	.46 (123)	.53 (119)	.16 (119)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

TABLE 57

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS IN SOUTHERN REGION

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.25 (395)	-.17 (389)	-.18 (396)	-.21 (413)	-.27 (440)
	2	-.40 (429)	-.24 (423)	-.26 (431)	-.29 (450)	-.39 (481)
MCR (N)	1	.55 (395)	.41 (389)	.40 (396)	.48 (413)	.55 (440)
	2	.52 (429)	.33 (423)	.33 (431)	.38 (450)	.50 (481)
Probationers						
Tau (N)	1	-.19 (279)	-.13 (278)	-.13 (280)	-.18 (293)	-.20 (310)
	2	-.32 (299)	-.16 (297)	-.18 (300)	-.23 (315)	-.32 (333)
MCR (N)	1	.63 (279)	.53 (278)	.46 (280)	.61 (293)	.60 (310)
	2	.49 (299)	.26 (297)	.29 (300)	.36 (315)	.48 (333)
Parolees						
Tau (N)	1	-.20[a] (111)	-.11[b] (104)	-.08[b] (110)	-.16[a] (113)	-.25 (123)
	2	-.36 (125)	-.25 (119)	-.17[a] (125)	-.29 (128)	-.34 (141)
MCR (N)	1	.27 (111)	.16 (104)	.12 (110)	.24 (113)	.33 (123)
	2	.38 (125)	.27 (119)	.18 (125)	.31 (128)	.35 (141)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 58

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR DISTRICTS WITH SMALL PROBATION OFFICES

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.26 (358)	-.23 (341)	-.17 (371)	-.22 (370)	-.24 (369)
	2	-.38 (378)	-.30 (362)	-.32 (391)	-.29 (392)	-.34 (394)
MCR (N)	1	.54 (358)	.49 (341)	.36 (371)	.46 (370)	.50 (369)
	2	.49 (378)	.39 (362)	.41 (391)	.37 (392)	.43 (394)
Probationers						
Tau (N)	1	-.22 (263)	-.18 (253)	-.17 (271)	-.18 (272)	-.21 (270)
	2	-.36 (278)	-.27 (269)	-.35 (286)	-.27 (289)	-.33 (288)
MCR (N)	1	.54 (263)	.49 (253)	.43 (271)	.45 (272)	.52 (270)
	2	.48 (278)	.36 (269)	.47 (286)	.35 (289)	.44 (288)
Parolees						
Tau (N)	1	-.32 (90)	-.29 (84)	-.14[b] (95)	-.28 (93)	-.27 (95)
	2	-.44 (95)	-.41 (89)	-.25 (100)	-.36 (98)	-.32 (102)
MCR (N)	1	.47 (90)	.40 (84)	.20 (95)	.41 (93)	.41 (95)
	2	.53 (95)	.47 (89)	.30 (100)	.44 (98)	.39 (102)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$

[b] $p > .05$

TABLE 59

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH MEDIUM-SIZED PROBATION OFFICES

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.24 (538)	-.15 (531)	-.18 (545)	-.20 (563)	-.26 (559)
	2	-.35 (573)	-.21 (565)	-.24 (581)	-.25 (601)	-.39 (600)
MCR (N)	1	.54 (538)	.39 (531)	.42 (545)	.46 (563)	.56 (559)
	2	.48 (573)	.30 (565)	.33 (581)	.35 (601)	.51 (600)
Probationers						
Tau (N)	1	-.20 (390)	-.12 (386)	-.16 (395)	-.18 (408)	-.21 (440)
	2	-.29 (411)	-.13 (405)	-.19 (416)	-.21 (431)	-.32 (423)
MCR (N)	1	.61 (390)	.45 (386)	.50 (395)	.55 (408)	.61 (400)
	2	.47 (411)	.24 (405)	.32 (416)	.34 (431)	.51 (423)
Parolees						
Tau (N)	1	-.19 (139)	-.13[a] (135)	-.09[b] (140)	-.15[a] (144)	-.24 (148)
	2	-.30 (153)	-.22 (150)	-.14[a] (155)	-.24 (159)	-.33 (166)
MCR (N)	1	.27 (139)	.19 (135)	.13 (140)	.25 (144)	.34 (148)
	2	.33 (153)	.24 (150)	.15 (155)	.27 (159)	.34 (166)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 60

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR DISTRICTS WITH LARGE PROBATION OFFICES

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.28 (379)	-.24 (366)	-.22 (393)	-.25 (398)	-.23 (363)
	2	-.39 (404)	-.39 (389)	-.33 (417)	-.35 (424)	-.32 (385)
MCR (N)	1	.64 (379)	.54 (366)	.51 (393)	.56 (398)	.48 (363)
	2	.51 (404)	.51 (389)	.45 (417)	.46 (424)	.41 (385)
Probationers						
Tau (N)	1	-.28 (269)	-.26 (264)	-.19 (277)	-.22 (284)	-.25 (261)
	2	-.36 (283)	-.37 (277)	-.28 (290)	-.32 (299)	-.35 (273)
MCR (N)	1	.68 (269)	.55 (264)	.50 (277)	.52 (284)	.54 (261)
	2	.50 (283)	.49 (277)	.40 (290)	.43 (299)	.46 (273)
Parolees						
Tau (N)	1	-.31 (88)	-.29 (80)	-.28 (93)	-.31 (91)	-.15[a] (89)
	2	-.46 (98)	-.54 (89)	-.40 (103)	-.44 (101)	-.16[a] (99)
MCR (N)	1	.54 (88)	.57 (80)	.50 (93)	.56 (91)	.27 (89)
	2	.53 (98)	.63 (89)	.46 (103)	.52 (101)	.18 (99)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

TABLE 61

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH HIGH INCIDENCE OF WHITE-COLLAR CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.22 (158)	-.24 (150)	-.11[a] (162)	-.20 (161)	-.22 (162)
	2	-.38 (167)	-.40 (161)	-.29 (173)	-.36 (172)	-.30 (173)
MCR (N)	1	.53 (158)	.54 (150)	.24 (162)	.47 (161)	.52 (162)
	2	.51 (167)	.51 (161)	.38 (173)	.48 (172)	.42 (173)
Probationers						
Tau (N)	1	-.18 (131)	-.16 (129)	-.08[b] (135)	-.13 (135)	-.19 (135)
	2	-.37 (137)	-.35 (137)	-.29 (143)	-.32 (143)	-.30 (143)
MCR (N)	1	.53 (131)	.53 (129)	.31 (135)	.39 (135)	.58 (135)
	2	.53 (137)	.47 (137)	.41 (143)	.45 (143)	.43 (143)
Parolees						
Tau (N)	1	-.28[b] (25)	-.28[b] (20)	-.17[b] (25)	-.31[b] (24)	-.24[b] (25)
	2	-.32[b] (28)	-.33[b] (23)	-.24[b] (28)	-.37[a] (27)	-.16[b] (28)
MCR (N)	1	.10 (25)	.31 (20)	.20 (25)	.34 (24)	.29 (25)
	2	.35 (28)	.34 (23)	.26 (28)	.39 (27)	.17 (28)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 62

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH LOW INCIDENCE OF WHITE-COLLAR CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.26 (595)	-.18 (580)	-.19 (605)	-.22 (622)	-.26 (647)
	2	-.39 (640)	-.24 (624)	-.28 (649)	-.27 (670)	-.39 (702)
MCR (N)	1	.55 (595)	.42 (580)	.42 (605)	.47 (622)	.53 (647)
	2	.51 (640)	.32 (624)	.37 (649)	.35 (670)	.49 (702)
Probationers						
Tau (N)	1	-.22 (411)	-.15 (402)	-.18 (416)	-.20 (430)	-.22 (445)
	2	-.33 (440)	-.17 (429)	-.26 (443)	-.23 (461)	-.34 (478)
MCR (N)	1	.61 (411)	.51 (402)	.53 (416)	.56 (430)	.56 (445)
	2	.48 (440)	.26 (429)	.38 (443)	.33 (461)	.47 (478)
Parolees						
Tau (N)	1	-.25 (176)	-.16 (168)	-.10[b] (180)	-.19 (182)	-.26 (193)
	2	-.41 (192)	-.29 (185)	-.21 (197)	-.30 (199)	-.37 (215)
MCR (N)	1	.36 (176)	.24 (168)	.15 (180)	.29 (182)	.37 (193)
	2	.45 (192)	.33 (185)	.23 (197)	.34 (199)	.41 (215)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 63

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH MEDIUM INCIDENCE OF WHITE-COLLAR CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.27 (522)	-.21 (508)	-.21 (542)	-.23 (548)	-.24 (482)
	2	-.34 (548)	-.31 (531)	-.29 (567)	-.29 (575)	-.34 (504)
MCR (N)	1	.60 (522)	.48 (508)	.50 (542)	.51 (548)	.51 (482)
	2	.48 (548)	.45 (531)	.42 (567)	.41 (575)	.45 (504)
Probationers						
Tau (N)	1	-.26 (380)	-.20 (372)	-.20 (392)	-.20 (399)	-.25 (351)
	2	-.31 (395)	-.28 (385)	-.26 (406)	-.26 (415)	-.36 (363)
MCR (N)	1	.64 (380)	.48 (372)	.50 (392)	.48 (399)	.58 (351)
	2	.47 (395)	.42 (385)	.40 (406)	.39 (415)	.50 (363)
Parolees						
Tau (N)	1	-.27 (116)	-.26 (111)	-.23 (123)	-.26 (122)	-.15[a] (114)
	2	-.36 (126)	-.42 (120)	-.31 (133)	-.35 (132)	-.17[a] (124)
MCR (N)	1	.48 (116)	.49 (111)	.43 (123)	.49 (122)	.28 (114)
	2	.42 (126)	.50 (120)	.37 (133)	.42 (132)	.19 (124)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

TABLE 64

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH HIGH INCIDENCE OF VIOLENT CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.29 (515)	-.20 (499)	-.22 (531)	-.24 (529)	-.27 (507)
	2	-.38 (542)	-.29 (523)	-.29 (558)	-.30 (558)	-.38 (537)
MCR (N)	1	.54 (515)	.41 (499)	.42 (531)	.46 (529)	.51 (507)
	2	.48 (542)	.37 (523)	.36 (558)	.38 (558)	.47 (537)
Probationers						
Tau (N)	1	-.28 (363)	-.17 (351)	-.21 (370)	-.21 (369)	-.24 (355)
	2	-.36 (378)	-.22 (362)	-.27 (383)	-.26 (384)	-.38 (369)
MCR (N)	1	.65 (363)	.44 (351)	.51 (370)	.50 (369)	.58 (355)
	2	.51 (378)	.32 (362)	.39 (383)	.36 (384)	.52 (369)
Parolees						
Tau (N)	1	-.21 (139)	-.20 (137)	-.11[b] (148)	-.20 (147)	-.22 (143)
	2	-.30 (151)	-.37 (150)	-.17[a] (162)	-.33 (161)	-.24 (159)
MCR (N)	1	.28 (139)	.28 (137)	.15 (148)	.29 (147)	.31 (143)
	2	.31 (151)	.39 (150)	.18 (162)	.35 (161)	.25 (159)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

TABLE 65

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH MEDIUM INCIDENCE OF VIOLENT CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.24 (305)	-.20 (290)	-.18 (318)	-.22 (316)	-.20 (318)
	2	-.35 (322)	-.26 (307)	-.31 (334)	-.27 (334)	-.31 (339)
MCR (N)	1	.55 (305)	.48 (290)	.41 (318)	.49 (316)	.47 (318)
	2	.49 (322)	.36 (307)	.44 (334)	.37 (334)	.42 (339)
Probationers						
Tau (N)	1	-.21 (219)	-.17 (209)	-.18 (226)	-.19 (227)	-.19 (227)
	2	-.31 (231)	-.22 (221)	-.33 (237)	-.23 (240)	-.30 (241)
MCR (N)	1	.56 (219)	.51 (209)	.49 (226)	.49 (227)	.49 (227)
	2	.45 (231)	.32 (221)	.48 (237)	.33 (240)	.42 (241)
Parolees						
Tau (N)	1	-.30 (81)	-.24 (77)	-.17[a] (87)	-.28 (84)	-.22 (87)
	2	-.43 (86)	-.37 (82)	-.28 (92)	-.38 (89)	-.30 (94)
MCR (N)	1	.47 (81)	.36 (77)	.27 (87)	.43 (84)	.37 (87)
	2	.54 (86)	.45 (82)	.36 (92)	.47 (89)	.38 (94)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

TABLE 66

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR DISTRICTS WITH LOW INCIDENCE OF VIOLENT CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.22 (455)	-.19 (449)	-.15 (460)	-.19 (486)	-.25 (466)
	2	-.35 (491)	-.30 (486)	-.27 (497)	-.29 (525)	-.35 (503)
MCR (N)	1	.60 (455)	.53 (449)	.43 (460)	.52 (486)	.56 (466)
	2	.51 (491)	.43 (486)	.38 (497)	.41 (525)	.47 (503)
Probationers						
Tau (N)	1	-.18 (340)	-.18 (343)	-.12 (347)	-.17 (368)	-.23 (349)
	2	-.30 (363)	-.28 (368)	-.22 (372)	-.27 (395)	-.32 (374)
MCR (N)	1	.58 (340)	.54 (343)	.41 (347)	.52 (368)	.59 (349)
	2	.47 (363)	.42 (368)	.34 (372)	.40 (395)	.47 (374)
Parolees						
Tau (N)	1	-.29 (97)	-.19 (85)	-.19 (93)	-.21 (97)	-.23 (102)
	2	-.45 (109)	-.26 (96)	-.32 (104)	-.26 (108)	-.33 (114)
MCR (N)	1	.52 (97)	.39 (85)	.36 (93)	.42 (97)	.37 (102)
	2	.54 (109)	.32 (96)	.37 (104)	.31 (108)	.37 (114)

NOTE: For all statistics, $p \leq .01$.

TABLE 67

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR DISTRICTS WITH HIGH INCIDENCE OF NARCOTICS-RELATED CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.26 (343)	-.18 (333)	-.21 (358)	-.21 (359)	-.27 (326)
	2	-.32 (355)	-.18 (343)	-.29 (368)	-.20 (371)	-.38 (340)
MCR (N)	1	.53 (343)	.40 (333)	.43 (358)	.43 (359)	.55 (326)
	2	.44 (355)	.27 (343)	.41 (368)	.28 (371)	.50 (340)
Probationers						
Tau (N)	1	-.23 (243)	-.14 (232)	-.23 (251)	-.19 (252)	-.26 (225)
	2	-.29 (253)	-.13 (240)	-.33 (259)	-.19 (262)	-.38 (235)
MCR (N)	1	.56 (243)	.40 (232)	.54 (251)	.45 (252)	.60 (225)
	2	.43 (253)	.22 (240)	.49 (259)	.27 (262)	.53 (235)
Parolees						
Tau (N)	1	-.28 (93)	-.21 (95)	-.14[a] (100)	-.19 (100)	-.23 (95)
	2	-.36 (95)	-.27 (97)	-.21[a] (102)	-.20 (102)	-.32 (99)
MCR (N)	1	.45 (93)	.35 (95)	.25 (100)	.34 (100)	.39 (95)
	2	.45 (95)	.34 (97)	.28 (102)	.27 (102)	.39 (99)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

TABLE 68

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR)
FOR DISTRICTS WITH MEDIUM INCIDENCE OF NARCOTICS-RELATED CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.27 (608)	-.21 (590)	-.18 (626)	-.21 (632)	-.24 (600)
	2	-.40 (647)	-.35 (627)	-.30 (665)	-.32 (674)	-.33 (639)
MCR (N)	1	.58 (608)	.46 (590)	.40 (626)	.46 (632)	.49 (600)
	2	.51 (647)	.44 (627)	.39 (665)	.41 (674)	.41 (639)
Probationers						
Tau (N)	1	-.26 (422)	-.20 (416)	-.16 (433)	-.19 (439)	-.22 (421)
	2	-.38 (445)	-.31 (437)	-.29 (455)	-.30 (464)	-.34 (443)
MCR (N)	1	.66 (422)	.50 (416)	.44 (433)	.49 (439)	.52 (421)
	2	.52 (445)	.42 (437)	.40 (455)	.40 (464)	.45 (443)
Parolees						
Tau (N)	1	-.24 (164)	-.22 (152)	-.16 (170)	-.20 (170)	-.22 (166)
	2	-.38 (179)	-.44 (167)	-.24 (186)	-.34 (186)	-.23 (183)
MCR (N)	1	.35 (164)	.33 (152)	.23 (170)	.31 (170)	.34 (166)
	2	.42 (179)	.49 (167)	.27 (186)	.38 (186)	.25 (183)

NOTE: For all statistics, $p \leq .01$.

TABLE 69

COMPARISON OF TAU COEFFICIENTS AND MEAN COST RATINGS (MCR) FOR DISTRICTS WITH LOW INCIDENCE OF NARCOTICS-RELATED CRIME

Sample	Outcome Level	Revised Oregon	Calif. BE61A	Salient Factor	U.S.D.C. 75	Officer Classification
All cases						
Tau (N)	1	-.23 (324)	-.21 (315)	-.18 (325)	-.24 (340)	-.26 (365)
	2	-.38 (353)	-.29 (346)	-.28 (356)	-.33 (372)	-.38 (400)
MCR (N)	1	.59 (324)	.56 (315)	.48 (325)	.62 (340)	.58 (365)
	2	.53 (353)	.41 (346)	.40 (356)	.46 (372)	.51 (400)
Probationers						
Tau (N)	1	-.17 (257)	-.16 (255)	-.13 (259)	-.18 (273)	-.21 (285)
	2	-.29 (274)	-.22 (274)	-.18 (278)	-.25 (293)	-.30 (306)
MCR (N)	1	.57 (257)	.59 (255)	.46 (259)	.61 (273)	.63 (285)
	2	.47 (274)	.37 (274)	.31 (278)	.40 (293)	.48 (306)
Parolees						
Tau (N)	1	-.26[a] (60)	-.16[b] (52)	-.24[a] (58)	-.33 (58)	-.21[a] (71)
	2	-.41 (72)	-.18[b] (64)	-.35 (70)	-.39 (70)	-.34 (85)
MCR (N)	1	.37 (60)	.24 (52)	.33 (58)	.48 (58)	.27 (71)
	2	.43 (72)	.18 (64)	.36 (70)	.41 (70)	.36 (85)

NOTE: Except where noted, $p \leq .01$.

[a] $p \leq .05$.

[b] $p > .05$.

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