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ALAMEDA COUNTY PLACEMENT RISK ASSESSMENT VALIDATION

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NCCD

TABLE OF CONTENTS

LIST OF TABLES

I. BACKGROUND

Alameda County is California's seventh most populous county, a region of considerable scope and diversity. Its 1.3 million residents are spread across 821 square miles, with 26 law enforcement jurisdictions policing 14 incorporated cities. It is estimated that about 139,000 youth between the ages of 10 and 17 resided in the County in 1995. Socio-economically, the County is quite diverse, reflecting both the high-tech boom of the San Francisco Bay area and many people with incomes at or below the poverty level.[1]

In 1998, the Alameda County Probation Department was awarded a grant from the National Institute of Justice to validate a risk assessment instrument for probation placement cases. The project was a follow-up to a process that began in 1996 when the Department contracted with the National Council on Crime and Delinquency (NCCD) to construct a five-year plan to improve the effectiveness and efficiency of their Juvenile Services Division. NCCD was instrumental in developing the planning approach for graduated sanctions for the Office of Juvenile Justice and Delinquency Prevention's *Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders*. In August 1996, the Department adopted this strategy as its official governing policy for all system design and policy decisions. Part of this plan was to develop a risk assessment instrument for placement of adjudicated juveniles.

The overall goal of the 1996 project was to implement a system-wide classification and placement system that would address the public concern for safety and effectiveness in dealing with juvenile crime. It would use a structured process that would assess the risk of future recidivism. The risk assessment tool was to provide a scientific and rational basis for making

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[1] Alameda County Probation Department. Juvenile Justice Local Action Plan. March 15, 1997.

classification and placement decisions when used in tandem with an objective measure of offense severity. It would ensure that extra-legal factors were not used in classification and decision making. Further, it would structure the process such that the juvenile would be held accountable for delinquent behavior.

To begin the development process, NCCD worked with a committee of Probation Unit Supervisors and assisted in the adaptation of a risk assessment instrument based on an existing instrument that had been used and validated on juvenile probationers in California. Construction and validation samples were used to develop the scale.

This instrument addressed the relative risk of recidivism of the youth but did not take into account the severity of the current offense. Offense severity is rarely found to be highly correlated with recidivism. This occurs for several reasons, including the fact that the juvenile justice system usually deals harshly with violent behavior, keeping youth in custody for extended periods of time and therefore limiting the potential for recidivism - at least during any relativity short follow-up period used to construct or validate instruments.

Offense severity is, of course, critically important in establishing the appropriate sanction needed for each youth. Scaling offense severity and using severity and risk in a matrix arrangement ensures that 1) the policy of the jurisdiction is clearly articulated and 2) severity is consistently applied to every case. This, incidentally, is the approach recommended by OJJDP in its "Comprehensive Strategies" program.

For the validation study, Alameda County adopted the cut-off scores that were currently used in other California counties. Previous studies had found that these scores were accurate in distinguishing between groups of offenders that had significantly different rates of re-offending. In essence, youths classified as medium-risk were twice as likely to re-offend than youths

classified as low risk. Similarly, high risk youth were twice as likely to sre-offend than medium risk youth.

The initial data collection process showed a disturbing picture of Alameda's court-involved youth. While the youths on field supervision, in general, had little prior involvement with the juvenile justice system, 29 percent used alcohol and drugs occasionally, and 14 percent were chronic abusers of alcohol and drugs. The research further found that almost three-quarters of these youths had inadequate parental supervision. About half of these youth were also involved in negative school behavior and had truancy problems, and more than 90 percent had delinquent peer influences. These youth clearly needed intervention programming that would combat the risk factors that threatened their healthy, pro-social development.

The validation study extrapolated from their findings that 525 of the 1,334 youth in Alameda County who were placed on field supervision in 1996 fell into the lowest risk category and could therefore have possibly been handled with less restrictive sanctions than being placed on formal supervision. In addition, 202 youths scored high enough on the scale to warrant more restrictive sanctions, such as out-of-home placement or intensive probation supervision. These youth were generally charged with serious property or drug crimes and were at moderate or high risk to recidivate.

II. METHODOLOGY

A. Data Collection

Nine probation officers (deputies and supervisors) were trained in the use of the draft instrument. Because they were Department employees, they were familiar with the case files.

The first phase of data collection involved a random sample of 500 cases out of a total of 1334 that received field supervision as a disposition in 1996. Field supervision refers to a sanction in which the youth was maintained and supervised in the community with the aid of weekend programming, community service, restitution, electronic monitoring, or day reporting. Data were collected for 480 (96 percent) of the sampled youth. The second data collection phase involved a random sample of 500 cases out of 774 that received a placement order in 1996. Placement refers to any sanction in which the youth is placed out-of-home (e.g., a group home, camp, or residential treatment). Of these sample youth, data were collected for 474 (94.8 percent). Table 1 shows demographic characteristics of the sampled youth. Most (71.7 percent) of the youth were male. Nearly half (48.8 percent) were African American, 16.8 percent were white, 15.9 percent were Hispanic, and 10.6 percent were Asian. Nearly three-fourths (73.7 percent) had a prior criminal history, and 41.5 percent had a prior petition sustained.

Table 1 Characteristics of Sample Youth		
	N	%
Total Cases	**954**	**100.0%**
Gender		
Female	270	28.3%
Male	684	71.7%
Sample Probation Type		
Field Supervision	480	50.3%
Placement	474	49.7%
Substantiation of the Incident		
No	559	57.2%
Yes	418	42.8%
Ethnicity		
White	160	16.8%
African American	466	48.8%
Hispanic	152	15.9%
Asian	101	10.6%
Missing	75	7.9%
Prior Criminal Behavior		
No prior arrests	251	26.3%
Prior arrest record, no prior sustained petition	307	32.2%
Prior sustained petition	396	41.5%

Methods employed to validate the scale are described in the next section of this report.

B. Defining Validity

Validity of decision systems has traditionally been measured by the degree to which "predictions" about case outcomes are realized. Ruscio (1998), using the child protection field as an example, defines validity in the following manner:

> The efficacy of your decision policy can be examined through the use of a simple fourfold classification table crossing the optimal outcome for each child (kept at home vs. placed into care) with the decision that is reached. There are two types of correct decisions, or "hits," that are possible: True positives are decisions that place children into care when appropriate, and true negatives are decisions that keep children at home when appropriate. There are also two types of incorrect decisions, or "misses," that are possible: False positives are decisions that unnecessarily place children into care, and false negatives are decisions that fail to place children into care when placement is necessary. Based on this classification table, the effectiveness of a decision policy may be evaluated in several ways. For instance, one could determine how many of the decisions to place a child into foster care were correct (true positives divided by the sum of true and false positives); how many children who optimally should have been kept in the home actually were (true negatives divided by the sum of true negatives and false positives); or how many placement decisions, overall, were correct (the sum of true positives and true negatives divided by the total number of cases).

While calculations of false positives, false negatives, and the overall percentage of correct predictions is useful in many settings, it may not be the best method for gauging the efficacy of a risk assessment system when the probability of success/failure is substantially different than 50-50. When events are relatively rare, they are inherently difficult to predict. In such instances, simply assuming an event will not occur may produce more predictive accuracy than any attempt to determine where or when occurrence is likely. For example, if subsequent petitions are filed (failure) in only 15 percent of cases initially adjudicated delinquent, then simply predicting no youth will have a new petition filed produces an 85 percent "hit rate." Obviously, such a prediction, while highly accurate, is of little value to juvenile justice. (In essence, the "sensitivity" of the prediction is .85, but the specificity -- correct identification of those who do

fail -- is zero.) A valid and reliable risk assessment system may improve the "hit rate" marginally, but it is possible such a system could result in a higher percentage of false positives and false negatives and still provide the agency with quality information about the relative probability of subsequent maltreatment. Consider the scenario where a delinquent population (N=100) has a subsequent sustained petition rate of 15 percent. A risk assessment identifies 25 percent of the population as "high risk," which, for this example, is equated with a prediction of a subsequent sustained petition. Actual versus predicted outcomes are presented in Table 2.

Table 2

Scenario of Actual Outcomes vs. Predicted Risks

Actual Outcomes	Predicted Outcomes	
	No Subsequent Sustained Petitions	Subsequent Sustained Petitions
No Subsequent Sustained Petitions	71	14
Subsequent Sustained Petitions	4	11

In the above example, an overall "hit rate" of 82 percent is attained (3 percent lower than that attained when all cases are predicted to succeed) with a rate of false positives (subsequent sustained petition) of 56 percent and false negatives of 5.3 percent. Despite the high proportion of false positives, cases that were rated high risk "failed" at a 44 percent rate, while only 5.3 percent of those rated at lower risk levels had subsequent petition filed. The ratio of "failures" in the high risk group to "failures" in the low risk group is more than 8:1. Such results help agencies identify which youth are more likely to again be found delinquent. In addition, 11 of the 15 cases (73.3 percent) where subsequent petitions were sustained were correctly identified (a relatively high rate of specificity).

Identifying 25 percent of this population as high risk (when only 15 percent again offend) may be due to cut-off points that were set artificially low or due to the fact there were no discernible differences among the 14 members of the high risk group that did not have new petitions filed and the 11 cases that did. NCCD's experience with scale construction in juvenile justice, as well as adult corrections and child protection research, indicates the latter explanation is far more likely. When the rate of "failure" is low, there is a natural tendency toward false positives.

As a result, most fields have largely abandoned the idea that risk assessment is an exercise in prediction. Instead, terms such as base expectancy rates have replaced discussions of false positives and false negatives. In corrections, for example, high risk does not equal a prediction of failure -- in fact, in most correctional systems, more high risk cases succeed than fail. Instead, high risk simply denotes inclusion in a group of offenders with significantly higher historical rates of recidivism than other groups.

The field of medicine offers similar examples. In cancer research, it is common practice to identify characteristics of malignancies and surrounding tissue and to classify patients as high, moderate, or low risk based on the observed rates of recurrence within a specified time period (Silverstein and Lagios, 1997). A designation of high risk of recurrence does not equate with a "prediction" that the cancer will recur. In fact, most medical professionals carefully avoid making such predictions. As treatment options expand and improve, recurrence-free survival rates have increased to the point where, if false positives and negatives were to be minimized, the best "prediction" for high risk cases would be "no recurrence." Still, knowing that cases with similar characteristics have experienced a recurrence rate of 10 percent, 25 percent, or 45 percent, helps the doctor and patient select the most appropriate treatment plan.

Conceptually, the use of false positives and false negatives to evaluate risk assessment systems creates another dilemma. While outcomes are often dichotomous (an event will either occur or not occur), most risk assessment models assign cases to three or more different risk levels. If efficacy is based on predicting an outcome, it must be asked what prediction is being made for cases at intermediate risk levels: Is the designation "moderate risk" a prediction that subsequent offending will or will not occur? In these cases it is probably neither, but simply the recognition that these cases "recidivate" at higher rates than some and lower than others. Knowing this fact allows workers to establish appropriate service plans, just as similar information permits doctors and patients to decide on a particular course of action.

Therefore, in evaluating the relative efficacy of the Alameda risk assessment system, it is imperative to be very clear about expectations. The terms prediction and classification are often used interchangeably, yet really connote different expectations. Prediction is more precise than classification. According to Webster's definition, prediction "declares in advance on the basis of observation, experience, or scientific reason." To predict accurately in any field is difficult; to accurately predict human behavior is especially complex as many factors contribute to determining how individuals will act. Classification, on the other hand, is simply "a systematic arrangement in groups or categories according to established criteria." While accurate prediction would greatly benefit juvenile justice and society, it has not proven feasible. The goals of risk assessment are much more modest; the process is simply meant to assign cases to different categories based on observed rates of behavior.

Risk scales, in general, explain little of the variance in outcomes -- 8 percent to 15 percent is common. This is true in nearly every field ranging from automobile insurance to criminal justice to child protective services. This fact leads some researchers to caution against

the use of risk assessment, claiming these instruments are not valid because they fail to predict accurately who will succeed and who will fail. But if, as noted above, simple classification is the goal, explained variance in outcomes is of little consequence. What is important is the degree to which youth in different risk groups perform differently. Furthermore, if prediction is not the goal, then the issue of false positives and false negatives is moot. Classification recognizes that a high risk designation is not a prediction of failure. It is, instead, a clear indication that these cases require more attention and more services, because youth in this designation tend to "fail" at higher rates than cases in other classifications.

Recently, new and potentially better methods of measuring the efficacy of risk assessment systems have emerged. One innovative measure, the Dispersion Index for Risk (DIFR) recognizes that "the primary utility of a risk classification model is in providing a continuum of risk estimates associated with a variety of conditions which can be used to guide a range of decision making responses" (Silver and Banks, 1998). Hence, the authors conclude, "it is for this reason that traditional measures of 'predictive accuracy' which carry with them the assumption that dichotomous decisions will be made, have little utility for assessing the potency of a risk classification model."

The DIFR measures the potency of risk assessment systems by assessing how an entire cohort is partitioned into different groups and the extent to which group outcomes vary from the base rate for the entire cohort. In essence, it weights "base rate distance" by subgroup size to calibrate the "potency" of a classification system. This new method of measurement reflects the validity construct outlined on previous pages of this report. Because it considers proportionality and differences in outcome rates among several subgroups, it represents a significant

advancement in measuring the efficacy of classification systems and produces a summary statistic for comparing the classification potency of different risk assessment systems.

While DIFR developers have clearly recognized the problems associated with more traditional analyses, simple comparison of distribution and failure rates are perhaps an even better measure of system validity. Simply put, these statistics demonstrate the degree to which risk categories differ from each other, rather than the sample mean.

C. Approach to Revalidation

The primary purpose of revalidation is to ensure that the risk assessment accurately identifies groups of offenders with low, moderate, and high proclivities for further offending. In general, revalidation involves the following tasks:

1. Conducting a case outcome study to evaluate the current assessment's ability to classify youth according to their risk of future delinquent acts (i.e., are high risk youth significantly more likely to recidivate than those classified as low risk?). Much like the approach taken with the Dispersion Index for Risk, this analysis identifies thresholds (cut-off scores) that produce the greatest classification potency, measured by a) the size of each group identified and b) differences in outcomes in each group. To be of value to an agency, the instrument must identify high and low risk groups of sufficient size (10% or more of the total sample) with significantly higher and lower rates of recidivism (respectively) than the moderate risk group. The moderate risk group should, in turn, recidivate at a level similar to that of the total sample.

2. If possible, revising the risk assessment instrument to provide the highest possible level or discrimination between youth with low and high rates of recidivism. Any equity problems encountered should be documented and addressed in subsequent steps of the analysis; and

3. Examination of the implications of the revised risk assessment instrument on agency policy and operations.

To revalidate Alameda County's existing risk assessment instrument, analysis was conducted on the sampled 480 youth placed on field supervision and 474 youth that were ordered into placement in 1996 (a total of 954 youth). The independent variables evaluated were taken from the existing risk assessment instrument, which collects data on youth characteristics at the time of the incident that led to either field supervision or placement. These characteristics include the youth's prior criminal history, age at first delinquency finding, substance abuse, peer relationships, behavior and/or participation in school, as well as the parental skills of the youth's caregivers.

Some will ask why "antisocial thinking" was not excluded as a variable: We have reviewed validity and reliability studies conducted on the juvenile LSI which uses such a variable and determined that the work done to date is exceedingly weak. "Antisocial thinking" may or may not be a good "predictor," but we seriously question the reliability of such an item, particularly when data are collected from file reviews.

As mentioned previously, outcomes were tracked for a one-year follow-up period post-disposition. The outcomes (or dependent variables) used in the analyses included subsequent intakes, petitions filed, and subsequent petitions sustained. The primary outcome examined was sustained petitions because: 1) it represents the most objective outcome measure, 2) it was the most serious measure collected, and 3) as such, it has the lowest rate of occurrence observed among the sampled youth (see Table 3). Obviously all outcome measures are highly correlated; hence any one of them would have produced similar results. Sustained petitions should be the most objective, having gone through both a department and judicial review.

Reference can be made to the fact that sustained petition had the lowest rate of occurrence only because rare events make effective classification more difficult. If an effective system can be devised with "lower base rate" outcome measures, relationships or between risk factors and outcomes with higher levels of occurrence will almost certainly produce the same or better results (given the high correlations between all potential outcome measures). Furthermore, simply choosing one outcome as the "primary measure" does not mean that other relationships were ignored.

Table 3

Outcomes Observed During 12-Month Follow-Up Period

Outcomes within One-Year Follow-Up Period	N	%
Total sample	954	100.0%
Youth with subsequent intake	570	59.7%
Youth with subsequent petition filed	502	52.6%
Youth with subsequent petition sustained	303	31.8%

The procedure used to validate the Alameda County risk assessment instrument is presented below. This methodological approach was first outlined in a National Institute of Corrections (NIC) publication entitled "Validating Risk Assessment Instruments Used in Community Corrections" (Baird, 1991).

1. The existing instrument was tested against the entire sample to: a) determine the degree to which offender groups are separated relative to outcomes, b) determine if existing cut-off scores are the optimal thresholds for defining risk groups, and c) illustrate how sample cases are distributed among the existing risk classifications.

2. Next, the existing scale was analyzed using relevant sub-populations to discern its ability to effectively separate risk groups with each sub-grouping: males, females, African Americans, Whites, etc.
3. Individual items were then tested against principal outcome or criterion variables. This analysis indicated: a) how the current discriminatory power of each item relates to item weights, and b) what changes, including item deletion, re-aggregation of item values, or revisions in item weights may improve scale performance.

4. Cross tabulations (with a number of associated statistics such as chi squares and correlations) were completed to further determine relationships between outcomes and all potential scale items. These analyses helped to determine how values of each independent factor could best be combined to maximize the variables' relationship to the various outcome measures.

5. Variables were re-coded based on the above analysis, and the cross tabulations, chi squares, and correlations are repeated. Item weights were selected based on the ability of each factor to separate offender groups with different rates of success/failure reported during the follow-up period.

6. Items were selected for scale inclusion based on the results of all the analyses conducted above.

7. The newly developed scale was cross tabulated with outcomes to determine overall discriminatory capabilities and optimal cut-off points for each identified level of risk. Items were added and deleted from the scale and these cross tabulations repeated to test various combinations of factors.

8. The best combination of factors was selected and the scale was finalized.

9. The scale was then tested against all relevant sub-samples: African Americans, girls, and by offender status to determine if the scale demonstrated any racial or gender bias.

III. RESULTS OF ANALYSIS

The instrument initially adopted by Alameda County did demonstrate a relatively strong relationship to actual rates of recidivism. Table 4 shows that nearly one-quarter (23.1 percent) of the youth classified as low risk by the existing scale had a new sustained petition within the one-

year follow-up period. The rate increased to 40.4 percent for cases classified as moderate risk, and to 53.5 percent for youth in the high risk category. However, two major problems were observed. First, the distribution of cases among risk levels was not optimal. Far too many (62 percent) youth fell into the low risk category and this group had a recidivism rate that was not substantially under that of the entire sample (23.1 percent vs. 31.8 percent). In general terms, a risk assessment instrument should more effectively differentiate low and moderate risk cases. It is certainly crucial that risk assessment tools identify a group of offenders who are at substantially lower risk than the average case entering the system. It is not uncommon to find a 3:1 ratio in recidivism rates between moderate and low risk cases in well-constructed instruments. Hence, it appeared that changes were needed in order to identify a smaller, more homogenous group of youth with a much lower rate of subsequent offending.

Generally speaking, well-designed instruments will place most cases in the moderate risk group. This classification will have a recidivism rate that is close to that of the mean for the entire sample. Finally, a smaller high risk group (sometimes delineated into high and very high risk categories) will be identified and this group will recidivate at a substantially higher rate than the moderate risk group.

Table 4 Youth with a Sustained Petition within One Year			
	Total Youth in Sample	**Youth with a Sustained Petition**	**Rate of Recidivism**
Low	587 (61.5%)	136	23.1%
Medium	225 (23.5%)	91	40.4%
High	142 (14.9%)	76	53.5%
Percent of Total Sample	**954 (100.0%)**	**303**	**31.8%**

Note: The draft/existing scale was used to calculate these values.

As Table 5 illustrates, when classifications were delineated by gender, an additional problem emerged. Although the scale effectively discriminated within each gender, the base rate for males was substantially higher than that of females. As a result, males classified moderate risk had a higher rate of recidivism than high risk females. Thus, applying sanctions based even partially on risk levels could effectively result in discriminatory practices, resulting in deeper end sanctions for girls with base expectancy rates similar to those of males that receive lesser sanctions. One possible solution (if improvements to the scales did not alleviate the problem) would be to combine low and moderate risk girls into a low risk classification and change the label for high risk girls to moderate. Under this scenario, girls could not achieve high risk status. Such a change would greatly enhance equity in decision making.

Table 5 Sustained Petition Rates by Gender		
Level of Risk	Gender	
	Male (N=246)	Female (N=57)
Low	28%	12%
Moderate	44%	33%
High	57%	41%

To correct these problems, analyses focused first on: 1) the current thresholds (cut-off scores) used to classify cases into high, moderate, and low risk groups, and 2) the relationship of each risk factor to the outcome measures used in the study.

It was determined that simply lowering the cut-off scores used for the existing scales resulted in both a better distribution of cases and better overall risk discrimination. However, even better results were obtained when item weights were revised.

A. Item Analysis

Table 6 presents a breakdown of risk items used in the initial Alameda County risk assessment instrument. The percentage of cases with petitions filed and petitions sustained is presented for each item value. This table illustrates which variables have strong linear relationships to outcomes and where adjustments to factors are needed. "Age at First Finding," for example, has a very strong relationship to outcomes: the earlier a youth was at first finding, the higher the rate of recidivism. In other instances, the relationship between item scores and outcomes clearly need adjustment. "Alcohol Use" illustrates this problem well. Youth with "no known use or disruption of functioning" have low recidivism rates compared to youth with "occasional use, some disruption." However, there is no additional incremental increase in recidivism rates for chronic alcohol abusers. In fact, chronic abusers had slightly lower rates of

recidivism. This may be due to the difficulties that workers have separating alcohol problems into different levels of severity. One solution is to combine the values "some abuse" and "chronic abuse" into a single value that represents this factor's true relationship to recidivism. There is a relationship between alcohol abuse and recidivism - there is simply nothing gained by delineating abuse into two (or more) levels of severity. This could be due to a lack of reliability - raters are not consistent when determining if abuse is present, but not in rating the seriousness of the abuse - or the fact that all abuse, regardless of severity exhibits basically the same relationship with recidivism.

Table 6

Original Scale
Item Analysis: Total Sample

	Petitions Filed Through One Year (one or more occurrences)	Petitions Sustained (one or more occurrences)
Age at First Finding		
16 or older	41%	20%
14 or 15	57%	35%
13 or younger	66%	48%
Prior Criminal Behavior		
No prior arrests	30%	17%
Prior arrest record, no petitions sustained	49%	21%
Minimum level (any misdemeanor)	68%	46%
Medium level (felony, not max)	72%	52%
Maximum level (any 707b offense)	59%	47%
Institutional Commitments		
None	48%	27%
One	59%	45%
Two or more	83%	59%
Drug/Chemical Use		
No known use or disruption of functioning	44%	23%
Some disruption of functioning	58%	36%

Table 6 Original Scale Item Analysis: Total Sample		
Chronic abuse or dependency	61%	37%
Alcohol Use		
No known use or disruption of functioning	45%	24%
Occasional use, some disruption of functioning	63%	42%
Chronic abuse, serious disruption of functioning	53%	27%
Parental Skills		
Generally constructive	37%	20%
Inconsistent	49%	31%
Little or none	65%	39%
School Discipline Problems		
Attending, graduated, or GED	26%	12%
Problems handled at school level	51%	27%
Severe truancy or behavior problems	56%	34%
Not attending/expelled	62%	38%
Peer Relationships		
Good support and influence	44%	22%
Negative influence, companions involved in delinquent behavior	53%	33%
Gang member	55%	32%
Total	**61%**	**36%**

Whenever the relationship between risk factors and recidivism did not reflect the weights currently assigned, adjustments were made to correct inconsistencies. In a few instances, item weights were further adjusted to help ensure equity among sub-populations. For example, a factor may show more discriminatory power for females than males. In such cases, adjustments can often be made that do not "harm" the system's overall power to accurately classify cases, yet increase the scale's ability to more accurately classify a specific subgroup (Latinos, females, etc.).

These adjustments produced the risk assessment instrument presented on the following page. Combining values within items and re-weighting them to better represent their relationship with outcomes produced a simplified scale format that should enhance inter-rater reliability, reduce scoring errors, and significantly improve decisions regarding dispositions.

ALAMEDA COUNTY JUVENILE RISK ASSESSMENT FORM

Name of Minor: _____ Case #: _____ DOB: ____/____/____ Sex: M F

Completed by: _____ Finding Offense(s): _____

Most Serious Prior Petition Sustained: _____

___ Black ___ Asian or Pacific Islander ___ American Indian or Alaskan Native ___ Hispanic ___ White

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_____ 1. Age at First Finding
- 0 16 or older
- 3 14 or 15
- 5 13 or younger

_____ 2. Prior Criminal Behavior
- 0 No prior arrests
- 2 Prior arrest record, no petitions sustained
  Most serious prior petition sustained
- 3 Minimum level
- 4 Medium level
- 7 Maximum level

_____ 3. Institutional Commitments or Placements of 30 Consecutive Days or More
- 0 None
- 2 One
- 4 Two or more

_____ 4. Drug/Chemical Use
- 0 No known use or disruption of functioning
- 2 Some disruption of functioning
- 5 Chronic abuse or dependency

_____ 5. Alcohol Use
- 0 No known use or interference with functioning
- 1 Occasional use, some disruption of functioning
- 3 Chronic abuse, serious disruption of functioning

_____ 6. Parental Skills
- 0 Generally constructive
- 2 Inconsistent
- 4 Little or none

_____ 7. School or Disciplinary Problems
- 0 Attending, graduated, GED equivalence
- 1 Problems handled at school level
- 3 Severe truancy or behavioral problems
- 5 Not attending/expelled

_____ 8. Peer Relationships
- 0 Good support and influence
- 3 Negative influence, companions involved in delinquent behavior
- 6 Gang member

_____ **TOTAL**

Risk Classification:
- _____ Low Risk (0-4)
- _____ Moderate Risk (5-12)
- _____ High Risk (13 +)

Improvements to the risk scale resulted in substantial changes in the distribution of cases by classification level. As noted earlier, the initial instrument classified over three of every five youth as low risk. The new distribution reflects a more "normal" distribution, with the majority of cases classified as moderate risk. Using the revised scale:

- About 11 percent of all youth scored low risk. The sustained petition rate for these youth was 8.6 percent (versus 23.1 percent for youth designated low risk on the original scale).
- The percentage of moderate cases rose from 23.5 percent to 64.0 percent and the rate of new petition sustained fell from 40.4 percent to 27.1 percent, a rate much closer to the sample mean.
- The number of cases rated high risk increased from 76 to 238. Despite the three-fold increase in high risk cases, the rate of new sustained petitions was nearly identical to that attained by the original scale.
- Overall, the ratio of the rates of sustained petitions between high and low risk cases increased from approximately 2.5:1 to nearly 6:1.

Table 7 presents data on all outcome measure analyzed by risk level.

Table 7

Total Sample Cases: Risk Classification Findings for Major Outcomes

Risk Classification	Sample Cases	% Sample	Intake actions Through One Year		Petitions filed Through One Year		Petitions sustained Through One Year	
			Rate		Rate		Rate	
Low	107	11.2%	27	25.2%	21	19.6%	10	9.3%
Moderate	609	63.8%	355	58.3%	301	49.4%	165	27.1%
High	238	24.9%	188	79.0%	180	75.6%	128	53.8%
Total	954	100.0%	570	59.7%	502	52.6%	303	31.8%

Tables 8 and 9 present relationships between the revised items and two outcome measures, petitions filed and petitions sustained. The degree of discrimination attained by each

factor is reflected by the scoring structure of the risk assessment instrument presented in Table 8. Seven of the eight risk factors were significant ($p < .01$) for the entire sample. The eighth item, "peer relationships" discriminated well for some groups but not for the total sample. Nevertheless, because it could be included without "damaging" the overall results attained and resulted in a better classification instrument for minorities, it was retained as a risk factor.

Table 8

Risk Assessment Scale Item Analysis
Total Sample

Item	Sample Distribution		Cases with Petitions Filed Through One Year			
	N	%	N	%	Correlation	P Value
Total Sample	954	100	502	52.6%		
1. Age at First Finding					.193	.001
16 or older	348	36.5%	141	40.5%		
14 or 15	431	45.2%	245	56.8%		
13 or younger	175	18.3%	116	66.3%		
2. Prior Criminal Behavior					.326	.001
No prior arrests	251	26.3%	75	29.9%		
Prior arrest record, no prior sustained petition	307	32.2%	150	48.9%		
Prior sustained petition	396	41.5%	277	69.9%		
3. Institutional Commitments or Placements of 30 Consecutive Days or More					.200	.001
No	771	80.8%	373	48.4%		
One	95	10.0%	56	58.9%		
Two or more	88	9.2%	73	83.0%		
4. Drug/Chemical Use					.139	.001
No known use or disruption of functioning	462	48.4%	210	45.5%		
Some disruption of functioning, and/or chronic abuse/dependency	492	51.6%	292	59.3%		
5. Alcohol Use					.117	.001
No known use or disruption of functioning	565	59.2%	270	47.8%		
Some disruption of functioning, and/or chronic abuse/dependency	389	40.8%	232	59.6%		
6. Parental Skills					.205	.001
Generally constructive	163	17.1%	59	36.2%		
Inconsistent	452	47.4%	223	49.3%		
Little or none	339	35.5%	220	64.9%		
7. School Disciplinary Problems					.184	.001
Attending, graduated, GED equivalence	94	9.9%	26	27.7%		
Problems handled at school level	251	26.3%	118	47.0%		
Severe truancy or behavioral problems, or not attending/expelled	609	63.8%	358	58.8%		
8. Peer Relationships					.038	.121
Good support and influence	91	9.5%	42	46.2%		
Negative influence, companions involved in delinquent behavior	737	77.3%	391	53.1%		
Gang member	126	13.2%	69	54.8%		

Note: Missing data was scored as no problem for purposes of analysis.

Table 9

Risk Assessment Scale Item Analysis
Total Sample

Item	Sample Distribution		Cases with Petitions sustained Through One Year			
	N	%	N	%	Correlation	P Value
Total Sample	954	100	303	31.8%		
1. Age at First Finding					.223	.001
16 or older	348	36.5%	68	19.5%		
14 or 15	431	45.2%	151	35.0%		
13 or younger	175	18.3%	84	48.0%		
2. Prior Criminal Behavior					.300	.001
No prior arrests	251	26.3%	42	16.7%		
Prior arrest record, no prior sustained petition	307	32.2%	65	21.2%		
Prior sustained petition	396	41.5%	196	49.5%		
3. Institutional Commitments or Placements of 30 Consecutive Days or More					.220	.001
No	771	80.8%	208	27.0%		
One	95	10.0%	43	45.3%		
Two or more	88	9.2%	52	59.1%		
4. Drug/Chemical Use					.111	.001
No known use or disruption of functioning	462	48.4%	122	26.4%		
Some disruption of functioning, and/or chronic abuse/dependency	492	51.6%	181	36.8%		
5. Alcohol Use					.098	.002
No known use or disruption of functioning	565	59.2%	158	28.0%		
Some disruption of functioning, and/or chronic abuse/dependency	389	40.8%	145	37.3%		
6. Parental Skills					.142	.001
Generally constructive	163	17.1%	32	19.6%		
Inconsistent	452	47.4%	139	30.8%		
Little or none	339	35.5%	132	38.9%		
7. School Disciplinary Problems					.142	.001
Attending, graduated, GED equivalence	94	9.9%	14	14.9%		
Problems handled at school level	251	26.3%	68	27.1%		
Severe truancy or behavioral problems, or not attending/expelled	609	63.8%	221	36.3%		
8. Peer Relationships*					.033	.157
Good support and influence	91	9.5%	22	24.2%		
Negative influence, companions involved in delinquent behavior	737	77.3%	241	32.7%		
Gang member	126	13.2%	40	31.7%		

Note: Missing data was scored as no problem for purposes of analysis.
* Although "Peer Relationships" was not a significant risk factor for the sample as a whole, it did discriminate well for some sub-populations and its inclusion enhanced the overall equity attained by the risk assessment scale.

B. Equity Issues

Because outcome base rates were significantly higher for males than females (see Table 10), complete gender equity was impossible to obtain with a single instrument. Still, the revised instrument is a considerable improvement over the earlier version. There is no "overlap" in rates of recidivism when results are reported by gender. Increases in petitions filed and sustained are found at higher risk levels for both males and females and the patterns are remarkably similar. As a policy matter, however, sanctions identified for moderate and high risk girls should be responsive to the fact that they, as a group, represent less overall risk than males.

Table 10

Total Sample Cases: Risk Classification Findings for Major Outcomes by Gender

Risk Classification	Sample Cases	% Sample	Petitions Filed Through One Year		Petitions Sustained Through One Year	
			Rate		Rate	
Females						
Low	49	18.1%	6	12.2%	3	6.1%
Moderate	171	63.3%	71	41.5%	31	18.1%
High	50	18.5%	37	74.0%	23	46.0%
Total	270	100.0%	114	42.2%	57	21.1%
Males						
Low	58	8.5%	15	25.9%	7	12.1%
Moderate	438	64.0%	230	52.5%	134	30.6%
High	188	27.5%	143	76.1%	105	55.9%
Total	684	100.0%	388	56.7%	246	36.0%

Table 11 reports results by status: field supervision cases versus those youth who received an out-of-home placement. The high recidivism rate found for low risk placement cases should be discounted because of sample size (n = 7). All other data indicate that the revised instrument effectively classifies both populations.

Table 11

Total Sample Cases: Risk Classification Findings for Major Outcomes by Probation Supervision Status

Risk Classification	Sample Cases	% Sample	Petitions Filed Through One Year		Petitions Sustained Through One Year	
			Rate		Rate	
Field Supervision						
Low	100	20.8%	17	17.0%	9	9.0%
Moderate	317	66.0%	148	46.7%	82	25.9%
High	63	13.1%	49	77.8%	41	65.1%
Total	480	100.0%	214	44.6%	132	27.5%
Placement						
Low	7	1.5%	4	57.1%	1	14.3%
Moderate	292	61.6%	153	52.4%	83	28.4%
High	175	36.9%	131	74.9%	87	49.7%
Total	474	100.0%	288	60.8%	171	36.1%

Different base rates found among the races and ethnicities in the Alameda County probation population also produce some differences in outcome rates by risk levels when results are delineated by race/ethnicity. The revised scale discriminates risk levels very well within each risk grouping and the lone reversal noted ("high risk" Asian youth had a lower recidivism rate than "moderate risk" African Americans) must be viewed with caution. It may well be an artifact of a small sample size: only 101 Asian youth were included in the analysis and only 13 of those scored high risk. When racial/ethnic breakdowns are reported, sample size is always a factor that must be considered. Individual cell sizes within a risk/race matrix are often too small to be conclusive. Thus, while the patterns attained in this analysis look promising, Alameda County would be well-advised to track classification trends by race to ensure that equity is attained over time.

Table 12

Total Sample Cases: Risk Classification Findings for Petitions Sustained Through One Year by Race

Risk Classification	Petitions Sustained Through One Year (Rate)			
	White (159)	Black (464)	Hispanic (152)	Asian
Low	9.5%	10.5%	5.9%	8.7%
Moderate	17.6%	31.8%	23.3%	18.5%
High	60.0%	61.3%	42.9%	30.8%*
Total	**24.5%**	**37.9%**	**27.6%**	**17.8%**

* Although this rate of recidivism is substantially below that of other groups, it may well be an artifact of sample size. Only 13 Asian youth scored high risk. A larger sample is needed to determine if a problem exists.

IV. NEXT STEPS

NCCD presented these findings on April 18, 2000 to a meeting of juvenile court judges, probation supervisors, and other County staff. The consensus of the meeting was that this instrument would be of help in making placement decisions. Probation officers will be completing the risk assessment form and submitting the score to the judge as part of their recommendations for placement. At a later date, the risk assessment score may be included in a placement matrix with severity of offense to indicate appropriate placements.

This risk assessment study of Alameda County probationers not only yielded a validated instrument that could assist staff in making placement decisions, it directed the County toward areas of need. As was addressed in the first section of this document, the County was involved in implementing a continually-changing juvenile justice action plan. The results of the data collection effort for this grant were so revealing that new projects were proposed.

First, the County came to realize how many youth on probation had severe truancy problems, and how strongly truancy was linked to other problems in youths' lives. They used

the study to propose to use Juvenile Accountability Incentive Block Grant funds for a truancy prevention project. The lead to that proposal states:

> Truancy is notably one of the highest predictors of chronic juvenile crime. According to a 1996 sample study (the risk assessment data collection effort), 35 percent of those on probation in Alameda County are exhibiting severe truancy or behavior problems. Factors that appear to be correlated with poor attendance in school are poor parenting skills, poor peer support and influence, and drug and alcohol use. For example, among those exhibiting severe truancy or behavior problems in school, or have graduated or received a GED certificate, for whom 54 percent have parents with "generally constructive" parenting skills. Only 3 percent of probationers exhibiting chronic truancy behavior have "good" and "supportive" peer relationships. By contrast, 17 percent of those who are regularly attending school, or have graduated or received a GED certificate have "good" and "supportive" peer relations.

The proposal, which was funded, is a model truancy prevention strategy in two schools to improve attendance among youth on probation. The program includes child accountability, quick response to truancy, intensive family work, and a multi-disciplinary approach to case management.

The project also led the County to examine the risk assessment that is used for intake to detention. The focus of the study was to determine the needs and risks of these youths such that they can receive better probation services and be prevented from offending. The results of this study were presented to the County on August 25, 2000.

Finally, the placement risk assessment project caused probation leaders to think about how resources are being spent in the department. Are probations efforts focused on those youth with the highest likelihood of re-offending, or are funds spread evenly across wards? A ten-month study will look at workload standards, the number of staff necessary for adequate supervision, and the time that needs to be allocated to each youth. This study will help the

department develop standards for probation work and deploy resources more effectively. The workload project will adopt the placement risk assessment categories of risk in setting these time standards. For example, how many probation hours should a low risk offender require as opposed to a high risk offender?

V. CONCLUSION

This analysis has shown that the placement risk assessment developed by Alameda County was valid and equitable for that juvenile justice population. Therefore, the instrument can be useful for staff who are making informed placement decisions. No risk instrument should take the place of the good judgement of probation officers and judges. However, this risk assessment offers a way to consider eight relevant factors in making that decision. These factors have been supported by juvenile justice research as being indicators of the risk of recidivism.

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Appendix

Risk Assessment Guidelines

ALAMEDA COUNTY PROBATION DEPARTMENT -- JUVENILE SERVICES

RISK ASSESSMENT GUIDELINES

This set of guidelines is designed to provide an explanation of the items on the Risk Assessment Form. Respond to each item from your knowledge of the individual and the case record. Complete the form in its entirety. Select only one score per item.

1. **Age at First Finding.** The first time a 602 WIC Petition is sustained.

   0 16 or older
   3 14 or 15
   5 13 or younger

2. **Prior Criminal Behavior** Does not include present offense.

   0 No prior arrests. May have traffic citations.
   2 Prior arrest record, no petitions sustained. Include all 602 WIC citations and Juvenile Hall bookings. Include all 602 and 654.2 WIC Informal Supervision and Diversion cases.

   Most serious prior petition sustained

   3 Minimum level.
   4 Medium level.
   7 Maximum level.

3. **Institutional Commitments or Placements of 30 Consecutive Days or More.** These include: (a) CYA; (b) County residential programs (including court commitment to Juvenile Hall); (c) Private institutions and group homes; and (d) Foster homes. Do not include dependency placements, time in detention awaiting adjudication, or placements in a relative's home.

   0 None
   2 One
   4 Two or more

4. Drug/Chemical Use. Look at indications of drug use other than alcohol and assess the degree to which functioning is impaired. Included are police contacts for drug offenses which, by themselves, may or may not appear to affect functioning.

   0 No known use or disruption of functioning. Experimentation included, if no indication of sustained use and no history of use of several kinds of drugs. No pattern of strained relationships with parents around use and no concern about drug using peer group. No significant deterioration in school. No police contacts (prior or present) for drug related offenses (examples of drug related offense: burglary committed while on drugs; battery involving dispute over drug transaction).

   2 Some disruption of functioning. Occasional use, some disruption of functioning. Occasional use, probably uses different kinds of drugs. Family relationships becoming strained, some breakdown in communication. Parents feel ineffective in controlling minor's use; parents may express a need for counseling, concern about peers who use drugs. May be a deterioration in school believed to be drug related. May have one or two drug related police contacts.

   5 Chronic abuse or dependency. Serious disruption of functioning. Frequent use, probably indiscriminately--several kinds of drugs--whatever is available. Unable or not motivated to control use. Strong identification with drug using peer group. Serious intrafamily turmoil; little communication, isolation from parents. Counseling may have been tried and failed. Admitted or diagnosed dependency. Dramatic deterioration in school. May have more than two police contacts related to drugs.

5. Alcohol Use. Consider the effects of alcohol, but not other drugs.

   0 No known use or interference with functioning. Includes some use but no pattern of continual use. No evidence of strain in family relationships around use.

   2 Occasional use, some disruption of functioning. Use of alcohol appears to be an emerging pattern. Relationship with parents strained. Parents feel discipline for use has been ineffective and are concerned about peers who drink. May be a deterioration in school believed to be alcohol related.

   3 Chronic abuse, serious disruption of functioning. Frequent use. Social activities appear centered around alcohol and peers who drink. Counseling/treatment may have been rejected or tried and failed. Parents have no control and have given up. A drunk driving offense places the minor in this category.

6. **Parental Skills**

   0 Generally constructive. Parents are concerned and expect the minor to attend school, obey the law, and take some responsibility of his/her actions. Parents express their expectations and provide some sanctions for misbehavior and rewards for good behavior.

   2 Inconsistent. Parents have expectations of good behavior, but do not provide sanctions for misbehavior, or they are inconsistent when they do so. Parents generally agree regarding discipline.

   4 Little or none. Parents in conflict over expectations and discipline. Parents give double messages. Parents have given up trying to provide supervision. Parents contribute to minor's delinquency by benefiting from law violations or denying the minor is involved in delinquency. Parents resist outside intervention from public agencies. Parents contribute to delinquency by being involved in antisocial behavior themselves.

7. **School Disciplinary Problems**

   0 Attending, graduated, GED equivalent. No history of discipline problems. Involved in job training. Adequately employed.

   1 Problems handled at school level. Occasional attendance or discipline problems.

   3 Severe truancy or behavioral problems. Is in danger of being dropped or expelled from school. Likely to have have been suspended during the quarter/semester. Truancy or behavior interferes with academic achievement.

   5 Not attending/expelled. Includes unwilling to attend school.

8. **Peer Relationships**. Evaluate the degree to which friends appear to influence negative behavior.

   0 Good support and influence. Friends not known to be delinquent or to have influenced involvement in delinquent behavior.

   3 Negative influence, companions involved in delinquent behavior. Past or current offense committed in cooperation with others. Unconfirmed, wannabee, or associate gang member.

   6 Gang member. Known to be a gang member on the basis of police intelligence or self-identification.

Summary

The Alameda County Probation Department was awarded a grant from the National Institute of Justice in 1998 to develop a risk assessment for probation placement cases. The project was a follow-up to a process that began in 1996 when the Department contracted with the National Council on Crime and Delinquency (NCCD) to construct a five-year plan to improve the effectiveness and efficiency of their Juvenile Services Division. NCCD was instrumental in developing the planning approach for graduated sanctions for the Office of Juvenile Justice and Delinquency Prevention's *Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders*. In August of 1996, the Department adopted this strategy as its official governing policy for all system design and policy decisions. Part of this plan was to develop a risk assessment instrument for placement of adjudicated juveniles.

The goal of the project was to implement a system-wide classification and placement system that would address the public concern for safety and effectiveness in dealing with juvenile crime. It would use a structured process that would assess the risk of future recidivism in combination with the severity of the current offense. This risk assessment project would develop a scientific and rational basis for making classification and placement decisions. It would ensure that extra-legal factors were not used in classification and decision making. Further, it would structure the process such that juveniles would be held accountable for delinquent behavior.

The plan for the Department's decision making was shaped by four criteria: validity, reliability, equity, and utility:

Validity:	Does the system measure what it purports to measure? Does it accomplish its goals?
Reliability:	Do similar cases receive similar recommendations for placement services?
Equity:	Is the system fair to various groups?
Utility:	Is the system useful to practitioners? Is it simple to implement?

To begin the development process, NCCD worked with a committee of Probation Unit Supervisors and assisted in the adaptation of a risk assessment instrument from an existing instrument that had been used and validated on probationers in California. This instrument would only address the relative risk of recidivism of the youth and would not take into account the severity of the current offense. That factor would be included in a structured decision-making system that would be developed after the completion of the risk assessment instrument.

For the validation study, Alameda County adopted the sample risk level cut-off scores. Previous studies had found that these scores were accurate in distinguishing between groups of offenders that had significantly different rates of re-offending. Youths classified as medium-risk were twice as likely to re-offend than youths classified as low-risk. Similarly, high-risk youth were twice as likely to re-offend than medium-risk youth.

Nine probation officers (deputies and supervisors) were trained in the use of the draft instrument. Because of their current involvement in the system, all coders were familiar with the case files. The first phase of data collection involved a random sample of 500 cases that received field supervision as a disposition in 1996. Field supervision refers to a sanction in which the youth was maintained and supervised in the community with the aid of weekend programming, community service, restitution, electronic monitoring, or day reporting. The second data collection phase involved a random sample of 500 cases that received a placement order in 1996. Placement refers to any sanction in which the youth is placed out of home (e.g., a group home, camp, or residential treatment). From these populations it was possible to extrapolate to the total population of youths on field supervision (n=1,334) and the total population of youth in placement (n=774). Further, it was possible to determine the profile of the total population of youth under probation supervision (n=2,108). A number of data elements were collected on each child, and outcomes for each child were tracked for a year after disposition.

After the data were cleaned, the total sample yielded 954 probation cases that were evaluated by the risk assessment instrument and followed through one year for intake actions, petitions filed, and petitions sustained. Three cases with zero scores were initially excluded as they were thought to be data collection errors. However, these cases were later confirmed and added back to the database for the total of 954. With these data, NCCD refined the risk assessment instrument, collapsing certain categories in which there was little difference in recidivism.

When the instrument was first examined, it did not adequately distinguish the risk of recidivism for youth classified as low-, medium-, and high-risk. About half of the high-risk youth had a new sustained petition after one year, but almost a quarter of the low-risk youth did as well. Three steps were taken to improve the instrument:

- Risk assessment questions were simplified, making the instrument easier to use and increasing the difference in recidivism for the groups;
- A clearer delineation of risk for girls and boys was achieved through adjustment of values to one question; and
- The overall scale was adjusted to increase the instrument's predictive capacity.

The sample of 954 cases was predominantly male, with only 28.3 percent (n=270) being female. Most of the sample consisted of African-American youth, which reflects the juvenile justice population in Alameda County. Youth between the ages of 14 and 15 were the largest age group in the sample (45.2 percent, n=431) with youth 16 or older (36.5 percent, n=348) and 13 or younger (18.3 percent, n=175) following.

There was about an even split in the disposition outcomes for the sample, with youth going to field supervision (50 percent, n=480) slightly higher than the number going to placement (49.6 percent, n=474). This split is relatively reflective of the general probation population in Alameda County. A 1995 study showed that 56.7 percent of youth went to field supervision, while 43.3 percent went to placement (including camp, n=1,610).

There were some interesting differences between males and females on the final risk assessment score. Females tended to be older, had parents with better skill levels, and had fewer school problems. Males had more extensive criminal backgrounds and more institutional commitments. More females tended to have negative peers, but there were more gang members among the males.

Whites were older and had lower rates of criminal history than other groups, but higher rates of drug and alcohol use. African-Americans were younger than the overall average, had more institutional commitments, and lower rates of drug and alcohol use. The rate of African-American youth with parents lacking skills was higher than for other groups. They also had the highest rate of severe truancy. Hispanics had higher rates of constructive parenting, but the lowest rate of school attendance. They also had considerably higher rates of gang membership than other groups.

Results of an analysis of the risk assessment questions also show that the problems of these youth were interrelated. For youth with little or no parental support, only 4 percent were attending school. The majority of these youth (85 percent) had severe truancy problems or had been expelled. More than half of these youth were involved with drugs, compared with only 30 percent of those with constructive parenting. Drug use was also related to school performance. Only about 30 percent of those with good school records reported drug use, but almost 60 percent of those with serious problems in school had used drugs or had a problem with drugs. (Alcohol use was low among the entire population.) The majority of youth in the sample had delinquent peers, regardless of the skill level of their parents.

Total risk scores ranged from 0 to fifteen, with the majority of the cases falling between seven and nine. When these scores were grouped in risk categories, most of the cases in the

sample fell into the "medium" risk category. A quarter fell into the high-risk category, and only about 11 percent fell into the low-risk category.

Again, the goal of a validation study of a risk assessment instruments is to determine if the instrument is predictive of aggregate rates of recidivism. Youth in the sample who scored in the higher risk categories should have higher rates of recidivism than youth in the lower risk categories. It should be noted that while youth who score in the higher categories in the risk assessment might have higher rates of recidivism, the rates might not be as high as expected. Even though no risk assessment was in use at the time that placement decisions were made, it is reasonable that the good judgment of probation officers would cause higher risk youth to be sent to secure settings or assigned to intensive levels of supervision. As a result, those youth would have less opportunity to recidivate than the lower risk youth, who would be more likely to be placed on less intensive probation supervision.

The risk assessment was evaluated for three measures of recidivism: intake actions, petitions filed, and petitions sustained through one year after the placement decision was made. Only about 60 percent of the total sample had another arrest after one year. These data clearly showed the difference in rates of recidivism among the low, medium, and high-risk levels. While only a quarter of the low-risk youth had an arrest after one year, more than three-quarters of high-risk youth did. The rate of recidivism for the medium-risk category was about the average for the total sample.

The next measure of recidivism that was examined was the rate of youth with a petition filed after one year. Again, the data showed that youth in the lower levels of risk were much less likely than youth in the higher levels of risk to have a petition filed after one year. Three quarters of the high-risk youth had a new filed petition, while only about 20 percent of the low-risk youth did. The rate of recidivism of the medium-risk category was again about the same as the total sample.

The next measure – petitions sustained -- was probably the best measure of recidivism of the four measures, because the youth actually had a finding in court that the incident of recidivism occurred. The number of youth with at least one sustained petition was tracked through one year after original disposition. High-risk youth were more than five times as likely as low-risk youth to have a sustained petition one year after disposition. The rate of recidivism for the medium-risk offenders was just slightly lower than the overall average.

The risk assessment instrument was effective in predicting which youth were more likely to be arrested, have a petition filed, and have a petition sustained. Thus, the instrument was valid

in predicting risk of recidivating. An analysis of each of the risk assessment questions found that each one was valid in predicting risk of recidivism.

The study also looked at whether similar cases received similar treatment through the risk assessment. Males and females fell into the medium category at equal rates. Males were more likely to score in the high-risk level than females. An analysis of each of the risk assessment questions showed that males scored higher than females on the factors of age (females were older), criminal history (males had more extensive criminal backgrounds), institutional commitments (males had more commitments), and peer relations (more males were in a gang). On the other hand, females scored higher on the measure of lack of parental skills.

The study also looked at the fairness of the outcomes by risk level. In other words, do different groups of youth in the same risk levels re-offend at the same rates? This analysis would demonstrate if the risk assessment was more effective or less effective for various groups. Rates of petitions sustained after a year were higher for males than females, but high-risk youth were far more likely than low-risk youth to have a sustained petition: females eight times as likely and males almost five times as likely.

More African-American and Hispanic youth fell into the high-risk category than did White youth. A third of Hispanic youth and 27 percent of Black youth were classified as high-risk, as compared with 19 percent of White youth. Although there were few Asians in the study, a greater percentage fell into the low-risk group than other races. An analysis of each of the risk assessment questions revealed the factors that contributed to the variance among races. African-Americans were generally younger, had more extensive prior criminal records, more institutional commitments, parents who were lacking skills, and records of suspensions and expulsions from school. On the other hand, African-Americans were rated as having fewer problems with drugs and alcohol than the other races. Hispanics scored higher on the criminal history and school problem measures. The numbers in this analysis were very low, but the data show that for all racial groups high-risk youth were far more likely than low-risk youth to have a sustained petition. The recidivism rates for African Americans and Whites were higher than those for Hispanics.

The sample was also tracked by disposition. Probation officers were making placements that were similar to those that would be indicated by the risk assessment. Only a small percent of cases fell into the low-risk category and were sent to placement; likewise, a small percent of cases in the high-risk category were placed on field supervision. Data showed that the rate of recidivism for youth on field supervision increased dramatically among the low, medium and high levels of supervision. High-risk youth were six times more likely to have a sustained petition

within one year than low-risk youth, and more than twice as likely as medium-risk youth. The pattern was the same for placement cases.

NCCD presented these findings on April 18, 2000 to a meeting of juvenile court judges, probation supervisors, and other County staff. The consensus of the meeting was that this instrument would be of help in making placement decisions. Probation officers will be completing the risk assessment form and submitting the score to the judge as part of their recommendations for placement. At a later date, the risk assessment score may be included in a placement matrix with severity of offense to indicate appropriate placements.

This risk assessment study of Alameda County probationers not only yielded a validated instrument that could assist staff in making placement decisions, it directed the County toward areas of need. As was addressed in the first section of this document, the County was involved in implementing a continually-changing juvenile justice action plan. The results of the data collection effort for this grant were so revealing that new projects were proposed.

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The proposal, which was funded, is a model truancy prevention strategy in two schools to improve attendance among youth on probation. The program includes child accountability, quick response to truancy, intensive family work, and a multi-disciplinary approach to case management.

The project also led the County to examine the risk assessment that is used for intake to detention. The focus of the study was to determine the needs and risks of these youths such that they can receive better probation services and be prevented from offending. The results of this study were presented to the County on August 25, 2000.

Finally, the placement risk assessment project caused probation leaders to think about how resources are being spent in the department. Are probation efforts focused on those youth with the highest likelihood of re-offending, or are funds spread evenly across wards? This 10-month study will look at workload standards, the number of staff necessary for adequate supervision, and the time that needs to be allocated to each youth. This study will help the Department develop standards for probation work and deploy resources more effectively. The workload project will adopt the placement risk assessment categories of risk in setting these time standards. For example, how many probation hours should a low-risk offender require as opposed to a high-risk offender?

This study showed that the placement risk assessment developed by Alameda County was valid, reliable, and fair for that juvenile justice population. Therefore, the instrument can be useful for staff who are making informed placement decisions. No risk instrument should take the place of the good judgement of probation officers and judges. However, this risk assessment offers a way to consider eight relevant factors in making that decision. These factors have been supported by juvenile justice research as being indicators of the risk of recidivism.