Juvenile Rehabilitation Administration Assessments:
Validity Review and Recommendations

Robert Barnoski

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WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

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TABLE OF CONTENTS

SECTION I: INTRODUCTION

The Juvenile Rehabilitation Administration (JRA), within the Washington State Department of Social and Health Services, provides a coordinated system of services to supervise, confine, and rehabilitate juvenile offenders. The Washington State juvenile sentencing system commits only the more serious or chronic juvenile offenders to JRA custody.[1] The county juvenile courts are responsible for the remaining juvenile offenders. JRA oversees four types of placements: state institutions, forest camps, group homes, and parole.

JRA institutions and forest camps provide treatment, education, and/or work experience in a secure facility. There are three state institutions (Green Hill, Maple Lane, and Echo Glen) and three forestry camps (Naselle, Mission Creek, and Indian Ridge).

Group homes provide three types of programs in which youth live in small group facilities while they work and/or attend schools in the community. These programs involve state operated group homes, private agency group homes (called Community Residential Placements), and Community Commitment Programs in cooperation with county detention facilities.

Parole is the supervision of juvenile offenders who are released into the community after serving their sentence in JRA custody. Parole counselors provide structure, supervision, and family support to paroled youth. As a result of legislation passed during the 1997 session, parole is restricted to sex offenders, and intensive parole to the 25 percent highest-risk youth released from JRA.

In addition to these placements, JRA provides substance abuse treatment, specialized treatment for mentally ill youth, and sexual offender treatment.

The mission of JRA is to protect the public, hold young offenders accountable for their crimes, and reduce criminal behavior through a continuum of preventative, rehabilitative, and transition programs in residential and community settings.[2] To accomplish these goals, JRA conducts assessments to determine the most appropriate placement of youth within JRA facilities.

- When a youth is admitted to JRA, diagnostic staff conduct the *Initial Security Classification Assessment* (ISCA). This assessment procedure combines a risk level with a current offense seriousness level to determine the youth's initial security classification.

- Subsequent *changes* in a youth's security classification is determined by a youth's potential for risk to public safety, residential safety and security, and the youth's rehabilitative progress. The *Community Risk Assessment* (CRA) is used by JRA to guide the re-classification decision. The policy and procedures for changing a youth's security classification are defined in JRA Bulletin No. 5, which was published on February 2, 1996.

[1] RCW 13.40.160
[2] Juvenile Rehabilitation Administration Vision, Mission and Core Values, Department of Social and Health Services, Juvenile Rehabilitation Administration, 1998.

- The 1997 Washington State Legislature directed JRA to develop policies to guard against sexually aggressive acts by resident youth against each other. The legislation directed JRA to develop an assessment process to identify sexually aggressive and sexually vulnerable youth. In response, JRA developed the *Sexually Aggressive and Vulnerable Youth Residential Screen* (SAVY).[3] This screening tool was implemented in January 1998.

- The 1997 Washington State Legislature also made significant changes to the sex offender community notification statutes. The Department of Corrections, the Indeterminate Sentence Review Board, and the Juvenile Rehabilitation Administration were directed to develop a consistent approach to risk assessment including standards for risk level assignment for the purpose of public notification. The Minnesota *Sex Offender Screening Tool (*SOST) was adopted for sex offender classification and law enforcement notification in Washington State. The Washington State SOST was implemented by JRA in January 1998.

[3] *An Assessment of Sexually Aggressive and Youth Vulnerable to Sexual Victimization in Juvenile Rehabilitation Administration Facilities*, Department of Social and Health Services, Juvenile Rehabilitation Administration, December 1997.

Tasks

In response to these developments in assessment procedures, JRA contracted with the Washington State Institute for Public Policy to:

1. ***Re-examine the capability of the Initial Security Classification Assessment to predict recidivism.***

   This task involves obtaining a representative sample of JRA youth who have been given the ISCA and analyzing the recidivism rates of youth with different ISCA scores. If the ISCA is a valid predictor of recidivism, it should be able to identify youth who are very likely to recidivate and those who are very unlikely to recidivate. In order to adequately measure recidivism, the youth in this sample must have been living in the community for 30 months following release from JRA custody.

2. ***Examine the capability of the Community Risk Assessment to predict recidivism.***

   Validating the predictive capability of the CRA involves the same method used to validate the ISCA. Since the CRA is a measure of progress within JRA custody, it is also informative to examine how the CRA changes between the first and last assessment.

3. ***Design an evaluation of the Washington State Sex Offender Screening Tool and the Sexually Aggressive and Vulnerable Youth Residential Screen.***

   Because JRA just started using these assessments as directed by the legislature, there are no data readily available to conduct a validation study. Rather, the Institute was tasked with designing the evaluation studies for these assessments.

4. ***Recommend a process for selecting the highest-risk youth for participation in Intensive Parole, including a risk assessment instrument for use while on Intensive Parole.***

   As a result of legislation passed during the 1997 session, parole is restricted to sex offenders and intensive parole for the 25 percent highest-risk youth. The Institute was asked to recommend a process for selecting youth who are not sex offenders for intensive parole.

5. ***Compare these assessments to national models, and seek a review by national experts.***

   JRA asked the Institute to compare the ISCA and CRA to assessments described in the research literature.

Findings

Brief summaries of the Institute's findings for each task are:

1. **The ISCA is a valid predictor of 18-month felony recidivism** that could be modestly improved by including gender, age at admission, and sex offense history in the classification scheme.

2. **A youth's CRA scores change modestly from the youth's initial to last assessment.** Preliminary results indicate the CRA adds to the predictive capability of the ISCA. The CRA could be modestly improved by including gender, age at release, and sex offense history in the classification scheme. This is a preliminary finding based on a six-month rather than a full 18-month follow-up period.

3. **A retrospective validation design for the SOST is feasible** for a cohort of youth released from JRA custody between 1990 and 1995. Data from the juvenile justice databases and physical file reviews would be required for the study.

   A limited prospective validation of the SAVY is possible. The study would involve tracking the behavior of youth given the SAVY during 1998 from admission to release from custody.

4. **The Institute recommends using the ISCA to initially screen youth for Intensive Parole.** JRA could supplement the screening process with the CRA, given the understanding that the preliminary results for the validity of the CRA need to be confirmed by the end of 1999. The Institute recommends using the Washington State Juvenile Court Risk Assessment for managing risk while the youth is on parole.

5. **A review of the national research on recidivism risk assessments indicates the ISCA contains items typically found on juvenile risk assessments, and the predictive capability of the ISCA is typical of that found in the research literature.** Items on the ISCA that correspond to those found in national research literature include: criminal history, alcohol/drug use, peer relationships, anti-social attitudes, and social skills. The ISCA does not include the following items that are often found in the research literature on recidivism prediction: school, use of free time, employment, family background, and mental health.

   There is little research literature concerning the capability to predict recidivism based on institutional behavior and progress. The Institute found one research report indicating that institutional misconduct can be predictive of recidivism.[4]

[4] David P. Farrington and Roger Tarling, *Prediction in Criminology*, 1985, State University of New York Press.

Recommendations

1. The Institute recommends that **JRA include the proposed new variables in the ISCA.** The data for these variables is already available in JRA's database.

   The Institute recommends that **JRA work with the juvenile courts and adult corrections to develop common definitions for risk levels.** For example, low risk might be defined as a felony recidivism rate of 0 to 10 percent and high risk as a felony recidivism rate exceeding 50 percent. These definitions can provide decision-makers with consistent information concerning the level of risk posed by a youth. These definitions also permit comparisons among offender populations.

   The Institute recommends that **JRA make greater use of computer technology to aid in the assessment process and on-going research.** Most of the ISCA scoring could be automated using information that is stored in JRA and Office of the Administrator for the Courts databases.

   The Institute recommends that **JRA work with the juvenile courts to ensure the Washington State Juvenile Court Risk Assessment is completed for all youth committed to JRA.** The validity of the juvenile court assessment can be compared to that of the ISCA within the next three years.

2. The Institute recommends that **JRA modify the CRA to be used in conjunction with the modified ISCA for group home placement decisions.** The CRA could be modestly improved by including gender, age at release, and sex offense history in the classification scheme.

   The Institute recommends that **JRA make greater use of computer technology for tracking a youth's institutional behavior and programming progress.** The Institute recommends **including data elements that record the youth's behavior on an incident by incident, and program by program basis.** The CRA could then be primarily calculated directly from JRA's database. Additional subjective and attitudinal information would still need to be input by JRA staff to complete the CRA. This approach would improve reliability and future research capability.

3. With regard to sex offenders and assessing sexual aggression and sexual vulnerability, the Institute recommends **including more data elements recording sexual offending history, sexual attitudes and behaviors, and sexual incidents into JRA's database** to supplement the validation effort.

4. The Institute recommends **using the ISCA to initially screen youth for Intensive Parole eligibility to implement the residential component of the intensive parole model.** The Institute recommends **using the Washington State Juvenile Court Risk Assessment for managing risk while the youth is on parole.** If the preliminary results for the validity of the CRA are confirmed during 1999, JRA could supplement the screening process with the CRA.

5. The ISCA contains items that are typically found on juvenile risk assessments; the predictive capability of the ISCA is typical of that found in the research literature. The Institute recommends the **continued use of the ISCA.** The Institute recommends **comparing data**

from the ISCA and the Washington State Juvenile Court Risk Assessment for a sample of youth assessed during fiscal year 1999.

The Institute recommends the **continued use of the CRA in combination with the ISCA for security reclassification and group home placement.** The Institute strongly recommends **including more data elements in JRA's database to measure the youth's behavior and progress while confined.** These data can be used to supplement the CRA items in additional validation studies.

The Institute also recommends **assessing youth while they are being supervised in the community.** The environment into which youth are released and their initial behavior after release into the community may be very predictive of any subsequent re-offending. The Canadian criminal justice system strongly advocates the idea that community supervision involves managing those factors known to possess a risk for re-offense and those that reduce the risk for re-offense.

SECTION II: INITIAL SECURITY CLASSIFICATION ASSESSMENT

Purpose of the Initial Security Classification Assessment

The Initial Security Classification Assessment (ISCA) incorporates two measurements: risk level and offense seriousness level. The risk portion was developed by the Juvenile Rehabilitation Administration to predict the likelihood of a youth re-offending once released into the community. The offense seriousness portion holds youth accountable for the offenses that resulted in their state commitment.

***Table 2.1*: Initial Security Classification Assessment Items and Item Points**

Risk Level Section	
A. Prior Assaultive Behavior 0 – No 3 – Yes	F. Peer Relationships 0 – Adequate support and influence 1 – Negative influence/delinquent peers/gang
B. Impulsive/Hostile Response to Frustration 0 – Generally does not act out 1 – Occasional hostile/impulsive response 2 – Frequent hostile or impulsive response	G. Prior Adjudications 0 – None 5 – One or two 10 – Three or more
C. Age at First Adjudication 0 – 16 years or older 5 – 14 to 15 years old 10 – 13 years or younger	H. Compliance With Facility Regulations 0 – High level of compliance 1 – Moderate level 2 – No or minimal compliance
D. Chemical/Alcohol Use 0 – Non-use or experimentation only 3 – Abuse or dependency	I. History of Escapes 0 – None 3 – Left court-ordered placement/escaped
E. Problem Solving Skills 0 – Generally appropriate response 1 – Inconsistent appropriate response 2 – Rarely or never appropriate response	J. Prior Commitments 0 – None 3 – One 5 – Two or more
Offense Seriousness Section	
K. Length of Maximum Sentence 0 – 28 weeks or less 2 – More than 28 weeks	L. Serious Offense in Current Admission 0 – No serious offense 2 – Serious offense

Youth with risk scores of 0 to 20 are categorized by JRA at a *low* risk level. *Moderate* risk includes scores of 21 to 30, and a *high* level is defined by scores of 31 to 41. An offense seriousness score of 0 is defined by JRA as low, a score of 2 is moderate, and a score of 4 is high.

Security Classification

The risk level and offense seriousness level are *combined* by JRA to determine the youth's initial security classification.

- Youth with a minimum security classification are eligible for a group home placement.
- Youth with a minimum or medium security classification are eligible for placement in a camp.
- Youth with a minimum, medium, or maximum security classification are eligible for placement in one of the three institutions (Green Hill, Maple Lane, or Echo Glen).

Table 2.2 illustrates the classification scheme and the percentage of youth admitted to JRA custody during 1997 in each category.

***Table 2.2*: Initial Security Classification Assignment and Percentage Distribution for 1997 Admissions**

Risk Level	Offense Seriousness			
	Low	**Medium**	**High**	**Total**
Low (0 to 20)	*Minimum* (6%)	*Minimum* (10%)	*Medium* (11%)	27%
Moderate (21 to 30)	*Minimum* (18%)	*Medium* (18%)	*Maximum* (10%)	45%
High (31 to 41)	*Medium* (13%)	*Maximum* (10%)	*Maximum* (3%)	27%
Total	37%	39%	24%	100%

Forty-five percent of the youth are in the Moderate Risk Level with 27 percent in both the Low-Risk and High-Risk Levels. These results are typical in the risk assessment research literature: a large portion of an offender population is classified as moderate level of risk, with smaller portions being classified at both extremes of risk.

Thirty-nine percent of the youth have a Medium Offense Seriousness Level, with 24 percent at the High Offense Serious Level and the remaining 37 percent at a Low Offense Seriousness Level.

Risk Level and Offense Seriousness have a statistically significant relationship, although the nature of the relationship may not, at first, be intuitive. Youth with *higher* risk levels tend to have *lower* offense seriousness levels. By statute, youth who are committed to JRA custody with a low offense seriousness level must have an extensive record of prior convictions. The number of prior convictions contribute heavily in the risk level computation. Therefore, Low Offense Seriousness youth tend to have higher risk scores. Conversely, youth committed for a serious offense may not have an extensive prior record, and therefore, on average, do not have higher risk levels.

The ISCA has undergone several revisions since it was first developed by JRA in the early 1990s. The current version was implemented in April 1994 and last modified in January 1996.

ISCA Validation Design

The purpose of this research is to measure the empirical validity of the ISCA. Empirical validity is the ability of the risk assessment to accurately predict recidivism. To measure the ISCA's empirical validity, it is necessary to compare the ISCA scores with the actual risk levels based on the criminal records of released youth. For the assessment to be "valid," the actual levels of risk must increase with increasing ISCA risk levels. If the instrument cannot do this, it is not "valid." Actual risk is the percentage of youth who recidivate. This study relies on the definition of recidivism developed for the Washington State Legislature in December 1997.[5] According to this definition, measuring recidivism requires an 18-month follow-up period for re-offending and an additional 12 months of time for the adjudication process, resulting in a 30-month total measurement time period.

Using January 1998 as the 30-month end-point, the 12-month adjudication period is from January 1997 to January 1998. The 18-month follow-up period starts July 1995 and ends January 1997. The study group, therefore, for this validations study consists of youth released to the community before July 1, 1995.

The study group consists of a two-year sample of youth paroled or discharged into the community between July 1, 1993, and June 30, 1995.

Although the last revision of the ISCA occurred during the study period, the revision changed the weighting of the ISCA items but not the items themselves. JRA's MAPPER data was adjusted to reflect the new item weighting and, therefore, the ISCA data used in this study are based on the same set of items and items weights for all study group youth.

The Office of the Administrator for the Court's Juvenile Information System (JUVIS) and the Washington State Department of Corrections Offender Based Tracking System (OBTS) were used as the data sources for measuring recidivism. Because MAPPER includes the youth's JUVIS control number, the JUVIS and MAPPER data were easily combined. The OBTS and JUVIS data were combined using name, date of birth, and gender to track adult recidivism that was recorded in OBTS. While on community supervision, some youth are returned to custody for brief periods of time without committing a new offense. For these youth, their 18-month follow-up period was extended by the time they spent in custody after placement in the community.

[5] *Standards for Improving Research Effectiveness in Adult and Juvenile Justice*, Washington State Institute for Public Policy, December 1997.

Sample Description

Based on MAPPER data, 2,927 youth in JRA were either placed on parole or discharged directly into the community between July 1, 1993, and June 30, 1995. Table 2.3 illustrates that only 28 percent of the study group who were admitted before January 1, 1993, had ISCA scores. For youth admitted after January 1 1993, 72 percent had ISCA scores. Overall, 64 percent of the study group youth had an ISCA score recorded in the MAPPER database. The average length of stay for youth with an ISCA was 215 days. The average length of stay was 370 days for youth without an ISCA. Youth with an ISCA in MAPPER had shorter lengths of stay than youth without an ISCA.

***Table 2.3*: Number of Youth in the Study Group: Youth Paroled or Discharged Into the Community Between July 1, 1993, and June 30, 1995**

Year Youth Admitted	Number of Youth	Number of Youth Without ISCA Score in MAPPER	Number of Youth With ISCA Score in MAPPER	Percent of Youth With ISCA Score in MAPPER
Before 1993	501	360	141	28%
1993 and After	2,426	683	1,743	72%
Total	2,927	1,043	1,884	64%

To examine how representative the study group is of all JRA youth, Table 2.4 compares the ISCA scores of the study group with those for youth admitted during 1997. The percentage of youth with a score of 20 or less is higher in the study group than in the 1997 admissions group. Also, proportionally fewer youth in the study group have an ISCA above 30. The difference between the two groups is statistically significant.

***Table 2.4:* Representativeness of the Study Group: Comparing Study Group ISCA Scores to ISCA Scores for 1997 Admissions**

ISCA Score	Percentage of Group in Score Category	
	Study Group	1997 Admissions
0 to 10	12%	7%
11 to 20	26%	20%
21 to 30	48%	45%
31 to 41	14%	27%
Number of Youth	1,884	1,831

Table 2.5 illustrates the 18-month recidivism base rate for the study group. The misdemeanor rate of 14.4 percent is based on juvenile court convictions. The felony rate of 39.2 percent includes offenses that resulted in a juvenile court conviction (27 percent) or an adult criminal court conviction[6] (12.2 percent). That is, almost one-third of the felony convictions were in adult criminal court.

***Table 2.5*: 18-Month Recidivism Base Rates for the ISCA Validation Study Group**

Type of Re-Offense	Percent
No Re-offense	46.5%
Misdemeanor	14.4%
Felony	39.2%
Violent Felony	10.4%

While on supervision, some youth are returned to custody for brief periods of time. In the study group, 13 percent of the youth were returned to custody during their 18-month follow-up period. For these youth, their 18-month follow-up period was extended by the time they spent in custody to ensure that all youth in the study had 18 months of time-at-risk in the community.

Results: The study group under-represents youth with high ISCA scores and over-represents youth with low ISCA scores. This difference is assumed to arise from the sampling constraint imposed by the recidivism measurement period and the entry of ISCA data in MAPPER. This bias may make it more difficult to establish the validity of the ISCA.

[6] Adult criminal court convictions are found for JRA youth within OBTS using name, date of birth, and gender. The adult convictions may be under-represented since an explicit unique identifier for matching the juvenile and adult records was not available for this study. The Institute is constructing a criminal justice research database that may include such an identifier using data from the Office of the Administrator for the Courts.

Validity of ISCA

Table 2.6 summarizes the findings by Risk Level and Offense Seriousness Level. Three statistics are provided for each cell in the table: the percentage of 1997 admissions, the 18-month felony, and violent felony recidivism rates based on the study group. For example, 6 percent of the youth admitted during 1997 were Low Risk and Low Offense Seriousness. Based on the study sample, these youth have a 34 percent 18-month felony recidivism rate and a 6 percent 18-month violent felony recidivism rate.

Table 2.6: **Initial Security Classification Assessment**
Percentage Distribution for 1997 Admissions
and 18-Month Felony Recidivism Rates From Study Sample

Risk Level		Offense Seriousness Level			
		Low (0)	**Medium (2)**	**High (4)**	**Total**
Low (0 to 20)	*Security Classification*	*Minimum*	*Minimum*	*Medium*	
	Percent of 1997 Admissions	6%	10%	11%	27%
	Felony Recidivism	34%	23%	22%	26%
	Violent Felony Recidivism	6%	6%	8%	6%
Moderate (21 to 30)	*Security Classification*	*Minimum*	*Medium*	*Maximum*	
	Percent of 1997 Admissions	18%	18%	10%	45%
	Felony Recidivism	47%	44%	43%	45%
	Violent Felony Recidivism	11%	9%	16%	11%
High (31 to 41)	*Security Classification*	*Medium*	*Maximum*	*Maximum*	
	Percent of 1997 Admissions	13%	10%	3%	27%
	Felony Recidivism	57%	50%	50%	53%
	Violent Felony Recidivism	16%	21%	24%	19%
Total	Percent of 1997 Admissions	37%	39%	24%	100%
	Felony Recidivism	34%	23%	22%	39%
	Violent Felony Recidivism	10%	10%	12%	10%

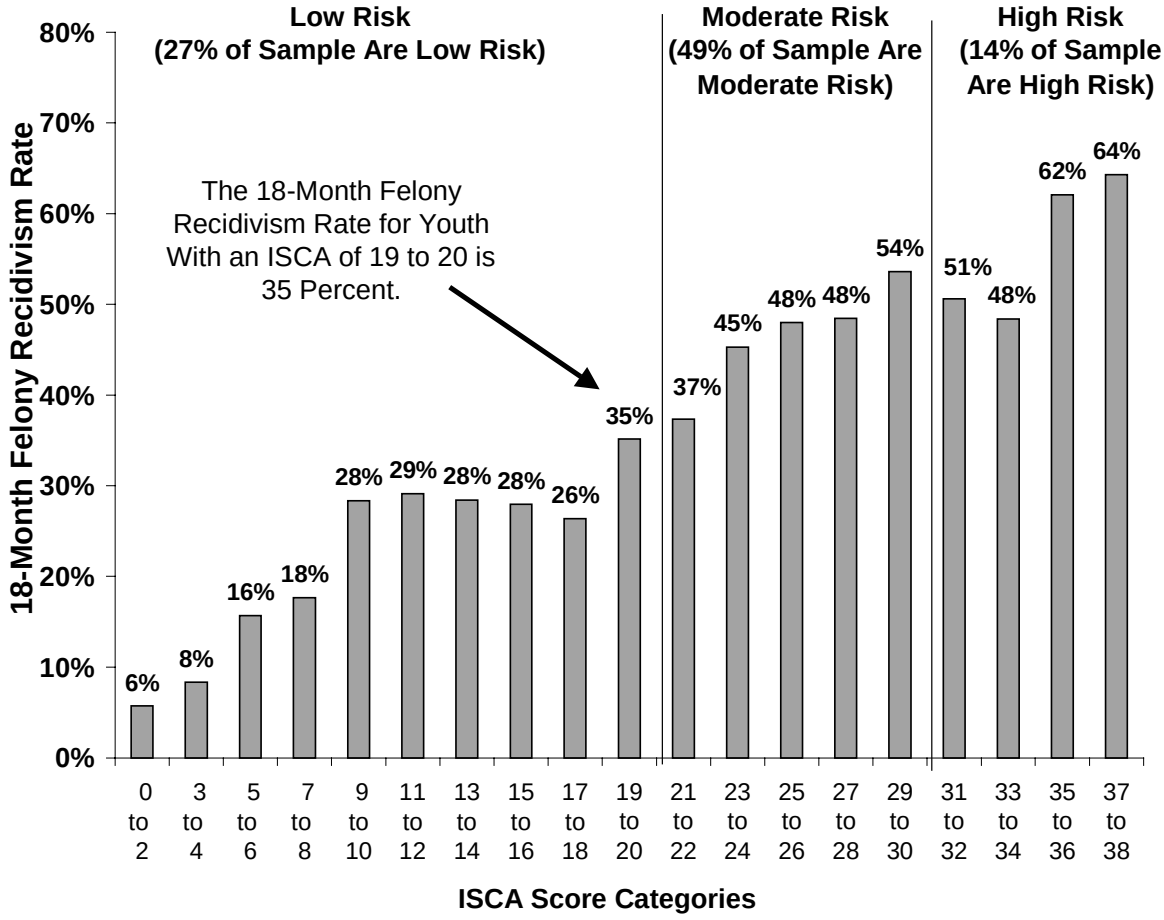
Results: The ISCA is a valid predictor of the 18-month felony recidivism rates based on the study group of youth paroled or discharged into the community between July 1, 1993, and June 30, 1995. The felony and violent felony recidivism rates increase as the Risk Level increases from Low to Moderate, and then to High. Most youth fall within the Moderate Risk Level.

The violent felony recidivism rates increase with increasing Offense Seriousness Levels, but the felony recidivism rates decrease with increasing Offense Seriousness Levels.

These results demonstrate the validity of the ISCA Risk Levels and indicate that youth with High Offense Seriousness have slighter higher violent felony recidivism rates. Greater predictive capability would be achieved by having fewer youth classified as Moderate Risk.

Figure 2.1 illustrates the relationship between the ISCA score and the 18-month felony recidivism rate. The felony recidivism rate increases from a low of 6 percent for youth with ISCA scores between 0 and 2, to a high of 64 percent for youth with scores of 37 and above. The majority of youth, 49 percent, are classified by JRA as moderate risk. The correlation between the ISCA and recidivism would be stronger if fewer youth had ISCA scores concentrated in the moderate risk range.

Figure 2.1: **18-Month Felony Recidivism Rate Increases With Increasing ISCA Risk Score**



Results: The graph indicates that an increasing ISCA score is associated with an increasing 18-month felony recidivism rate. This result demonstrates the capability of the ISCA risk scores to predict felony recidivism.

Analysis of ISCA Items

The first step in a more detailed examination of the validity of the ISCA is to analyze how each ISCA item is related to the 18-month felony recidivism rate. The *correlation coefficient* quantifies the strength of the item's relationship to recidivism. A correlation of 1.00 indicates the ISCA item is perfectly associated with recidivism. A correlation of zero indicates no relationship whatsoever between the ISCA item and recidivism. In social science research, a strong correlation is above .70 and a moderate correlation is between .40 and .70.

Table 2.7 displays three types of statistics for the 10 ISCA items and the two offense seriousness items (Appendix A contains the entire correlation matrix). For example, Item A, Prior Assaultive Behavior, has two responses: No and Yes. In the study group, 70 percent of the youth were rated as having no prior assaultive behavior and 30 percent as having prior assaultive behavior. For those youth with no prior assault behavior, 36 percent recidivated with a felony offense. Youth with prior assaultive behavior recidivated at a 47 percent rate. The greater the difference between the recidivism rates of each response, the stronger the predictive capacity of the item. The correlation between assaultive behavior and 18-month felony recidivism is .11, which is statistically significant but does not indicate a strong relationship.

Three ISCA items have the highest correlations with recidivism: C, Age at First Adjudication (.18); G, Prior Adjudications (.17); and H, Compliance With Facility Regulations (.15). The two ISCA items with the lowest correlations are J, Prior Commitments (.06) and E, Problem Solving Skills (.07). Item L, Serious Offense in Current Admission, is negatively correlated with felony recidivism (-.16). The negative correlation means youth admitted for serious offenses have lower 18-month felony recidivism rates. The only item not significantly related to felony recidivism is K, Length of Maximum Sentence (-.04).

Results: An examination of the correlations between each ISCA item and 18-month felony recidivism indicates that all but one of the items are statistically significant, but that no single ISCA item is strongly related to recidivism. The correlations of the ISCA items with recidivism are typical for juvenile risk assessment instruments, usually not exceeding .30.[7]

[7] S.D. Gottfredson, "Prediction: An overview of selected methodological issues." In D. M. Gottfredson and M. Tonry (eds.) *Prediction and Classification: Criminal Justice Decision Making*, Chicago, University of Chicago Press, 1987.

Table 2.7:
ISCA Item Frequency Distribution and Correlation With Recidivism

ISCA Items		Percent of Sample	18-Month Felony Recidivism Rate	Correlation With 18-Month Recidivism
Risk Level Items				
A.	Prior Assaultive Behavior			
	0 – No	70%	36%	.11
	3 – Yes	30%	47%	
B.	Impulsive or Hostile Response to Frustration			
	0 – Generally does not act out	20%	31%	
	1 – Occasionally hostile or impulsive response	62%	40%	.09
	2 – Frequently hostile or impulsive response	18%	46%	
C.	Age at First Adjudication			
	0 – 16 years or older	11%	21%	
	5 – 14 to 15 years old	37%	35%	.18
	10 – 13 years or younger	52%	46%	
D.	Chemical/Alcohol Use			
	0 – Non-use or experimentation only	38%	33%	.09
	3 – Abuse or dependency	62%	43%	
E.	Problem Solving Skills			
	0 – Generally appropriate response to problems	8%	31%	
	1 – Inconsistent appropriate response	54%	39%	.07
	2 – Rarely or never appropriate response	39%	40%	
F.	Peer Relationships			
	0 – Adequate support and influence	11%	22%	.12
	1 – Negative influence/delinquent peers/gang	89%	41%	
G.	Prior Adjudications			
	0 – None	19%	22%	
	5 – One or two	19%	35%	.17
	10 – Three or more	62%	46%	
H.	Compliance With Facility Regulations			
	0 – High level of compliance	45%	32%	
	1 – Moderate level	45%	43%	.15
	2 – No or minimal compliance	10%	54%	
I.	History of Escapes			
	0 – None	84%	37%	.11
	3 – Left court-ordered placement/escaped	16%	50%	
J.	Prior Commitments			
	0 – None	84%	38%	
	3 – One	11%	43%	.06
	5 – Two or more	5%	50%	
Offense Seriousness Level Items				
K.	Length of Maximum Sentence			
	0 – 28 weeks or less	52%	40%	-.04*ns*
	2 – More than 28 weeks	48%	38%	
L.	Serious Offense in Current Admission			
	0 – No serious offense	64%	44%	-.16
	2 – Serious offense	36%	30%	

ns indicates that the correlation is not statistically significant at the .05 level.

ISCA Risk Level Scales

The ISCA items that involve criminal history typically receive a higher weight than the items measuring social history. JRA was interested in knowing how much social history contributes to the ISCA's empirical validity. To analyze the influence of the social history in relation to the criminal history, the ISCA items were grouped into two scales. Table 2.8 displays the items comprising each scale. The first scale includes items that measure the youth's criminal history. The sum of these items produces a maximum score of 31 points. The second scale, called social history, produces a maximum score of 10. The total ISCA score is the sum of the two scale scores.

Table 2.8: Criminal and Social History Scale Items

Criminal History Scale Items: (31 points)	Social History Scale Items: (10 points)
A. Prior Assaultive Behavior (3 points)	B. Impulsive/Hostile Response to Frustration (2 points)
C. Age at First Adjudication (10 points)	D. Chemical/Alcohol Use (3 points)
G. Prior Adjudications (10 points)	E. Problem Solving Skills (2 points)
I. History of Escapes (3 points)	F. Peer Relations (1 point)
J. Prior Commitments (5 points)	H. Compliance With Facility Regulations (2 points)

Table 2.9 displays the correlations among 18-month felony recidivism, total ISCA score, the two scale scores, and the individual ISCA items. The total ISCA score has a .24 correlation with 18-month felony recidivism. The criminal history scale score has a slightly lower correlation of .23 with recidivism. The social scale score's correlation with recidivism is smaller, being .16. The two scales have a moderately strong correlation of .40 with each other.

The size of the correlation between each item and a scale score indicates how much influence the item has on the score. For example, Item G, Prior Adjudications, has a .82 correlation with the Criminal History scale score and a .81 correlation with the total ISCA score. This indicates that Item G has a large influence on both the total ISCA and criminal history scale score.

Table 2.9: **ISCA, ISCA Scale, and ISCA Item Correlations**

	18-Month Felony Recidivism	Total ISCA Score	Criminal History Score	Social History Score
Total ISCA Score	0.24	1.00	0.98	0.58
Criminal History Score	0.23	0.97	1.00	0.40
A. Prior Assaultive Behavior	0.11	0.38	0.36	0.25
C. Age at First Adjudication	0.18	0.69	0.75	0.18
G. Prior Adjudications	0.17	0.81	0.82	0.37
I. History of Escapes	0.11	0.35	0.33	0.24
J. Prior Commitments	0.06	0.42	0.44	0.16
Social History Score	0.16	0.62	0.40	1.00
B. Impulsive/Hostile Response to Frustration	0.09	0.38	0.24	0.62
D. Chemical/Alcohol Use	0.09	0.48	0.32	0.76
E. Problem Solving Skills	0.07	0.28	0.15	0.54
F. Peer Relationships	0.12	0.35	0.26	0.45
H. Compliance With Facility Regulations	0.15	0.40	0.26	0.62

Note: all correlations are statistically significant at the .05 level.

Results: The social history as well as criminal history scales are significantly related to recidivism. Both scales are slightly more predictive of recidivism than any single item within a scale. The criminal history scale has a higher correlation with recidivism than does the social history score. The weighting scheme used by JRA reflects this result by giving criminal history a large influence on the total ISCA score. The two scales are also moderately correlated with each other.

Combining ISCA Items

To determine how the ISCA items work in combination to predict recidivism, a logistic regression analysis was performed. This analysis estimates whether each item significantly adds to the predictive capability of the ISCA. A second logistic regression was performed to determine how the two scale scores, rather than individual items, contribute to the ISCA's predictive capability.

The logistic regression analyses are summarized in Table 2.10. When all ten items are considered in combination, six of the ISCA items make a statistically significant contribution to predicting recidivism and four do not. The four items that were not statistically significant in the logistic regression are: B, Impulsive/Hostile Response to Frustration; D, Chemical/Alcohol Use; E, Problem Solving Skills; and J, Prior Commitments.

In the second logistic regression, both the criminal history and the social history scales make statistically significant contributions to prediction.

Table 2.10: **Summary of Results Estimating the Statistically Significant Contribution of Each ISCA Item in Combination With all Items to Predict Recidivism**

Individual ISCA Item Logistic Regression Results	
Criminal History Scale Items	Statistically Significant
A. Prior Assaultive Behavior	Yes
C. Age at First Adjudication	Yes
G. Prior Adjudications	Yes
I. History of Escapes	Yes
J. Prior Commitments	No
Social History Scale Items	
B. Impulsive/Hostile Response to Frustration	No
D. Chemical/Alcohol Use	No
E. Problem Solving Skills	No
F. Peer Relationships	Yes
H. Compliance With Facility Regulations	Yes
ISCA Scale Logistic Regression Results	
ISCA Scale	
Criminal History Scale	Yes
Social History Scale	Yes

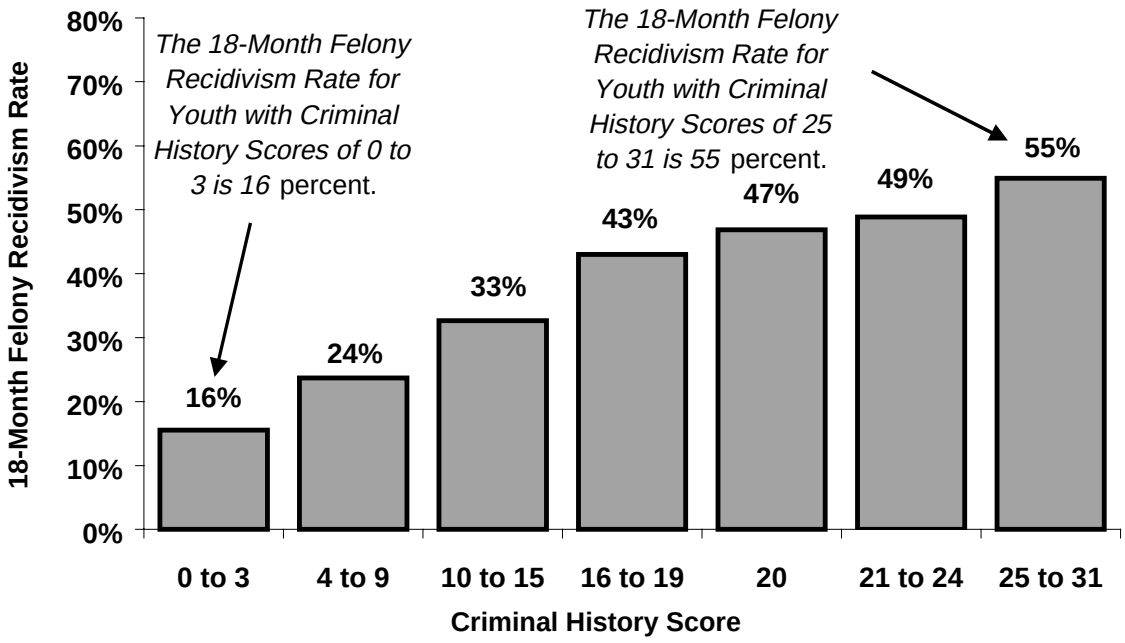
Two alternative scoring schemes were examined to determine if a different method for weighting the ISCA items could improve prediction accuracy. One scheme examined the item weights from an ordinary least squares regression. The other scheme used weights based on the percentage point difference in the recidivism rates for each item's response. David Farrington, an internationally known criminologist, recommended this latter scheme in a personal correspondence. Neither of these schemes resulted in substantial improvement in the predictive accuracy of the ten ISCA items.

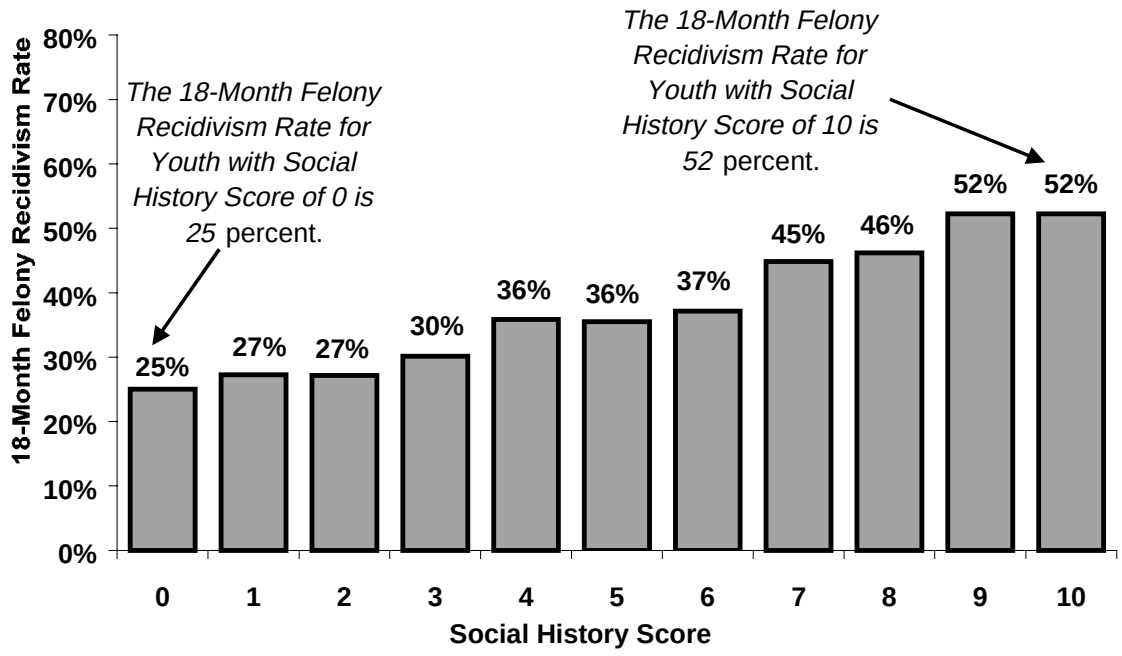
Results: Six of the ten ISCA risk level items remained statistically significant in a multivariate analysis of recidivism, and both the criminal history and social history scales were also statistically significant in combination.

Recidivism Increases With Increasing Criminal and Social History Scales

Figure 2.2 graphically illustrates how the criminal history and social history scores are related to the 18-month felony recidivism. For both scales, the 18-month felony recidivism rate increases with an increasing score. The criminal history scale provides a wider range of recidivism rates, varying from a low of 16 percent to a high of 55 percent. The recidivism rates for the social history scale varies from 25 percent to 52 percent.

Figure 2.2: **18-Month Felony Recidivism Rate Increases With Increasing ISCA Criminal History and Social History Scales**





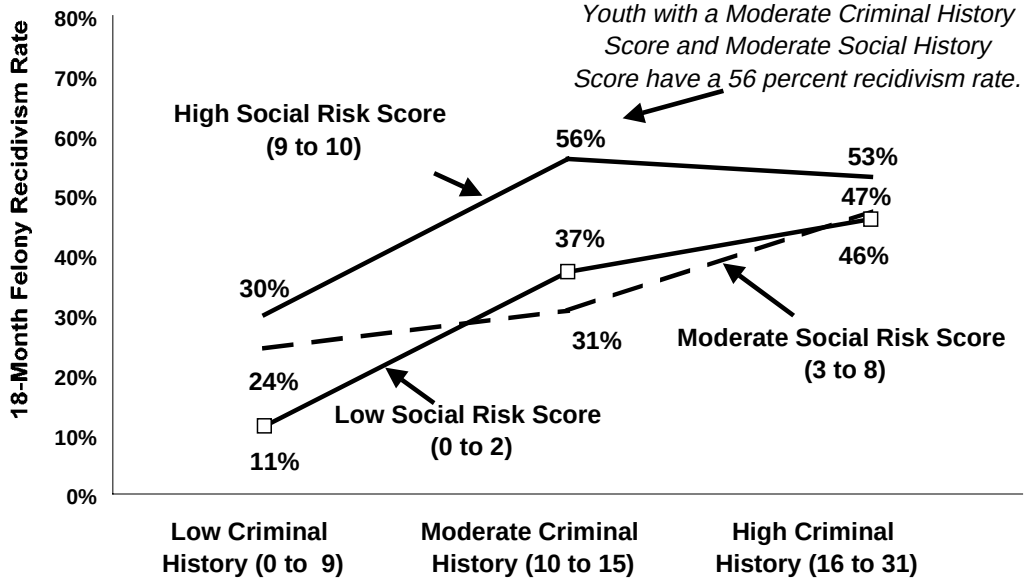
Combining Criminal and Social History Scales

Table 2.11 displays the number and percentage of youth in the study sample for each combination of the criminal and social history categories. Figure 2.3 graphically illustrates the relationship between these combinations of scores and felony recidivism. The score categories were chosen to depict the simplest relationship of social and criminal history to recidivism that could reasonably be explained. Youth with a low criminal history score and a low social history score have an 11 percent recidivism rate. Youth with a low criminal history score and a moderate social history have a 24 percent recidivism rate. Youth with a low criminal history score and a high social history score have a 30 percent recidivism rate. Youth with high social history scores have consistently higher recidivism rates.

Table 2.11: **Number and Percentage of Youth by Criminal and Social History Scale Category**

Social History Score	Criminal History Score			
	Low (0 to 9)	Moderate (10 to 15)	High (16 to 31)	Total
Low (0 to 2)	88 (5%)	70 (4%)	37 (2%)	195 (11%)
Moderate (3 to 8)	197 (11%)	453 (25%)	800 (43%)	1450 (79%)
High (9 to 10)	10 (1%)	25 (1%)	166 (9%)	201 (11%)
Total	295 (16%)	548 (30%)	1003 (54%)	1846 (100%)

Figure 2.3: **Relationship of the ISCA Criminal History and Social History Scales to 18-Month Felony Recidivism**



Results: Both the criminal and social history scales make statistically significant contributions when used together. Social history adds some predictive capability for youth with low and moderate criminal history scores, but not for youth with high criminal history scores. Since most of the youth fall into a single social history score category, there is potential for improving prediction by expanding the predictive capacity of the social history scale for a greater percentage of youth.

Analysis of Additional Variables

The previous analysis indicates that the ISCA is a valid risk assessment instrument for recidivism prediction and that both the criminal and social history scales of the ISCA make statistically significant contributions to the prediction. Could the addition of other variables improve the instrument's predictive capability?

The following variables were calculated and then analyzed to determine if they could improve the predictive capabilities of the ISCA. See Appendix B for tables detailing the strength of the relationship of each variable to felony recidivism. These variables were analyzed using logistic regression to estimate if they could add to the predictive capabilities of the ISCA.

Juvenile Offender Characteristics	**JUVIS Criminal History**
Age at Release	Total Number of Offenses
Age at Admission	Total Number of Referrals
Assigned Security Level	Total Felony Referrals
Ethnicity	Total Misdemeanor Referrals
Gender	Total Against Person Felony Referrals
Initial Security Level	Total Against Person Misdemeanor Referrals
Offense Seriousness	Total Against Person Referrals
Sex Offender	Total Felony Drug Referrals
	Total Felony Property Referrals
	Total Misdemeanor Property Referrals
	Total Misdemeanor Property Referrals

MAPPER Data Describing Time Spent in JRA	
Total Days in JRA	Days in Maximum Security Level
Days in Institution	Days in Medium Security Level
Days in Camps	Days in Minimum Security Level
Days in Detention (CCP)	Percent Days In Minimum Security
Days in Contract Group Home (CRP)	Percent Days in Medium Security
Days in State Group Home	Percent Days in Maximum Security
Days in Sex Offender Special Program	Offenses While in JRA
Days in Mental Health Special Program	Days on Unauthorized Leave
Days in Drug/Alcohol Special Program	Days on Authorized Leave
Days in Job Corps Special Program	

Table 2.12 summarizes the logistic regression results for those variables that remained statistically significant in addition to the ISCA score. The negative sign for a standardized parameter estimate means that felony recidivism decreases as that variables' values increase. The 18-month felony recidivism rate is lower for older offenders, illegal aliens, and sex offenders. The standardized parameter estimate for ethnic group indicates that ethnicity makes a much smaller contribution to improved prediction than age at admission, male gender, and sex offender.

Table 2.12: **Additional Variables With Statistical Significance in Addition to the ISCA**

ISCA Scale Score	Standardized Parameter Value	Statistical Significance	Odds Ratio	Correlation With Recidivism
Criminal History Score	0.18	0.000	1.05	0.23
Social History Score	0.07	0.029	1.05	0.16
Age at Admission[1]	-0.23	0.000	0.74	-0.15
Ethnic Group[2]	0.08	0.006	1.37	0.10
Male Gender	0.16	0.000	2.89	0.08
Illegal Alien	-0.07	0.048	0.42	-0.07
Sex Offender[3]	-0.23	0.000	0.34	-0.19

[1] Age at admission has three levels: (0) under 14, (1) 14 to 16, and (3) over 16
[2] Ethnicity has two levels: (0) Caucasian/Hispanic and (1) all other ethnic groups
[3] Sex offender levels are (0) not sex offender and (1) either currently or historically a sex offender

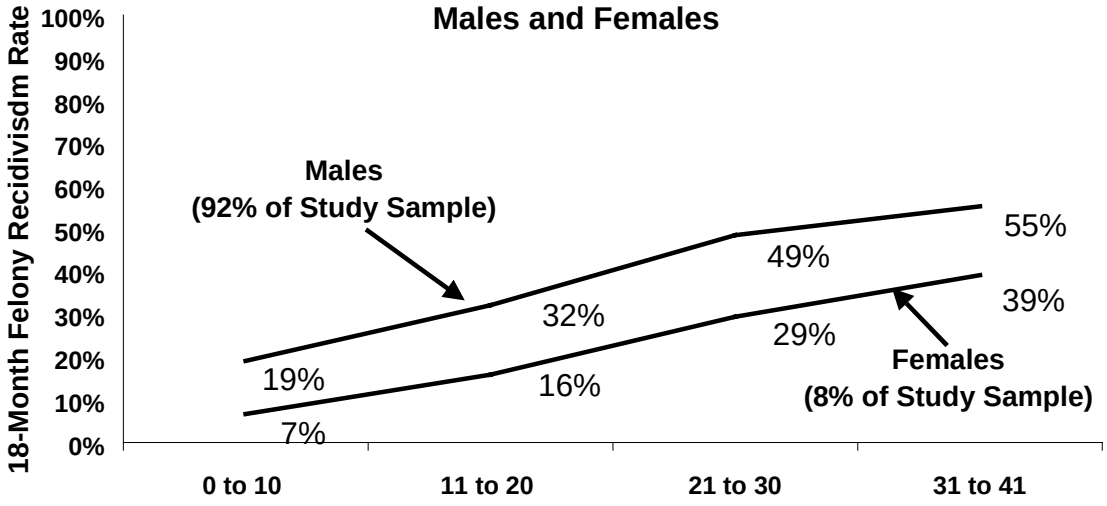
Figure 2.4 graphically illustrates how gender, age at admission, and sex offenders/non-sex offenders affect the relationship between the ISCA score and 18-month felony recidivism. Each line represents the recidivism rate of a different group of youth across the ISCA score categories. The number in parenthesis is the percentage of youth in that group. Lines that are parallel and far apart indicate that the factor uniformly affects the recidivism rate at all levels of the ISCA.

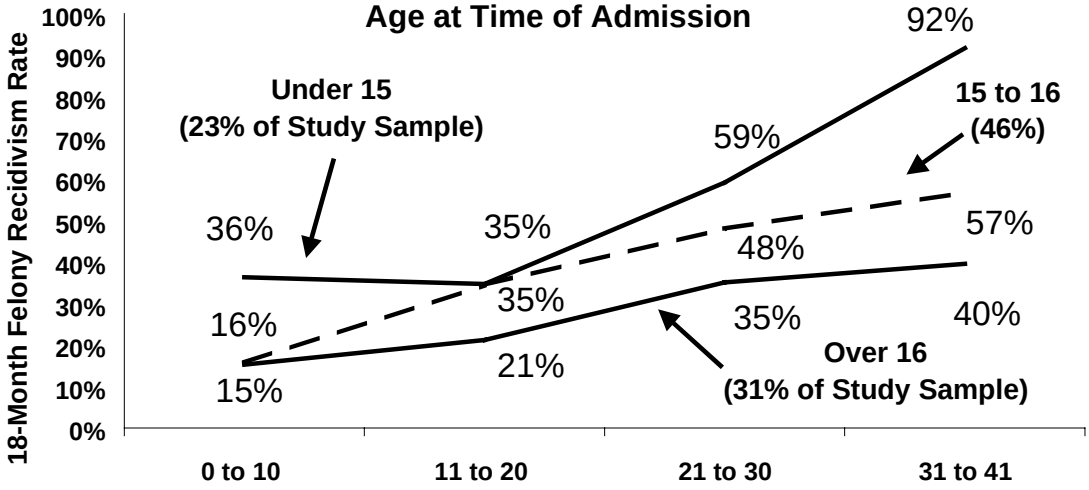
Males comprise 92 percent of the study group. Males are 12 to 20 percentage points more likely to re-offend than females across all values of the ISCA.

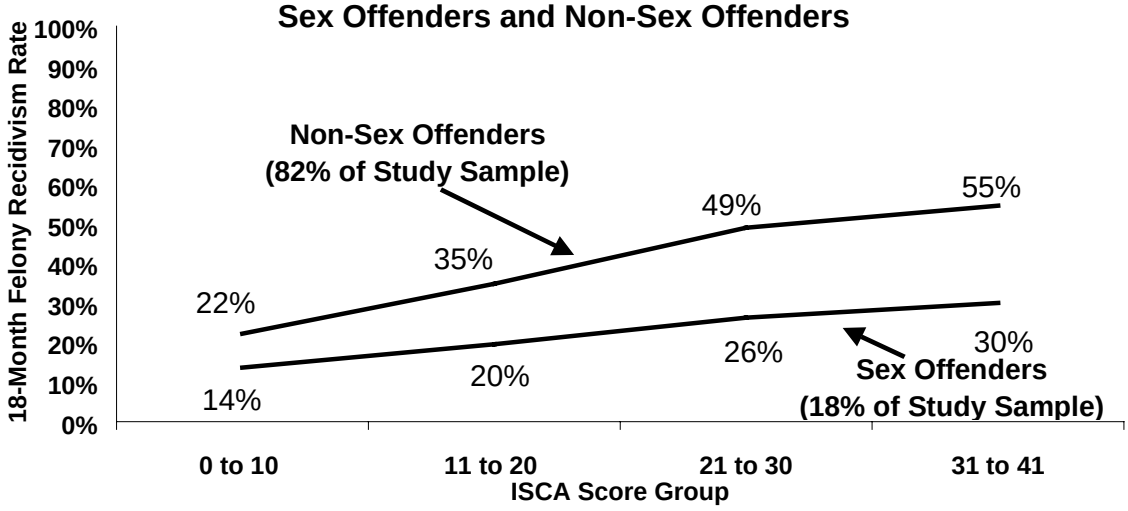
Youth who were under 15 years old at the time of admission to JRA custody make up 23 percent of the study group, youth over the age of 16 make up 31 percent, and the largest group (46 percent) consists of youth who were 15 or 16 years old at admission. Youth under the age of 15 at admission have recidivism rates that are at least 15 percentage points higher than youth who were over the age of 16 at admission. Youth who were 15 or 16 had recidivism rates that were approximately 15 percentage points higher than those youth over 16 except for the lowest-risk category (ISCA between 0 and 10). The percentage point differences in recidivism between those under 15 and those 15 or 16 years old at admission is consistent except for youth with ISCA scores of 11 to 20; these two groups of youth have the same felony recidivism rate of 35 percent.

Sex offenders comprise 18 percent of the study group and have felony recidivism rates that are between 9 and 24 percentage points lower than non-sex offenders. The percentage point difference in recidivism rates between sex offenders and non-sex offenders increases as the ISCA increases. That is, for ISCAs above 21 points, the non-sex offenders are at least 20 percentage points more likely to recidivate.

***Figure 2.4*: The Effect of Gender, Age at Admission, and Being a Sex Offender on the Relationship Between the ISCA and 18-Month Felony Recidivism**







Potential Revision to ISCA

Based on the linear regression results, a revised ISCA scoring system could include 20 additional points for being a male, 20 points for not being a sex offender, and 10 points for being under 15 years old at admission or 5 points for being 15 or 16 years old at age at admission. The total maximum revised ISCA score would rise from 41 to 91 points.

Table 2.13 illustrates that nearly 60 percent of youth would have their scores raised by 40 or 45 points. Another 15 percent would have the scores raised by 50 points. Approximately 6 percent of the youth would have their scores raised by less than 20 points. This last group consists of male non-sex offenders who were under 15 years old at admission.

Table 2.13: **Percent of Youth in Sample Who Would Have Additional Points Added to Their ISCA Score**

Number of Additional Points	Percentage of Youth With Points Added	Cumulative Percentage of Youth
0	0.1%	0.1%
5	0.3%	0.3%
10	0.1%	0.4%
20	5.7%	6.2%
25	11.8%	18.0%
30	8.1%	26.1%
40	24.8%	50.9%
45	34.4%	85.3%
50	14.7%	100.0%

The ISCA scoring scheme suggested above would increase the correlation of the ISCA with 18-month felony recidivism from .24 to .35 in the study sample. The correlation between this revised ISCA and recidivism is expected to shrink when the revised score is validated in a different sample.[8]

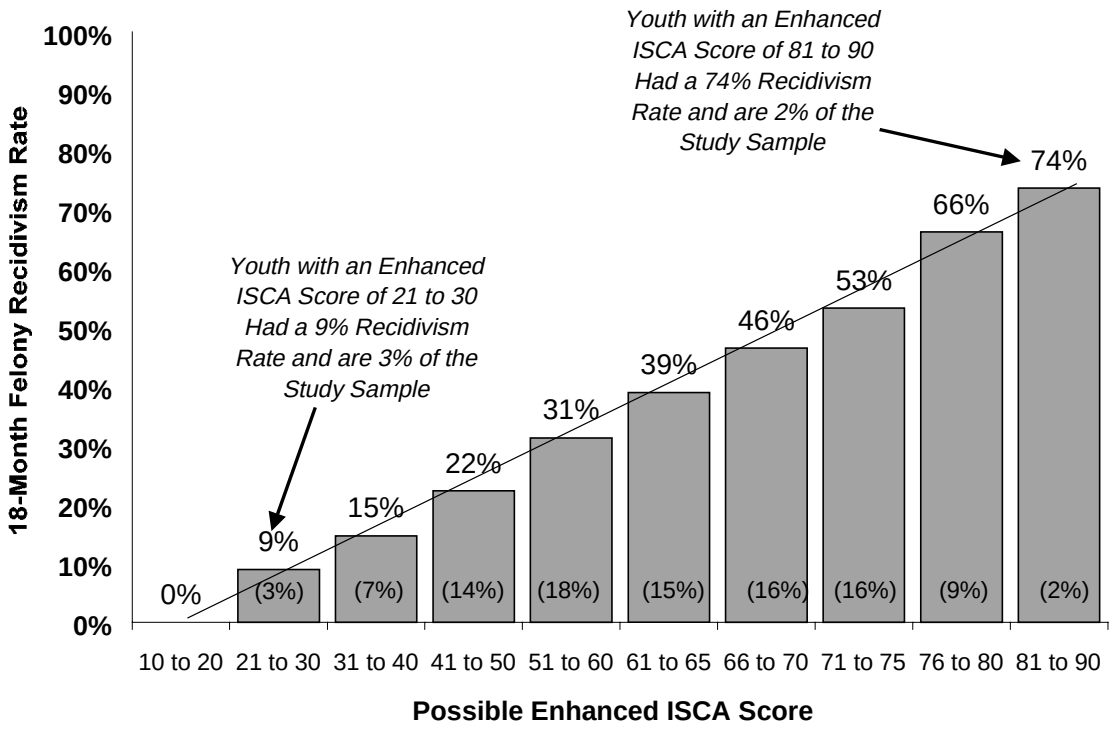
Results: Adding items for male gender, non-sex offender, and age at admission to the ISCA raises the scores of most youth. The net effect is the identification of small groups of youth who have recidivism rates much different from the majority of youth. For three of every four youth, their ISCA scores would increase by an additional 40 to 50 points.

An alternative to adding points for these three items is to estimate recidivism separately for females and sex offenders using the ISCA. The recidivism rates for these two groups would be much lower for a given ISCA score in comparison to the general JRA population. Separate weighting systems and additional items could be explored for these two groups, given sufficient sample sizes for each.

[8] Shrinkage is the reduction in predictive capability that occurs when a model fit to one sample of data is applied to another sample. The more complicated the model being fit and the smaller the sample size, the more influence random fluctuations in the data have on the model parameters, and thus the greater the shrinkage.

Figure 2.5 displays the 18-month felony recidivism rates for the revised ISCA scoring scheme previously described. The number within parenthesis is the percentage of youth in the sample within that score range. For example, 3 percent of the sample had a score of 21 to 30, and 9 percent of the youth within this range recidivated within 18 months. The recidivism rate varies from a low of 9 percent to a high of 74 percent. This is a wider range than exhibited by the current ISCA. The score range of 61 to 65 includes the overall 18-month recidivism rate of 39 percent, and 15 percent of the sample fall within this category.

Figure 2.5: **Predicted Recidivism Increases From a Low of 0 Percent to a High of 74 Percent Using a Revised ISCA**



Results: A revised ISCA would create groups of youth with lower and higher recidivism rates than the current ISCA. That is, the revised scheme identifies with more certainty youth who are low risk and youth who are high risk.

Using Explicitly Defined Risk Levels

Most risk assessment classification schemes create empirical risk groups that are based on how well the assessment can discriminate risk within the study population. An alternative method for constructing risk groups is to create levels using a definition that is reasonable to the decision-maker. For example, a decision-maker might intuitively define low risk as a 10 percent or less chance of recidivating. Conversely, high-risk might be defined as a 70 percent or greater chance of recidivating. These risk level definitions can be applied across various populations of youth without changing the meaning of low or high risk. What would change from one population to another is the percentage of youth who fall within each level. Decision-makers would be using the same risk scale for judging different groups of youth.

The same concept can be used to compare two risk assessment schemes for the same population of youth. As an illustration, the Institute defined five risk levels. "Low risk" is an 18-month felony recidivism rate of 10 percent or less, "moderately low risk" is a rate of 11 to 25 percent, "moderate risk" is a rate of 26 to 40 percent, "moderately high risk" is a rate of 41 to 70 percent, and "high risk" is a rate above 70 percent.

Linear regression was used to develop separate mathematical equations between recidivism and risk score for the ISCA and revised ISCA. Using these two equations, cut-off scores were identified for the five risk levels. The cut-off scores for these five risk levels were applied to the ISCA and revised ISCA scores of youth admitted to JRA during 1997. The 18-month felony and violent felony recidivism rates for each risk level were determined from the study group of youth paroled or discharged into the community between July 1, 1993, and June 30, 1995.

Table 2.14 compares the results of this exercise. Using the ISCA, 0.6 percent of 1997 admissions fall into the low risk category, and this group is expected to have a 12 percent felony recidivism rate.[9] Using the revised ISCA, 1.2 percent are classified as low risk and are expected to have a 6 percent felony recidivism rate. The revised ISCA classified twice as many youth as low risk with a lower actual recidivism rate.

No youth fall into the high-risk level using the ISCA, since the recidivism rate of youth with the highest ISCA score is less than 71 percent. Fifteen percent of the youth are classified as high risk using the revised ISCA with a 79 percent felony and a 36 percent violent felony recidivism rate. Both assessments classified the majority of youth as moderately high risk with a 50 percent felony recidivism rate.

[9] The recidivism rate is not between 0 and 10 percent because of the slight inaccuracy of the regression equation for the lowest ISCA scores.

Table 2.14: **Comparison of Youth in the Explicitly Defined Risk Levels Between the ISCA and Revised ISCA**

Explicitly Defined Risk Level		ISCA	Revised ISCA
Low	Percent of 1997 Admissions	0.6%	1.2%
0 – 10%	*Felony Recidivism*	*12%*	*6%*
	Violent Felony Recidivism	*0%*	*2%*
Moderately Low	Percent of 1997 Admissions	7.8%	9.5%
11 – 25%	*Felony Recidivism*	*21%*	*20%*
	Violent Felony Recidivism	*7%*	*4%*
Moderate	Percent of 1997 Admissions	26.3%	16.2%
26 – 40%	*Felony Recidivism*	*32%*	*32%*
	Violent Felony Recidivism	*7%*	*10%*
Moderately High	Percent of 1997 Admissions	65.3%	58.0%
41 – 70%	*Felony Recidivism*	*50%*	*52%*
	Violent Felony Recidivism	*14%*	*13%*
High	Percent of 1997 Admissions	0%	15.0%
71 – 100%	*Felony Recidivism*	*n/a*	*79%*
	Violent Felony Recidivism	*n/a*	*36%*
Total	Percent of 1997 Admissions	100%	100%
	Felony Recidivism	*39%*	*39%*
	Violent Felony Recidivism	*10%*	*10%*

Results: Using explicitly defined risk levels creates groups of youth having large differences in rates of felony and violent recidivism.. The low risk group has a truly low recidivism rate and the high risk group has a high recidivism rate.

The revised ISCA would place more youth into the low, moderately low, and high risk levels and fewer youth in the moderate and moderately high risk levels than the current ISCA. The revised ISCA would provide greater discrimination for both low and high risk.

SECTION III: COMMUNITY RISK ASSESSMENT

Purpose of Community Risk Assessment

The Community Risk Assessment (CRA) was designed by JRA in 1992 to measure rehabilitative progress and the potential for risk to public safety.[10] The CRA is based upon a youth's behavior in the previous 90 days of JRA custody. The CRA is administered no sooner than 90 days after the youth's admission and once every 90 days thereafter. It may be administered no sooner than 30 days in response to a reduced security risk or identified rehabilitative progress. Table 3.1 displays the CRA items and item scores. The higher the CRA score, the greater the risk that the youth is likely to pose.

The CRA is used in combination with the community eligibility date to determine if a youth can serve the remainder of his or her sentence in a state-operated community group home or a contracted residential facility. The community eligibility date is the earliest date that a youth can be considered for group home placement. Youth who have been under JRA custody for at least 90 days and meet the eligibility date requirement can be assessed with the CRA.

Under current JRA policy, for youth who have met or exceeded their community eligibility date, placement in a community group home depends upon maintaining a CRA score of 20 points or less for two or three consecutive 90 day periods, depending upon the type of offender. The goal of this process is to place only the lowest-risk youth into a community group home.

Table 3.1: **Community Risk Assessment Items and Item Scores**

A.	Escapes/Attempts	G.	Peer Victimization
	0 – None		0 – Does not victimize peers
	10 – Escaped, attempted, or considered escape		3 – Victimizes peers
B.	Assaultive Behavior	H.	Progress in Specialized Training
	0 – None		0 – Moderate progress or not required
	6 – One or more incidents		6 – No or minimal participation
C.	Chemical/Alcohol Use	I.	Adjudications/Pending Charges
	0 – None		0 – None
	10 – Evidence of use		12 – One or more
D.	Compliance With Facility Regulations	J.	Initial Risk Assessment Score
	0 – High level of compliance		0 – 0 to 20
	3 – Moderate level		6 – 21 to 30
	6 – No or minimal compliance		12 – 31 or more
E.	Problem Solving Skills	K.	Initial or Modified Offense Seriousness
	0 – Generally appropriate response		0 – Low
	3 – Rarely or never appropriate response		3 – Medium or high
F.	Hostile Response to Frustration		Maximum Score is 74
	0 – Usually does not act out		
	3 – Frequently hostile responses		

[10] *JRA Community Risk Assessment Instructional Manual*, Department of Social and Health Services, Juvenile Rehabilitation Administration, January 16, 1995.

CRA Validation Design

Since the CRA is designed to place the lowest-risk youth in a community group home, an ideal validation of the CRA would involve measuring the recidivism of youth released from JRA custody during a one-year period. To meet current state standards, measuring recidivism requires following a group of youth released for 18 months to measure new offenses and then waiting another 12 months for the adjudication process to be completed.[11] This means the study would have to wait 30 months from release of the last youth in the cohort to adequately measure recidivism. Since reliable information for the CRA started being recorded in MAPPER in February 1996, this ideal study can not be conducted until the year 2000.[12] In lieu of an ideal validation design, this report uses three approaches to assess the predictive validity of the CRA.

The first approach is a description of how much the CRA changes while the youth is in JRA custody. This information is relevant to a group home placement decision and is dependent upon maintaining a CRA of 20 or less for two or more consecutive 90-day periods. The sample for this approach is the group of JRA youth who were paroled or discharged into the community during 1997 after having spent at least 90 days in JRA custody. These youth are assumed to have at least one CRA after February 1996 and before being released. The time constraints imposed by the February 1996 implementation of the CRA limit the number of CRAs a youth is likely to have and therefore limits the description of how the CRA scores change over time.

The second approach is to follow the cohort of youth released between May 1, 1996, and November 30, 1996, after spending at least 90 days in JRA custody. This analysis directly addresses the capability of the CRA to predict the lowest-risk youth. This sample allows measurement of a six-month recidivism rate with a 12-month adjudication process timeframe as of June 1, 1998. The capability of the last CRA score to predict six-month felony recidivism is examined. ***Note: this design provides only preliminary results since it involves a six-month rather than an 18-month follow-up period, and it is based on a small sample of youth.***

The third approach is to measure the criminal behavior of youth placed in community group homes between July 1, 1996, and June 30, 1997. The capability of the CRA or any of its items to predict this criminal behavior is then examined. The design of this analysis is exploratory. It includes only youth with CRAs of 20 or less who have been placed in a group home. At best, the study seeks to determine if any information on the CRA is relevant for predicting group home criminal behavior.

[11] *Standards for Improving Research Effectiveness in Adult and Juvenile Justice*, Washington State Institute for Public Policy, December 1997.

[12] The Institute is constructing a criminal justice research database that may provide preliminary measures of recidivism based on court filings which would not require a 12-month adjudication period.

RESEARCH DESIGN FOR STUDYING HOW THE CRA CHANGES WHILE A YOUTH IS IN JRA CUSTODY

This first approach to analyze the validity of the CRA is a description of how the CRA changes over time while a youth is in JRA custody. The method for measuring change in the CRA over time is to compare scores between the first and the last CRA. Since the current practices for the CRA were implemented in February 1996, any study sample selected will include only CRA scores entered into MAPPER since February 1996.

The sample selected for this study consists of youth paroled or discharged into the community during 1997 who spent at least 90 days in JRA custody. All of these youth have been in JRA custody under the current policy for the CRA. The first CRA score since February 1996 is compared to the last CRA score before parole or discharge.

Sample

Table 3.2 describes the study sample of youth and the number of CRAs administered since February 1996 that are stored in MAPPER. There were 1,358 youth paroled or discharged into the community during 1997 after having served at least 90 days in JRA custody. Overall, 171 youth, or 13 percent of the sample, were without a CRA recorded in MAPPER.

Youth who were in custody between 90 and 180 days represent 36 percent of the sample. Thirty percent of these youth did not have a CRA recorded in MAPPER, 57 percent had one CRA, 10 percent two CRAs and the remaining 4 percent had at least three CRAs stored in MAPPER. For the 32 percent of the sample who spent over 360 days in custody, only 1 percent did not have at least one CRA, 47 percent had two to four CRAs, and 50 percent had over four CRAs stored in MAPPER.

Table 3.2: **Youth Admitted After January 1, 1996, Who Were Under JRA Custody for at Least 90 Days**

Days in JRA Custody	Number of Youth in Sample	Percentage of Youth	Percentage of Youth Having CRAs in MAPPER by the Number of Days in JRA Custody						
			No CRA	One CRA	Two CRAs	Three CRAs	Four CRAs	Over Four CRAs	Total
90 to 180	490	36%	30%	57%	10%	2%	1%	1%	100%
181 to 270	273	20%	5%	24%	48%	16%	5%	2%	100%
271 to 360	157	12%	3%	7%	30%	34%	18%	8%	100%
Over 360	438	32%	1%	2%	6%	16%	25%	50%	100%
Total	1,358	100%	13%	27%	19%	13%	11%	18%	100%

Findings: The longer a youth stays under JRA custody, the greater the number of CRAs he or she is likely to have. Using a separate calculation, 69 percent of youth with a CRA have more than one CRA. Approximately 90 percent of the 824 youth with more than one CRA have spent at least 270 days in JRA custody.

Changes Between the First and Last CRA Before Parole or Discharge

Table 3.3 shows the change in score between the first and last CRA for the 824 youth with more than one CRA. For 65 percent of the youth, the last CRA was within 9 points of the first CRA. Thirty-three percent of the youth had a decrease in points, 49 percent had an increase in points, and for 18 percent the CRA scores remained the same. That is, the CRA score changed, one way or another, for approximately 4 out of every 5 youth.

Table 3.3: **Changes in CRA Scores Between First and Last Assessment**

Change in Score Between the First and Last CRA	Number of Youth	Percent of Youth
Dropped 20 or More Points	29	4%
Dropped From 10 to 19 Points	73	9%
Dropped From 1 to 9 Points	168	20%
Remained Unchanged	152	18%
Rose From 1 to 9 Points	220	27%
Rose From 10 to 19 Points	129	16%
Rose 19 or More Points	53	6%
Total	824	100%

33 percent had a decreased CRA

65 percent within 9 points of first CRA

49 percent had an increased CRA

Table 3.4 shows in more detail how the CRA score changed between the first CRA (since February 1996) and last CRA before parole or discharge. For 60 percent of the youth with an initial CRA score of 0 to 10, their last CRA score was also 0 to 10. Eighty-six percent of the youth with an initial CRA score of 0 to 10 had their last score remain 20 or less. For youth with an initial score of 51 to 70, none had a 51 to 70 score on their last CRA, and 38 percent had their last CRA drop to 20 or less.

Table 3.4: **The Last CRA Score in Relation to the First CRA Score Since February 1996**

Initial CRA	Last CRA						Decreased From Initial to Last	Last CRA of 20 or Less
	0 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 70		
0 to 10	**60%**	26%	12%	2%	0%	0%	0%	86%
11 to 20	*23%*	**47%**	19%	9%	3%	0%	23%	69%
21 to 30	*14%*	*38%*	**37%**	9%	2%	1%	51%	51%
31 to 40	*7%*	*22%*	*40%*	**11%**	15%	4%	70%	30%
41 to 50	*5%*	*26%*	*31%*	*19%*	**17%**	2%	81%	31%
51 to 70	*8%*	*31%*	*38%*	*0%*	*23%*	**0%**	100%	38%

Table 3.5 summarizes the extent to which scores move above and below 20 points from initial to last CRA. One-half of the 824 youth had an initial CRA score of 0 to 20 points. Fifty-nine percent of the 824 youth ended up with a last CRA score of 0 to 20. Of the 411 youth with an initial CRA score of 0 to 20, 75 percent had a last CRA score of 0 to 20 points. Of the 413 youth with an initial CRA score above 20, only 43 percent had a final CRA score of 0 to 20.

Table 3.5: **Number of Youth and Percentage of Sample By Initial and Last CRA Score Category**

Initial CRA		Last CRA Score Before Parole or Discharge to the Community	
Initial CRA Score	Number and Percent of Youth	0 to 20	21 to 70
0 to 20	411 (50%)	75%	25%
21 to 70	413 (50%)	43%	57%
Total	824 (100%)	59%	41%

Findings: For most youth, their CRA scores change by less than 10 points between the initial and last CRA. More youth had an increase in CRA score than a decrease. Youth who have low initial CRA scores tend to have low last CRA scores. Youth with higher initial CRA scores have higher last CRA scores. It is more difficult to a achieve a last CRA of 20 points or less if the initial CRA score is above 20.

Changes in the CRA Items

Table 3.6 shows how the response on each CRA item changed from the first to the last assessment for youth in the study sample. Item A serves as an example to explain how to read the table. Ninety percent of the youth in the sample were assessed with no escape within the previous 90 days on their first CRA. Of those youth with no escape on their first CRA, 4 percent had no escape within 90 days of their last CRA. For those youth with an escape on their first CRA, 15 percent had an escape on their last CRA. That is, the odds of having an escape on the last CRA are 15 to 4 if the youth had an escape on the first CRA.

Item D is more complicated because there are three responses to the item. For the 20 percent of youth in the sample whose initial response was a high level of progress in meeting core requirements, 46 percent had a deterioration to a moderate level of progress, and 5 percent had minimal or no progress in the last 90 days. For youth with a moderate level of progress initially, 62 percent stayed the same, and 12 percent slipped to minimal or no progress. Finally, for youth with minimal or no progress on the first CRA, 54 percent improved to moderate and 36 percent stayed at minimal or no progress.

Except for Item C, Chemical/Alcohol Use and Item I, Charges for Behavior, there is a statistically significant relationship between the first and last score on the CRA items. That is, the first score is somewhat predictive of the last score. The significant correlations range from a low of .16 for Item A, Escapes/Attempts to a high of .40 for Item E, Problem Solving Skills.

Findings: All items except for Chemical/Alcohol Use and Charges for Behavior showed a significantly elevated likelihood of a negative behavior on the last assessment if that behavior was assessed as negative on the first CRA. More positively stated, all items except for Chemical/Alcohol Use and Charges for Behavior showed a significantly elevated likelihood of a good behavior on the last assessment if that behavior was assessed as good on the first CRA.

Table 3.6: **Predictive Capability of Response for Each Item on the First CRA of the Response on the Last CRA**

CRA Item	Initial Response Percentage	Last Response Percentage for Each Initial Response	
A. Escapes/Attempts	Correlation = .16[13]	Escaped, Attempted, or Risk	
None	90%	4%	
Escaped, attempted, or risk	10%	15%	
B. Assaultive Behavior	Correlation = .29	One or More Incidents	
None	62%	16%	
One or more Incidents	38%	43%	
C. Chemical/Alcohol Use	Correlation = .00*ns*	Evidence of Use	
No evidence of use	94%	9%	
Evidence of use	6%	8%	
D. Core Requirements	Correlation = .35	Moderate	None/Minimal
High level	20%	46%	5%
Moderate	59%	62%	12%
None or minimal	21%	54%	36%
E. Problem Solving Skills	Correlation = .40	Rarely Appropriate	
Usually appropriate	57%	16%	
Rarely appropriate	43%	54%	
F. Hostile Response	Correlation = .39	Frequently Acts Out	
Usually does not act out	64%	16%	
Frequently acts out	36%	53%	
G. Peer Victimization	Correlation = .36	Victimizes Peers	
No	54%	23%	
Victimizes peers	46%	57%	
H. Specialized Programs	Correlation = .28	No or Minimal Participation	
Participation or none required	76%	14%	
No or minimal participation	24%	39%	
I. Charges for Behavior	Correlation = .06*ns*	One or More Charges	
None	93%	5%	
One of more charges	7%	10%	

ns indicates no statistically significant correlation

[13] The correlation is computed between the item score on the first CRA and the item score on the last CRA.

Relationship of ISCA and CRA

To examine how closely the CRA assessment corresponds to the ISCA assessment, the correlations between the ICSA and the CRA were calculated for youth in the study sample. The ISCA has a statistically significant correlation of .41 with the initial CRA score and a statistically significant correlation of .42 with the final CRA Score. The amount of change in scores between the first and last CRA is not significantly related to the ISCA. Table 3.7 displays the correlations for the 824 youth with more than one CRA score.

Table 3.7: **Correlations Among CRA and ISCA for Youth With More Than One CRA**

	Initial CRA	Last CRA	ISCA	Change in CRA
Initial CRA	1.00	0.46	0.41	0.55
Last CRA	0.46	1.00	0.42	-0.49
ISCA	0.41	0.42	1.00	0.01*ns*
Change in CRA	0.55	-0.49	0.01*ns*	1.00

ns indicates no statistically significant correlation

Linear regression was used to develop an equation predicting the last CRA score from the youth's ISCA score. Table 3.8 shows how closely the predicted CRA score is to the actual CRA score. For 41 percent of the youth, the last CRA score was within 10 points of the predicted score; either 5 points above or five points below. For example, if a youth had a predicted CRA score of 31, in 41 percent of the sample the actual CRA was between 26 and 36. For 74 percent of the sample, the last CRA score was within 20 points of the predicted value based on the ISCA.

Table 3.8**: Accuracy of the Equation Predicting the Last CRA Score From the ISCA Score**

Actual and Predicted Score Difference	Number of Youth	Percentage of Youth in Sample
Within 10 points	556	41%
Within 20 points	452	74%

Findings: The ISCA score and the last CRA score are moderately correlated. Knowing the ISCA score provides a moderate ability to predict a youth's last CRA score. For four out of ten youth in the sample, the last CRA score could be predicted within 10 points by the ISCA score.

Summary of Findings Describing Changes in CRA Scores While a Youth is in JRA Custody:

- For two-thirds of the study sample, CRA scores did not change by more than 9 points between the initial CRA and the last CRA before release.
- It is more difficult to a achieve a last CRA of 20 points or less if the initial CRA score is above 20.
- Except for Chemical/Alcohol Use and Charges for Behavior, there was a significant positive correlation between the initial response to a CRA item and the final response to the item.
- The last CRA score is moderately correlated with the ISCA score. This, in part, is due to the ISCA score being a heavily weighted item on the CRA.

RESEARCH DESIGN FOR STUDYING HOW WELL THE CRA PREDICTS RECIDIVISM RISK

The second approach for measuring the validity of the CRA involves following a seven-month cohort of youth paroled or discharged to the community between May 1, 1996, and November 30, 1996, who had spent at least 90 days in JRA custody. This sample allows measurement of a six-month recidivism rate with a 12-month adjudication process timeframe as of June 1, 1998. The strength of last CRA score prior to parole or discharge to predict six-month felony recidivism is examined.

The results from these analyses are preliminary because of the time constraints imposed by the availability of reliable CRA data in MAPPER and the recidivism measurement time period. A full 18-month analysis cannot be conducted until 2000.

Sample

Table 3.9 describes how many youth in the study sample have a CRA score recorded in MAPPER. The percent of youth with a CRA in MAPPER increased from a low of 60 percent for youth released during May 1996 to 90 percent for youth released during November 1996. The 603 youth with CRAs in the sample under-represent youth released in May, June, and July 1996.

Table 3.9: **Percentage of Youth in Study Sample[1] With a CRA in MAPPER**

Date Paroled or Discharged	Number of Youth			Percentage With CRA in MAPPER
	No CRA in MAPPER	CRA in MAPPER	Total	
May 1996	40	60	100	60%
June 1996	30	75	105	71%
July 1996	25	88	113	78%
August 1996	21	91	112	81%
September 1996	14	83	97	86%
October 1996	12	95	107	89%
November 1996	13	111	124	90%
Total	155	603	758	80%

[1] Youth paroled or discharged to community between May 1996 and November 1996 who spent at least 90 days in JRA custody

Findings: Overall, 80 percent of the youth in the sample had a CRA score in MAPPER. The finding that proportionally fewer youth admitted before July 1996 had CRAs recorded in MAPPER is assumed to have no effect on the subsequent analysis.

Six-Month Felony Recidivism Base Rates

Table 3.10 shows the percentage of youth who fall into five categories of last CRA score. Twenty-four percent of the youth had a last CRA score under 10 points, and another 36 percent had scores between 11 and 20 points. Sixty percent of the sample had a score between 0 and 20 points. Fifteen percent of the youth had a CRA score above 30 points. Compared to the sample of youth released during 1997, this study sample consists of proportionally more youth with scores of 20 or below.

Table 3.10: **Percentage of Youth in the Sample With Last CRA Scores Falling Within Five Categories**

Range of Last CRA Score	Number of Youth	Percentage of Sample	
0 to 10	143	24%	60%
11 to 20	217	36%	
21 to 30	152	25%	40%
31 to 40	56	9%	
41 to 70	35	6%	
Total	603	100%	

Findings: Youth in the recidivism study sample have lower CRA scores than the sample of youth released during 1997.

Table 3.11 illustrates the six-month recidivism base rate for the 758 youth in the entire study group. The misdemeanor rate of 11 percent is based on juvenile court convictions. The felony rate of 26 percent includes offenses that resulted in a juvenile court conviction and adult criminal court conviction. The 26 percent six-month felony recidivism rate is approximately equal to the six-month recidivism rate (23 percent) for youth in the ISCA validation sample. Youth without a CRA in MAPPER had a slightly higher recidivism rate.

Table 3.11: **Six-Month Recidivism Base Rates for the CRA Validation Study Group**

CRA in MAPPER	Number of Youth	Percentage of Youth Recidivating Within Six Months of Being Paroled or Discharged to Community	
		Misdemeanor Recidivism	Felony Recidivism
Missing	155	12%	29%
CRA	603	11%	26%
Total	758	11%	26%

Findings: The six-month recidivism rate for youth in the CRA validation sample is approximately equal to the six-month recidivism rate of youth in the ISCA validation sample. This lends support to the assumption that the CRA validation sample is representative of youth paroled or discharged to the community from JRA custody during 1996.

CRA Items and Six-Month Felony Recidivism

Table 3.12 summarizes how each item on the last CRA is related to the six-month felony recidivism rate. The correlation coefficient quantifies the strength of the item's relationship to recidivism. A correlation of 1.00 indicates the CRA item perfectly predicts recidivism. A correlation of zero indicates no relationship whatsoever between the CRA item and recidivism. A strong correlation would be above .70, and moderate correlations between .40 and .70.

Three types of statistics for the 11 CRA items are displayed. Item A serves as an example of how to read Table 3.12. Item A, Escapes/Attempts, has two responses: None and Escaped. In the study sample, 94 percent of the youth were rated as having no escapes within the last 90 days, and 6 percent had an escape or attempted escape. For those youth with no escape, 25 percent recidivated with a felony offense. Youth with an escape on their last CRA recidivated at a 38 percent rate. The greater the difference between these recidivism rates, the stronger the predictive capability of the item. The correlation between escapes/attempts and six-month felony recidivism is .07, which is not statistically significant.

Eight of the 11 CRA items are significantly related to six-month felony recidivism. The item with the highest correlation is J, Initial Risk Assessment. Six items have approximately equal correlations with recidivism: B, Assaultive Behavior; D, Compliance With Facility Regulations; E, Problem Solving Skills; F, Hostile Response to Frustration; and G, Peer Victimization. Item H, Progress in Specialized Training and K, Initial Offense Seriousness are significantly but more weakly correlated with recidivism. All of the non-significant items had very low incidents rates with over 90 percent of the youth in the sample not having exhibited the trait measured by the item.

Statistics for the four additional variables found to be significantly related to recidivism in the ISCA validation study are included in this study: gender, age at admission, age at release, and sex offender status. (Appendix C contains the entire correlation matrix). With the exception of gender, these variables are also significantly related to recidivism in this CRA validation study.

Age at release had a correlation approximately equal to the Initial Risk Score's correlation with recidivism. This correlation is negative meaning younger juveniles are more likely to recidivate than older youth. Age at admission and sex offender status are significantly related to recidivism, but gender is not.

Findings: These statistics indicate that no single CRA item is strongly related to recidivism. The correlations of the CRA items with recidivism are typical for juvenile risk assessment instruments; usually not exceeding .30.[14] Age at release and the initial ISCA risk score stand apart with the highest correlations.

[14] Gottfredson, 1987.

Table 3.12: **Last CRA Item Relationship to Six-Month Felony Recidivism**

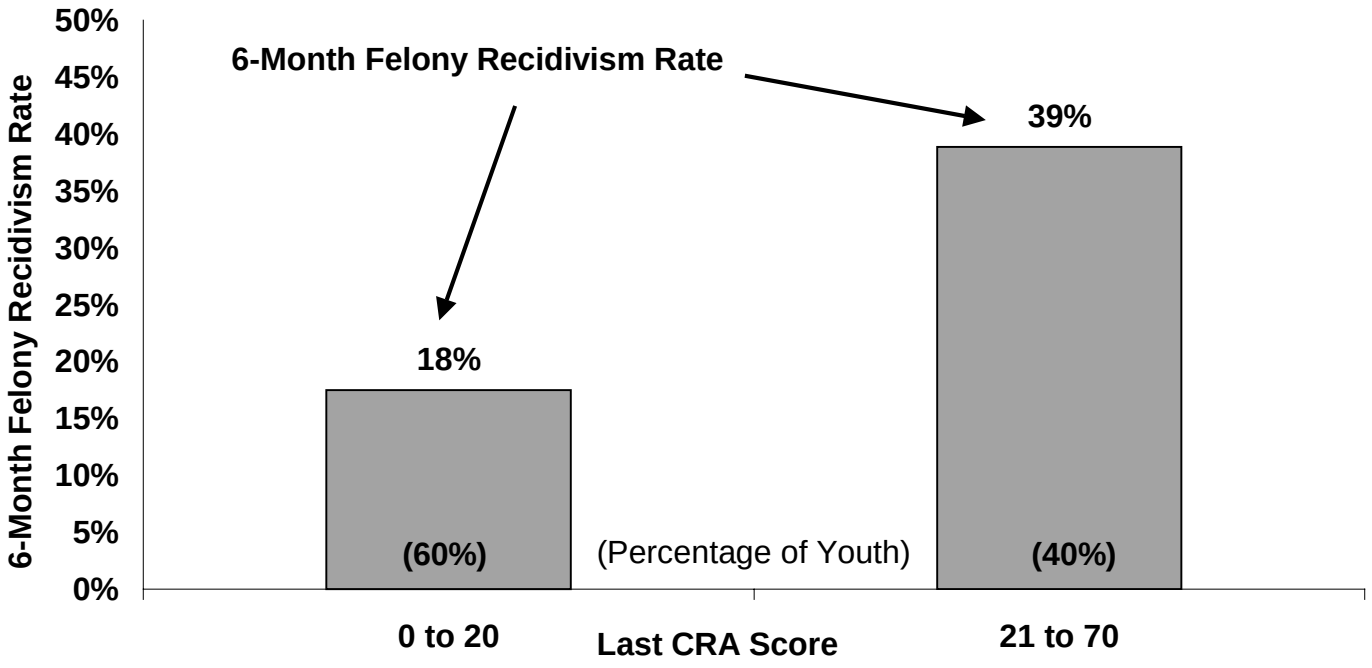
	CRA Items	Percent of Sample	6-Month Felony Recidivism Rate	Correlation With 6-Month Recidivism
A.	Escapes/Attempts			
	0 None	94%	25%	.07*ns*
	10 Escaped, attempted, or considered escape	6%	38%	
B.	Assaultive Behavior			
	0 None	70%	21%	.15
	6 One or more incidents	30%	36%	
C.	Chemical/Alcohol Use			
	0 None	91%	26%	-.02*ns*
	10 Evidence of use	9%	23%	
D.	Compliance With Facility Regulations			
	0 High level of compliance	26%	19%	.15
	3 Moderate level	60%	24%	
	6 No or minimal compliance	14%	44%	
E.	Problem Solving Skills			
	0 Generally appropriate response	65%	20%	.17
	3 Rarely or never appropriate response	35%	36%	
F.	Hostile Response to Frustration			
	0 Usually does not act out	67%	21%	.16
	3 Frequently hostile responses	33%	36%	
G.	Peer Victimization			
	0 Does not victimize peers	59%	20%	.17
	3 Victimizes peers	41%	34%	
H.	Progress in Specialized Training			
	0 Moderate progress or not required	79%	23%	.12
	6 No or minimal participation	21%	35%	
I.	Adjudications/Pending Charges			
	0 None	95%	26%	.01*ns*
	12 One or more	5%	23%	
J.	Initial Risk Assessment Score			
	0 0 – 20	28%	10%	.26
	6 21 – 30	47%	27%	
	12 31 or more	24%	41%	
K.	Initial or Modified Offense Seriousness			
	0 Low	18%	34%	.09
	3 Medium or high	82%	24%	
	Gender			.04*ns*
	Female	9%	20%	
	Male	91%	26%	
	Age at Admission			
	Under 15	19%	36%	-.20
	15 – 16	51%	30%	
	Over 16	30%	11%	
	Age at Release			
	Under 15	8%	42%	-.27
	15 – 16	38%	37%	
	Over 16	54%	15%	
	Sex Offender			
	No	84%	28%	-.13
	Yes	16%	13%	

ns indicates that a correlation is not significantly different from zero.

CRA and Six-Month Recidivism

Figure 3.1 graphically compares the six-month felony recidivism rate for two groups of youth. Youth whose last CRA score was 0 to 20 had an 18 percent recidivism rate compared to a 39 percent rate for youth with last CRA scores above 20.

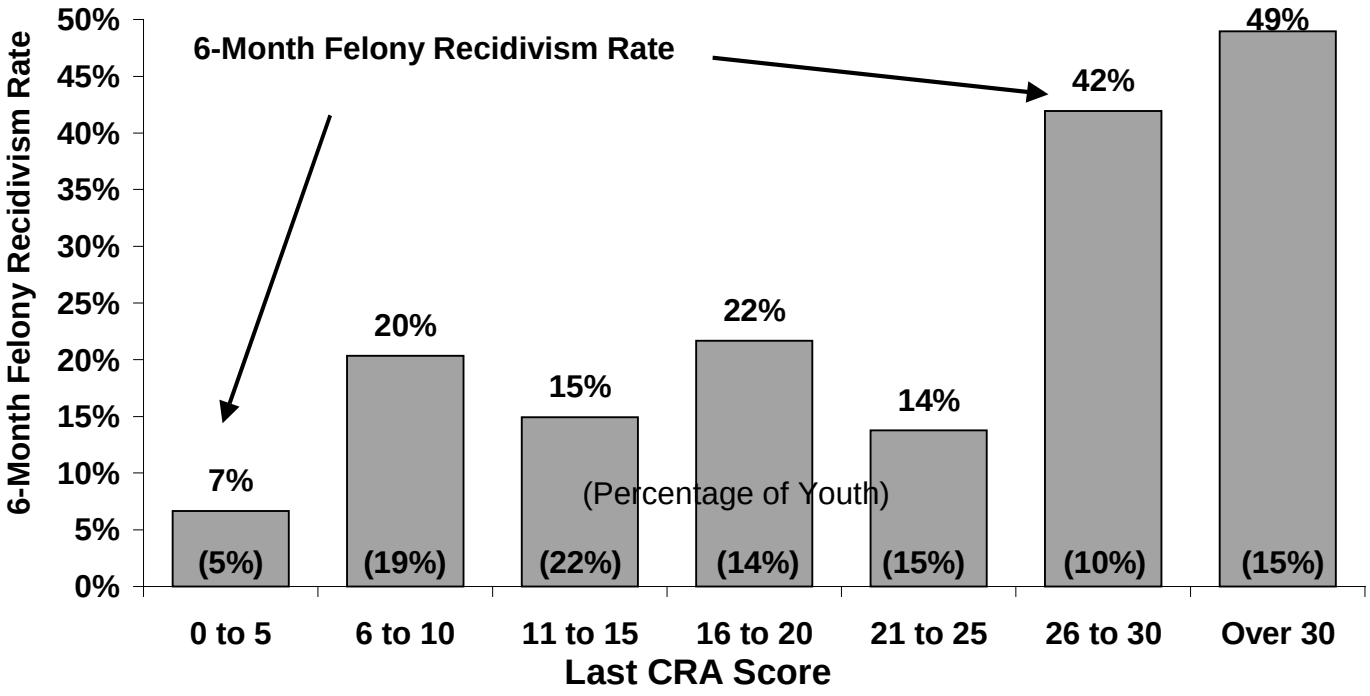
Figure 3.1: **Six-Month Felony Recidivism: Youth With a CRA of 0 to 20 vs. a Score Above 20**



Findings: Youth with last CRA scores of 0 to 20 have a six-month felony recidivism rate that is one-half the rate of youth with CRAs above 20.

Figure 3.2 more closely examines the relationship between the last CRA score and six-month felony recidivism. In this example, the recidivism is at least 40 percent for CRA scores above 25. The recidivism rates of youth with scores of 25 or less randomly vary between 7 and 22 percent.

Figure 3.2: **Six-Month Felony Recidivism: By Several Levels of CRA of Scores**



Findings: A better CRA cut-off score for low risk may be 25 points, rather than 20 points, but this finding needs to be re-evaluated when a longer follow-up period can be studied in the year 2000.

Changes in the CRA and Six-Month Felony Recidivism

Figure 3.3 displays how changes in the CRA score are related to six-month felony recidivism rates. Two groups of youth are shown: those with initial CRA scores of 0 to 20 and those with initial CRA scores above 20. The number in parenthesis is the percentage of youth in each group. For youth with low initial CRA scores, the recidivism rate does not vary by score changes between the first and last CRA. For youth with high initial CRA scores, the recidivism rates vary by change in CRA score.

Figure 3.3: **Recidivism in Relation to Improvements Between the First and Last CRA**

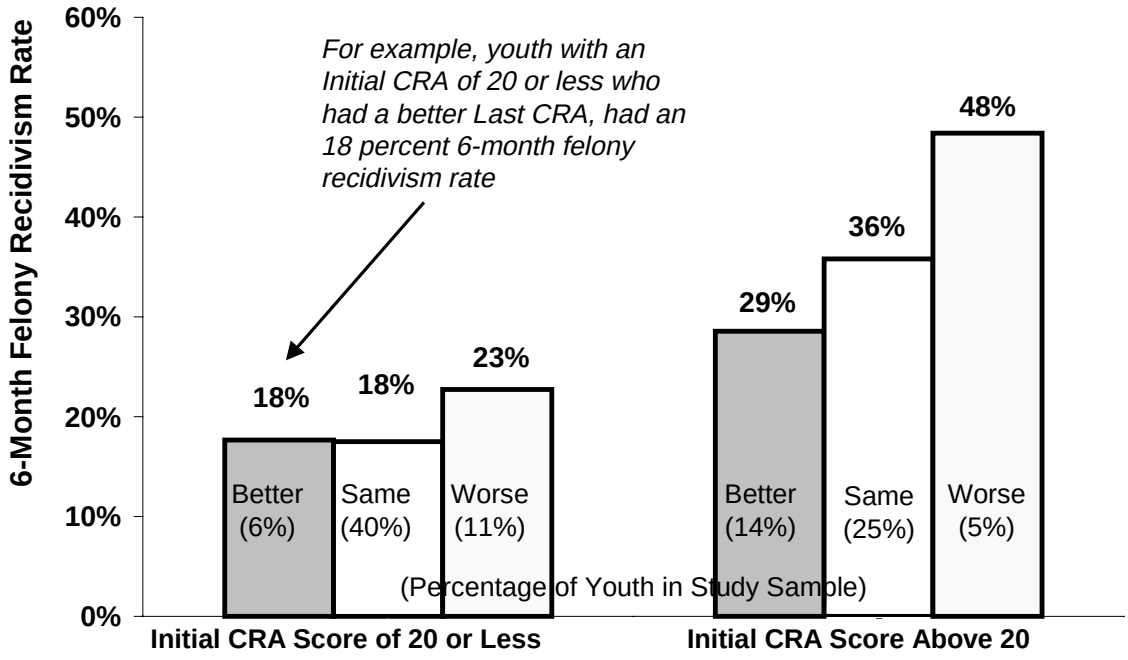


Table 3.13 shows that 85 percent of the 360 youth with a last CRA score of 20 or below had a score of 20 or below on their initial CRA. For the 243 youth whose last CRA score was above 20, 86 percent also had an initial CRA score above 20. Overall, 85 percent of all youth stayed within the same category of CRA score between their initial and last assessment.

Table 3.13: **Youth Above and Below 20 Points on Initial and Last CRA**

Initial CRA Score Category	Last CRA Score Category	Number of Youth	Percentage Of Youth Within Initial Category
0 to 20	0 to 20	306	85%
21 to 70	0 to 20	54	15%
Total	0 to 20	360	100%
0 to 20	21 to 70	34	14%
21 to 70	21 to 70	209	86%
Total	21 to 70	243	100%

Findings: For youth with an initial CRA score above 20, improved CRA scores are associated with reduced recidivism; worse CRA scores are associated with higher recidivism.

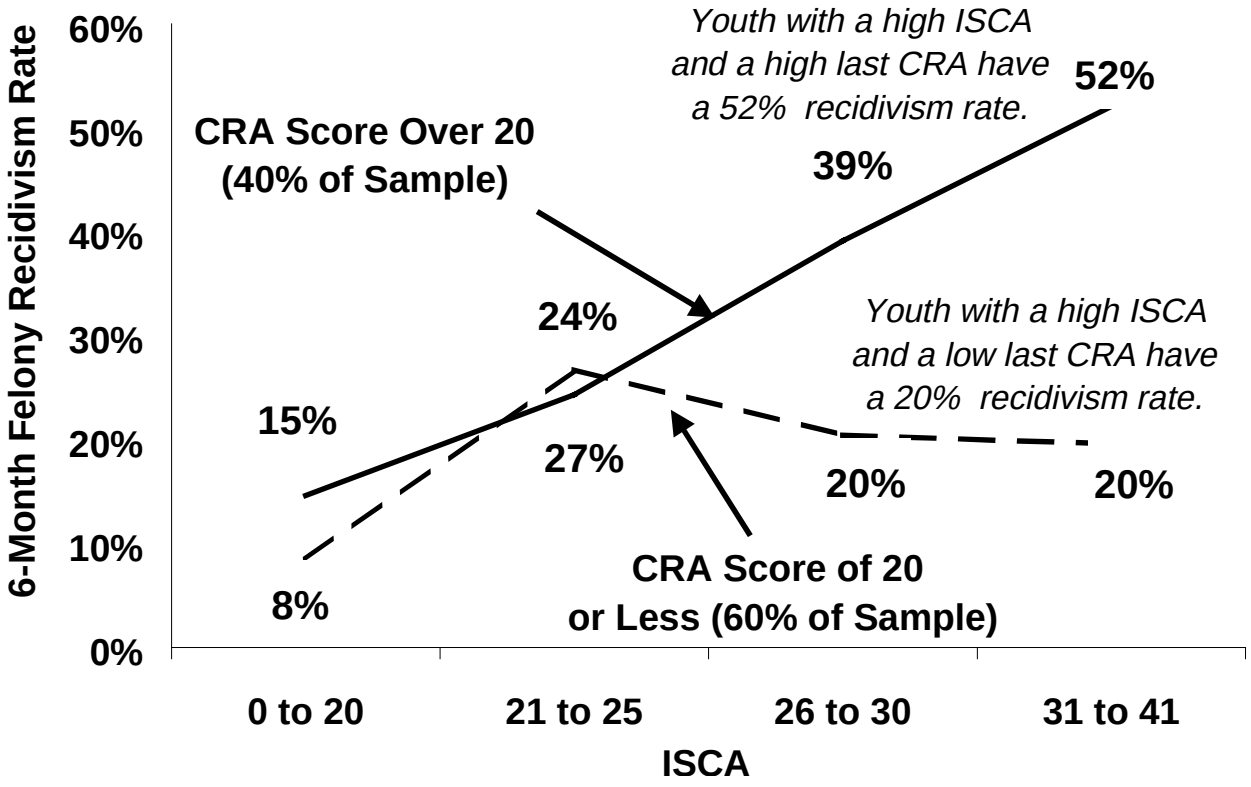
Interaction Between the Last CRA and the ISCA

Table 3.14 and Figure 3.4 describe the relationship between the six-month felony recidivism rate and the combination of ISCA and last CRA score. For youth with last CRA scores of 20 or below, the six-month felony recidivism rate increases from a low of 8 percent for ISCA scores of 0 to 20 to between 20 and 27 percent for ISCA scores above 20 points. For youth with a last CRA score above 20, the recidivism rate steadily increases with an increasing ISCA score. The recidivism rate is 13 percent for ISCA scores between 0 and 20 and rises to 55 percent for ISCA scores between 31 and 41.

Table 3.14: **Six-Month Felony Recidivism Rate by ISCA and Last CRA Score Category**

	Youth With Last CRA Score of 20 or Less			Youth With Last CRA Score Over 20			Total Sample of Youth		
ISCA Score Category	Number of Youth	Percent of Sample	6-Month Felony Recidivism	Number of Youth	Percent of Sample	6-Month Felony Recidivism	Number of Youth	Percent of Sample	6-Month Felony Recidivism
0 to 20	130	21%	8%	40	7%	13%	170	9%	28%
21 to 25	86	14%	27%	38	6%	26%	124	27%	20%
26 to 30	93	15%	20%	67	11%	37%	160	28%	26%
31 to 41	51	8%	20%	102	17%	55%	153	43%	25%
Total	360	59%	18%	247	41%	39%	607	26%	100%

Figure 3.4: **Recidivism Rates for Combinations of ISCA and Last CRA Scores**



Findings: The recidivism rate of youth with a last CRA score of 20 or less does not steadily increase with an increasing ISCA score as it does for youth with a last CRA score above 20. This result indicates that summing the ISCA and CRA together to form a total score does not accurately describe six-month felony recidivism. That is, youth with either low ISCA scores, or low CRA scores have lower recidivism rates. This relationship is true for the first CRA score, since 85 percent of the youth with a last CRA score of 20 or less have an initial CRA score of 20 or less.

Measuring Institutional Behavior With the *CRA*

The CRA includes two items from the initial classification of the youth, Item J, Initial Risk Assessment Score and Item K, Initial or Modified Offense Seriousness. These items cannot change while the youth is in JRA custody and do not measure institutional behavior of the youth. We know that the ISCA is a valid predictor of recidivism; we need to determine if the items on the CRA that measure institutional behavior also are predictive of recidivism.

An examination of Table 3.12 and the CRA correlation matrix in Appendix C reveals five items that are equivalently correlated with six-month felony recidivism and are also moderately inter-correlated with each other: B, Assaultive Behavior; D, Compliance With Regulations; E, Problem Solving; F, Hostile Response to Frustration; and G, Peer Victimization. These items were summed to form a CRA scale measuring institutional behavior during the last 90 days of custody.

Table 3.15 describes the relationships among six-month felony recidivism, the last CRA score, the institutional behavior scale, and the ISCA. The ISCA score and the last CRA score are moderately related with a correlation of .47. Removing items from the CRA to form the institutional behavior scale, reduces the correlation with the ISCA to .14. That is, the institutional behavior scale is measuring information that is not related to the ISCA. The last CRA score has a .25 correlation with six-month felony recidivism, while the institutional behavior scale has slightly lower correlation of .21 with recidivism. The ISCA has a .26 correlation with recidivism.

Table 3.15: **CRA, CRA Scale, and CRA Item Correlations**

	6-Month Felony Recidivism	Last CRA Score	Institutional Behavior Scale	ISCA
Last CRA Score	.25	1.00	.78	.47
Institutional Behavior Scale	.21	0.78	1.00	.14
ISCA Score	.26	.47	.14	1.00

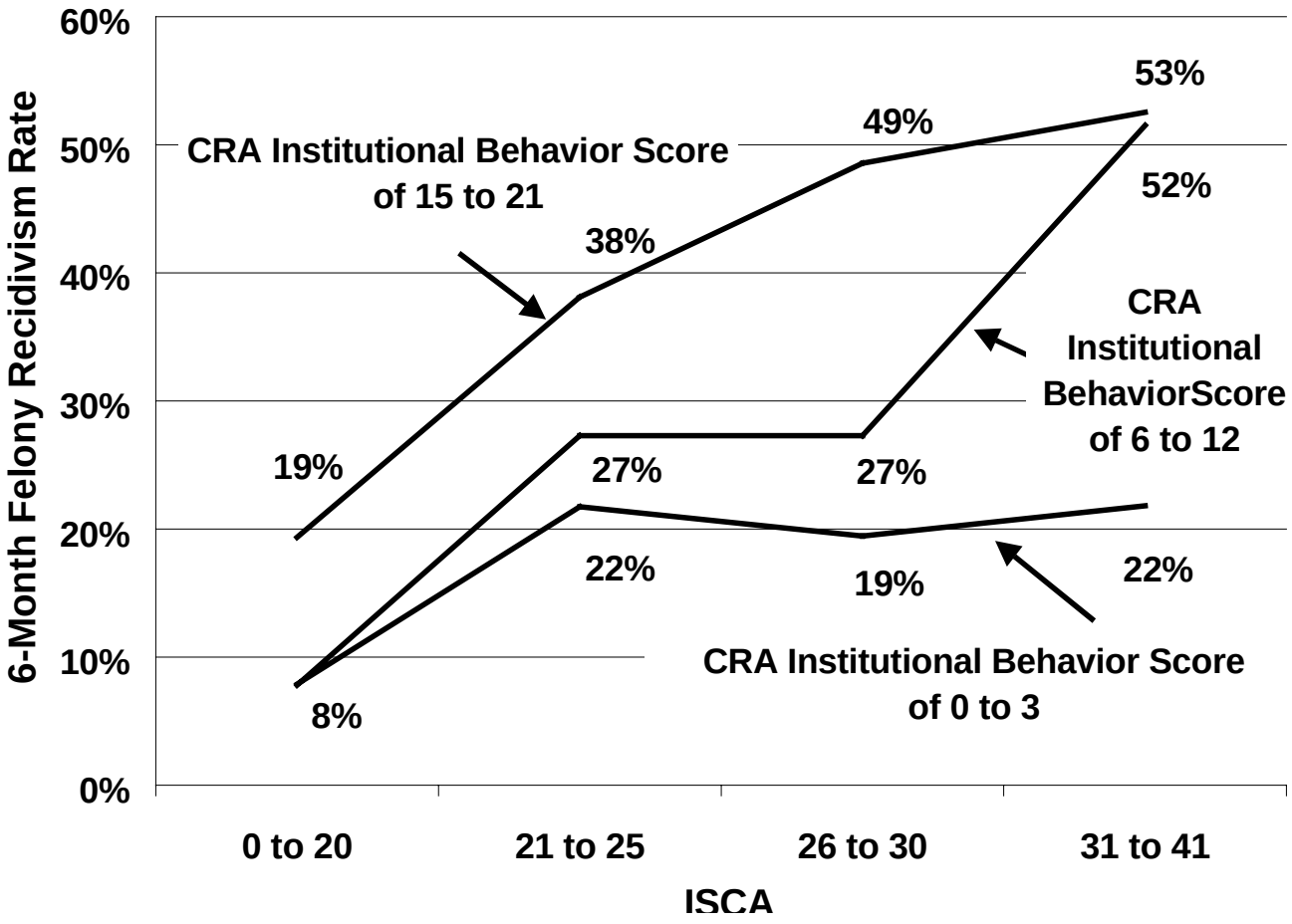
Note: all correlations are statistically significant at the .05 level.

Findings: By removing the ISCA score from the CRA, an institutional behavior scale was formed that is independent of the ISCA score and slightly less correlated with recidivism than the CRA. The next step is to determine whether combining the ISCA and the institutional behavior scale can lead to recidivism prediction that is better than the CRA alone.

Institutional Behavior Scale, ISCA, and Recidivism

Figure 3.5 illustrates the relationship between the ISCA score, the institutional behavior scale, and six-month felony recidivism. The institutional behavior scale was collapsed into three categories of 0 to 3 points, 6 to 12 points, and 15 to 21 points. Two groups of youth in the sample had very low recidivism rates (8 percent): youth with ISCA scores of 0 to 20 and CRA scale scores below 12 points. Six groups of youth have recidivism rates close to 20 percent (all youth with a CRA scale score of 0 to 3, youth with a CRA scale score of 6 to 12 and ISCA scores below 30, and youth with a CRA score of 15 to 21 but ISCA scores of 0 to 20.

Figure 3.5: **Relationship Between Institutional Behavior Scale,[1] ISCA, and Six-Month Felony Recidivism**



[1] Consisting of five CRA items: B, Assaultive Behavior; D, Compliance With Regulations; E, Problem Solving; F, Hostile Response to Frustration; and G, Peer Victimization.

Table 3.16: **Number of Youth by Combination of ISCA Score and CRA Scale**

ISCA Score	CRA Institutional Behavior Score Categories		
	0 to 3	6 to 12	15 to 21
0 to 20	76	64	31
21 to 25	69	33	21
26 to 30	72	55	35
31 to 41	55	33	59

Findings: Based on combinations of the ISCA and the institutional behavior scale, groups of youth with very low or low six-month recidivism rates can be formed. These groups cannot be formed by adding the ISCA and institutional behavior scale together. As a result, better prediction can be achieved by using the institutional behavior scale to modify the initial estimate of recidivism risk provided by the ISCA.

Additional Variables and Recidivism

In the validation analysis of the ISCA, three variables were found to improve the predictive capability of the ISCA: gender, sex offender status, and age. Figure 3.6 illustrates how these three variables influence the CRA's capability to predict recidivism. In this sample, age at release, rather than age at admission, is more influential in combination with the CRA.

Males and females with a CRA of 20 or less had the same recidivism rate of 17 to 18 percent. Females with a CRA score above 20 had a 24 percent recidivism rate, which is much lower than the 39 percent recidivism of males with CRAs above 20. That is, the CRA is a better predictor of recidivism for males than for females.

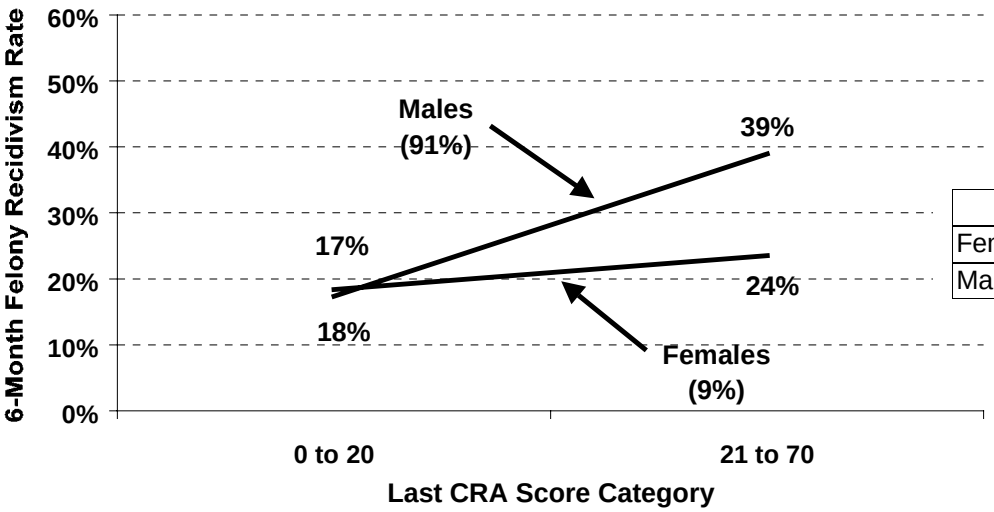
Being either a current or historic sex offender uniformly reduces the recidivism rate by approximately 15 percentage points for all youth. Sex offenders with higher CRA scores have five times the chance of recidivating than sex offenders with low scores.

Age at release presents a more complicated picture. Youth who were over the age of 17 at release have a six-month felony recidivism rate under 10 percent regardless of the CRA score. Either these youth have matured out of crime or the six-month follow-up period is too short to detect crimes that are adjudicated in adult criminal court.

Youth who were 17 at release and had high CRA scores had a higher recidivism rate than those over 17 and lower than those under age 16. Youth who were 16 at release are a puzzlement; it appears that the CRA in this sample does not discriminate well for these youth.

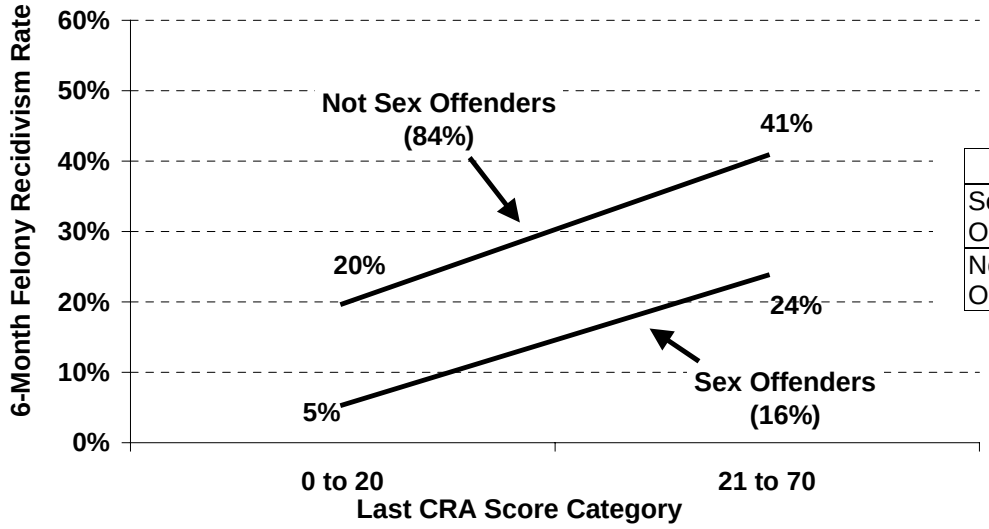
Findings: The predictive capability of the last CRA score can be improved by including three variables into the prediction scheme: gender, history of sex offenses, and age at release. Age at release could be included as an item on the CRA. It may be advisable to create separate prediction schemes for females and sex offenders.

Figure 3.6: **Relationship of Gender, Sex Offender Status, Age at Release, and CRA to Recidivism**



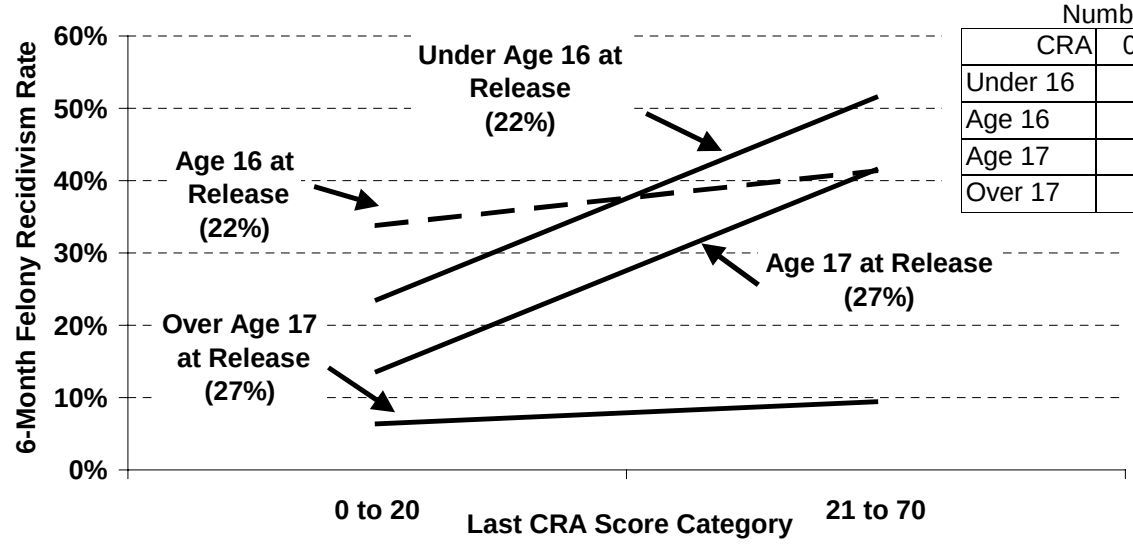
Number of Youth

CRA	0 to 20	21 to 70
Female	38	17
Male	322	226



Number of Youth

CRA	0 to 20	21 to 70
Sex Offender	304	201
Non Sex Offender	56	42



Number of Youth

CRA	0 to 20	21 to 70
Under 16	66	79
Age 16	74	58
Age 17	110	53
Over 17	110	53

RESEARCH DESIGN FOR RELATING THE CRA TO CRIMINAL BEHAVIOR WHILE IN THE GROUP HOME

The third approach for assessing the validity of the CRA involves measuring the criminal behavior of youth placed in community group homes. Because there is no statewide record-keeping system to track these criminal acts, a survey was sent to the group homes during April 1998 to collect this information. The survey sample consisted of all youth placed in a group home between July 1, 1996, and June 30, 1997. This sampling should ensure that all youth would have been given at least one CRA prior to their group home placement and allows at least 10 months of potential group home living for all youth.

The survey had two parts. The first part consisted of a form for each youth placed in a group home who was returned to an institution. The group home staff indicated on the form whether the youth was returned to an institution for a new crime. If the youth did commit a new crime, the date the youth committed the new crime, along with the type of crime(s) committed were recorded. See Appendix D for an illustration of the survey form.

The second part of the survey consisted of a listing of all youth sent to a group home during the study period who did not return to an institution. The group home staff reviewed this list and completed survey forms for any youth who committed a crime but was not returned to a JRA institution. Youth who were still on escape or who committed a crime and were being processed in adult criminal court are examples of youth who committed a crime but were not returned to a JRA institution.

The analysis of these data must be regarded as exploratory because of the limited range of CRA scores for youth placed in a group home. By policy youth with CRA scores above 20 will never be placed in a group home. As a result, it will never to possible to examine how well the CRA predicts group home criminal activity.

Survey Results: Criminal Behavior While in the Group Home

There were 764 youth placed in group homes between July 1, 1996, and June 30, 1997. There were 822 placements of these youth in group homes. There are more placements than youth since the same youth can be placed in a group home more than once. Table 3.17 shows the placements in each group home and the result of those placements. For the entire sample of youth, 35 percent were returned to a JRA institution and 19 percent committed a crime during the placement.

Table 3.17: **Results of Placements to Group Home for Study Sample**

Group Home	Total Placements	Not Returned	Committed Crime	Returned/ Criminal Behavior Suspected	Returned With No Plan	Returned With Plan	Percent Returned	Percent Committed Crime
Canyon View Group Home	45	24	9	0	9	3	47%	20%
Excelsior Youth Center	15	1	9	1	2	2	93%	60%
Fort Simcoe Job Corps	1	0	1	0	0	0	100%	100%
Morning Star Boys Ranch	3	0	1	0	1	1	100%	33%
Oakridge Group Home	39	21	8	4	6	0	46%	21%
Ridgeview Group Home	58	50	8	0	0	0	14%	14%
Riverview Youth Center	12	0	8	0	3	1	100%	67%
Ryther Chemical Dependency	13	0	9	0	3	1	100%	69%
Sunrise Group Home	26	13	7	4	1	1	50%	27%
Twin Rivers Group Home	56	30	22	4	0	0	46%	39%
Woodinville Group Home	20	18	2	0	0	0	10%	10%
Region 1, Excelsior Youth Center	38	38	0	0	0	0	0%	0%
Region 1, Morning Star Boys Ranch	10	10	0	0	0	0	0%	0%
Region 1, Riverview Youth Center	16	16	0	0	0	0	0%	0%
Region 2, Bienastar	5	4	0	0	0	1	20%	0%
Region 2, Proctor	2	2	0	0	0	0	0%	0%
Region 2, White Swan Job Corps	4	4	0	0	0	0	0%	0%
Region 3, Diamond Home	13	5	5	2	1	0	62%	38%
Region 3, Larch Way Lodge	13	8	3	2	0	0	38%	23%
Region 3, Secret Harbor	23	15	1	0	6	1	35%	4%
Region 4, Aloha House	15	13	1	0	0	1	13%	7%
Region 4, Griffin (Sex Offense)	6	6	0	0	0	0	0%	0%
Region 4, Griffin Home	31	16	12	2	1	0	48%	39%
Region 4, Launch Program	25	20	3	1	0	1	20%	12%
Region 4, Ruth Dykeman Center	3	1	2	0	0	0	67%	67%
Region 4, Ryther Chemical Dependency	13	13	0	0	0	0	0%	0%
Region 4, Safeco – Safehouse	7	4	2	1	0	0	43%	29%
Region 5, Dyslin Boys Ranch	75	42	13	0	18	2	44%	17%
Region 5, Forest Ridge	62	42	8	0	7	5	32%	13%
Region 5, Our Sisters House	14	8	1	0	5	0	43%	7%
Region 5, Puget Sound Center	58	39	10	5	4	0	33%	17%
Region 5, Selma R0 Carson Home	55	31	10	0	13	1	44%	18%
Region 5, Woodlawn Faith Home	7	6	0	0	1	0	14%	0%
Region 6, Olive Branch	9	7	1	0	1	0	22%	11%
Region 6, Touchstone	25	24	0	0	1	0	4%	0%
Region 6, Toutle River	5	5	0	0	0	0	0%	0%
Total	822	536	156	26	83	21	35%	19%

Outcome While Youth Living in a Group Home

The data for youth with more than one placement were combined to reflect the youth's criminal activity while living in any group home. Table 3.18 shows that 494, or 65 percent of the 765 youth in the study sample, were not returned to a JRA institution from a group home. One-hundred-forty-five youth, or 19 percent, were reported in the survey to have committed a crime while living in the group home.

Table 3.18: **Survey Results**

Result While Living in a Group Home	Number of Youth	Percentage of Youth
Not Returned to JRA Institution	494	65%
Returned for Suspected Criminal Behavior	25	3%
Returned With a Plan to Come Back to Same Group Home	20	3%
Returned With no Plan to Come Back to Same Group Home	81	11%
Committed a Crime	145	19%
Total	765	100%

For those 145 youth who committed a crime while living in a group home, Table 3.19 lists the percentages for the type of crime committed. Overall, crimes not accompanied by an escape accounted for 28.3 percent of all crimes committed. Escapes not accompanied by another crime accounted for 55.2 percent. Misdemeanors accounted for another 20.7 percent of the criminal activity. Approximately 4 percent of the youth committed a crime against person while living in a group home.

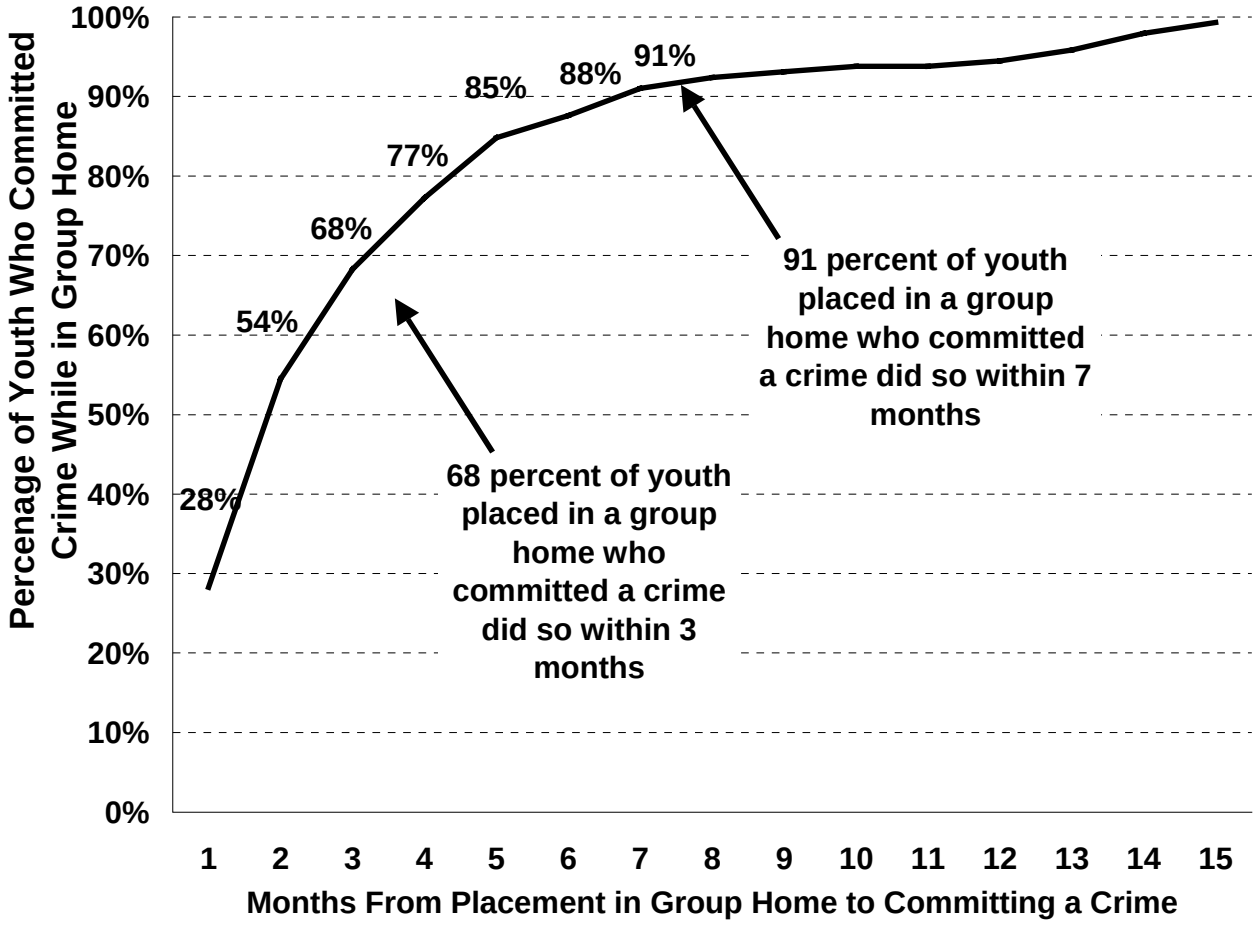
Table 3.20: **Types of Crime Committed by the 19 Percent Who Committed a Crime While Living in a Group Home**

	Committed Crime Without Escaping	Committed Crime and Escaped	Total
No Crime Other Than Escape	0.0%	55.2%	55.2%
Alcohol	2.1%	0.7%	2.8%
Misdemeanor	17.2%	3.4%	20.7%
Other Felony	0.0%	2.1%	2.1%
Drugs	3.4%	4.1%	7.6%
Property	2.1%	5.5%	7.6%
Against Person	3.4%	0.7%	4.1%
Total	28.3%	71.7%	100.0%

Results: For the few youth who committed a crime in a group home, the majority of crime was an escape or a misdemeanor. Very few youth committed a crime against another person such as assault.

Figure 3.7 illustrates that nearly 70 percent of the youth who committed a crime while living in a group home, did so within three months of being placed in the group home.

Figure 3.7: **Most Youth Who Committed a Crime While Living in a Group Home, Committed That Crime Within 3 to 6 Months of Placement in the Group Home**



Capability of CRA to Predict Crime Committed While Living in a Group Home

To determine the capability of the CRA to predict crimes committed while the youth was living in the group home, all CRA assessments recorded in MAPPER for youth in the study sample were analyzed. Of the 765 youth in the study, 62 percent had at least one CRA score in MAPPER. Youth with a CRA assessment in MAPPER were significantly more likely to have committed a crime, including escape (23 percent), than youth without a CRA assessment in MAPPER (12 percent).

Youth placed in a group home, by definition, are limited to having CRA scores of 20 or less. Therefore, it would not be fair to expect that the CRA could predict criminal behavior committed by youth living in a group home. To see if that limited range of CRA scores has any relation to crimes committed while in the group home, Table 3.20 was developed. Youth with very low CRA scores (below 10) had a lower criminal activity rate than youth with higher scores. For CRA scores above 10, an increasing CRA score is not consistently associated with increasing criminal activity rate.

Table 3.20: **The Percentage of Youth Who Committed a Crime While Living in a Group Home Does Not Consistently Increase With the Limited Range of Scores From the Last CRA Before Placement in the Group Home**

Score Range From Last CRA	Number of Youth	Committed a Crime Including Escape	Committed a Crime Other Than Escape	Escape Only
0 to 10	159	14%	5%	9%
11 to 13	78	31%	15%	15%
14 to 15	105	33%	17%	16%
16 to 20	118	19%	8%	11%
Above 20	16	38%	6%	31%
Study Sample	476	23%	10%	13%

However, youth living in a group home could have a wider range of ISCA scores. The relationship of ISCA scores to group home criminal activity is displayed in Table 3.21. The percentage of youth who committed a crime while living in a group home consistently increases with the youth's ISCA Score.

Table 3.21: **The Percentage of Youth Who Committed a Crime While Living in a Group Home Consistently Increases With the Youth's ISCA Score**

Score Range From ISCA	Number of Youth	Committed a Crime Including Escape	Committed a Crime Other Than Escape	Escape Only
0 to 20	114	7%	2%	5%
21 to 25	124	22%	10%	11%
26 to 30	126	28%	13%	14%
31 to 35	81	32%	15%	17%
36 to 40	31	45%	16%	29%
Study Sample	476	23%	10%	13%

Analysis of each CRA item was conducted to determine if any of these items, rather than the total CRA score might be predictive of criminal activity committed while living in a group home. Three of the 12 items comprising the CRA had a weak but significant correlation. Hostile response to frustration, peer victimization, and offense seriousness had correlations of -.11, -.09, and, -.12 respectively. These negative correlations indicate a tendency for youth with the attribute to have lower criminal activity rates. The ISCA item on the CRA had a positive correlation of .23 with criminal activity committed while living in the group home.

Findings: As would be expected, the limited range of CRA scores between 0 and 20 for youth placed into a group home have little capability for predicting criminal activity committed while living in a group home.

The ISCA was shown to be a good predictor of crimes committed while in the group home, including escape.

SECTION IV: SEX OFFENDER ASSESSMENTS

Background

The 1997 Washington State Legislature made significant changes to the sex offender community notification statutes. The Department of Corrections, the Indeterminate Sentence Review Board and JRA were directed to develop a consistent approach to risk assessment and consistent standards for risk level assignment for the purpose of public notification.

These agencies are charged with providing local law enforcement officials with information on sex offenders about to be released or placed into the community. The authorization applies to obtaining information regarding: (a) a juvenile found to have committed a sex offense or a kidnapping offense; (b) a person found not guilty of one of these offenses by reason of insanity; (c) a person found incompetent to stand trial for one of these offenses and subsequently committed; (d) a person committed as a sexual psychopath; or (e) a person committed as a sexually violent predator.

The three agencies worked together on a committee chaired by Senator Jeanine Long to adopt the Minnesota Sex Offender Screening Tool (SOST) for sex offender classification and law enforcement notification in Washington State. There are three risk levels from lowest to highest risk: Level 1, Level 2, and Level 3. The Washington State SOST was implemented by JRA in January 1998.

In 1997, the Washington State Legislature also required JRA to implement policies to protect the youth committed to JRA custody. JRA placement considerations must include providing a safe and secure environment that precludes any sexual activity among the resident youth. Sleeping room assignments must avoid placing youth together who are likely to engage in sexual activity. Placement must minimize unsupervised contact among youth likely to engage in sexual activity. Finally, JRA staff must increase supervision of these populations to reduce the risk of sexual activity.

The Legislature directed JRA to develop an assessment process to identify sexually aggressive and sexually vulnerable youth by January 1998. In response, JRA developed the Sexually Aggressive and Vulnerable Youth Residential Screen (SAVY).[15] JRA implemented the SAVY in January 1998.

Purpose

Since the SAVY and the SOST were just recently implemented, it is too soon to conduct an evaluation. The purpose of this section of the report is to establish a research design for evaluating both the SOST and the SAVY.

[15] *An Assessment of Sexually Aggressive and Youth Vulnerable to Sexual Victimization in Juvenile Rehabilitation Administration Facilities*, 1997.

SOST Evaluation Design

The Minnesota Sex Offender Screening Tool (SOST) was adopted for sex offender classification and law enforcement notification in Washington State. The purpose of the SOST is to provide a standard risk level assignment for law enforcement public notification by the Department of Corrections, the Indeterminate Sentence Review Board, and JRA. There are three risk levels from lowest to highest risk: Level 1, Level 2, and Level 3. The Washington State SOST was implemented by JRA in January 1998. The items from Part I (Risk Assessment) and Part II (Other Considerations) for classification are summarized in Table 4.1.

Table 4.1: **Washington State Sexual Offender Screening Tool (SOST): Items and Item Scores**

	Part I — Risk Assessment	Score
1.	Number of sex/sex related convictions	8
2.	Number of convictions for felony offenses excluding sex/sex related convictions	5
3.	Other sex/sex related arrests or charges not resulting in conviction	1
4.	Age at first conviction or adjudication for a sex/sex related offense	4
5.	Use or threat of weapon in sex/sex related offenses	6
6.	Total number of all victims in sex/sex related offenses	8
7.	Age of victims of sex/sex related offenses at the time of the offense	7
8.	Use of force in sex/sex related offenses	8
9.	Other characteristics of sex/sex related offenses: victim tied up, duration, victim transportation, victim torture/mutilation	12
10.	Length of sexual offending history	3
11.	Felony committed upon previous release from institution/secure facility/halfway house	8
12.	Alcohol/drug use pattern	4
13.	Prior sex offender treatment/programming	6
14.	Number of significant/marital relationships	3
15.	Early school history pattern	4
16.	Presence of multiple paraphilias: fetishism, pedophilia, voyeurism, beastiality, exhibitionism, frotteurism/frottage, sexual sadism, sexual masochism, obscene phone calling, rape NOS	6
17.	Release environment	4
18.	Age at release from institution/confinement	4
19.	Discipline history while incarcerated	8
20.	Chemical dependency treatment while incarcerated or on release	6
21.	Sex offender treatment while incarcerated or on release	6
	Part II — Other Considerations	
A.	Non-family member victim(s) of sex offense were particularly vulnerable	
B.	Sex offenses(s) were of a predatory nature, position of trust or authority used	
C.	Offender continued to act out sexual deviancy during incarceration	
D.	Offender has no supervisory requirements	

Criteria for Validating the SOST

The criterion for assessing the validity of the SOST is recidivism, particularly recidivism involving violent offenses against person and sexual offenses. A validation study for the SOST should adhere to the recidivism definition submitted to the Washington State Legislature in December 1997 by the Institute.[16]

Prospective SOST Validation Design

A prospective validation of the SOST involves obtaining SOST data for a cohort of sex offenders who were released from JRA custody during 1998. The study would then track recidivism for the cohort for at least 18 months. Recidivism offenses would be measured using the Office of the Administrator for the Courts databases.

The 18-month follow-up period is intended to capture 80 percent of the re-offending behavior that would occur over a four-year follow-up period. However, sex offenders recidivate more slowly than non-sex offenders. In the September 1997 Institute report on recidivism,[17] it was estimated that approximately 60 percent of the re-offending behavior for Special Sex Offender Disposition Alternative (SSODA) youth would be captured in an 18-month follow-up period. Further analysis revealed that another 2 percent of the sex offenders re-offended every additional six months in the community. At that rate, a five-year follow-up period would be required to capture 75 to 80 percent of sex offender re-offending.

The study would use superior and limited jurisdiction court filing data in lieu of convictions in a preliminary validation of the SOST. Cases filed in court are a proxy measure for recidivism measured by convictions since a prosecuting attorney has determined that there is sufficient evidence to file a case.

The statistical analysis in the study would involve relating the recidivism during the follow-up period to SOST scores. These analyses would determine how well the SOST is able to predict recidivism, in particular felony violence and sex offenses. Preliminary results from a prospective validation would not be available until 2001 and the final results until 2005.

Retrospective SOST Validation Design

A retrospective validation of the SOST is possible using MAPPER data and the youth's physical file to obtain the SOST data for youth who were paroled or discharged to the community at least three years ago. JRA staff indicate that it is possible to construct a sample of youth from MAPPER who had a sex offense history and who were released between 1990 and 1995. A combination of MAPPER and JUVIS criminal history data could be used to construct the criminal history portions of the SOST. The remaining items on the SOST could be gathered from a review of the youth's physical file.

Some youth in this design would have a seven-year follow-up period, and all youth would have at least a two-year follow-up period, assuming there must be a one-year adjudication period.

The statistical analysis in the retrospective study would be the same as used for the prospective study. The analysis involves relating the recidivism during the follow-up period to SOST scores.

[16] *Standards for Improving Research Effectiveness in Adult and Juvenile Justice,* 1997.
[17] *Washington State Juvenile Court Recidivism Estimates: Fiscal Year 1994 Youth*, Washington State Institute for Public Policy, September 1997.

These analyses would determine how well the SOST is able to predict recidivism, in particular felony against person and sex offenses.

Recommendations Concerning the SOST

JRA information system should be modified to capture the information needed for scoring the SOST. The computer system could then automatically compute the risk score based on the information in its database. For example, the SOST requires knowing information about each sexual offense. The information system should be modified to capture information about each sexual offense including information about each victim such as victim's age at time of offense, relationship to offender, and nature of sex offense against the victim. These data may potentially be used to improve the predictive capability of the SOST.

SAVY Evaluation Design

The legislature directed JRA to develop an assessment process to identify sexually aggressive and sexually vulnerable youth by January 1998. In response, JRA developed the Sexually Aggressive and Vulnerable Youth Residential Screen (SAVY).[18] JRA implemented the SAVY in January 1998. The items and item scoring for the SAVY are summarized in Table 4.2.

***Table 4.2*: Washington State Juvenile Rehabilitation Administration Sexually Aggressive and Vulnerable Youth Residential Screen (SAVY):**

Demographic Information	Score
Documented Physical Disability	N/A
Documented Developmental Disability	N/A
Documented Mental Health Diagnosis	N/A
Current Height and Weight	N/A
Gender	N/A
Sexual Aggression Items and Score	
Documented History:	
1a. Sexual Assault Toward Peers Within Last Three Years	
Within a Home	3
Within a Residential Setting	3
Within a Community Setting	3
2a. Sexual Assault Toward Victims Two or More Years Older Than Him/Herself	1
3a. Sexual Assault Against More Than One Victim	1
4a. Sexual Assault Toward Continued Illegal Sexual Behavior Despite Legal and/or Therapeutic Intervention	3
5a. Major Mental Health Issues	1
5a. Major School Issues	1
Level of Sexual Aggression:	
Minimal	0 - 1
Low	2 - 4
Moderate	5 - 6
High	7 - 16
Sexual Vulnerability Items and Score	
Documented History:	
1v. Being Sexually Abused Within Last Three Years	3
2v. Being Physically Abused Within Last Three Years	1
3v. Routine Inability to Physically Protect Self Within Last Three Years	1
4v. Routine Exploitation by Peers Within Last Three Years	1
5v. Current Significant Impairment That Impacts Peer Interactions	1
Sexually Vulnerable Determination	
No	0 - 3
Yes	4 - 7

The purpose of the SAVY is to identify youth who are either sexually vulnerable or sexually aggressive while in residence under JRA custody. The outcome measure for both assessments

[18] *An Assessment of Sexually Aggressive and Youth Vulnerable to Sexual Victimization in Juvenile Rehabilitation Administration Facilities*, 1997.

is the occurrence of sexual incidents involving the youth. For the sexual vulnerability scale, the criterion is incidents where the youth is being sexually victimized by another youth. For the sexual aggression scale, the criterion is the youth sexually victimizing or sexually taking advantage of another youth.

To measure these criteria and to assess security and safety issues, the following data elements need to be collected:

- Whether the juvenile was the perpetrator, victim, or a consensual partner in a sexual incident.
- Whether the incident involved sexual activity, attempted sexual activity, the threat of sexual activity, or solicitation of sexual activity.
- Supervision at the time of the incident.
- The date and time of the incident.
- JRA facility where the incident occurred.
- The location within the facility such as cottage, sleeping quarters, kitchen, hallway, recreation area, etc. where the incident occurred. This information may be useful for changing supervision.

There are two possible research designs to determine the validity of the SAVY: prospective and retrospective studies.

Prospective SAVY Validation Design

The prospective evaluation design involves obtaining SAVY data for the cohort of youth admitted to JRA during 1998. The study would track any incidents of sexual conduct in which a youth in this cohort is involved until released from JRA custody. JRA staff would record in MAPPER the data elements describing the sexual incident. The data analysis would have to wait until at least 80 percent of the cohort are released from JRA custody. This may take up to two years from administration of the SAVY to capture most, if not all, of the subsequent sexual incidents.

The statistical analysis would involve relating the occurrence, or lack of occurrence, of sexual misconduct to the vulnerability and aggressiveness scales on the SAVY. These analyses would determine how well the assessment is able to predict sexual misconduct.

The main flaw in this prospective design is that the SAVY is already being used for residential placement determinations. Youth who are classified as either sexually vulnerable or aggressive are currently being segregated. This situation confounds the research design. The segregation of youth classified as sexually vulnerable or aggressive should reduce their likelihood of sexual misconduct, which in turn may make the assessment appear to be inaccurate. For those youth not assessed as being sexually aggressive or vulnerable, the study would accurately indicate whether they did or did not become involved in any sexual misconduct. For youth classified and segregated on the basis of the SAVY, the study may not be a valid indication of the accuracy of the SAVY to identify sexually aggressive or vulnerable youth.

Retrospective SAVY Validation Design

An alternative to conducting a prospective study is a retrospective study. The retrospective evaluation design involves obtaining SAVY data for the cohort of youth given the SAVY during the first six months of 1998. The study would involve reviewing the physical files of these youth and possibly interviewing the youth and staff about sexual misconduct incidents. The data elements describing these incidents would be recorded. The same data elements collected in the prospective study would be collected in the retrospective study. The retrospective study data are then used to adjust the SAVY to reflect the youth's score at the time of admission and would be used as the criterion for evaluating the validity of the SAVY. The same type of data analysis would be used in the retrospective study.

The main problem with the retrospective study is the availability and completeness of data concerning sexual misconduct incidents in the physical files. This information might be supplemented by interviewing the youth and staff, particularly those youth whose SAVY indicates they had an incident within the last three years.

SAVY Validation Recommendations

The sexual aggression scale of the SAVY relies heavily on prior incidents of sexual assault. The SAVY's scoring system should remain unchanged. However, the data captured for the SAVY should be modified to include counts and where possible dates of events to provide more information for validation. For example:

- Capture the youth's entire documented history of sexual assault and victimization beyond the last three years, indicating the year in which the assault occurred.
- Record the age of the youth, as well as the age and gender of the victim, the relationship between each victim and offender, and the use of violence, weapons, and force for each incident.
- Record the starting and ending dates of legal and therapeutic interventions along with the type of intervention following the assault.
- Including for research purposes items on the SAVY that measure attitudes toward sex, aggression, social skills, and other concepts found in the research literature to be related to sexual misconduct.

SAVY Measurement Properties

The Institute obtained copies of completed SAVY instruments and had the information from them entered into a database. Analyses of these data provide some insight concerning the measurement properties of the SAVY and JRA population.

Table 4.3 presents a frequency distribution of each item on the Demographic Information section of the SAVY for each JRA facility where the SAVY was administered. This information is not used for scoring.

Table 4.3: **Demographic Information—Percentage of Youth in Each School**

	Echo Glen	Green Hill	Indian Ridge	Maple Lane	Mission Creek	Nasselle Youth Camp	Total
Number of Youth	170	117	51	263	54	141	796
Percent of Sample	21%	15%	6%	33%	7%	18%	100%
Male Gender	64%	100%	100%	100%	100%	100%	92%
Physical Disabilities	10%	4%	8%	8%	4%	7%	7%
Developmental Disabilities	16%	7%	4%	20%	19%	11%	15%
Mental Health Diagnosis	41%	30%	12%	43%	15%	28%	34%
Height							
Missing	1%	8%	2%	2%	6%	1%	3%
Under 5.5	49%	3%	8%	11%	9%	18%	19%
5.5 to 5.8	37%	29%	24%	38%	30%	39%	35%
5.9 to 6.0	12%	47%	47%	41%	44%	34%	35%
Over 6.0	1%	13%	20%	9%	11%	8%	8%
Weight Group							
Missing	2%	9%	4%	2%	6%	1%	3%
Under 126	37%	2%	2%	14%	7%	19%	17%
126 to 150	39%	30%	37%	38%	22%	38%	36%
151 to 175	13%	28%	25%	24%	35%	21%	22%
176 to 200	6%	19%	22%	14%	26%	15%	15%
Over 200	4%	13%	10%	8%	4%	6%	7%

Results: The three major schools, Maple Lane, Green Hill, and Echo Glen account for the majority of youth in the sample. Echo Glen is the only school with females. The percentage of youth with a Mental Health Diagnosis is substantial, especially at Echo Glen and Maple Lane.

Table 4.4 displays the percentage of youth in each school having an affirmative response to the items on the sexual aggression scale. Youth with a history of sexual assault varies from 6 percent at Indian Ridge to 23 percent at Echo Glen. Youth at Echo Glen and Maple Lane have the highest percentage of Mental Health Issues with 29 and 25 percent respectively. Youth with Major School Issues are more prevalent, particularly at Indian Ridge with 61 percent.

Table 4.4: **Sexual Aggression Items—Percentage of Youth in Each School**

Sexual Aggression Items	Echo Glen	Green Hill	Indian Ridge	Maple Lane	Mission Creek	Nasselle Youth Camp	Total
1a. History of Sexual Assault	23%	14%	6%	18%	9%	18%	17%
Home	14%	3%	2%	7%	4%	10%	8%
Residential	5%	6%	2%	7%	2%	1%	5%
Community	8%	6%	2%	7%	4%	11%	7%
2a. Victim Older Than Offender	2%	3%	2%	4%	0%	9%	4%
3a. Multiple Victims	6%	9%	0%	8%	0%	17%	8%
4a. Continued Sexual Behavior	12%	9%	0%	11%	0%	19%	11%
5a. Major Mental Health Issues	29%	11%	8%	25%	7%	8%	19%
5a. Major School Issues	41%	27%	61%	25%	44%	18%	31%

Table 4.5 indicates the percentage of youth by sexual aggression level. Indian Ridge and Mission Creek had no youth classified with as High Sexual Aggression. Green Hill had the highest percentage, 8 percent, while all the other schools had 6 percent of the sample assessed as having a High Sexual Aggression. Overall, 6 percent of the sample were assessed as High Sexual Aggression.

Table 4.5: **Sexual Aggression Scores—Percentage of Youth in Each School**

Sexual Aggression Level	Echo Glen	Green Hill	Indian Ridge	Maple Lane	Mission Creek	Nasselle Youth Camp	Total
Minimal (0 – 1)	61%	82%	92%	71%	87%	64%	72%
Low (2 – 4)	26%	10%	6%	17%	11%	26%	19%
Moderate (5 – 6)	6%	0%	2%	5%	2%	4%	4%
High (7 – 11)	6%	8%	0%	6%	0%	6%	6%
Total	100%	100%	100%	100%	100%	100%	100%

The variation in the percent of youth assessed as High Sexual Aggression among the schools is assumed to be attributable to the placement policy of JRA based upon the SAVY.

Table 4.6 presents the percent of youth having an affirmative response to items on the Sexual Vulnerable Scale. Echo Glen has the highest percentage of youth who have been sexually or physically abused, and Green Hill the lowest. Echo Glenn also has the highest percentage of youth who lack the ability to protect themselves (3v), are exploited by peers (4v), and have impaired peer interactions (5v). Fifty-one percent of the youth at Echo Glen signed the assessment form while 94 percent at Indian Ridge provided a signature.

Overall, 5 percent of the sample were classified as Sexually Vulnerable. Echo Glen had the highest percent of sexually vulnerable youth at 12 percent and Nasselle Youth Camp the lowest at 1 percent.

Table 4.6: **Sexual Vulnerable Scores—Percentage of Youth in Each School**

Sexual Vulnerability Score	Echo Glen	Green Hill	Indian Ridge	Maple Lane	Mission Creek	Nasselle Youth Camp	Total
1v. Sexual Abuse	16%	6%	4%	7%	7%	5%	8%
2v. Physical Abuse	23%	3%	12%	11%	7%	11%	12%
3v. Inability to Physically Protect Self	10%	3%	2%	3%	4%	6%	5%
4v. Exploited by Peers	8%	2%	4%	4%	4%	1%	4%
5v. Impaired Peer Interaction	23%	10%	0%	14%	7%	12%	14%
Signature Concerning Sexual Abuse	51%	81%	94%	79%	87%	67%	73%
Sexually Vulnerable (4 – 7)	12%	3%	4%	5%	2%	1%	5%

Results: Echo Glen has the largest percentage of youth assessed as sexually vulnerable since this is the only school containing females. Additional analysis reveals that 4 percent of male residents at Echo Glen were scored as Sexually Vulnerable compared to 20 percent of the females. Sexual vulnerability among males varies from 1 percent to 5 percent among the six schools.

Correlations Among SAVY Items

The following analyses concern the relationships among the items within each SAVY scale and then the relationship between the SAVY aggression and vulnerability scales. The results of the analyses provide some insight into the SAVY measurement properties.

To examine how the items on the SAVY are interrelated, Table 4.7 of correlations was constructed. Only correlations that are statistically significant at the .05 probability level are shown in the table. Correlations that are at least .40 are considered to indicate a moderately strong relationship between SAVY items. Very few items were moderately correlated with each other. As would be expected, both the sexual aggression score and sexual vulnerability score were moderately correlated with the items that comprise each scale. Similarly, the sexual assault item was moderately correlated with the three items included in Item 1a, Home, Residential, and Community Assault. Other items that are moderately correlated with each other include height and weight, continued sexual behavior, and multiple victims.

A statistical technique, factor analysis, was also used to analyze the relationships among the 23 items on the SAVY. Eight factors were needed to account for 67 percent of the variation among the 23 items. This indicates that there is little redundancy among the items on the SAVY.

Correlation Results: There is little redundancy among the items on the SAVY. This can be a desirable measurement property since each SAVY item can make a relatively independent contribution to the prediction of sexual misconduct. The only instance where this may not be a desirable property is when several items are needed to form a scale that measures a more subjective concept. Sexual aggression and vulnerability are such concepts.

Table 4.7: **SAVY Item Inter-Correlations**

	Demographics							Aggression										Vulnerability					
	Height Group	Weight Group	Physical Disabilities	Developmental Disabilities	Mental Health Diagnosis	Gender	Age	Sexual Assault History	Home Sexual Assault	Residential Sexual Assault	Community Sexual Assault	Victim Older Than Offender	Multiple Victims	Continued Sexual Behavior	Major Mental Health Issues	Major School Issues	Calculated aggression	Sexual Abuse	Physical Abuse	Physically Protect Self	Exploited by peers	Impaired Peer Interaction	Calculated Vulnerable
Height Group	1.00																						
Weight Group	.52	1.00																					
Physical Disabilities			1.00																				
Developmental Disabilities			.19	1.00																			
Mental Health Diagnosis			.08	.24	1.00																		
Gender	-.27	-.09	.07			1.00																	
Age	.35	.30			-.13		1.00																
Sexual Assault History				.07	.07		-.12	1.00															
Home Sexual Assault						-.07	-.12	.65	1.00														
Residential Sexual Assault				.13	.08			.49		1.00													
Community Sexual Assault								.62	.17		1.00												
Victim Older Than Offender								.25	.15	.17	.21	1.00											
Multiple Victims					.09			.21	.13	.19	.20	.24	1.00										
Continued Sexual Behavior				.10	.10			.40	.22	.30	.33	.29	.43	1.00									
Major Mental Health Issues			.08	.25	.56		-.11	.09		.11	.09		.09	.11	1.00								
Major School Issues		-.07		.14	.10		-.16								.14	1.00							
Calculated Aggression				.16	.21		-.13	.79	.53	.48	.60	.39	.48	.75	.32	.21	1.00						
Sexual Abuse	-.09		.09		.07	.14	-	.16	.13	.11	.09		.13	.13	.09		.20	1.00					
Physical Abuse	-.11				.07	.11	-.12	.07	.13					.07	.09		.10	.24	1.00				
Physically Protect Self	-.10		.08	.10	.15	.11	-.09	.08		.09		.13		.08	.11	.07	.13	.16	.25	1.00			
Exploited by Peers				.15	.11		-.07	.11	.08	.14	.07			.13	.15	.14	.20	.08	.14	.25	1.00		
Impaired Peer Interaction	-.09	-.07		.34	.31		-.15	.11		.10	.10		.07	.14	.35	.19	.23	.07	.07	.18	.20	1.00	
Calculated Vulnerable	-.15		.11	.18	.20	.14	-.13	.20	.16	.14	.12		.14	.18	.24	.15	.30	.83	.54	.46	.37	.43	1.00

Note: Only correlations statistically significant at the .05 level are shown.

Age, Gender, ISCA, Initial Security Level, and the SAVY

The following tables describe the relationship between the SAVY Assessment and gender, age, ISCA Risk Level, and the Initial Security Level Classification.

Table 4.8 displays the relationship between gender and the SAVY assessment. Among the 732 males in the study sample, 519 or 71 percent were classified as having Minimum Sexual Aggression. Among the 59 females, 48 or 81 percent were Minimum Sexual Aggression. Only two females were assessed as Moderate or High Sexual Aggression. Only 4 percent of the males are assessed as sexually vulnerable compared to 20 percent of the females.

Gender Results: The relationships between gender and the sexual aggression and sexual vulnerability assessments are statistically significant. Females are not assessed as sexually aggressive but proportionally more females are assessed as sexually vulnerable.

Table 4.8: **Gender and the SAVY Assessment**

Sexual Aggression*	Male	Female
Minimum	519 (71%)	48 (81%)
Low	138 (19%)	9 (15%)
Moderate/High	75 (10%)	2 (4%)
Sexual Vulnerability**		
No	704 (96%)	47 (80%)
Yes	28 (4%)	12 (20%)
Total	732 (100%)	59 (100%)

Statistical significance: *ns* = not significant, * p < .10, ** p< .05

Table 4.9 indicates that 58 percent of the 131 youth who were under the age of 15 at the time of the SAVY assessment were classified as having Minimum Sexual Aggression, but that 81 percent of the youth over 17 at the time of the SAVY were Minimum Sexual Aggression. Conversely, 32 percent of the youth under 15 were Low Sexual Aggression compared to only 8 percent of youth over 17.

Age Results: Younger youth are less likely to be assessed as Minimum, but more likely to be assessed as Low Sexual Aggression. There is no such clear relationship of age to Moderate/High Sexual Aggression. The sexual vulnerability is not significantly related to age.

Table 4.9: **Age and SAVY Assessment**

	Age at Time of Assessment				
Sexual Aggression**	Under 15	15	16	17	Over 17
Minimum	76 (58%)	88 (64%)	127 (72%)	144 (80%)	114 (81%)
Low	42 (32%)	31 (22%)	34 (19%)	23 (13%)	11 (8%)
Moderate/High	13 (10%)	19 (13%)	15 (8%)	14 (8%)	16 (12%)
Sexual Vulnerability*ns*					
No	122 (93%)	130 (94%)	167 (95%)	173 (96%)	136 (96%)
Yes	9 (7%)	8 (6%)	9 (5%)	8 (4%)	5 (4%)
Total	131 (100%)	138 (100%)	176 (100%)	181 (100%)	141 (100%)

Statistical significance: *ns* =not significant, ** p< .05

Table 4.10 displays the relationship between the ISCA Risk Level and the SAVY assessment. Of the 220 Low ISCA Risk youth, 15 percent were Moderate/High Sexual Aggression compared to 6 percent of the High ISCA Risk youth.

ISCA Risk Level Results: Low Risk youth are more likely to be assessed as Moderate/High Sexual Aggression. Slightly more High Risk youth are assessed as sexually vulnerable but this is not a statistically significant difference.

Table 4.10: **ISCA Risk Level and SAVY Assessment.**

	ISCA Risk Level		
Aggressive	Low	Moderate	High
Sexual Aggression*			
Minimum	131 (60%)	289 (77%)	112 (75%)
Low	56 (25%)	52 (14%)	29 (19%)
Moderate/High	33 (15%)	34 (9%)	9 (6%)
Sexual Vulnerability*ns*			
No	208 (95%)	361 (96%)	139 (93%)
Yes	12 (5%)	14 (4%)	11 (7%)
Total	220 (100%)	375 (100%)	150 (100%)

Statistical significance: *ns* = not significant, * p < .10

In Table 4.11, proportionally fewer Minimum security youth are assessed as Moderate/High Sexual Aggression than Medium or Maximum security. Medium and Maximum security level youth are equivalent with regard to their Sexual Aggression level.

There are no differences in the percentage of youth assessed as sexually vulnerable and security classification.

Table 4.11: **Initial Security Classification Level and SAVY Assessment**

	Initial Security Classification		
	Minimum	Medium	Maximum
Sexual Aggression**			
Minimum	77 (84%)	266 (68%)	189 (72%)
Low	9 (10%)	82 (21%)	46 (18%)
Moderate/High	6 (6%)	44 (13%)	26 (10%)
Sexual Vulnerability*ns*			
No	87 (95%)	371 (95%)	250 (96%)
Yes	5 (5%)	21 (5%)	11 (4%)
Total	92 (100%)	392 (100%)	261 (100%)

Statistical significance: *ns* = not significant, ** p < .05

Initial Security Classification Results: Minimum security youth are more likely to be assessed as Minimum Sexual Aggression. Slightly more medium and maximum security youth are assessed as Moderate/High Sexual Aggression. There is no relationship between sexual vulnerability and initial security level.

Summary: Table 4.12 summarizes the findings relating sexual aggression and vulnerability to gender, age, ISCA and security level. Being male, having a low ISCA Risk Level and having a Medium or Maximum Security Classification are associated with being assessed as Moderate/High Sexual Aggression. The only factor significantly related to being assessed as vulnerable is being female.

Table 4.12: **Summary of Relationship of SAVY Assessment to Gender, Age, ISCA, and Initial Security Classification**

	Assessment Result	
	Sexually Aggressive	Sexually Vulnerable
Gender	Male	Female
Age	Conflicting	No relationship
ISCA Risk Level	Low	No relationship
Security Classification	Medium or Maximum	No relationship

Sex Offense History as a Pre-Screen for the SAVY

Table 4.13 indicates that 86 percent of the 594 youth with no history of sex offenses are Minimum Sexual Aggression compared to 30 percent of the youth with a sex offending history. Only 15 youth or 3 percent of the 594 youth with no sexual offense history are Moderate/High Sexual Aggression. Thirty-one percent of the youth with a sex offense history are Moderate/High Sexual Aggression. Sixty-three of the 78 youth assessed as moderate or high on sexual aggression had a sex offense history. That is 81 percent of the youth assessed as sexually aggressive have a sex offense history.

Four percent of the youth with no sex offense history were assessed as being sexually vulnerable, compared to 8 percent of the youth with a sex offense history. The odds of being assessed as sexually vulnerable double for youth with a sex offense history, but the percentage of sex offenders who are sexually vulnerable is still low. More youth who do not have a sex offense history were assessed as sexually vulnerable than youth without a sex offense history.

Table 4.13: **Sexual Offense History and SAVY Assessment**

	History of Sex Offenses		
Sexual Aggression**	No History	History	Total Youth
Minimum	509 (86%)	61 (30%)	570 (72%)
Low	70 (12%)	78 (39%)	148 (18%)
Moderate/High	15 (3%)	63 (31%)	78 (10%)
Sexual Vulnerability**			
No	570 (96%)	186 (92%)	756 (95%)
Yes	24 (4%)	16 (8%)	40 (5%)
Total	594 (100%)	202 (100%)	796 (100%)

Statistical significance: *ns* = not significant, ** $p < .05$

Results: Youth with a history of sex offenses are much more likely to be assessed as sexually aggressive and only slightly more likely to be assessed as sexually vulnerable.

In Table 4.14, the combination of the sexually aggressive and vulnerable assessments are examined in relation to a sex offense history. Only 2 percent of the entire study sample were assessed as being both high or moderate on sexual aggression and sexual vulnerability, and only 6 percent of youth with a sex offense history were both aggressive and vulnerable.

Youth who were assessed as either vulnerable or aggressive represent 13 percent of the entire sample and 33 percent of youth with a sex offense history.

***Table 4.14*: Sexual Offense History and Combination of Sexual Vulnerability and Aggression**

SAVY Assessment	No Sex Offense History	Sex Offense History	Total
Neither Aggressive[1] nor Vulnerable	557 (94%)	135 (67%)	692 (87%)
Aggressive Only	13 (2%)	51 (25%)	64 (8%)
Vulnerable Only	22 (4%)	4 (2%)	26 (3%)
Both Aggressive and Vulnerable	2 (0%)	12 (6%)	14 (2%)
Either Aggressive or Vulnerable	37 (6%)	67 (33%)	104 (13%)
Total	594 (100%)	202 (100%)	796 (100%)

[1]Aggressive is defined as having a moderate or high aggressive score.

Multivariate Analysis: A multivariate analysis (linear regression) was conducted to see how well gender, age, ISCA Risk Level, initial security classification, and having a history of sex offenses predict both the sexual aggression and sexual vulnerability assessment scores. For sexual aggression, the combination of sex offense history and ISCA Risk Level were significantly related to the aggression score, accounting for 33 percent of the aggression score variance. For sexual vulnerability, the combination of gender, age, ISCA Risk Level, and sex offense history made significant contributions but accounted for only 8 percent of the variance in the score. The sex aggression score can be predicted better than the sexual vulnerability score.

Results: Sex offense history is a fairly good pre-screen for being assessed as sexually aggressive but not sexually vulnerable. That is, using sex offense history to pre-screen youth for sexual aggression will capture 8 out of 10 youth who are sexually aggressive. Using sex offense history to pre-screen youth for sexual vulnerability would fail to capture the majority of youth who were assessed as sexually vulnerable. Pre-screening could be used to reduce the number of youth given both the aggression and vulnerability portions of the SAVY.

SECTION V: INTENSIVE PAROLE RISK SCREENING

Background

The 1997 Legislature directed JRA to place up to 25 percent of the highest-risk juvenile offenders in an intensive parole supervision program. This selection criterion requires JRA to assess the risk of all youth in order to determine the 25 percent that are the highest risk. JRA requested that the Institute recommend a process for selecting the highest-risk youth for participation in intensive parole. The recommendation is to include a risk assessment process for use while on intensive parole. This assessment would be used for making adjustments to the youth's level of supervision and assigned intervention programs.

Intensive Parole Model

To gain an understanding of the Intensive Parole Model, Institute staff participated on the Intensive Parole Advisory Committee. The Institute also reviewed the risk assessment process within JRA and the Intensive Parole Standards.

The intensive parole model involves a residential and a community component. The residential component requires a risk assessment be done within 15 days following commitment. This initial risk assessment identifies those youth eligible for intensive parole. The risk assessment is then used to help direct case planning efforts while the youth is still in JRA custody.

For the community component of the Intensive Parole Program, the youth's initial level of risk is needed to establish a baseline of risk. The youth is then re-assessed regularly while on supervision to monitor his or her progress. These community assessments include dynamic risk and protective factors that relate to re-offending and can be targeted for change. Positive changes in these risk factors imply that the youth's risk for re-offending is decreasing; negative changes imply that the youth's risk for re-offending is increasing. This risk information will be used to make adjustments to the youth's community supervision and programming.

Recommended Risk Assessment Process

The Institute recommends using the ISCA to identify youth eligible for the Intensive Parole Program shortly after the youth is committed.

The Institute recommends that the Intensive Parole Project use the Washington State Juvenile Court Risk Assessment (WSJC-RA) in combination with JRA Competencies to direct intensive parole programming and case management while the youth is in residence. The WSJC-RA was developed as a comprehensive assessment for guiding intervention program assignments and measuring treatment progress.

The Institute recommends using the ISCA and CRA in combination to assess the youth's level of risk at the time of release onto Intensive Parole. JRA can decide whether or not to place a youth with a low CRA score into the community component of the Intensive Parole Program.

The Institute recommends using the dynamic risk and protective factors on the WSJC-RA in combination with JRA Competencies for managing the youth while on intensive parole in the community.

SECTION VI: NATIONAL RESEARCH

Introduction to National Research on Risk Assessments

JRA requested that the Institute compare the Initial Security Classification Assessment (ISCA) and Community Risk Assessment (CRA) to national models. The Institute reviewed the research literature on assessing the risk for re-offense among juvenile offender populations.

Risk prediction in the juvenile justice system has been evolving for over 30 years. As a result, there is extensive research literature on risk prediction in the juvenile justice system. Robert Hoge's and Don Andrews' recent book, *Assessing the Youthful Offender, Issues and Techniques,*[19] presents a good academic review of the topic. The Office of Juvenile Justice and Delinquency Prevention's *Guide for Implementing the Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders*[20] is an excellent source of practical information. David Farrington's and Roger Tarling's *Prediction in Criminology,*[21] provides a good review of methodology as does Peter R. Jones's article *Risk Prediction in Criminal Justice.*[22]

The ISCA and CRA are compared to the national research literature in three ways. First, the ISCA and CRA are reviewed in light of the characteristics of good assessment systems. Then a description of how these JRA assessments vary along measure system dimensions is provided. Finally, the content of the assessments is reviewed. The first two reviews are intended to provide a general understanding of what the research says about risk assessment systems. This background may help provide a context for understanding how well the ISCA and CRA correspond to the risk assessment research literature in the third review.

[19] Robert Hoge and Don Andrews, *Assessing the Youthful Offender, Issues and Techniques,* 1996, Plenum Press, New York.
[20] *Guide for Implementing the Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders,* 1995, Office of Juvenile Justice and Delinquency Prevention.
[21] Farrington and Tarling, 1985.
[22] Peter R. Jones, *Risk Prediction in Criminal Justice*, 1994, National Institute of Corrections Conference, Public Protection Through Offender Risk Management.

Characteristics of Good Assessment Systems

Even though techniques and knowledge of what works in risk prediction continues to develop, the following characteristics of a good risk assessment system have remained unchanged:[23]

(a) provision of clear operational definitions to avoid ambiguity;

(b) adequate reliability across raters and decision makers;

(c) sufficient validity with respect to what is to be predicted by the assessment system;

(d) sufficient dynamic properties so that changes in attributes, behavior, or status would be reflected by a change in assessment status;

(e) implications for treatment or intervention; and

(f) cost-effective assessment of large numbers of offenders.

Table 6.1 and Table 6.2 provide a summary of the ISCA and CRA relative to Megargee's characteristics of a good risk assessment system. However, even a good assessment system for one population of juvenile offenders may not work well with another population.[24] The JRA population represents approximately one percent of first-time juvenile offenders sentenced in Washington State.[25] The juvenile sentencing system commits to JRA custody only youth convicted of a serious crime or youth with an extensive record of convictions. Because of this selection, risk prediction for JRA youth may involve unique factors as well as the factors commonly found in the research literature on predicting recidivism. In addition, factors found to be good predictors in other juvenile offender populations may not work well with the JRA population. Empirical analyses are required to determine the best set of predictors for JRA youth.

Results: Generally speaking, both the ISCA and CRA have several characteristics of good assessment systems. The ISCA's strongest attributes are that it has been empirically validated and is operationally cost-effective to administer. The ISCA weakness involves a need for more detailed operational definitions and the inclusion of additional dynamic properties.

The CRA's strong points are improved operational definitions and the CRA's implications for treatment and progress. The CRA's weakness involves a need for empirical validation and the inclusion of additional dynamic properties.

[23] E. I. Megargee, "A new classification system for criminal offenders," *Criminal Justice and Behavior*, 1977, 4:107-114.
[24] Todd Clear, "Developing a Universal Risk-Assessment Form: We're Closer, But Not There Yet," *Community Corrections Report*, May/June 1997, Volume 4, No. 4.
[25] Robert Barnoski, *First-Time Juvenile Offenders in Washington State: Where Do They Serve Their Sentence?*, February 1996, Washington State Institute for Public Policy.

Table 6.1: The ISCA in Relation to the Characteristics of a Good Risk Assessment System

Characteristics of a Good Risk Assessment System[26]	**ISCA in Relationship to Good Risk Assessment Characteristics**
(a) Provision of clear operational definitions to avoid ambiguity.	The ISCA lacks a detailed manual for training and reference purposes.
(b) Adequate reliability across raters and decision makers.	These ISCA items are objective and should have good reliability: Prior Adjudications, History of Escapes, and Prior Commitments. These items are fairly objective but could have better operational definitions: Prior Assaultive Behavior, Age at First Adjudication, and Compliance With Facility Regulations. These items are more subjective and need better operational definitions: Impulsive/Hostile Response to Frustration, Chemical/Alcohol Use and possibly more items to measure the concept, Problem Solving Skills, and Peer Relationships.
(c) Sufficient validity with respect to what is to be predicted by the assessment system.	The ISCA is as good a predictor as any of the validated assessment tools in use.
(d) Sufficient dynamic properties so that changes in attributes, behavior, or status would be reflected by a change in assessment status.	The ISCA includes one item measuring attitudes (Impulsive/Hostile Response to Frustration), and one item measuring life skills (Problem Solving Skills). JRA relies upon the CRA to capture changes in institutional behavior. The ISCA could include more dynamic risk and protective factors in the area of attitudes and life skills.
(e) Implications for treatment or intervention.	The ISCA includes six items that are related to treatment or intervention: Assaultive Behavior, Impulsive/Hostile Response to Frustration, Chemical/Alcohol Use, Compliance With Facility Regulations, Problem Solving Skills, and Peer Relationships. The ISCA could include more items to guide rehabilitative efforts such as criminogenic attitude and social skill items.
(f) Cost-effective assessment of large numbers of offenders.	Based on its brevity, the ISCA appears to be operationally cost-effective. Operational cost-effectiveness could be enhanced with increased reliance on computer automation.

[26] Megargee, 4:107-114, 1977.

Table 6.2: ***The CRA in Relation to the Characteristics of a Good Risk Assessment System***

Characteristics of a Good Risk Assessment System[27]	**ISCA in Relationship to Good Risk Assessment Characteristics**
(a) Provision of clear operational definitions to avoid ambiguity.	The CRA uses a manual for training and reference purposes that includes more explicit operational definitions.
(b) Adequate reliability across raters and decision makers.	Because the CRA includes a training and reference manual, the reliability of the items is improved and appears to be sufficient on face value.
(c) Sufficient validity with respect to what is to be predicted by the assessment system.	The CRA is not as good a predictor of recidivism as the ISCA. The CRA can enhance the predictive capability of the ISCA for some categories of juvenile offenders.
(d) Sufficient dynamic properties so that changes in attributes, behavior, or status would be reflected by a change in assessment status.	Except for the ISCA and Offense Seriousness items, the CRA consists entirely of dynamic items that reflect institutional misconduct, program progress. The CRA includes one item measuring attitudes (Impulsive/Hostile Response to Frustration), and one item measuring life skills (Problem Solving Skills). The ISCA could include more dynamic risk and protective factors in the area of attitudes and life skills and more information on participation and completion of institutional programs.
(e) Implications for treatment or intervention.	Most of the CRA items are related to treatment or intervention. The CRA could include more items to measure progress and guide rehabilitative efforts.
(f) Cost-effective assessment of large numbers of offenders.	Based on its brevity, the CRA appears to be very cost-effective. Operational cost-effectiveness could be increased with greater use of computer technology for both CRA information and automating CRA computations.

[27] Megargee, 4:107-114, 1977.

Risk Assessment Dimensions

In reviewing the literature on risk assessments, there are several dimensions along which assessments vary:

- the type of classification model employed, either a typology or a scale;
- the major domains of information included in the assessment such as personal history, school, family, peers, attitudes, social skills, and mental health;
- the types of items that measure each domain: static, dynamic, and protective;
- the number of items included in each domain;
- the weighting scheme for each item and each domain; and
- the wording used for each item and item response.

This is an intimidating set of considerations. At the end of the chapter on Criminal Prediction: An Introduction,[28] David Farrington reduces these considerations to two fundamental principles. "Theoretical considerations should guide the choice of predictors, the choice of criteria, and the methods of selecting and combining predictors into a prediction instrument. Also, there is a pressing need for better methods of measuring predictors and criteria and for the use of multiple measures. What is measured should not be determined by what is available but by what is theoretically desirable and by the considerations of validity and reliability."

This report provides a brief description of these measurement considerations and attempts to use a theoretical framework and organization to compare the JRA assessments to the research literature.

Type of Classification Model: There are two broad types of classification models—typologies and risk scales. Typologies aggregate youth into subgroups that share common symptoms, etiology, behavioral attributes, and other relevant characteristics. Each subgroup is often given a name that symbolically represents the youth within the group. A typology developed for use with juveniles is Lerner's Strategies for Juvenile Supervision[29] (SJS), which was piloted at Maple Lane. The purpose of the SJS is to develop strategies for supervision based on four offender types: selective intervention, casework control, environmental structure, and limit setting. These supervision strategies could include housing segregation, styles of communication, and specific programming interventions. These typologies are often based on theoretical or clinical considerations as well as being empirically derived.

The risk scale assessment produces a score that places the youth into a risk level. The risk levels vary from low risk to high risk. The risk level is primarily used for placement into a security level (minimum to maximum security) or community supervision level (low level of supervision to intensive supervision). There are risk scale assessments for specific populations such as sex offenders. These risk scales are always empirically derived. The ISCA, CRA, SOST, and SAVY assessments fall into the risk scale type of classification model.

[28] Farrington and Tarling, 1985.
[29] Christopher Baird and Deborah Neuenfeldt, "The Client Management Classification System," *FOCUS*, August 1990, The National Center on Crime and Delinquency.

Major Domains of Information: The next consideration concerns what information should be included in the classification model. The Washington State Juvenile Court Risk Assessment was developed to comprehensively cover the major domains of information identified in the research literature as being related to juvenile delinquency and continued criminal activity by youth. The one domain that is under-represented in this assessment model is a measure describing the risk and protective factors of the community in which the youth lives. An additional domain needs to be added to include the behavior of the youth while confined in a correctional facility. Since the WSJC-RA represents a comprehensive set of domains based on the research literature, these domains will be used to organize the comparison of the ISCA and CRA with the research literature. The 11 domains of the WSJC-RA and the 12th domain for progress while confined are:

1. Criminal History
2. School
3. Use of Free Time
4. Employment
5. Relationships
6. Family
7. Alcohol and Drugs
8. Mental Health
9. Attitudes
10. Social Skills
11. Progress on Community Supervision
12. Progress While Confined

Appendix E reviews the ISCA in relation to the domains in the Washington State Juvenile Court Risk Assessment. Appendix F presents Robert Hoge's summary of predictors of re-offense, and Appendix G presents Don Andrews' list of good predictors. Appendix H presents the factors mentioned in the OJJDP's 1995 Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders. The National Center on Crime and Delinquency has worked with over 25 states on developing risk assessment instruments. The National Center on Crime and Delinquency's summary of the risk and need factors used in other states is provided in Appendix I.

Types of Items That Measure Each Domain: There are two types of items that may be involved in the measurement of each domain: risk and protective factors. David Hawkins and Richard Catalano[30] have developed a prevention model that includes protective factors as well as risk factors. Protective factors are events or circumstances in the youth's life that reduce the likelihood of the youth committing a crime. An example is having a good relationship with a positive adult role model. Risk factors are circumstances or events in the youth's life that increase the likelihood that the youth will start or continue criminal activities. Two empirically derived risk factors that are included in nearly all juvenile risk assessments are age at first offense, and the number of prior convictions.

Risk and protective factors can be static or dynamic. Dynamic factors are circumstances or conditions in a youth's life that can potentially be changed, such as the youth's friends or school performance. Static factors are events in a youth's life that are historic and cannot be changed,

[30] J.D. Hawkins, R.F. Catalano, and J.Y. Miller, "Risk and Protective Factors in Adolescence and Early Adulthood: Implications for Substance Abuse Prevention," *Psychological Bulletin*, 1992, 112:64-105.

such as the youth being physically abused. The factors typically employed in assessments have measured static risk factors.

Protective factors have not historically been included in risk assessments. They were included in the assessment process for Washington State's Juvenile Court Early Intervention and Accountability Program and preliminary results indicate that protective factors have predictive capability in addition to risk factors. The Hawkins and Catalano model emphasizes the need to strengthen protective factors thereby mitigating the influence of risk factors, as well as reducing risk directly.

A third type of information that appears in the risk assessment literature is needs. Needs are defined as critical problem areas in the youth's life. Traditionally need assessments were used to ensure certain problems were considered in the case plan and in the determination of specific program interventions. Don Andrews, James Bonta, and Robert Hoge have made the argument that the juvenile justice system should focus on those needs that are related to re-offending. They call these criminogenic needs. In this sense, there may be little difference between a dynamic risk factor and a criminogenic need, although this distinction continues to appear in the research literature.

Number of Items Included in Each Domain: The next consideration in examining risk assessment systems is the number of items to include in each domain. This issue involves understanding the concept being measured, and the reliability, sensitivity, and validity of items measuring the concept. Concepts that are either subjective or very broad require multiple items to form a scale. A scale consists of the sum of the scores associated with each item that is included in the scale. Each item in the scale must be correlated with the criteria measure, recidivism. Each item can be moderately correlated with the other items in the scale as long as the average correlation among the items within the scale does not exceed the average correlation between the scale items and recidivism. Linear combinations of items with these properties can have much stronger predictive capability that any single item. That is, employing several items to measure a single concept, but in slightly different ways, may improve the predictive capability of the more subjective concepts. Having multiple items in each scale also improves the reliability of the scale beyond the reliability of the single items within the scale. Because scales take on a wider range of score values, the scale can more sensitively measure the concept. The ability to potentially improve prediction by including more items and concepts in the assessment is often in conflict with the desire to have easy and quick assessments.

Weighting of Each Item and Domain: Once the items that comprise an assessment are defined, the relative weight or score to assign to each item or scale must be an empirically determined. These item scores are summed to produce a total assessment score. Typically, multivariate statistical techniques such as linear or logistic regression are used to determine the item scores. Unfortunately, these empirically derived weighting schemes are subject to "shrinkage"[31] in predictive capability when the weighting scheme developed in one sample is applied to another sample. Shrinkage means the predictive capability of the assessment is substantially reduced. For this reason, simpler weighting schemes, which are not as subject to shrinkage, are usually employed. These simpler schemes assign whole numbers to each item response or scale that capture relative importance in a more robust way.

[31] John P. Copas, "Prediction Equations, Statistical Analysis, and Shrinkage," Chapter 12 in *Predication in Criminology,* David Farrington and Roger Tarling (eds.), State University of New York Press, 1985.

Wording Used in Each Item and Item Response: The last consideration for risk assessments is the detailed wording of items and responses. A prerequisite for reliability is having each concept well defined and well understood by those doing the assessment. A great deal of care in the wording and definition for each item and response category to the item must be taken. It is helpful to provide a theoretical understanding of each concept and item. In practice, even seemingly simple items, like the number of convictions, can become complicated to measure. Are we counting offenses, adjudications, sentences, etc.? This requires having training manuals and training sessions to ensure that those doing the assessments are understanding the concepts being measured. A periodic review of the assessment system is required to ensure the practice is not slowly moving away from the original definitions and principles.

Table 6.3 summarizes how the ISCA varies along the dimensions describing the properties of risk assessments.

Table 6.3: The ISCA and the Dimensions Along Which Risk Assessments Vary

Risk Assessment Dimensions	ISCA in Comparison to Dimensions
Type of classification model employed (typology or scale).	The ISCA is a risk assessment scale.
Major domains of information included in the assessment such as personal history, school, family, peers, attitudes, social skills, and mental health.	The ISCA includes at least one item in four of the ten domains used in the Washington State Juvenile Court Risk Assessment. The ISCA could be expanded to include more domains.
Type of items that measure each domain (static, dynamic and protective).	The ISCA includes static and dynamic risk factors and not protective factors.
Number of items included in each domain.	Criminal history is the only domain on the ISCA containing several items.
Weighting scheme for each item and each domain.	The ISCA uses an additive weighting scheme that is typical of risk assessment scales. In the scoring scheme, the static criminal history domain accounts for 31 of the possible 41 maximum points. This weighting was empirically derived. Including more domains that include several items may reduce the weight for the criminal history domain.
Wording used for each item and item response.	The wording describing each item and item response is sparse and could be embellished to provide more definition.

Results: The measurement properties of the ISCA could be improved by including more measurement domains and more dynamic and protective items within the domains. An empirical validation study would need to be conducted to evaluate any improvements in predictive capability.

Comparison of JRA's Initial Security Classification Assessment to the Washington State Juvenile Court Risk Assessment

The Washington State Juvenile Court Risk Assessment was developed to comprehensively cover the major life domains identified in the research literature as being related to juvenile delinquency and continued criminal activity by youth. The one domain that is under-represented in the Juvenile Court assessment is the community in which the youth lives. Table 6.4 summarizes the inclusion of items on the ISCA by the 12 risk domains.

Table 6.4: **Summary of ISCA Comparison to 12 Risk Domains**

Life Domain	WSJC-RA	ISCA
1. Criminal History	√	√
2. School	√	
3. Use of Free Time	√	
4. Employment	√	
5. Relationships	√	√
6. Family	√	
7. Alcohol and Drugs	√	√
8. Mental Health	√	
9. Attitudes	√	
10. Social Skills	√	√
11. Progress on Community Supervision	√	N/A
12. Progress Under Confinement	N/A	N/A

The ISCA includes several items that are found on the WSJC-RA (Appendix E). The ISCA includes items that are included in most juvenile offender risk assessments (see Appendices E through H). These items are: age at first adjudication, number of prior adjudications, prior assaultive behavior, peer relationships, number of prior commitments, and chemical/alcohol use. Items on the ISCA that are not as universally included on risk assessments but are included on the WSJC-RA are: impulsive/hostile response to frustration, problem-solving skills, and history of escapes. Compliance with facility regulations is a somewhat unique ISCA item that is present because JRA youth are held in custody prior to admission to JRA.

Since the Washington State juvenile courts will be completing their comprehensive assessment for youth committed to JRA, data from the ISCA and the WSJC-RA can be compared. Within three years, preliminary data will be available to compare the predictive capability of the ISCA and the WSJC-RA.

Conclusion

The ISCA contains items that are typically found on juvenile risk assessments, and the Institute recommends the continued use of the ISCA. The Institute recommends comparing data from the ISCA and the Washington State Juvenile Court Risk Assessment for a sample of youth assessed during fiscal year 1999.

Comparison of JRA's Community Risk Assessment to the Research Literature

David Farrington[32] reviewed the research on predicting recidivism using behavior of the youth while confined in a juvenile justice institution. After acknowledging difficulties in comparing the research, he concluded, "Institutional misconduct seems to be the most reliable institutional predictor of recidivism. Parole prognosis is often predictive, but is subjective. The predictive utility of work or education in prison or of frequency of family contacts in prison is less clear. More research is clearly needed."

The measurement of institutional misconduct usually involves counting misconduct incidents by type of misconduct. Several CRA items are used to measure misconduct: escapes/attempted escapes, assaultive behavior, chemical/alcohol use, peer victimization, and new adjudications.

Two items on the CRA measure progress while confined: compliance with facility regulations, and progress in specialized training. These items have not been thoroughly assessed and validated in the research literature.

Two CRA items measure social or life skills: problem-solving skills and response to or tolerance of frustration. Researchers at the NCCD consider these to be "needs" while the Canadian researchers[33] consider these to be "dynamic risk factors." Social learning theory indicates that these skills are important determinants of criminal behavior.

Since additional research is needed concerning the predictive capability of institutional behavior, JRA should collect additional data for potential improvements in the predictive capability of the CRA.

Recommendations

The Institute recommends the continued use of the CRA in combination with the ISCA for security reclassification and group home placement. The Institute recommends including more data elements measuring the youth's attitudes, behaviors, and progress while confined in JRA's database. These data can be used to supplement the CRA items in additional validation studies.

[32] Farrington, 1985.
[33] Hoge and Andrews, 1996.

SECTION VII: REVISIONS TO THE ISCA AND CRA

Introduction

The analyses of the ISCA and CRA presented in Sections II and III indicated that the capability of both assessments to predict felony recidivism can be modestly improved. This section proposes how these instruments can be revised for improved recidivism prediction. The ISCA revisions are discussed first, followed by a description of the CRA revisions.

INITIAL SECURITY CLASSIFICATION ASSESSMENT

The ISCA consists of a risk level and an offense seriousness level. The risk level portion of the ISCA was developed by the Juvenile Rehabilitation Administration to predict the likelihood of a youth re-offending once released into the community. The offense seriousness portion of the ISCA holds youth accountable for the offenses that resulted in a commitment to JRA custody.

Based on the risk scores, youth are placed in a low, moderate, or high risk level. The offense seriousness score categorizes a youth as having a low, moderate, or high offense seriousness. The combination of risk level and offense seriousness level determines a youth's initial placement within JRA.

The Institute's report on validity demonstrated that three variables can add to the predictive capacity of the ISCA: *gender, age at admission,* and *sex offender history.* Incorporating these variables into the ISCA requires determining the appropriate weight for each variable in the ISCA scoring scheme. A linear regression was performed employing the same data used for the validation study. The predictor variables in the regression include the current ISCA score, and the three new variables. The age at admission variable was collapsed into three categories: under age 15, age 15 or 16, and over age 16.

Table 7.1 displays the proposed ISCA scoring scheme based on the regression. The three new variables are added to the ISCA risk level section as items K, L, and M (in bold). By adding these variables, the ISCA's correlation with 18-month felony recidivism is .31, a 29 percent increase over the current ISCA.

Table 7.1: **Proposed ISCA Risk Level Assessment Items and Item Points**

Risk Level	
A. Prior Assaultive Behavior 0 – No 3 – Yes	G. Prior Adjudications 0 – None 5 – One or two 10 – Three or more
B. Impulsive/Hostile Response to Frustration 0 – Generally does not act out 1 – Occasional hostile/impulsive response 2 – Frequent hostile of impulsive response	H. Compliance With Facility Regulations 0 – High level of compliance 1 – Moderate level 2 – No or minimal compliance
C. Age at First Adjudication 0 – 16 years or older 5 – 14 to 15 years old 10 – 13 years or younger	I. History of Escapes 0 – None 3 – Left court ordered placement/escaped
D. Chemical/Alcohol Use 0 – Non-use or experimentation only 3 – Abuse or dependency	J. Prior Commitments 0 – None 3 – One 5 – Two or more
E. Problem Solving Skills 0 – Generally displays appropriate response 1 – Inconsistently displays appropriate response 2 – Rarely or never displays appropriate response	***K. Gender*** ***0 – Female*** ***5 – Male***
F. Peer Relationships 0 – Adequate support and influence 1 – Negative influence/delinquent peers/gang	***L. Sex Offender*** ***0 – Current or historic*** ***5 – Not a sex offender***
	M. Age at Admission ***0 – Over 16*** ***5 – 15 or 16*** ***10 – Under 15***
Offense Seriousness	
N. Length of Maximum Sentence 0 – 28 weeks or less 2 – More than 28 weeks	O. Serious Offense in Current Admission 0 – No serious offense 2 – Serious offense

Table 7.2 illustrates that both the 18-month felony and violent felony recidivism rates increase with increasing ISCA scores in the ISCA validation sample. The ISCA scores are grouped into five rather than three risk levels to more clearly identify the lowest and highest risk groups.

Table 7.2: **18-Month Felony Recidivism Rates for Five Categories of ISCA Scores**

Risk Level	Revised ISCA Score Range		18-Month Felony Recidivism Percentage	18-Month Violent Felony Recidivism Percentage
Low	0	19	12%	5%
Moderately Low	20	34	27%	6%
Moderate	35	39	41%	10%
Moderately High	40	49	53%	15%
High	50	59	73%	22%
Overall Recidivism			39%	10%

Figure 7.1 graphically illustrates how both the 18-month felony and violent felony recidivism rates increase with increasing proposed ISCA scores. The ISCA identifies groups of youth with high felony recidivism better than identifying groups with high violent felony recidivism.

Figure 7.1: **Relationship Between the Proposed ISCA and 18-Month Felony Recidivism Rates**

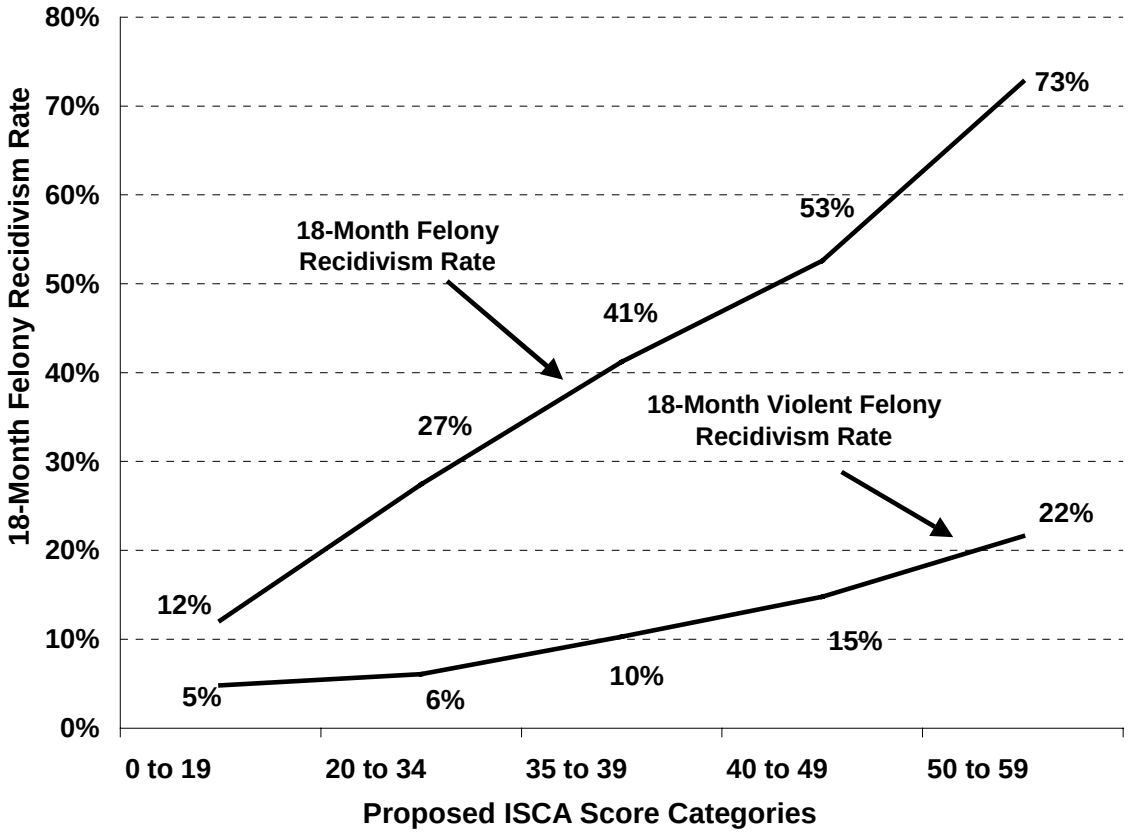


Table 7.3 demonstrates the percentage of youth in the five ISCA risk levels for a group of youth admitted to JRA during 1997. Most of these more recent admissions fall within the moderately low to moderately high-risk categories.

Table 7.3: **Percentage of 1997 JRA Admissions by Proposed ISCA Score Categories**

Risk Level	Revised ISCA Score Range		Percentage of 1997 Admissions to JRA
Low	0	19	5.4%
Moderately Low	20	34	26.0%
Moderate	35	39	19.6%
Moderately High	40	49	38.5%
High	50	59	10.4%
Total			100.0%

COMMUNITY RISK ASSESSMENT

The CRA was designed to measure an offender's rehabilitative progress and potential for risk to public safety.[34] It is primarily based upon the youth's behavior in the previous 90 days of JRA custody. The CRA is used in combination with the community eligibility date to determine if the youth can serve the remainder of his or her sentence in a state-operated community group home or a contracted residential facility. The community eligibility date is the earliest date that a youth can be considered for release from secured custody into a group home in the community. The CRA is administered no sooner than 90 days after the youth's admission and then once every 90 days.

This report also indicated the capability of the CRA to predict felony recidivism could be modestly improved. ***These findings were based upon a six-month rather than an 18-month follow-up period because of the CRA's recent implementation; a subsequent validation study should be conducted in 1999.***

Variables to retain: In the Institute's report, five CRA variables were found to contribute to the prediction of six-month felony recidivism: *assaultive behavior, compliance with regulations, problem solving, hostile response to frustration,* and *peer victimization*. The variable *progress in specialized programming* made a more modest contribution to prediction and is included in the proposed CRA for the sake of completeness.

Variables for policy: Three CRA variables were found to not contribute statistically to predicting recidivism because of their low incidence rates during JRA custody: *escapes, drug/alcohol use,* and *adjudication/pending adjudications*. As a matter of policy, JRA can use these variables in the group home decision process to exclude youth who exhibit these rare behaviors from group home placement.

Variables dropped: Improved prediction resulted when the ISCA score was removed as an item in the CRA and was explicitly used in combination with the proposed CRA in a decision table. The *offense seriousness* variable is already included in the initial assessment process and is not a good recidivism predictor, so it is not included in the CRA.

Variables added: Although three additional variables were found to improve the predictive capacity of the CRA (*gender, age at release,* and *sex offender history*), gender and sex offender history are already included in the proposed ISCA and would be redundant in the CRA. As a result, only age at release is included in the proposed CRA to be used with the proposed ISCA. The six-month felony recidivism rate for youth over age 16 at release in the CRA study sample was much lower than expected. Many of these youth are adjudicated in the adult criminal justice system which may require longer processing times. Therefore, the weight assigned to age at release was reduced.

Table 7.4 presents the CRA scheme proposed to be used in combination with the revised ISCA for group home placement decisions. *Age at release* replaces item J (in bold), and item K is dropped. The three policy items for the group home placement decision are also included. No correlation between the proposed CRA and six-month felony recidivism is given, because the proposed CRA is intended to be used in combination with the proposed ISCA.

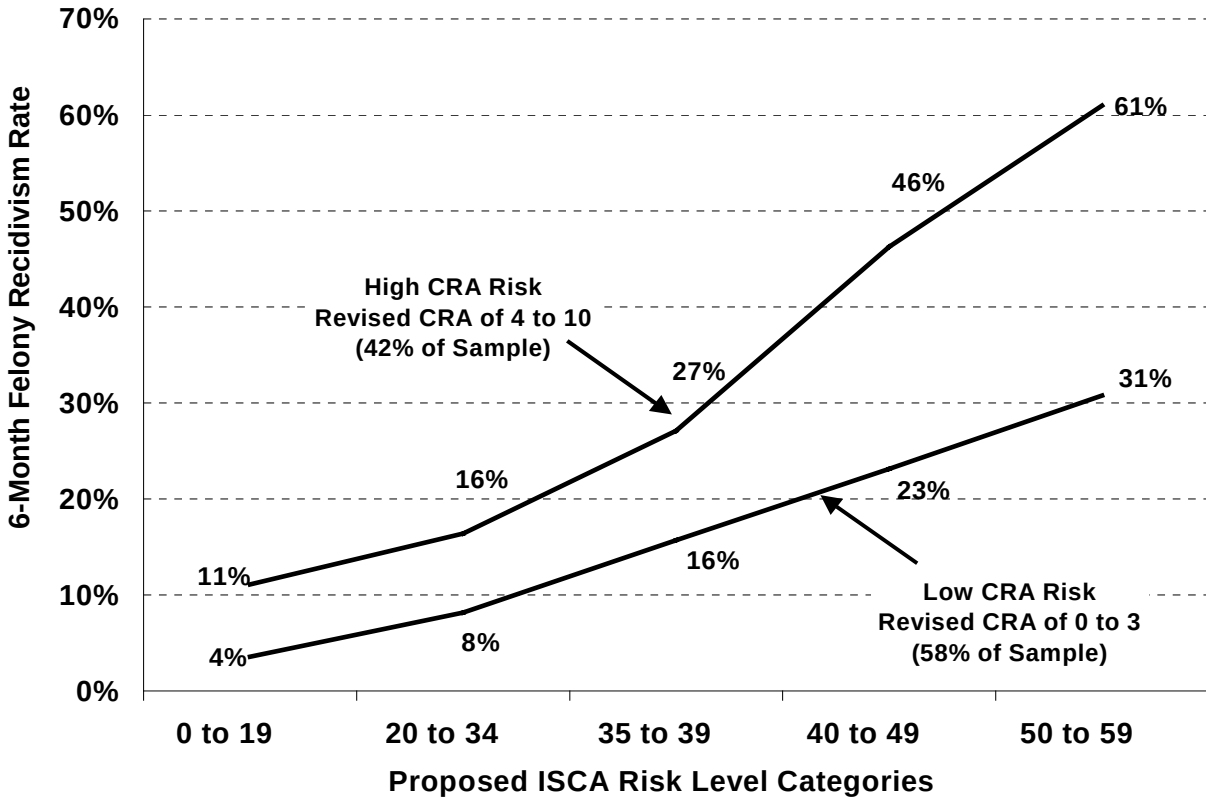
[34] *JRA Community Risk Assessment Instructional Manual*, 1995.

Table 7.4: **Proposed Community Risk Assessment Items and Item Scores**

Risk-Level Items	
B. Assaultive Behavior 0 – None 1 – One or more incidents	F. Hostile Response to Frustration 0 – Usually does not act out 1 – Frequent hostile responses
D. Compliance With Facility Regulations 0 – High level of compliance 2 – Moderate level of compliance 4 – No or minimal compliance	G. Peer Victimization 0 – Does not victimize peers 1 – Victimizes peers
E. Problem Solving Skills 0 – Generally appropriate response 1 – Rarely or never appropriate response	H. Progress in Specialized Training 0 – Moderate progress or not required 1 – No or minimal participation
	J. Age at Release ***0 – 17 or older*** ***1 – Under 17***
Group Home Placement items	
A. Escaped, Attempted, or Considered Escape C. Chemical/Alcohol Use	I. Adjudications/Pending Charges

The CRA score is grouped into a low risk level for scores of 0 to 3 and a high risk level for scores of 4 to 10. Figure 7.2 illustrates that the recidivism rate for high CRA risk youth increases substantially with ISCA risk level. For low CRA risk youth, the recidivism rates are lower, particularly at the higher ISCA risk levels.

Figure 7.2: **Relationship Between the Proposed CRA and ISCA Risk Levels and Six-Month Felony Recidivism Rates**[35]



[35] Note that the recidivism rates for CRA scores of 0 to 3 are lower than expected because the six-month follow-up probably produced artificially low recidivism rates for youth over 16. Many of these youth are adjudicated in the adult criminal justice system which may require longer processing times.

Table 7.5 demonstrates the percentage of youth in the five ISCA score categories and two CRA score categories for all youth released from JRA during 1997. The youth's CRA category is determine by the last CRA score before release to the community.

Table 7.5: **Percentage of 1997 JRA Releases by Proposed ISCA and CRA Score Categories**

Risk Level	Revised ISCA Score Range		Percentage of 1997 Releases to JRA		
			Low CRA 0 to 3	High CRA 4 to 10	Total
Low	0	19	3%	2%	5%
Moderately Low	20	34	16%	12%	28%
Moderate	35	39	10%	8%	18%
Moderately High	40	49	20%	18%	38%
High	50	59	3%	8%	11%
Total			52%	48%	100%

Summary

This report proposes revisions to the ISCA and CRA instruments. The revised ISCA has a modest improvement in predictive capability over the current ISCA. The proposed ISCA can be used for initial security classification based on JRA policy. That is, JRA can determine which security classification is most appropriate based on the proposed ISCA risk level and the existing offense seriousness.

The CRA proposed in this report is designed to be used in combination with the proposed ISCA. The combined ISCA-CRA scheme modestly improves the predictive capability of the current CRA which includes the ISCA as a item. The proposed ISCA-CRA scheme could be used for group home placement decisions based on JRA policy. That is, JRA could determine which combinations of proposed ISCA-CRA scores indicate a youth can be placed in a group home.

If the CRA is revised, its validity can be examined in 1999 when the necessary 18-month follow-up period has elapsed.

APPENDICES

APPENDIX A: CORRELATIONS AMONG ISCA ITEMS, ISCA SCORES, AND 18-MONTH FELONY RECIDIVISM

	Felony Recidivism	Total ISCA Score	Criminal History Score	Social History Score	A. Prior Assaultive Behavior	B. Impulsive or Hostile Response to Frustration	C. Age at First Adjudication	D. Chemical/Alcohol Use	E. Problem Solving Skills	F. Peer Relationships	G. Prior Adjudications	H. Compliance With Facility Regulations	I. History of Escapes	J. Prior Commitments	K. Length of Maximum Sentence	L. Serious Offense in Current Admission
Felony Recidivism	1.00	0.24	0.23	0.16	0.11	0.09	0.18	0.09	0.07	0.12	0.17	0.17	0.11	0.06	-0.04ns	-0.16
Total ISCA Score	0.24	1.00	0.98	0.58	0.39	0.38	0.70	0.42	0.28	0.34	0.81	0.40	0.35	0.42	0.06	-0.38
Criminal History Score	0.23	0.97	1.00	0.40	0.36	0.24	0.75	0.32	0.15	0.26	0.82	0.26	0.33	0.44	0.06	-0.39
Social History Score	0.16	0.62	0.40	1.00	0.25	0.62	0.18	0.76	0.54	0.45	0.37	0.62	0.24	0.16	0.06	-0.18
A. Prior Assaultive Behavior	0.11	0.38	0.36	0.25	1.00	0.27	0.12	0.08	0.13	0.11	0.15	0.29	0.14	0.06	-0.02ns	-0.08
B. Impulsive or Hostile Response to Frustration	0.09	0.38	0.24	0.62	0.27	1.00	0.17	0.15	0.38	0.22	0.14	0.50	0.17	0.04ns	0.05	-0.03ns
C. Age at First Adjudication	0.18	0.69	0.75	0.18	0.12	0.17	1.00	0.09	0.11	0.13	0.38	0.13	0.07	0.19	0.03ns	-0.18
D. Chemical/Alcohol Use	0.09	0.48	0.32	0.76	0.08	0.15	0.09	1.00	0.10	0.25	0.36	0.17	0.18	0.16	0.02ns	-0.15
E. Problem Solving Skills	0.07	0.28	0.15	0.54	0.13	0.38	0.11	0.10	1.00	0.22	0.07	0.35	0.13	0.06	0.08	-0.08
F. Peer Relationships	0.12	0.35	0.26	0.45	0.11	0.22	0.13	0.25	0.22	1.00	0.29	0.20	0.08	0.08	0.01ns	-0.18
G. Prior Adjudications	0.17	0.81	0.82	0.37	0.15	0.14	0.38	0.36	0.07	0.29	1.00	0.19	0.18	0.24	0.06	-0.43
H. Compliance With Facility Regulations	0.17	0.40	0.26	0.62	0.29	0.50	0.13	0.17	0.35	0.20	0.19	1.00	0.16	0.08	0.04ns	-0.13
I. History of Escapes	0.11	0.35	0.33	0.24	0.14	0.17	0.07	0.18	0.13	0.08	0.18	0.16	1.00	0.13	0.06	-0.15
J. Prior Commitments	0.06	0.42	0.44	0.16	0.06	0.04ns	0.19	0.16	0.06	0.08	0.24	0.08	0.13	1.00	0.06	-0.18
K. Length of Maximum Sentence	-0.04ns	0.06	0.06	0.06	-0.02ns	0.05	0.03ns	0.02ns	0.08	0.01ns	0.06	0.04ns	0.06	0.06	1.00	0.20
L. Serious Offense in Current Admission	-0.16	-0.38	-0.39	-0.18	-0.08	-0.03ns	-0.18	-0.15	-0.08	-0.18	-0.43	-0.13	-0.15	-0.18	0.20	1.00

APPENDIX B: STRENGTH OF RELATIONSHIP BETWEEN ADDITIONAL VARIABLES AND 18-MONTH FELONY RECIDIVISM

Juvenile Offender Characteristics		Percent of Sample	18-Month Felony Recidivism Rate
Over Age 16 at Release	No	55%	45.4%
	Yes	45%	31.5%
Age at Admission	Under 15	23%	49.9%
	15 to 16	46%	41.0%
	Over 16	31%	28.3%
Assigned Security Level	Minimum	15%	44.0%
	Medium	47%	37.4%
	Maximum	37%	39.3%
Ethnicity	Caucasian	59%	35.9%
	African American	16%	46.7%
	Native American	6%	46.1%
	Hispanic	14%	38.7%
	Asian	3%	50.0%
	Other	2%	44.7%
Gender	Female	8%	31.8%
	Male	92%	40.4%
Initial Security Level	Minimum	15%	48.7%
	Medium	39%	37.5%
	Maximum	46%	38.2%
Sex Offender	No	82%	43.6%
	Yes	18%	19.5%

JUVIS Criminal History		Percent of Sample	18-Month Felony Recidivism Rate
Total Offenses	1 to 2	19%	21.6%
	3 to 4	16%	35.0%
	5 to 10	44%	42.2%
	Over 10	21%	51.6%
Total Referrals	1 to 2	22%	23.9%
	3 to 4	25%	37.1%
	5 to 7	32%	42.4%
	Over 7	21%	52.0%
Total Felony Referrals	0	1%	26.1%
	1	22%	27.9%
	2	17%	33.4%
	3	16%	39.9%
	4	14%	44.9%
	5	31%	47.8%
Total Misdemeanor Referrals	0	35%	33.2%
	1	25%	37.6%
	2	40%	45.2%
Total Against Person Felony Referrals	0	70%	39.2%
	1	30%	39.2%
Total Against Person Misdemeanor Referrals	0	68%	36.8%
	1	17%	43.0%
	2	15%	45.7%
Total Against Person Referrals	1	72%	37.0%
	2	28%	44.6%
Total Felony Drug Referrals	0	93%	39.2%
	1	7%	38.9%
Total Felony Property Referrals	0	34%	28.7%
	1	13%	40.9%
	2	52%	45.6%
Total Misdemeanor Property Referrals	0	60%	36.4%
	1	23%	42.2%
	2	17%	44.6%
Total Property Referrals	0	25%	26.0%
	1	14%	37.3%
	2	12%	37.0%
	3	11%	47.1%
	4	38%	46.7%

JUVIS Offenses Committed While in JRA		Percent of Sample	18-Month Felony Recidivism Rate
Total Offenses	0	90%	38.7%
	1	7%	38.5%
	2	2%	60.5%
Total Referrals	0	91%	38.7%
	1	9%	43.9%
Total Felony Referrals	0	93%	38.8%
	1	6%	40.0%
	2	1%	65.0%
Total Misdemeanor Referrals	0	98%	38.8%
	1	2%	54.3%
Total Against Person Felony Referrals	0	99%	39.0%
	1	1%	57.1%
Total Against Person Misdemeanor Referrals	0	99%	38.8%
	1	1%	65.2%
Total Against Person Referrals	0	98%	38.7%
	1	2%	60.5%
Total Felony Property Referrals	0	99%	39.1%
	1	1%	45.5%

Variables Summarizing Time Spent While in JRA		Percent of Sample	18-Month Felony Recidivism Rate
Total Days in JRA	1 to 90	29%	39.4%
	91 to 180	28%	40.4%
	181 to 270	17%	39.6%
	271 to 360	10%	40.6%
	361 to 450	6%	44.8%
	Over 450	9%	28.7%
Days in Institution	None	48%	40.6%
	1 to 90	14%	39.5%
	91 to 180	14%	36.3%
	181 to 270	11%	35.5%
	271 to 360	6%	41.2%
	Over 360	7%	38.4%
Days in Camps	None	70%	39.2%
	1 to 90	12%	40.2%
	91 to 180	10%	38.8%
	Over 180	8%	38.2%
Days in Detention (CCP)	None	80%	37.9%
	1 to 90	13%	42.0%
	91 to 180	5%	44.1%
	Over 180	1%	72.7%
Days in Contract Group Home (CRP)	None	73%	40.4%
	1 to 90	14%	39.4%
	91 to 180	8%	34.7%
	Over 180	5%	27.7%
Days in State Group Home	None	83%	38.5%
	1 to 90	11%	47.5%
	Over 90	6%	32.4%
Sex Offender Special Program	No	97%	39.7%
	Yes	3%	23.8%
Mental Health Special Program	No	96%	39.5%
	Yes	4%	31.2%
Days in Drug/Alcohol Special Program	0	78%	37.7%
	1 to 60	15%	49.1%
	Over 60	7%	33.1%
Job Corps Special Program	No	99%	39.2%
	Yes	1%	36.0%
Days in Maximum Security Level	None	77%	37.7%
	1 to 90	19%	43.1%
	Over 90	4%	48.7%

Variables Summarizing Time Spent While in JRA (Continued)		**Percent of Sample**	**18-Month Felony Recidivism Rate**
Days in Medium Security Level	None	31%	38.7%
	1 to 90	24%	39.6%
	91 to 180	25%	40.4%
	181 to 270	13%	39.3%
	Over 270	8%	35.5%
Days in Minimum Security Level	None	30%	39.4%
	1 to 90	35%	41.9%
	91 to 180	19%	41.9%
	Over 180	16%	29.3%
Percent Days in Minimum Security	None	30%	39.4%
	1% to 50%	30%	42.3%
	51% to 99%	11%	29.9%
	100%	29%	39.3%
Percent Days in Medium Security	0	31%	38.7%
	1% to 49%	18%	35.3%
	50%	11%	48.3%
	51% to 99%	20%	42.3%
	100%	20%	35.0%
Percent Days in Maximum Security	None	77%	37.7%
	1% to 24%	9%	41.6%
	25%	5%	49.5%
	26 to 99%	8%	45.0%
	100%	1%	26.7%
Offenses While in JRA	No	94%	38.5%
	Yes	6%	48.7%
Unauthorized Leave	No	95%	38.8%
	Yes	5%	45.0%
Authorized Leave	No	88%	39.6%
	Yes	12%	35.9%

JUVIS Variables With a Correlation of at Least .10	Correlation With 18-Month Recidivism
Total Number of Offenses in Criminal History	0.18
Total Number of Property Referrals	0.16
Most Serious Prior Offense	0.16
Total Felony Referrals	0.16
Total Felony Property Referrals	0.15
Total Prior Felony Referrals	0.15
Current Referral for a Property Offense	0.13
Prior Felony	0.12
Current Referral Is for Felony Property	0.12
Total Number of Misdemeanor Referrals	0.10

MAPPER Variables Describing Time Spent in JRA	
Sex Offender (Current or Historic)	-0.19
Historic Sex Offender	-0.19
Current Sex Offender	-0.18
Over Age 16 at Release	-0.15
Age at Admission (Under 14, 14 to 16, over 16)	-0.15
Offense Seriousness	-0.10
Ethnic Group (Caucasian and Hispanic vs. Others)	0.10
Male Gender	0.08
An Illegal Alien	-0.07
Returned to Institution While on Parole	-0.07
Initial Security Classification	-0.07
Offenses Committed While in Institution	0.06
Days in Contract Group Home (CCP)	0.06
Days in Sex Offender Cottage	-0.06
Days in Maximum Security Levels	0.05
Days in Contract Group Home (CRP)	-0.05
Percent of Stay in Maximum Security Level	0.04
Percent of Stay in Minimum Security Level	-0.04
Days in Substance Abuse Cottage	0.03
Days in Mental Health Cottage	-0.03
Total Time Under Order of Confinement	-0.03
Days on Authorized Leave	-0.03
Days on Unauthorized Leave	0.03
Days in Job Corp Program	-0.03
Total Days Spent in Institution	-0.02
Initial Security Level	0.02
Assigned Security Level	-0.02
Days in State Group Home	0.01
Number of Times on Unauthorized Leave	0.01
Percent of Time in Minimum Security Level	-0.01
Percent of Time in Medium Security Level	-0.01
Days in Medium Security Level	-0.01
Days at Camp	0.00

APPENDIX C: CORRELATIONS AMONG CRA ITEMS, ADDITIONAL VARIABLES, AND SIX-MONTH FELONY RECIDIVISM

	6-Month Felony Recidivism	ISCA	A. Escapes/Attempts	B. Assaultive Behavior	C. Chemical/Alcohol Use	D. Compliance With Facility Regulations	E. Problem Solving Skills	F. Hostile Response to Frustration	G. Peer Victimization	H. Progress in Specialized Training	I. Adjudications/Pending Charges	J. Initial Risk Assessment	K. Offense Seriousness	Male Gender	Age at Admission	Age at Release	Sex Offense History
6-Month Felony Recidivism	1.00	0.26	*ns*	0.15	*ns*	0.15	0.17	0.16	0.17	0.12	*ns*	0.26	-0.09	*ns*	-0.20	-0.27	-0.13
ISCA	0.26	1.00	*ns*	0.09	*ns*	0.10	0.12	0.12	0.13	*ns*	L. *ns*	0.95	-0.27	*ns*	*ns*	*ns*	-0.23
A. Escapes/Attempts	*ns*	*ns*	1.00	*ns*	*ns*	0.08	0.12	0.09	*ns*	*ns*	0.27	*ns*	-0.11	*ns*	-0.09	*ns*	*ns*
B. Assaultive Behavior	0.15	0.09	*ns*	1.00	*ns*	0.41	0.48	0.51	0.41	0.29	*ns*	0.09	-0.18	0.12	-0.16	-0.19	0.10
C. Chemical/Alcohol Use	*ns*	*ns*	*ns*	*ns*	1.00	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
D. Compliance With Facility Regulations	0.15	0.10	0.08	0.41	*ns*	1.00	0.55	0.50	0.39	0.47	*ns*	0.10	-0.09	*ns*	-0.15	-0.16	*ns*
E. Problem Solving Skills	0.17	0.12	0.12	0.48	*ns*	0.55	1.00	0.67	0.48	0.46	*ns*	0.11	-0.15	*ns*	-0.20	-0.21	*ns*
F. Hostile Response to Frustration	0.16	0.12	0.09	0.51	*ns*	0.50	0.67	1.00	0.46	0.42	*ns*	0.10	-0.11	*ns*	-0.22	-0.21	0.10
G. Peer Victimization	0.17	0.13	*ns*	0.41	*ns*	0.39	0.48	0.46	1.00	0.25	*ns*	0.12	-0.13	*ns*	-0.28	-0.30	0.14
H. Progress in Specialized Training	0.12	*ns*	*ns*	0.29	*ns*	0.47	0.46	0.42	0.25	1.00	ns	0.10	-0.11	*ns*	-0.14	-0.14	*ns*
I. Adjudications/Pending Charges	-ns	*ns*	0.27	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	1.00	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
J. Initial Risk Assessment	0.26	0.95	*ns*	0.09	*ns*	0.10	0.11	0.10	0.12	0.10	*ns*	1.00	-0.26	*ns*	*ns*	*ns*	-0.24
K. Offense Seriousness	-0.09	-0.27	-0.11	-0.18	*ns*	-0.09	-0.15	-0.11	-0.13	-0.11	*ns*	-0.26	1.00	*ns*	*ns*	0.16	0.17
Male Gender	*ns*	*ns*	*ns*	0.12	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	1.00	*ns*	*ns*	*ns*
Age at Admission	-0.20	ns	-0.09	-0.16	*ns*	-0.15	-0.20	-0.22	-0.28	-0.14	*ns*	*ns*	*ns*	*ns*	1.00	0.82	-0.18
Age at Release	-0.27	*ns*	*ns*	-0.19	*ns*	-0.16	-0.21	-0.21	-0.30	-0.14	*ns*	*ns*	0.16	*ns*	0.82	1.00	-0.12
Sex Offense History	-0.13	-0.23	*ns*	0.10	*ns*	*ns*	*ns*	0.10	0.14	*ns*	*ns*	-0.24	0.17	*ns*	-0.18	-0.12	1.00

APPENDIX D: GROUP HOME CRIMINAL ACTIVITY SURVEY

Group Home Criminal Activity Survey
For _____, JR Number_____
Living in Group Home _____
From _____
And Returned to _____ on _____

☐ **Unknown:** Cannot accurately complete the survey for this youth.

Section I: Criminal Activity That Resulted in Contact With Law Enforcement While Living in Group Home:

1. Committed Crime: ☐ No ☐ Yes Date crime committed: _____ (mm/dd/yy)

If Committed a Crime:

2. Crime Committed on Group Home Property: ☐ No ☐ Yes

3. Type of Crime Committed (check all boxes that apply):

☐ Escape/Attempted Escape	☐ Felony Property
☐ Homicide	☐ Felony Other
☐ Robbery	☐ Misdemeanor Assault/Sex
☐ Forcible Sex	☐ Misdemeanor Property
☐ Serious Assault	☐ Misdemeanor Other
☐ Burglary	☐ Alcohol
☐ Drugs	

Section II: Conduct for Which Youth Was Returned to Institution (check all that apply)*:*

1. Criminal activity indicated in Section I: ☐ No ☐ Yes

2. Behavior that was suspected to be related to or was leading to a crime, such as over-hearing plans for the activity: ☐ No ☐ Yes Please explain: _____ _____

3. Failing to adjust and being returned to the institution without a specific plan to return to the same group home: ☐ No ☐ Yes

4. Failing to adjust and temporarily returned to the institution with a specific plan to return to the same group home: ☐ No ☐ Yes

Group Home Criminal Activity Survey
Instructions

Background

The Juvenile Rehabilitation Administration (JRA) has contracted with the Washington State Institute for Public Policy (Institute) to measure the validity of the Community Risk Assessment (CRA). The purpose of the CRA is to assess the risk of youth committing a crime while living in a group home.

Purpose of Survey

In order to measure the CRA's validity, the Institute needs to know all the criminal acts committed by the youth while living in a group home. Because there is no statewide record-keeping system to track these criminal acts, the Institute needs to use a survey that collects this information on each youth. Section I collects these data.

In addition, JRA would like to have a more detailed understanding of how the CRA relates to the reason youth are returned to the institution. Section II collects these data. It may be that some youth committed a criminal act while living in the group home that did not result in a return to an institution. Section III addresses these youth.

Survey Instructions

For each youth in the survey, indicate whether the youth committed a criminal act that resulted in contact with law enforcement, and for that criminal act, indicate when the act was committed, the type of act, and whether it was committed on the group home property. Occasionally, the same youth may have more than one survey form because he or she was placed in your group home, was returned to an institution, and then came back to your group home again.

The Institute is requesting that you complete this survey using a team approach, and rely upon the youth's file to ensure the accuracy of the information requested.

If you believe you cannot accurately complete the survey for a youth, please check the "Unknown" box at the top of the survey and return the survey to the Institute.

Section I: Criminal Activity While Living in Group Home

1. Committed Act *and* Offense Date	Check **Yes** or **No**. For youth who committed a criminal act that resulted in contact with law enforcement, enter the date that the youth committed the act. If you do not know the exact date, enter the nearest approximate date.
2. Crime Committed on Group Home Property	Check the **No** box if the offense was not committed on group home property. Check the **Yes** box if the offense was committed on group home property.
3. Type of Offense Committed	Place a **check** in <u>each</u> box that represents the type of criminal act the youth committed.

Section II: Conduct for Which Youth Was Returned to Institution (check all that apply):

1. Criminal Activity	Check **Yes** if the youth was returned for a crime indicated in Section I.
2. Behavior related to or leading to a crime.	Check **Yes** if you discovered behavior that you suspected to be related to or was leading to a crime, such as overhearing plans for the activity.
3. Failing to adjust and returned without a specific plan to return to the same group home.	Check **Yes** if the youth was failing to adjust and was returned to the institution without a specific plan to return to the same group home.
4. Failing to adjust and returned with a specific plan to return to the same group home.	Check **Yes** if the youth was failing to adjust and was being returned to the institution with a specific plan to return to the same group home.

Section III

Section III is a listing of all the youth who were placed in your group home during the study period and were not returned to the institution. Please review this list and place a check in front of the name of any youth **who committed a criminal act** while living in your group home, even though the youth was not returned to the institution for that crime. Then complete a blank survey form for each of these youth. Be sure to include the youth's name and JR number.

Occasionally, the same youth may be listed more than once because he or she was placed in your group home more than once without being returned an institution. Follow these same instructions for each time the youth is listed.

APPENDIX E: REVIEW OF THE ISCA IN RELATION TO THE DOMAINS IN THE WASHINGTON STATE JUVENILE COURT RISK ASSESSMENT[36]

1. *Criminal History*

Research has consistently shown that youth with extensive criminal histories who started at an early age are more likely to re-offend in the future. A youth's criminal history is an indicator of the duration and established persistence of the youth's criminal behavior. Cases, rather than offenses, is the unit of criminal history usually being counted. This reflects the youth's persisting to re-offend even after the being processed through the juvenile justice system. For example, a youth who has three separate cases is considered to be more persistent in his or her behavior than a youth with three offenses in a single case.

ISCA: The ISCA includes several items measuring criminal history, and these items have the highest weight.

2. School

Research has shown that youth with extensive school performance problems and isolation from school have a higher likelihood for continued re-offending. School performance is a combination of grades, attendance, and misconduct. Isolation from school is evidenced by a lack of belief in the value of school, and a lack of involvement in school activities.

ISCA: The ISCA does not include a measure of prior school performance or attachment. The item measuring compliance with facility rules and regulations may indirectly provide some measure of educational achievement and attachment. More direct measures of school performance are needed.

3. Use of Free Time

Research has shown that youth who spend their free-time in pro-social and constructive activities are at lesser risk. At the same time, youth who have no interest in any of these activities are at higher risk. The protective factor research suggests that commitment and bonding to the community can reduce anti-social behavior. A youth's participation in structured community activities indicates the potential for that bonding to occur. Unstructured hobbies and activities that pro-socially occupy a youth's time is a protective factor.[37]

ISCA: The ISCA does not include a measure of the youth's use of free time.

4. Employment

The protective factor research indicates that youth who have been successfully employed and have developed good relationships with their employer and adult co-workers are at lower risk for re-offending. Successful employment indicates a higher level of maturity and social functioning. Employment experience has economic benefits that reinforce legal means of financial support.

ISCA: The ISCA does not include a measure of the youth's employment history.

[36] Marilyn VanDeiten and Robert Barnoski, *Washington State Juvenile Court Risk Assessment Resource Manual*, 1998.

[37] Within the risk assessment research literature, the role of protective factors in prediction is still in its infancy.

5. Relationships — Adults and Peers

Youth are influenced by their peers, family, and other adult role models. The weaker the bond between the youth and family, the greater the influence that peers may have upon the youth. Youth who associate with anti-social peers, particularly if the youth has weak family and adult attachments, are at higher risk for re-offending. The protective factor research suggests that youth with weak family attachments can still be influenced by positive adult role models. According to the prevention research literature, improving the youth's relationships with pro-social adults and peers and weakening the relationship with anti-social peers should reduce the risk for re-offending.

ISCA: The ISCA includes one item on the youth's anti-social peer relationships and no items for adult relationships.

6. Family and Current Living Arrangement

The youth's family environment has a large influence over the youth's attitudes and social skills. Research has consistently identified factors such as parental problems, support, discipline, and supervision as related to juvenile delinquency. Youth raised in highly dysfunctional family environments are at higher risk for re-offending.

For youth returning to a dysfunctional family environment, the research indicates that family interventions can be effective in reducing risk. In addition to the environment in which the youth was raised, research suggests the youth's current living arrangements have an impact on the youth's level of risk. Some of this information operates as a protective factor, such as living with the father; others are risk factors, such as living with an adult who is antagonist towards the youth or who is an anti-social role model.

ISCA: The ISCA does not include any items on the youth's family and living arrangements.

7. Alcohol and Drugs

Alcohol and drug usage by the youth can disrupt his or her abilities in any one of these four life areas: education, family conflict, peer relationships, or health consequences. Disrupted life function can make the youth vulnerable to anti-social activities and encourages the youth to socialize with other anti-social youth.

ISCA: The ISCA includes one item on alcohol/drug abuse.

8. Mental Health

Although mental health problems may not be predictive of criminal activity, youth who have these problems may require specialized treatment.

Abuse and neglect are significant predictors of delinquency and persistent criminal activity.

Reports of displaying a weapon, fighting, threatening people, violent outbursts, violent temper, fire starting, animal cruelty, destructiveness, and volatility may be be indicative of future violent behavior. Reports of aggressive sex, sex for power, young sex partners, voyeurism, and exposure may be associated with persistent sex offending.

Reports of being sexually exploited or victimized may not be related to criminal activity, but youth with these problems might require specialized treatment and interventions.

ISCA: The ISCA does not include any items on mental health problems.

9. Attitudes and Behaviors

The research of Hoge and Andrews[38] in Canada has indicated that anti-social attitudes are related to criminal behavior. The apparent success of cognitive-behavior programs for juvenile offenders indirectly supports this finding since these interventions concentrate on altering views toward criminal behavior. These attitudes include, but may not be limited to: not accepting responsibility for anti-social behavior, lack of empathy, a fatalistic attitude, lack of control over antisocial behavior, hostile interpretation of others' intentions, lack of pro-social values, lack of respect for authority figures, low tolerance for frustration, belief in use of aggression, and an unwillingness to change.

ISCA: The ISCA contains one item which measures whether the youth exhibits impulsive or hostile responses to frustration.

10. Social Skills

Related to attitudes and behavior are social skills that improve the ability of youth to appropriately manage themselves and their environment in a more pro-social manner. These social skills include but are not limited to consequential thinking, critical thinking, problem-solving, self-monitoring, self-control, and interpersonal communications.

ISCA: The ISCA contains one item which measures the youth's problem solving skills.

11. Progress in Community Supervision

The introduction of dynamic risk and protective factors by Hoge and Andrews an has led to measuring these factors while the youth is being supervised in Canada. There is little research at this point studying how effective and useful these measures are for predicting recidivism. These measures include but are not limited to: fulfillment of court ordered obligations, fulfillment of intervention plans, occurrence of events that increase or decrease the youth's risk for re-offense, length of time successfully completed on supervision, number of violations of supervision conditions, and unauthorized leaves.

ISCA: The ISCA is an initial security classification assessment and is not designed to include measures of progress on community supervision.

12. Progress Under Confinement

Gillian Hill[39] wrote on predicting recidivism using institutional measures. The main institutional variables that were studied included parole prognosis, institutional misconduct, personality, participation in work or education, and frequency of family contacts. Institutional misconduct was the most reliable predictor of recidivism.

ISCA: The CRA, not the ISCA, is JRA's tool for measuring institutional behavior.

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[38] Hoge and Andrews, 1996.

[39] Gillian Hill, "Predicting Recidivism Using Institutional Measures," 5:6, in Farrington and Tarling (eds.) *Prediction in Criminology,* 1985, State University of New York Press, Albany.

APPENDIX F: ROBERT HOGE'S CATEGORIZATION OF DELINQUENCY PREDICTORS[40]

1) Aptitudes
    a) General cognitive ability
    b) Specific aptitudes
    c) Neuropsychological assessments
    d) Vocational and Interests
2) Academic Achievement
3) Personality, Attitudes, and Behavior
    a) Social and emotional competence and pathology
    b) Anti-social and destructive behaviors
    c) Personality measures
    d) Attitudes, values, and beliefs
4) Environmental
    a) Family functioning and parenting
    b) School performance and adjustment
    c) Peer group associations
    d) Correctional and therapeutic environments

[40] Hoge and Andrews, 1996.

APPENDIX G: MAJOR RISK FACTORS IDENTIFIED BY DON ANDREWS[41]

1. **Emotional Maturity**
   - Angry
   - Resentful
   - Aggressive
   - Insensitive/callous
   - Impulsive
   - Low self-control

2. **Personal Attitudes**
   - Defiant
   - Egocentric and not constrained by the usual psychological and social forces
   - Antisocial attitudes, values, beliefs, rationalizations

3. **Cognitive Skills**
   - Weak problem-solving skills
   - Weak self-management skills
   - Weak perspective-taking skills
   - Weak moral reasoning
   - Acts on the whim of the moment
   - Focuses almost exclusively on immediate gratification
   - Does not consider long-term consequences/actions
   - Is concrete and does not plan ahead

4. **Low Levels of Personal Achievement**
   - Education
   - Vocational training
   - Employment/financial
   - Recreation/hobbies

5. **Interpersonal Support for Crime**
   - Anti-social associates
   - Relative isolation from pro-social others
   - Knowledge of crime's immediate gratification and of its more delayed punishment
   - History of antisocial behavior evident from young age
   - History of a number and variety of harmful acts in a variety of situations

6. **Inconsistent love and discipline, and perhaps abuse/neglect**
   - Family life characterized by low levels of affection and weak discipline/supervision

[41] D. A. Andrews, *An Overview of Treatment Effectiveness: Research and Clinical Principles*, National Institute of Corrections Seminar, January 1994.

APPENDIX H: 1995 OJJDP GUIDE FOR IMPLEMENTING COMPREHENSIVE STRATEGY FOR SERIOUS, VIOLENT, AND CHRONIC OFFENDERS[42]

Risk Factors for Adolescent Problem Behaviors

1. Community
2. Family
   a) Family history of high-risk behaviors
      - Alcohol drug use
      - Criminal activity
      - Teen mother

   b) Family management problems
      - Clear expectation for behavior
      - Failure to supervise and monitor
      - Excessively severe, harsh, or inconsistent punishment

   c) Family conflict
      - Conflict within family
      - Domestic violence

   d) Parental attitudes and involvement in problem behaviors
      - Children excused for breaking the law
      - Parents engage in violent behavior inside and outside the home
      - Drug/alcohol abuse

3. School Risk Factors
   a) Early and persistent anti-social behaviors
      - Aggressive behavior at early age
      - Aggressive behavior combined with isolation, withdrawal, or hyperactivity

   b) Academic failure
      - The experience of failure rather than lack of abilities

   c) Lack of commitment to school
      - Ceased to see being student as viable part of life

4. Individual and Peer Group
   a) Rebelliousness
      - Feel they are not bound by the rules
      - Do not believe in trying to be successful or responsible
      - Take actively rebellious stance towards society

   b) Friends who engage in problem behaviors
      - Just spending time with friends who engage in problem behaviors

   c) Favorable attitude towards problem behaviors
      - Greater acceptance of these behaviors

   d) Early initiation of problem behaviors
      - Earlier age for dropping out of school, etc.

   e) Constitutional factors
      - Biological or physiological basis
      - Sensation seeking
      - Low harm avoidance
      - Lack of impulse control

Protective Factors for Adolescent Problem Behaviors

1. Individual Protective Factors
   a) Female gender
   b) High intelligence
   c) Positive social orientation
   d) Resilient temperament for dealing with adverse conditions
2. Social Bonding
   a) Attachment to pro-social family members and adults, including teachers
3. Healthy beliefs and clear standards for behaviors
   a) Families, schools, and communities have clearly stated policies and expectations for behavior
   b) Communicated consistently by significant individuals and social groups to whom the child is bonded

[42] *Guide for Implementing the Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders,* pp. 18 – 23, 1995.

APPENDIX I: NCCD SUMMARY OF RISK FACTORS BY ROBERT DECOMO[43]

Risk Factors

Prior Delinquent History
Prior Commitments/Placements
Institutional/Placement Behavior
Type of Prior Offenses
Age
Substance Abuse
School Employment
Parent/Guardian
Supervision History
Current Offense
Peers
Victimization
Mental Health

Needs

Substance Abuse
Family Relationships
Parent Problems (substance abuse, criminality, and mental health)
Parent Skills
Mental Health Stability
Intellectual Ability/Academic Achievement
Special Education
Employment/Vocational Skills
School Problems
Peer Relationships
Health/Hygiene
Sexual Adjustment
Victimization
Housing/Finances
Structured Activities
Social/Living Skills
Support Systems

[43] Personal communication with Robert DeComo, April 1998.