

November 1998

## **Validation of the Washington State Juvenile Court Assessment: Interim Report**

### **Introduction**

The 1997 Washington State Legislature established the Community Juvenile Accountability Act (CJAA). The goal of the Act is to reduce crime rates of juvenile offenders in Washington State by funding programs shown to reduce recidivism. The Washington State Association of Juvenile Court Administrators asked the Washington State Institute for Public Policy (Institute) to develop the risk assessment specified in the Act.

In collaboration with juvenile court professionals, the Institute developed a comprehensive risk assessment, the Washington State Juvenile Court Assessment (WSJCA). The WSJCA involves a two-stage process. First, youth are assessed with a pre-screen instrument that determines the youth's level of risk. The second stage is a full assessment required only for youth assessed as moderate and high risk on the pre-screen. The full assessment identifies a youth's risk and protective factor profile.

The WSJCA pre-screen is based on an assessment adopted for the Washington State Juvenile Court Early Intervention Program (EIP) Evaluation. This EIP assessment is a modified version of Baird's Wisconsin Risk Scale.<sup>1</sup> The pre-screen includes a criminal history and social history domain. Appendix A contains the WSJCA pre-screen criminal history items and Appendix B the social history items. The EIP assessment was expanded to form the full WSJCA assessment by including findings from the delinquency research literature. The full assessment is organized into nine domains: school, free-time, employment, relationships, family (current and prior), drug/alcohol, mental health, anti-social attitudes, and skills. For each domain, dynamic and static risk and/or protective factor scores are computed.

For the courts to have confidence in the WSJCA, the risk level classification from the pre-screen needed to be validated for juvenile offenders in Washington State.<sup>2</sup> Validating the pre-screen means determining how well it predicts recidivism rates for groups of youth. Adequately measuring recidivism requires selecting a representative cohort of youth rated on the assessment, and then waiting 2 1/2 years to measure their recidivism.<sup>3</sup> The earliest year for completing a full validation study is 2003. However, the juvenile courts need to know the validity of WSJCA pre-screen by January 1999 to use it for CJAA program eligibility. The Institute was able to develop empirically validated recidivism risk levels based on the criminal history domain and a sub-set of social history items on the WSJCA that are also on the EIP assessment. This report describes the results of this effort.

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<sup>1</sup> S.C. Baird, G.M. Storrs, and H. Connelly, *Classification of Juveniles in Corrections: A Model Systems Approach* (Washington, D.C.: Arthur D. Little, Inc., 1984).

<sup>2</sup> Todd Clear, "Developing a Universal Risk-Assessment Form: We're Closer, But Not There Yet," *Community Corrections Report 4* (May/June 1997).

<sup>3</sup> Robert Barnoski, *Standards for Improving Research Effectiveness in Adult and Juvenile Justice* (Olympia: Washington State Institute for Public Policy, December 1997).

## Validation Study Design

Washington State's Juvenile Information System (JUVIS)<sup>4</sup> contains the data needed to validate the criminal history domain of the WSJCA pre-screen. The EIP Assessment contains the data needed to validate the WSJCA pre-screen social history items measuring personal, school, family, and peer risk. Therefore, two samples of youth were used in the validation study: youth adjudicated during 1995 and youth administered the Early Intervention Program (EIP) Risk Assessment starting July 1996. The EIP sample consists of youth adjudicated for the first time.

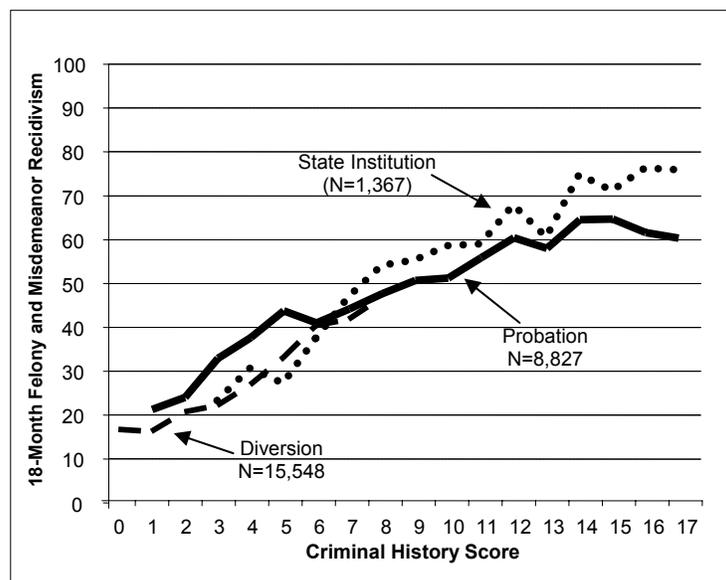
The 1995 JUVIS data sample has a recidivism measurement period that permits the full validation of the criminal history domain of the WSJCA. Social history data from the EIP Risk Assessment permit measuring a six-month recidivism rate; therefore, for the social history items, only an interim validation is possible at this time.

## Validation of the Criminal History Domain Using JUVIS Data

The relationship between the criminal history domain score and 18-month recidivism is illustrated in Exhibit 1 for three groups: youth granted diversion, youth placed on probation, and youth released from state juvenile institutions during 1995. All the items included in criminal history domain except escapes make a statistically significant contribution to prediction. Escapes have a low incidence rate and do not have much influence in the overall risk score.

The graph shows that increasing recidivism rates are associated with increasing criminal history risk scores. The 18-month recidivism rate for the diversion, probation, and state institution groups are nearly identical for any given criminal history score. Thus, the criminal history domain is a valid predictor of recidivism for all three types of juvenile offenders.

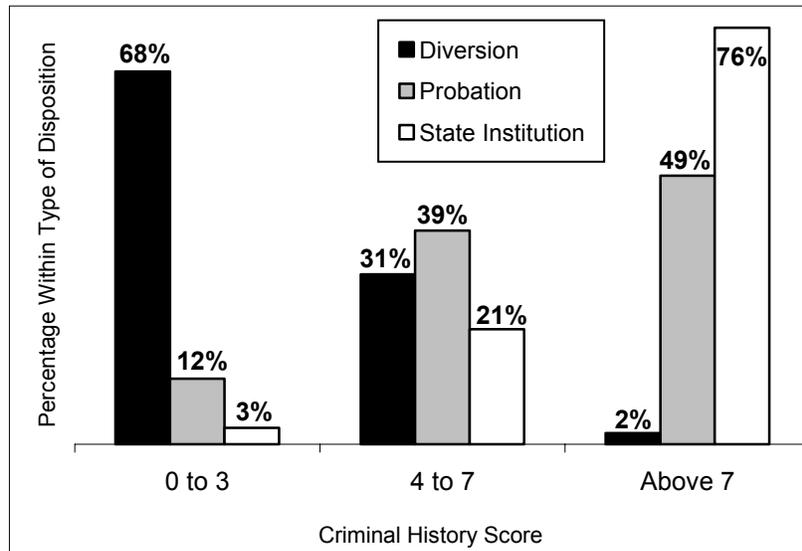
**Exhibit 1**  
**Youth Placed on Probation, Given Diversion, or Released From State Institution During 1995**



<sup>4</sup> Statewide database for the juvenile administrators managed by the Washington State Office of the Administrator for the Courts.

Exhibit 2 illustrates that the three groups of youth have different percentage distributions of criminal history scores. Sixty-eight percent of the youth placed on diversion have criminal history scores of 3 or below. For youth placed on probation, 12 percent had scores of 3 or below and only three percent of youth released from a state institution had these low scores. Conversely, 76 percent of the state institution youth have scores above 6, compared with 49 percent and two percent for probation and diversion youth respectively.

**Exhibit 2**  
**Distribution of Type of Disposition Within Criminal History Score Range**



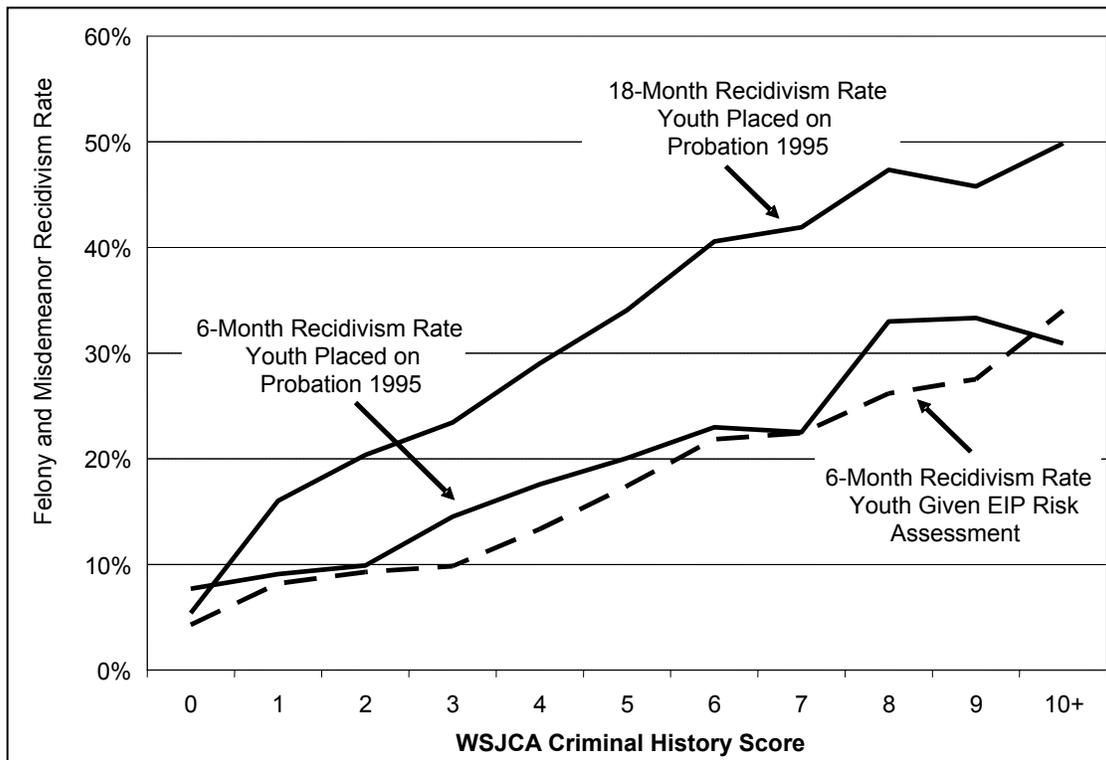
In summary, the criminal history domain predicts recidivism rates equally well for diversion, probation, and released state institution populations of juvenile offenders. In addition, the percentage distribution of low, moderate, and high criminal history scores is very different among these three populations.

## Criminal History Score for the EIP Sample

Exhibit 3 illustrates the predictive capability of the criminal history domain for youth adjudicated in 1995 and for youth adjudicated for the first time and given the EIP Risk Assessment. The 18-month recidivism rate for the 1995 adjudication sample is included as a reference.

The six-month recidivism rate of the youth given the EIP assessment is nearly identical to the six-month rate for the 1995 probation group. All recidivism rates increase with increasing criminal history scores. This graph illustrates that the WSJCA criminal history domain is also a valid predictor of six-month recidivism. These findings permit combining the criminal history domain score with the EIP social history items to determine the ability of the WSJCA pre-screen to predict a six-month recidivism rate.

**Exhibit 3**  
**Capability of WSJCA Criminal History Scores to Predict Recidivism for Youth Adjudicated in 1995 and Youth Given the EIP Risk Assessment**



## Preliminary Validation of Social History Score From EIP Risk Assessment Data

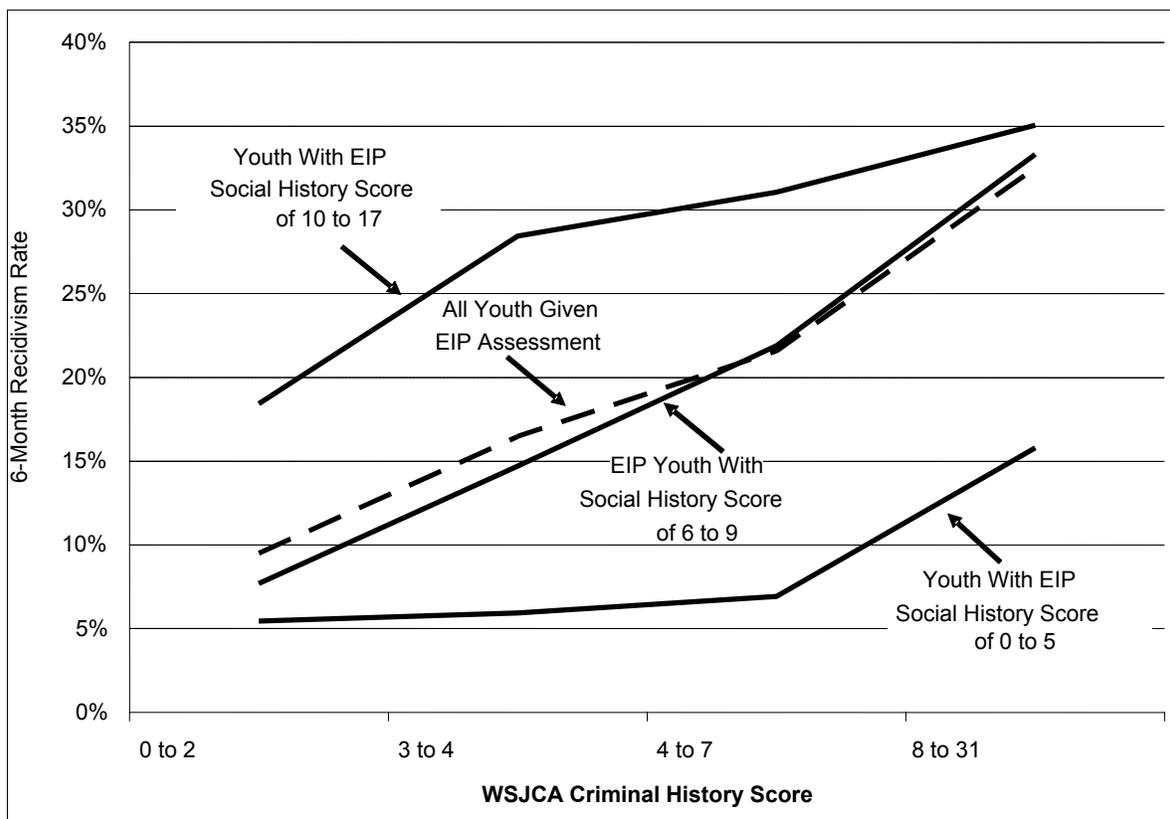
The next question is whether the social history items from the EIP Risk Assessment improve the predictive capability of the criminal history items. The social history items include personal, school, family, and peer risk factors. Appendix B documents these items and their scoring.

Exhibit 4 illustrates that a high social history risk score of 10 to 17 raises the recidivism rate for youth with any given criminal history score, and a low social history risk score of 0 to 5 lowers the recidivism rate. The dashed line in Exhibit 4 represents the recidivism rates of all youth given the EIP assessment regardless of their social history risk score. Youth with a moderate social history risk score of 6 to 9 have a recidivism rate identical to the entire sample of EIP youth.

If the influence of the social history risk score on the criminal history score was additive, all the lines would be parallel and differ by an average of 10 percentage points. However, the recidivism rate for youth with low social history risk scores remains low as the criminal history score increases. The recidivism rates for high social history risk scores are high even at low criminal history scores.

That is, low social history risk suppresses the recidivism rate even for youth with moderately high criminal history scores, and high social history risk exacerbates the recidivism of youth with lower criminal history scores.

**Exhibit 4**  
**Relationship Between Recidivism Rates and Criminal History Is Affected by the Social History**



## Risk Levels Based on Pre-Screen Risk Assessment

Exhibit 5 presents the number and percentage of youth in the EIP sample for each combination of criminal history and social history risk score displayed in Exhibit 4. Fifty percent of the sample had a criminal history of 5 to 7. The social history score subdivides the youth grouped by criminal history scores sample into smaller groups to permit a more refined categorization.

**Exhibit 5**  
**Number and Percentage of EIP Assessment Youth for Each**  
**Combination of Criminal History and Pre-Screen Social History Risk Scores**

Criminal History Score	Minimal Social History Risk Score			
	0 to 5	6 to 9	10 to 17	Total
0 to 2	55 (4%)	65 (5%)	38 (3%)	158 (11%)
3 to 4	101 (7%)	136 (10%)	109 (8%)	346 (25%)
5 to 7	159 (11%)	306 (22%)	235 (17%)	700 (50%)
8 to 31	19 (1%)	84 (6%)	97 (7%)	200 (14%)
<b>Total</b>	334 (24%)	591 (42%)	479 (34%)	1,404 (100%)

Exhibit 6 illustrates how the WSJCA criminal history and the EIP social history risk scores are combined to define risk levels. Groups of youth with six-month recidivism rates of 10 percent or less are defined as low risk, and groups with six-month recidivism rates above 25 percent are high risk.

**Exhibit 6**  
**Risk Level Definitions Using Criminal History and**  
**EIP Social History Risk Scores**  
**(Six-Month Recidivism Rate in Parentheses)**

Criminal History Score	EIP Social History Risk Score		
	0 to 5	6 to 9	10 to 17
0 to 2	Low (5%)	Low (8%)	Moderate (18%)
3 to 4	Low (6%)	Moderate (15%)	High (28%)
5 to 7	Low (7%)	Moderate (22%)	High (31%)
8 to 31	Moderate (16%)	High (33%)	High (35%)

## Conclusions

The Institute has empirically determined that the criminal history domain and pre-screen WSJCA items on the EIP Risk Assessment can be combined to define valid risk levels. These results support the use of the WSJCA pre-screen to identify youth for research-based program eligibility.

The validity of the full WSJCA will be examined as soon as data are available.

**Appendix A  
Washington State Juvenile Court Assessment  
Pre-Screen**

<b>Criminal History Risk Items</b>		
<b>Item</b>	<b>Item Response</b>	<b>Score</b>
1. Age at First Offense	Over 16	0
	16	1
	15	2
	13 to 14	3
	Under 13	4
2. Misdemeanors	None or one	0
	Two	1
	Three or four	2
	Five or more	3
3. Felonies	None	0
	One	2
	Two	4
	Three or more	6
4. Weapon Referrals	None	0
	One or more	1
5. Against Person Misdemeanor	None	0
	One	1
	Two or more	2
6. Against Person Felonies	None	0
	One or two	2
	Three or more	4
7. Confinement Orders to Detention	None	0
	One	1
	Two	2
	Three or more	3
8. Confinement Orders to State Institution	None	0
	One	2
	Two or more	4
9. Escapes	None	0
	One	1
	Two or more	2
10. Warrants	None	0
	One	1
	Two or more	2
<b>Maximum Score</b>		<b>31</b>

**Appendix B  
Washington State Juvenile Court Assessment  
Pre-Screen**

<b>Social History Risk Items</b>		
<b>Item</b>	<b>Item Response</b>	<b>Score</b>
1. Youth is a male	Yes	1
2. Victim of physical or sexual abuse	No	0
	Yes any abuse by parent, sibling, family, outside family	1
3. 3. Victim of neglect	No	0
	Yes	2
4. History of emotional problems	No	0
	Yes, diagnosed, medication or treatment	1
5. History of alcohol or drug abuse	None, no disrupted functioning on items 1 and 2, and no contribution to criminal behavior on items 3 and 4	0
	Yes, disrupted functioning on items 1 or 2, or contributes to criminal behavior on item 3 or 4	2
6. Court ordered or DSHS voluntary out-of-home placements	None	0
	One or more	1
7. Runaways or kicked out of house	None	0
	One	1
	Two or more	2
8. Current family member has problems with jail/imprisonment	No immediate family member	0
	Sibling(s), mother or father jail/imprisonment	1
9. Current parental rule enforcement and control	Youth usually obeys and follows rules	0
	Youth sometimes obeys and follows rules	1
	Youth consistently disobeys or is hostile	2
10. Friends youth actually spends his or her time with	Has friends who are a positive influence	0
	No friends, no consistent friends	1
	Has friends who are a positive and friends who are a negative influence	1
	Has friends who are a negative influence and no friends who are a positive influence	2
	Gang/member/associate	3
11. School problems	Graduated or obtained a GED, and is attending school with no full-day unexcused absences, and is not failing any classes, and has had no problems reported by teachers, and no calls to parents, and no calls to police for misconduct	0
	Attending school and: has some full-day unexcused absences, or is failing some classes, or has problems reported by teachers, or calls to parents, but no calls to police for misconduct	1
	Attending school and: has truancy petition filed or equivalent, or is failing most classes, or has problems calls reported to police for misconduct	2
	Dropped out, expelled, or suspended from school	2
<b>Maximum Score</b>		<b>18</b>