Virginia MOST/OST Revalidation and Proxy Risk Norming

*Recidivism Results FY12*

**PROJECT DIRECTOR**

*Tara L. Kunkel, MSW*

**PROJECT STAFF**

*Ari Agha, Ph.D.*

*Scott Graves, Ph.D.*

*Michelle T. White, MPA*

**NATIONAL CENTER FOR STATE COURTS**

*July 2016*



Acknowledgements

The National Center for State Courts (NCSC) would like to acknowledge and thank everyone below who committed a considerable amount of time to this project including the Probation Advancement Committee members and Co-Chairs and members and the staff of the Virginia Department of Criminal Justice Services. The strong collaborative effort between the Virginia Community Criminal Justice Association and the Virginia Department of Criminal Justice Services has greatly improved the effectiveness and efficiency of Virginia’s local probation agencies. Without the hard work and dedication of the individuals listed below, in addition to all the committed professionals working in local probation agencies throughout the Commonwealth of Virginia, this project would not have been possible.

**Virginia Community Criminal Justice Association**

Executive Committee:

Amanda Wimberley - President

Steve Austin - Immediate Past President

Jackie Boxley - Secretary

Kris Bryant - Treasurer

Charlene Johnson

Sharon Jones - Vice President

Cynthia Plummer

Megan Roane

Tisha Skinner

Stan Wallace

Probation Advancement Committee:

Ross Carew - Co-Chair

Gary Hughes - Co-Chair

Kris Bryant

Jackie Boxley

Paula Harpster

Amy Jacobson

Rebecca McNees

Cynthia Plummer

Joyce Skinner

Gene Whitlock

Jennifer MacArthur

Kim Chmura

**Virginia Department of Criminal Justice Services**

Laurel Marks

Paula Harpster

Rebecca McNees

Kenneth Rose

Donna Shiflett

This project was supported by the Department of Criminal Justice Services (DCJS) grant #15-C2617AD13, with funds made available to the Commonwealth of Virginia from the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions contained within this document are those of the author and do not necessarily represent the official position or policies of the Virginia Department of Criminal Justice Services or the United States Department of Justice.

Table of Contents

[Project Approach 4](#_Toc446942349)

[**Sample Selection** 4](#_Toc446942350)

[Sources of Data 4](#_Toc446942351)

[MOST Validation 6](#_Toc446942352)

[OST Validation 9](#_Toc446942353)

[Proxy Risk Validation 12](#_Toc446942354)

[Findings and Recommendations 16](#_Toc446942355)

[Recommendations 17](#_Toc446942356)

[Appendix A 20](#_Toc446942357)

[Appendix B 26](#_Toc446942358)

List of Figures

[Figure 1: Scoring for Proxy Risk with Virginia Local Probation Sample 12](#_Toc446942330)

[Figure 2: Survival Functions for MOST 16](#_Toc446942331)

[Figure 3: Survival Functions for Proxy Risk 16](#_Toc446942332)

List of Tables

[Table 1: MOST Score Distribution – Full Sample 7](#_Toc457265463)

[Table 2: MOST Score Distribution by Gender 7](#_Toc457265464)

[Table 3: MOST Score Distribution by Race 8](#_Toc457265465)

[Table 4: Recidivism Rates by MOST Score 8](#_Toc457265466)

[Table 5: Recidivism Rates by Gender and MOST Score 9](#_Toc457265467)

[Table 6: Recidivism Rates by Race and MOST Score 9](#_Toc457265468)

[Table 7: OST Score Distribution – Full Sample 10](#_Toc457265469)

[Table 8: OST Score Distribution by Gender 11](#_Toc457265470)

[Table 9: OST Score Distribution by Race 11](#_Toc457265471)

[Table 10: Recidivism Rates by OST Score 12](#_Toc457265472)

[Table 11: Recidivism Rates by Gender and OST Score 12](#_Toc457265473)

[Table 12: Recidivism Rates by Race and OST Score 12](#_Toc457265474)

[Table 13:Proxy Risk Distribution – full sample 13](#_Toc457265475)

[Table 14: Proxy Risk by Gender 14](#_Toc457265476)

[Table 15: Proxy Risk Distribution by Race 14](#_Toc457265477)

[Table 16: Recidivism Rates by Proxy Risk 15](#_Toc457265478)

[Table 17: Recidivism Rates by Gender and Proxy Risk 15](#_Toc457265479)

[Table 18: Recidivism Rates by Race and Proxy Risk 16](#_Toc457265480)

[Table 19: Cox Regression analysis 18](#_Toc457265481)

[Table 20: Recommended Modified Scoring for MOST 19](#_Toc457265482)

[Table 21: Recommended Modified Scoring for Proxy Risk 19](#_Toc457265483)

[Table 22: Recommended Modified OST Scoring 20](#_Toc457265484)

[Table 23: Recidivism Rates by OST Score 27](#_Toc457265485)

# Project Approach

The following study is designed to revalidate the MOST and OST as predictive instruments for recidivism risk for individuals on local probation in Virginia. In addition, proxy risk will be examined as a predictive instrument for recidivism risk. The current report seeks to answer the following questions:

* How well do MOST and OST risk scores predict criminal recidivism? How well does proxy risk predict criminal recidivism?
* Are there differences related to gender or race that influence how well the MOST and OST predict recidivism? Are there differences related to gender or race that influence how well proxy risk predicts recidivism?

## Sample Selection

A total of 16,799 local community-based probationers, all of whom completed probation supervision in FY2012, were included in the study cohort. Any local probationer who completed supervision in FY2012 with a reported MOST and/or OST score was included in the sample. A proxy risk score was calculated for everyone included in the sample using the methodology outlined in the proxy risk score section. Males comprised 69% of the sample. The majority of probationers in the sample were under 21 years of age (23%) or between the ages of 21 and 30 (40%). After 30 years of age, the number of probationers in the sample declined; probationers between the ages of 31 and 40 comprised 18% of the sample and probationers between the ages of 41 and 50 comprised 12% of the sample. Few probationers were over the age of 50 (7%). The majority of probationers in the sample were White (49%), followed by Black/African American (44%) and Hispanic (4%). One percent (1%) of probationers were Asian and 2% of the probationers were race unknown. The majority of probationers have never been married (71%), and 29% are either currently married or were married at some point in their life.

Fifty-one percent (51%) of the sample had prior misdemeanor arrests at the time they were placed on supervision, 42% had prior felony arrests. Only 36% of the sample had no prior arrests. Forty-two percent (42%) of the sample had prior misdemeanor convictions and 13% of the sample had prior felony convictions. Fifty-five percent (55%) of the sample had no prior convictions.

## Sources of Data

Case-level data was obtained from the statewide Pretrial and Community Corrections (PTCC) case management system. The PTCC case management system was developed under the auspices of the Virginia Department of Criminal Justice Services and is required to be used at all local probation and pretrial service agencies. Criminal history and recidivism information was obtained from the Virginia State Police. Criminal history information was separated into three categories: prior criminal history, placement offense/offenses and recidivism offenses. Recidivism offenses were further divided into two categories, in-program recidivism and post-supervision recidivism.

*In-program recidivism* was defined as an arrest for a criminal offense that occurred between the probation entry and exit date. *Post-supervision recidivism* was defined as a conviction for a new criminal offense that occurred anytime between the exit date from probation and two years following exit. To be counted as a recidivist event, both the arrest and conviction had to occur within three years of exiting probation.

# MOST Re-Validation

The Modified Offender Screening Tool (MOST) is a standardized objective screening instrument developed to assist in evaluating and predicting risk and assigning the initial level of supervision to offenders placed on probation. A copy of MOST instrument can be found in Appendix A. A total of 14,601 probationers in the sample had a MOST score. *Table 1* describes the validation sample. Approximately fifty-nine percent (58.8%) of the sample scored in the range defined as low risk (0-2). The remaining portion of the sample scored in the range that would warrant further screening.

Table : MOST Score Distribution – Full Sample

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MOST Score** | **N = 14,601** | **%** | **Cumulative %** | **Risk Level** |
| 0 | 24 | 0.2% | 0.2% | Low |
| 1 | 3,862 | 26.5% | 26.6% | Low |
| 2 | 4,706 | 32.2% | 58.8% | Low |
| 3 | 2,562 | 17.5% | 76.4% | Further Assessment |
| 4 | 1,789 | 12.3% | 88.6% | Further Assessment |
| 5 | 1,033 | 7.1% | 95.7% | Further Assessment |
| 6 | 457 | 3.1% | 98.7% | Further Assessment |
| 7 | 152 | 1% | 99.9% | Further Assessment |
| 8 | 16 | 0.1% | 100.0% | Further Assessment |

*Table 2* shows the distribution of MOST scores by gender. There was a statistically significant differences in the percentage of male probationers categorized as low risk by the MOST (55.0% of the sample), compared to the percentage of female probationers categorized as low risk by the MOST (67.1% of the sample).

Table : MOST Score Distribution by Gender

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MOST Score** | **Male Probationers** | | | **Female Probationers** | | | **Risk Level** |
| **N = 9,998** | **%** | **Cumulative %** | **N = 4,603** | **%** | **Cumulative %** |
| 0 | 19 | 0.2% | 0.2% | 5 | 0.1% 0.1% | 0.1% | Low |
| 1 | 2360 | 23.6% | 23.8% | 1502 | 32.6% 32.6% | 32.7% | Low |
| 2 | 3123 | 31.2% | 55.0% | 1583 | 34.4% 34.4% | 67.1% | Low |
| 3 | 1821 | 18.2% | 73.2% | 741 | 16.1% 16.1% | 83.2% | Further Assessment |
| 4 | 1319 | 13.2% | 86.4% | 470 | 10.2% 10.2% | 93.4% | Further Assessment |
| 5 | 832 | 8.3% | 94.8% | 201 | 4.4% | 97.8% | Further Assessment |
| 6 | 374 | 3.7% | 98.3% | 83 | 1.8% | 99.5% | Further Assessment |
| 7 | 136 | 1.4% | 99.9% | 16 | 0.3% | 100.0% | Further Assessment |
| 8 | 14 | 0.1% | 100.0% | 2 | 0.0% | 100.0% | Further Assessment |

*Table 3* shows the distribution of MOST scores by race. There were no statistically significant differences in the percentage of white probationers categorized as low risk (58.2% of the sample), compared to the percentage of non-white probationers categorized as low risk (59.4% of the sample).

Table : MOST Score Distribution by Race

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MOST Score** | **White Probationers** | | | | | **Non-White Probationers** | | | **Risk Level** |
| **N = 7,256** | | **%** | | **Cumulative %** | **N = 7,345** | **%** | **Cumulative %** |
| 0 | 7 | 0.1% | | 0.1% | | 17 | 0.2% | 0.2% | Low |
| 1 | 1928 | 26.6% | | 26.7% | | 1934 | 26.3% | 26.6% | Low |
| 2 | 2291 | 31.6% | | 58.2% | | 2415 | 32.9% | 59.4% | Low |
| 3 | 1280 | 17.6% | | 75.9% | | 1282 | 17.5% | 76.9% | Further Assessment |
| 4 | 907 | 12.5% | | 88.4% | | 882 | 12.0% | 88.9% | Further Assessment |
| 5 | 500 | 6.9% | | 95.3% | | 533 | 7.3% | 96.2% | Further Assessment |
| 6 | 249 | 3.4% | | 98.6% | | 208 | 2.8% | 98.8% | Further Assessment |
| 7 | 84 | 1.2% | | 99.9% | | 68 | 0.9% | 99.9% | Further Assessment |
| 8 | 10 | 0.1% | | 100.0% | | 6 | 0.1% | 100.0% | Further Assessment |

*Table 4* shows probationer recidivism rates by MOST score. As expected, probationers with a higher MOST score had higher recidivism rates, both while on supervision and two years post supervision (as measured by a new arrest and a new conviction).

Table : Recidivism Rates by MOST Score

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MOST Score** | **In-Program Recidivism Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| 0 | 41.7%\* | 25.0% | 12.5% | Low |
| 1 | 10.2% | 25.5% | 14.5% | Low |
| 2 | 16.4% | 32.1% | 19.4% | Low |
| 3 | 23.5% | 40.6% | 24.4% | Further Assessment |
| 4 | 29.2% | 43.7% | 28.2% | Further Assessment |
| 5 | 36.9% | 49.9% | 32.3% | Further Assessment |
| 6 | 38.7% | 55.1% | 38.3% | Further Assessment |
| 7 | 53.9% | 59.9% | 43.4% | Further Assessment |
| 8 | 50.0% | 50.0% | 50.0% | Further Assessment |
| **Average** | **20.2%** | **35.5%** | **21.8%** |  |

\*This finding is a likely the result of small sample size.

*Table 5* shows probationer recidivism rates by gender and MOST score. There were differences in how well the MOST predicted recidivism based on gender. Specifically, while MOST scores did a good job predicting recidivism in male probationers, the MOST was less effective in predicting female recidivism under the current scoring system as evidenced by the two-year post-supervision conviction rates of female probationers with MOST scores of 3, 4 and 5.

Table : Recidivism Rates by Gender and MOST Score

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MOST**  **Score** | **Male Probationers** | | | **Female Probationers** | | | **Risk Level** |
| **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** |
| 0 | 42.1% | 26.3% | 15.8% | 40.0% | 20.0% | 0.0% | Low |
| 1 | 11.9% | 28.0% | 16.7% | 7.4% | 21.5% | 11.1% | Low |
| 2 | 17.8% | 33.4% | 20.3% | 13.7% | 29.6% | 17.6% | Low |
| 3 | 23.9% | 42.2% | 25.4% | 22.5% | 36.7% | 21.9% | Further Ass. |
| 4 | 28.6% | 44.6% | 29.0% | 30.9% | 41.3% | 26.2% | Further Ass. |
| 5 | 37.3% | 51.9% | 33.7% | 35.3% | 41.3% | 26.9% | Further Ass. |
| 6 | 38.2% | 54.5% | 37.4% | 41.0% | 57.8% | 42.2% | Further Ass. |
| 7 | 54.4% | 58.8% | 41.9% | 50.0% | 68.8% | 56.3% | Further Ass. |
| 8 | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | Further Ass. |
| **Average** | **21.9%** | **37.9%** | **23.6%** | **16.4%** | **30.4%** | **18.0%** |  |

*Table 6* shows probationer recidivism rates by race and MOST score. There were no statistically significant differences in how well the MOST predicted criminal recidivism based on race.

Table : Recidivism Rates by Race and MOST Score

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MOST**  **Score** | **White Probationers** | | | **Non-White Probationers** | | | **Risk** |
| **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** |
| 0 | 14.3% | 0.0%\* | 0.0%\* | 52.9% | 35.3% | 17.6% | Low |
| 1 | 10.0% | 24.1% | 14.5% | 10.4% | 26.9% | 14.5% | Low |
| 2 | 15.8% | 29.7% | 18.5% | 16.9% | 34.3% | 20.2% | Low |
| 3 | 23.0% | 38.8% | 24.1% | 24.0% | 42.4% | 24.7% | Further Ass. |
| 4 | 30.5% | 42.7% | 27.6% | 27.8% | 44.8% | 28.9% | Further Ass. |
| 5 | 37.0% | 45.8% | 28.8% | 36.8% | 53.7% | 35.6% | Further Ass. |
| 6 | 39.8% | 55.8% | 39.8% | 37.5% | 54.3% | 36.5% | Further Ass. |
| 7 | 58.3% | 53.6% | 41.7% | 48.5% | 67.6% | 45.6% | Further Ass. |
| 8 | 60.0% | 80.0% | 80.0% | 33.3% | 0.0%\* | 0.0%\* | Further Ass. |
| **Average** | **20.2%** | **33.8%** | **21.3%** | **20.2%** | **37.3%** | **22.3%** |  |

\*This finding is a likely the result of small sample size.

# OST Re-Validation

The Offender Screening Tool (OST) is a standardized objective risk and needs assessment instrument developed to assist in evaluating and predicting risk, identifying criminogenic needs to be addressed in the case plan and assigning the level of supervision to probationers. A copy of the OST instrument can be found in Appendix A. A total of 6,852 probationers in the sample had an OST score. *Table 7* describes the OST validation sample. Approximately twenty-one percent (21.7%) of the sample scored in the range defined by the OST as low risk (0-6), 75.1% of the sample scored in the range defined by the OST as medium risk (75.1%). The remaining portion of the sample scored in the range defined by the OST as high risk (3.2%).

Table : OST Score Distribution – Full Sample

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OST Score** | **# of Probationers** | **% of Sample** | **Cumulative %** | **Risk Level** |
| 0 | 11 | 0.2% | 0.2% | Low Risk |
| 1 | 26 | 0.4% | 0.5% | Low Risk |
| 2 | 96 | 1.4% | 1.9% | Low Risk |
| 3 | 187 | 2.7% | 4.7% | Low Risk |
| 4 | 306 | 4.5% | 9.1% | Low Risk |
| 5 | 377 | 5.5% | 14.6% | Low Risk |
| 6 | 481 | 7.0% | 21.7% | Low Risk |
| 7 | 513 | 7.5% | 29.1% | Medium Risk |
| 8 | 559 | 8.2% | 37.3% | Medium Risk |
| 9 | 571 | 8.3% | 45.6% | Medium Risk |
| 10 | 566 | 8.3% | 53.9% | Medium Risk |
| 11 | 520 | 7.6% | 61.5% | Medium Risk |
| 12 | 459 | 6.7% | 68.2% | Medium Risk |
| 13 | 405 | 5.9% | 74.1% | Medium Risk |
| 14 | 391 | 5.7% | 79.8% | Medium Risk |
| 15 | 294 | 4.3% | 84.1% | Medium Risk |
| 16 | 275 | 4.0% | 88.1% | Medium Risk |
| 17 | 198 | 2.9% | 91.0% | Medium Risk |
| 18 | 146 | 2.1% | 93.1% | Medium Risk |
| 19 | 139 | 2.0% | 95.2% | Medium Risk  Medium Risk |
| 20 | 111 | 1.6% | 96.8% | Medium Risk |
| 21 | 57 | 0.8% | 97.6% | High Risk |
| 22 | 42 | 0.6% | 98.2% | High Risk |
| 23 | 40 | 0.6% | 98.8% | High Risk |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OST Score** | **# of Probationers** | **% of Sample** | **Cumulative %** | **Risk Level** |
| 24 | 18 | 0.3% | 99.1% | High Risk |
| 25 | 22 | 0.3% | 99.4% | High Risk |
| 26 | 14 | 0.2% | 99.6% | High Risk |
| 27 | 6 | 0.1% | 99.7% | High Risk |
| 28 | 9 | 0.1% | 99.8% | High Risk |
| 29 | 8 | 0.1% | 99.9% | High Risk |
| 30 | 5 | 0.1% | 100.0% | High Risk |

*Table 8* shows the distribution of OST scores by gender. The individual OST scores have been collapsed into three categories of low, medium and high-risk*.* There were no statistically significant differences in the percentage of male probationers categorized as low risk by the OST (21.4% of the sample), compared to the percentage of female probationers categorized as low risk by the OST (22.4% of the sample). Likewise, 3.2% of the male probationers were categorized as high risk while 3.3% of the female probationers were categorized as high risk.

Table : OST Score Distribution by Gender

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Male Probationers** | | | **Female Probationers** | | | |  |
| **OST Score** N = 14,601 % Cumulative % Risk Level | **N = 5,163** | **%** | **Cumulative %** | **N = 1,689** | **%** | | **Cumulative %** | **Risk Level** |
| <7 | 1,105 | 21.4% | 21.4% | 379 | | 22.4% | 22.4% | Low |
| 7-20 | 3,893 | 75.4% | 96.8% | 1,254 | | 74.2% | 96.7% | Medium |
| 21-44 | 165 | 3.2% | 100.0% | 56 | | 3.3% | 100.0% | High |

*Table 9* shows the distribution of OST scores by race. There were no statistically significant differences in the percentage of white probationers categorized as low risk (23.1% of the sample), compared to the percentage of non-white probationers categorized as low risk (20.3% of the sample). Likewise, 3.6% of white probationers were categorized as high risk while 2.9% of non-white probationers were categorized as high risk.

Table : OST Score Distribution by Race

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **White Probationers** | | | **Non-White Probationers** | | |  |
| **OST Score** N = 14,601 % Cumulative % Risk Level | **N = 3,306** | **%** | **Cumulative %** | **N = 3,546** | **%** | **Cumulative %** | **Risk Level** |
| <7 | 763 | 23.1% | 23.1% | 721 | 20.3% | 20.3% | Low |
| 7-20 | 2,424 | 73.3% | 96.4% | 2,723 | 76.8% | 97.1% | Medium |
| 21-44 | 119 | 3.6% | 100.0% | 102 | 2.9% | 100.0% | High |

*Table 10* shows probationer recidivism rates by OST score. As expected, probationers with higher OST scores had higher recidivism rates, both while on supervision and two years post supervision (as measured by a new arrest and a new conviction). For the recidivism rates of each OST score, please see Appendix B.

Table : Recidivism Rates by OST Score

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OST Score** | **In-Program Recidivism Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| <7 | 18.1% | 35.3% | 20.8% | Low |
| 7-20 | 34.3% | 46.8% | 30.2% | Medium |
| 21-44 | 50.7% | 58.8% | 43.9% | High |
| **Average** | **31.3%** | **44.7%** | **28.6%** |  |

*Table 11* shows probationer recidivism rates by gender and OST score. There were no statistically significant differences in the effectiveness of the OST in predicting criminal recidivism based on gender.

Table : Recidivism Rates by Gender and OST Score

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Male Probationers** | | | **Female Probationers** | | |  |
| **OST**  **Score** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| <7 | 18.5% | 36.1% | 20.5% | 16.9% | 33.0% | 21.4% | Low |
| 7-20 | 35.3% | 47.6% | 30.9% | 31.1% | 44.6% | 27.9% | Medium |
| 21-44 | 53.3% | 56.4% | 40.6% | 42.9% | 66.1% | 53.6% | High |
| **Average** | **32.3%** | **45.4%** | **29.0%** | **28.3%** | **42.7%** | **27.3%** |  |

*Table 12* shows probationer recidivism rates by race and OST score. There were no statistically significant differences in the effectiveness of the OST in predicting criminal recidivism based on race.

Table : Recidivism Rates by Race and OST Score

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **White Probationers** | | | **Non-White Probationers** | | |  |
| **OST**  **Score** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| <7 | 17.7% | 32.6% | 20.8% | 18.4% | 38.1% | 20.7% | Low |
| 7-20 | 33.5% | 45.5% | 29.8% | 35.1% | 48.0% | 30.5% | Medium |
| 21-44 | 54.6% | 61.3% | 46.2% | 46.1% | 55.9% | 41.2% | High |
| **Average** | **30.6%** | **43.1%** | **28.3%** | **32.0%** | **46.2%** | **28.8%** |  |

# Proxy Risk Norming for Virginia Local Probation Placements

The Proxy Risk Triage Screener is a 3-item screening instrument that calculates a risk score based on age at probation placement, age at first arrest and number of prior adult arrests. The NCSC evaluation team had access to the data points needed to calculate risk using this method except “age at first arrest” was restricted to adult arrests only based on available data. The scoring for proxy risk in Virginia was established in a previous recidivism study involving FY05-11 local probation completers in Virginia. *Figure 1* details how proxy risk is scored based on the previous study.

Figure : Scoring for Proxy Risk with Virginia Local Probation Sample

|  |  |  |
| --- | --- | --- |
| **Current Age at Time of Probation Placement**  \_\_\_\_\_\_ | (<22) = 2  (22-33) = 1  (34+) = 0 | Score |
| **Age at First Adult Arrest**  *(from review of criminal history)*  \_\_\_\_\_\_ | (<20) = 3  (20-25) = 2  (26+) = 1 | Score |
| **Number of Prior Adult Arrests**  *(from review of criminal history – includes arrests, summons, and warrants or any criminal offense including criminal traffic)*  \_\_\_\_\_\_ | (+4) = 3  (1-4) = 2  (0) = 1 | Score |

*Table 13* shows the distribution of proxy risk across the FY12 sample which included 16,789 probationers. Probationers with proxy risk scores between 2 and 5 were considered low risk (57.5% of the sample), probationers with proxy risk scores of 6 or 7 were considered medium risk (41.5%) and probationers with a proxy risk score of 8 were considered high risk (0.9%).

Table :Proxy Risk Distribution – full sample

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Proxy Risk** | **N = 16,799** | **%** | **Cumulative %** | **Risk Level** |
| 2 | 1,002 | 6.0% | 6.0% | Low |
| 3 | 2,284 | 13.6% | 19.6% | Low |
| 4 | 2,442 | 14.5% | 34.1% | Low |
| 5 | 3,933 | 23.4% | 57.5% | Low |
| 6 | 4,655 | 27.7% | 85.2% | Medium |
| 7 | 2,325 | 13.8% | 99.1% | Medium |
| 8 | 158 | 0.9% | 100.0% | High |

*Table 14* shows the distribution of proxy risk by gender. There were statistically significant differences in the percentage of male probationers categorized as low risk per the proxy risk score (54.1% of the sample), compared to the percentage of female probationers categorized as low risk per the proxy risk score (65.2% of the sample). There were also small differences in the percentage of male probationers categorized as high risk (1.1%) compared to the percentage of female probationers categorized as high risk (0.6%)

Table : Proxy Risk by Gender

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Male Probationers** | | | **Female Probationers** | | | |  |
| **Proxy Risk** | **N = 11,665** | **%** | **Cumulative %** | **N = 5,134** | **%** | **Cumulative %** | | **Risk Level** |
| 2 | 674 | 5.8% | 5.8% | 328 | 6.4% | 6.4% | Low | |
| 3 | 1,397 | 12.0% | 17.8% | 887 | 17.3% | 23.7% | Low | |
| 4 | 1,569 | 13.5% | 31.2% | 873 | 17.0% | 40.7% | Low | |
| 5 | 2,674 | 22.9% | 54.1% | 1,259 | 24.5% | 65.2% | Low | |
| 6 | 3,417 | 29.3% | 83.4% | 1,238 | 24.1% | 89.3% | Medium | |
| 7 | 1,805 | 15.5% | 98.9% | 520 | 10.1% | 99.4% | Medium | |
| 8 | 129 | 1.1% | 100.0% | 29 | 0.6% | 100.0% | High | |

*Table 15* shows the distribution of proxy risk by race. There were no statistically significant differences in the percentage of white probationers categorized as low risk (57.5% of the sample), compared to the percentage of non-white probationers categorized as low risk (56.2% of the sample). Likewise, there were no statistically significant differences in the percentage of white probationers categorized as high risk (0.8%) compared to the percentage of non-white probationers categorized as high risk (1.1%)

Table : Proxy Risk Distribution by Race

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **White Probationers** | | | | | **Non-White Probationers** | | | | | |  |
| **Proxy Risk** % Cumulative % Risk Level | **N = 8,259** | | **%** | | **Cumulative %** | | **N = 8,540** | | **%** | **Cumulative %** | | **Risk Level** |
| 2 | | 546 | | 6.6% | 6.0% | 456 | | 5.3% | | | 5.3% | Low |
| 3 | | 1,168 | | 14.1% | 19.6% | 1,116 | | 13.1% | | | 18.4% | Low |
| 4 | | 1,237 | | 15.0% | 34.1% | 1,205 | | 14.1% | | | 32.5% | Low |
| 5 | | 1,912 | | 23.2% | 57.5% | 2,021 | | 23.7% | | | 56.2% | Low |
| 6 | | 2,248 | | 27.2% | 85.2% | 2,407 | | 28.2% | | | 84.4% | Medium |
| 7 | | 1,083 | | 13.1% | 99.1% | 1,242 | | 14.5% | | | 98.9% | Medium |
| 8 | | 65 | | 0.8% | 100.0% | 93 | | 1.1% | | | 100.0% | High |

*Table 16* shows probationer recidivism rates by proxy risk score. As expected, probationers with a higher proxy risk score have higher recidivism rates, both while on supervision and two years post supervision (as measured by a new arrest and a new conviction).

Table : Recidivism Rates by Proxy Risk

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Proxy Risk** | **In-Program Recidivism Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| 2 | 6.3% | 13.0% | 6.7% | Low |
| 3 | 13.1% | 20.7% | 12.7% | Low |
| 4 | 18.2% | 32.1% | 19.3% | Low |
| 5 | 21.3% | 36.9% | 22.9% | Low |
| 6 | 26.7% | 43.4% | 26.6% | Medium |
| 7 | 35.7% | 54.5% | 36.5% | Medium |
| 8 | 48.1% | 72.2% | 52.5% | High |

*Table 17* shows probationer recidivism rates by gender and proxy risk score. There were differences in how well proxy risk predicts recidivism based on gender. Specifically, while proxy risk scores effectively predicted recidivism in male probationers, they are less effective in predicting female recidivism under the current scoring system as evidenced by the two-year post-supervision conviction rates of female probationers with proxy risk scores of 4, 5 and 6.

Table : Recidivism Rates by Gender and Proxy Risk

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Male Probationers** | | | **Female Probationers** | | |  |
| **Proxy Risk** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| 2 | 7.0% | 11.1% | 5.8% | 4.9% | 16.8% | 8.5% | Low |
| 3 | 14.4% | 20.9% | 13.2% | 11.0% | 20.3% | 11.8% | Low |
| 4 | 17.7% | 30.2% | 18.3% | 19.1% | 35.5% | 21.1% | Low |
| 5 | 23.6% | 38.4% | 23.9% | 16.4% | 33.7% | 20.7% | Low |
| 6 | 28.3% | 46.8% | 29.1% | 22.4% | 34.2% | 20.0% | Medium |
| 7 | 37.2% | 57.0% | 38.3% | 30.2% | 45.6% | 30.2% | Medium |
| 8 | 49.6% | 73.6% | 53.5% | 41.4% | 65.5% | 48.3% | High |
| **Average** | **24.5%** | **39.3%** | **24.9%** | **18.2%** | **32.1%** | **19.4%** |  |

*Table 18* shows probationer recidivism rates by race and proxy risk score. There were no statistically significant differences in how well proxy risk predicted recidivism based on race.

Table : Recidivism Rates by Race and Proxy Risk

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **White Probationers** | | | **Non-White Probationers** | | |  |
| **Proxy Risk** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **In-Program Re-Arrest Rate** | **Two Year Post Supervision**  **Re-Arrest Rate** | **Two Year Post Supervision Conviction Rate** | **Risk Level** |
| 2 | 6.6% | 12.3% | 6.6% | 5.9% | 13.8% | 6.8% | Low |
| 3 | 14.0% | 22.1% | 14.2% | 12.2% | 19.2% | 11.0% | Low |
| 4 | 20.0% | 33.1% | 20.7% | 16.3% | 31.1% | 17.8% | Low |
| 5 | 21.7% | 35.6% | 23.0% | 21.0% | 38.1% | 22.8% | Low |
| 6 | 26.0% | 40.6% | 25.2% | 27.4% | 46.1% | 28.0% | Medium |
| 7 | 33.5% | 51.1% | 35.3% | 37.5% | 57.4% | 37.6% | Medium |
| 8 | 46.2% | 69.2% | 50.8% | 49.5% | 74.2% | 53.8% | High |
| **Average** | **22.3%** | **35.4%** | **22.8%** | **22.9%** | **38.8%** | **23.7%** |  |

# Findings and Recommendations

The following is a summary of the major findings:

1. All three tools (the MOST, OST and proxy risk) are valid instruments that can be used to effectively predict risk of criminal recidivism. With all three instruments, higher scores correspond to higher rates of recidivism two years’ post-supervision and these findings are statistically significant. *Figure 2* and *Figure 3* depict the survival functions taken from the Kaplan Meier Regression technique. The Kaplan-Meier technique is the simplest way of computing the likelihood something will happen over time. In this instance, *Figure 2* and *Figure 3* are showing the likelihood a probationer will reoffend, based on a specific risk score. Each survival curve represents individual scores. The survival curves calculated for each score are significantly distinct and separate from each other. The greater the separation of individually plotted scores, the greater the difference found in recidivism rates for each score.

Figure : Survival Functions for MOST



Figure : Survival Functions for Proxy Risk



The OST is not modeled visually because of the large number of possible scores but the OST was also found to be a valid instrument.

1. Cox Regression analysis substantiates the internal validity of each of the instruments. The odds ratio (Exp. (B)) for each instrument represents a statistically significant (p<.05) probability of recidivism (as defined by a new conviction within two years of leaving supervision).

Table : Cox Regression analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk Instrument** | **SE** | **Wald** | **Sign.** | **Exp. (B)** |
| MOST | 0.01 | 407.48 | 0.00 | 1.24 |
| Proxy Risk | 0.02 | 623.14 | 0.00 | 1.35 |
| OST | 0.00 | 121.42 | 0.00 | 1.05 |

“SE” refers to the standard error, which indicates the variation of scores from the mean. The Wald is a chi square statistical test used in regression analysis and is used to determine the statistical significance of the Exp. (B) or odds ratio.

1. While the MOST and proxy risk generally sort the same percentage of probationers into low risk categories (57% of probationers are low-risk per proxy risk while 58.8% of probationers are low risk per the MOST), they do not always place the same person in the same category (65.4% of probationers categorized as low risk by proxy risk are also low-risk per the MOST). The low correlation between measures is not a concern since both tools effectively predict recidivism.
2. There are no statistically significant differences in how well any of the instruments predict recidivism among probationers of different races.
3. The MOST and proxy risk instruments are more effective at predicting recidivism in men versus women. For females, increases in risk score do not always translate into step-like increase in re-offense rates, particularly among medium risk probationers. There are no gender differences observed in the OST. In the proxy risk scoring system, a score of 5 is considered low risk while a score of 6 results in a recommendation to pursue further assessment. However, for females, the recidivism rates associated with a score of 6 on proxy risk is virtually the same as the recidivism rates associated with a score of 5, and not much different than the recidivism rates associated with a score of 4. This suggests that there should be different cut-offs for males versus female when it comes to determining who should be assessed further.

## Recommendations

**Recommendation 1:** The NCSC recommends that the Virginia Department of Criminal Justice Services consider replacing the MOST with proxy risk as the screening instrument to determine which probationers should be fully assessed using the OST. The primary value of adopting this recommendation is that screening could occur prior to the first face-to-face appointment and assessment, where recommended, could take place at the initial appointment. This would allow case plans, where appropriate, to be developed earlier in the supervision period. Given the short period of time local probationers are under supervision, this reduction in assessment time is meaningful. In addition, proxy has better utility and increased accuracy, and can be done without the probationer present in an interview.

**Recommendation 2:** Based on the demonstrated gender differences as they relate to recidivism, the NCSC evaluation team recommends slightly modifying the current MOST and proxy risk scoring system. *Table 20* and *Table 21* outline the proposed modifications to the current scoring system.

Table : Recommended Modified Scoring for MOST

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Current System** | **Proposed system** | |
| **MOST**  **Score** | **Risk Level** | **Males** | **Females** |
| 0 | Low | Low | Low |
| 1 | Low | Low | Low |
| 2 | Low | Low | Low |
| 3 | Further Assessment | Further Assessment | Low |
| 4 | Further Assessment | Further Assessment | Further Assessment |
| 5 | Further Assessment | Further Assessment | Further Assessment |
| 6 | Further Assessment | Further Assessment | Further Assessment |
| 7 | Further Assessment | Further Assessment | Further Assessment |
| 8 | Further Assessment | Further Assessment | Further Assessment |

Table : Recommended Modified Scoring for Proxy Risk

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Current System** | **Proposed system** | |
| **Proxy Risk** | **Risk Level** | **Males** | **Females** |
| 2 | Low | Low | Low |
| 3 | Low | Low | Low |
| 4 | Low | Low | Low |
| 5 | Low | Low | Low |
| 6 | Further Assessment | Further Assessment | Low |
| 7 | Further Assessment | Further Assessment | Further Assessment |
| 8 | Further Assessment | Further Assessment | Further Assessment |

**Recommendation 3:** To more accurately correlate risk with supervision for those local probationers who fall into the medium and high risk categories of the OST, the NCSC evaluation team recommends making the adjustment outlined in *Table 22* to the OST scoring system. If this recommendation is adopted, DCJS will need to consider the impact on supervision levels.

Table : Recommended Modified OST Scoring

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OST Score** | **# of Probationers** | **% of Sample** | **Cumulative %** | **Rec. Rate** | **Current Risk Level** | **Proposed Risk Level** |
| 0 | 11 | 0.2% | 0.2% | 27.3% | Low Risk | Low Risk |
| 1 | 26 | 0.4% | 0.5% | 30.8% | Low Risk | Low Risk |
| 2 | 96 | 1.4% | 1.9% | 17.7% | Low Risk | Low Risk |
| 3 | 187 | 2.7% | 4.7% | 27.3% | Low Risk | Low Risk |
| 4 | 306 | 4.5% | 9.1% | 27.3% | Low Risk | Low Risk |
| 5 | 377 | 5.5% | 14.6% | 17.0% | Low Risk | Medium Low |
| 6 | 481 | 7.0% | 21.7% | 22.7% | Low Risk | Medium Low |
| 7 | 513 | 7.5% | 29.1% | 23.0% | Medium Risk | Medium Low |
| 8 | 559 | 8.2% | 37.3% | 25.8% | Medium Risk | Medium Low |
| 9 | 571 | 8.3% | 45.6% | 29.4% | Medium Risk | Medium Low |
| 10 | 566 | 8.3% | 53.9% | 27.4% | Medium Risk | Medium Low |
| 11 | 520 | 7.6% | 61.5% | 30.8% | Medium Risk | Medium Low |
| 12 | 459 | 6.7% | 68.2% | 31.2% | Medium Risk | Medium High |
| 13 | 405 | 5.9% | 74.1% | 28.4% | Medium Risk | Medium High |
| 14 | 391 | 5.7% | 79.8% | 30.9% | Medium Risk | Medium High |
| 15 | 294 | 4.3% | 84.1% | 34.4% | Medium Risk | Medium High |
| 16 | 275 | 4.0% | 88.1% | 34.9% | Medium Risk | Medium High |
| 17 | 198 | 2.9% | 91.0% | 44.9% | Medium Risk | Medium High |
| 18 | 146 | 2.1% | 93.1% | 33.6% | Medium Risk | Medium High |
| 19 | 139 | 2.0% | 95.2% | 34.5% | Medium Risk  Medium Risk | Medium High |
| 20 | 111 | 1.6% | 96.8% | 42.3% | Medium Risk | Medium High |
| 21 | 57 | 0.8% | 97.6% | 27.3% | High Risk | Medium High |
| 22 | 42 | 0.6% | 98.2% | 54.8% | High Risk | High Risk |
| 23 | 40 | 0.6% | 98.8% | 45.0% | High Risk | High Risk |
| 24 | 18 | 0.3% | 99.1% | 55.6% | High Risk | High Risk |
| 25 | 22 | 0.3% | 99.4% | 40.9% | High Risk | High Risk |
| 26 | 14 | 0.2% | 99.6% | 35.7% | High Risk | High Risk |
| 27 | 6 | 0.1% | 99.7% | 33.3% | High Risk | High Risk |
| 28 | 9 | 0.1% | 99.8% | 22.2% | High Risk | High Risk |
| 29 | 8 | 0.1% | 99.9% | 50.0% | High Risk | High Risk |
| 30 | 5 | 0.1% | 100.0% | 20.0% | High Risk | High Risk |

\*While the OST score can go up to 55, there were no scores in the sample above 30.

# Appendix A

**VA Modified Offender Screening Tool (MOST)**

Client Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Offense: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Administered: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Screener: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SSN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**VOCATIONAL/FINANCIAL**

*To assess: the client’s current verifiable employment situation*

**What is your current employment status?**

**0** Stable employment/Disabled/Retired/Student/Financially secure – sufficient funds to meet needs

**0** Stay at home parent/caregiver

**1**  Currently unemployed

**1** Temporary and or seasonally employed

**1** Paid under the table

**1** Welfare/Public Assistance Score

Comments:

**INTIMATE/ROMANTIC RELATIONSHIPS**

*To assess: what best describes the client’s current most significant companion/romantic relationship*

**How would you describe your present significant/romantic relationship?**

**0** Strong, supportive, loving

**1** Problematic – moderate to serious conflict (e.g. separation, pending divorce,

domestic violence or significant relationship problems)

**1** Not currently in a relationship Score **\_\_\_\_\_**

Comments:

**SOCIAL RELATIONSHIPS**

*To assess: what best describes the client’s current peer and/or associate relationships*

**Who do you spend the most time with?**

**0**  Positive peers

**1** Negative peers, criminally oriented

**1** No age appropriate non-romantic friends Score **\_\_\_\_\_\_**

Comments:

**ALCOHOL (including present offense)**

*To assess: the number of alcohol related arrests*

**How many times were you arrested when you were under the influence of alcohol?**

**0**  None or One

**1** Two or More Score **\_\_\_\_\_\_**

Comments:

**DRUG ABUSE (including present offense)**

*To assess: the effect drug use has had on client's lifestyle in the month leading up to present offense*

**How would you describe your drug use one month prior to this offense?**

**0** No use/Use did not interfere with life

**1** Anyuse that interferes with life (i.e., social, legal, or health problems)

Score **\_\_\_\_\_\_**

Comments:

**ATTITUDE**

*To assess: if the client has attitudes that are non-conforming to societal norms*

**Tell me about your present offense? Your criminal history? What are your thoughts**

**about breaking the law?** (Listen for: rationalizations and minimizations about criminal behavior,

oppositional, defiance with authority…)

1. No, Prosocial
2. Yes, Antisocial Score

Comments:

**CRIMINAL HISTORY**

*To assess: the client’s number of prior juvenile adjudications and adult convictions*

**How many prior juvenile adjudications and adult convictions do you have?**

**0** Zero – 2

**1** 3 or More Score

Comments:

**CRIMINAL BEHAVIOR**

*To assess: the client’s number of previous felony convictions*

**How many previous felony convictions do you have?**

**0** None

**1** 1 or More Score

Comments:

**TOTAL MOST SCORE (Sum of all 8 items): \_\_\_\_\_\_\_\_\_\_**

**RISK LEVEL: SUPERVISION LEVEL:**

**0–2 LOW 0-2 ADMINISTRATIVE**

**3-8 REQUIRES FURTHER ASSESSMENT (OST)**

**Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Override: Yes No**

**Reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **OST – OFFENDER SCREENING TOOL**  Client: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Probation Officer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  SSN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| 1. **PHYSICAL HEALTH/MEDICAL** |  |
| **Health status:**  **a. 0** No problems **1** Interferes with probation |  |
| **b. 0** No limitations **1** Interferes with employment |  |
| TOTAL: \_\_\_\_\_/ 2 X 100 = | % |
| **II. VOCATIONAL / FINANCIAL** |  |
| **a. Current verified employment (or verifiable employment if currently incarcerated):**  **0** Employed/retired/financially secure **1** Unemployed (not including disability) |  |
| **b. How many times has the client been unemployed (for thirty days or more) in the past 3 years?**  **0** Two or less **1** Three or more |  |
| **c. Has the client ever been fired or asked to resign from a job within the last 3 years?**  **0** No **1** Yes |  |
| **d. Current financial situation:**  **0** Able to meet obligations **1** Difficulties/unable to meet obligations |  |
| **e. Receives regular support through assistance.**  **0** No **1** Yes |  |
| TOTAL: \_\_\_\_\_/ 5 X 100 = | % |
| **III. EDUCATION** |  |
| **a. Level of formal education:**  **0** Some H.S. or Voc. Training **1** 8th grade or below |  |
| **b. Ever suspended or expelled from school:**  **0** No **1** Yes |  |
| **c. Reading ability (from the WRAT):**  **0** 6th grade level or above **1** Below sixth grade level |  |
| TOTAL: \_\_\_\_/ 3 X 100 = | % |

|  |  |
| --- | --- |
| **IV. FAMILY AND SOCIAL RELATIONSHIPS** |  |
| **a. Was the client raised primarily by a biological parent?**  **0** Yes **1** No |  |
| **b. Did the client live in the family home until age 16?**  **0** Yes **1** No |  |
| **c. Does anyone in the client’s family (parents or siblings) have a criminal record?**  **0** No **1** Yes |  |
| **d. What is the status of the current family relations?**  **0** Positive **1** Negative |  |
| **e. What is the client's childhood history of domestic violence? (As victim or witness)**  **0** No history of violence **1** One or more incidents | \_\_\_\_\_\_\_\_\_ |
| **f. What best describes the client's current most significant companion/romantic relationship?**  **0** Strong/supportive/loving **1** Problematic or no companion |  |
| **g. What best describes the client's current peer and/or associate relationships?**  **0** Positive/prosocial **1** Negative (Criminal influences) |  |
| **h. Does the client associate with at least one prosocial person on a regular basis?**  **0** Yes **1** No |  |
| TOTAL: \_\_\_\_\_/ 8 X 100 = | % |
| **V. RESIDENCE and NEIGHBORHOOD** |  |
| **a. Client’s current residential arrangement:** *(If in jail, use the 6-month period before incarceration)*  **0** Positive and prosocial **1** Negative and/or antisocial |  |
| **b. Stability of client's residence:**  **0** Moved once or less in the **1** Moved 2 or more times in the last  last six months 6 months |  |
| TOTAL: \_\_\_\_\_/ 2 X 100 = | % |
| **VI. ALCOHOL** *(including present offense)* |  |
| **a. Total number of alcohol-related arrests:**  **0** None or One **1** Two or More |  |
| **b. Effect alcohol use had on client's lifestyle for the one month leading up to the present offense:**  **0** Manageable use (no significant **1** Problem / Interferes with life disruption to life) (i.e., social, legal, health, etc.) |  |
| **c. Client’s self-perception:**  **0** No problem or open to treatment **1** Denial / uninterested in treatment |  |
| TOTAL: \_\_\_\_\_/ 3 X 100 = | % |
| **VII. DRUG ABUSE** *(including present offense)* |  |
| **a. Any drug use over the past year?**  **0** No **1** Yes (includes experimentation) |  |
| **b. Effect of drug use in the one month leading up to the present offense?**  **0** No use/Use did not interfere with life **1** Any use that interferes with life  (i.e., social, legal, or health problems) |  |
| **c. Client’s self-perception:**  **0** No problem or open to treatment **1** Denial / uninterested in treatment |  |
| TOTAL: \_\_\_\_\_/ 3 X 100 = | % |
| **VIII. MENTAL HEALTH** |  |
| **a. History of mental illness (including suicide attempts):**  **0** No history **1** History of mental illness admissions/treatments |  |
| **b. Current mental health functioning:**  **0** Normal / stable **1** Problems (moderate to serious) |  |
| TOTAL: \_\_\_\_\_/ 2 X 100 = | % |
| **IX. ATTITUDE** |  |
| **a. Does client have attitudes supportive of crime?**  **0** No **1** Yes |  |
| **b. Does client have attitudes that are non-conforming to societal norms?**  **0** No **1** Yes |  |
| **c. Does client have a poor attitude about his/her current offense?**  **0** No **1** Yes |  |
| **d. Does client have a poor attitude about community supervision?**  **0** No **1** Yes |  |
| **e. Does client have a poor attitude toward authority figures?**  **0** No **1** Yes |  |
| **f. According to the Screener, what is the client’s motivation level to improve his/her life?**  **0** Good to Fair **1** Poor |  |
| **g. According to the Screener, this client’s need for improvement in attitude is:**  **0** None to Low **1** Moderate to High |  |
| TOTAL:\_\_\_\_\_\_\_/ 7 X 100= | % |
| **X. CRIMINAL BEHAVIOR** |  |
| **a. Age of first arrest:**  **0** 17 or older **1** 16 or younger |  |
| **b. Number of Prior Juvenile Adjudications and Adult Legal Involvements?**  **0** Zero – 2 **1** 3 or more |  |
| **c. Prior Juvenile or Adult Probation/Parole Revocations (no reinstatements)?**  **0** No **1** Yes |  |
| **d. If there are previous involvements, does the present offense generally represent an**  **increase in seriousness to the most recent involvement?**  **0** No **1** Yes |  |
| **e. Present Offense Designation:**  **0** Misdemeanor **1** Felony or Undesignated offenses |  |
| **f. Does the offender have any previous felony convictions?**  **0** No **1** Yes |  |
| **g. Is the present offense violent?**  **0** No **1** Yes |  |
| **h. Does the offender have at least one previous violent conviction?**  **0** No **1** Yes |  |
| **i. Does the offender have two or more previous violent convictions?**  **0** No **1** Yes |  |
| TOTAL: \_\_\_\_\_/ 9 X 100= | % |
| **TOTAL OST SCORE (Sum of all 10 categories; add all lines, NOT %):** |  |
| **Low Risk: 0-6**  **Medium Risk: 7-20**  **High Risk:** **21-44 Risk Level** |  |

# Appendix B

Table : Recidivism Rates by OST Score

|  |  |  |  |
| --- | --- | --- | --- |
| **OST Score** | **# Convicted w/in Two Years** | **% who Recidivated** | **Risk Level** |
| 0 | 3 | 27.3% | Low Risk |
| 1 | 8 | 30.8% | Low Risk |
| 2 | 17 | 17.7% | Low Risk |
| 3 | 38 | 27.3% | Low Risk |
| 4 | 69 | 27.3% | Low Risk |
| 5 | 64 | 17.0% | Low Risk |
| 6 | 109 | 22.7% | Low Risk |
| 7 | 118 | 23.0% | Medium Risk |
| 8 | 144 | 25.8% | Medium Risk |
| 9 | 168 | 29.4% | Medium Risk |
| 10 | 155 | 27.4% | Medium Risk |
| 11 | 160 | 30.8% | Medium Risk |
| 12 | 143 | 31.2% | Medium Risk |
| 13 | 115 | 28.4% | Medium Risk |
| 14 | 121 | 30.9% | Medium Risk |
| 15 | 101 | 34.4% | Medium Risk |
| 16 | 96 | 34.9% | Medium Risk  Medium Risk  Medium Risk  Medium Risk  Medium Risk |
| 17 | 89 | 44.9% | Medium Risk |
| 18 | 49 | 33.6% | Medium Risk |
| 19 | 48 | 34.5% | Medium Risk  Medium Risk  Medium Risk  Medium Risk  Medium Risk |
| 20 | 47 | 42.3% | Medium Risk |
| 21 | 23 | 27.3% | High Risk |
| 22 | 23 | 54.8% | High Risk |
| 23 | 18 | 45.0% | High Risk |
| 24 | 10 | 55.6% | High Risk  High Risk  High Risk |
| 25 | 9 | 40.9% | High Risk  High Risk  High Risk |
| 26 | 5 | 35.7% | High Risk |
| 27 | 2 | 33.3% | High Risk |
| 28 | 2 | 22.2% | High Risk |
| 29 | 4 | 50.0% | High Risk |
| 30 | 1 | 20.0% | High Risk |