

Revalidation of the  
Nevada Parole Board  
Risk Assessment Instrument

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# Study Background

- The Nevada Parole Board has been using an objective risk assessment instrument since 2004.
- The instrument has undergone three prior re-validation studies that have resulted in moderate modifications to the original instrument.
- The current instrument consists of 12 factors.
- Seven factors are static factors while the remaining five are dynamic factors.
- In the most recent re-validation study all 12 factors were found to be statistically associated with recidivism rates.
- All 12 factors reflect factors used in other risk assessment instruments

# Description of Re-Validation Study

- Consists of analyzing the recidivism rates (return to prison) of 3,366 prisoners released from prison either via parole or discharge between April 1, 2019 and March 31, 2020 – a 2.5 year follow-up period.
- Includes the 12 risk instrument factor scores and other background attributes.
- The return to prison rate is 24% which is lower than prior NPB studies and significantly lower than the national return to prison rate of about 45%.
- Part of the reason for the low rate has been the COVID-19 pandemic which has impacted technical violations
- The low recidivism rate has implications for a validation study as the vast majority of prisoners are not returning to prison – low amount of variance to explain.

# Results

- Ten of the 12 risk factors were found to be statistically associated with recidivism rates.
- Disciplinary conducts in the past year had no statistical relationship while Classification level had an inverse relationship.
- The total points and overall risk level are statistically associated with recidivism rates.
- However, the High risk group is small and does not have statistically higher recidivism rate.
- The cut-off point for Low risk

**Table 3. New Instrument by Scoring Item**

| Scoring Item                                     | Weight | Number       | Percent of Total | Percent Readmitted to Prison |
|--|--------|--------------|------------------|------------------------------|
| <b>Total</b>                                     |        | <b>3,666</b> | <b>100.0%</b>    | <b>24.0%</b>                 |
| <b>Age at First Arrest*</b>                      |        |              |                  |                              |
| 24 years or older                                | 0      | 651          | 17.8%            | 12.4%                        |
| 20-23 years                                      | 1      | 684          | 18.7%            | 20.2%                        |
| 19 years or younger                              | 2      | 2,331        | 63.6%            | 28.4%                        |
| <b>Prior Revocation*</b>                         |        |              |                  |                              |
| None   | 0      | 1,292        | 35.2%            | 15.3%                        |
| One or more                                      | 2      | 2,374        | 64.8%            | 28.8%                        |
| <b>Employment History*</b>                       |        |              |                  |                              |
| Satisfactory full time > 1 year                  | 0      | 917          | 25.0%            | 18.8%                        |
| Less than full time employment                   | 1      | 2,749        | 75.0%            | 25.8%                        |
| <b>Offense for Current or Prior Convictions*</b> |        |              |                  |                              |
| All others                                       | 0      | 912          | 24.9%            | 12.4%                        |
| Any property, robbery, forgery                   | 2      | 2,754        | 75.1%            | 27.9%                        |
| <b>History of Drug/Alcohol Abuse*</b>            |        |              |                  |                              |
| None   | 0      | 143          | 3.9%             | 8.4%                         |
| Some use   | 1      | 179          | 4.9%             | 17.3%                        |
| Frequent abuse                                   | 2      | 3,344        | 91.2%            | 25.0%                        |
| <b>Gender*</b>                                   |        |              |                  |                              |
| Female   | -1     | 596          | 16.3%            | 19.1%                        |
| Male   | 0      | 3,070        | 83.7%            | 25.0%                        |
| <b>Number of Prior Felony Convictions*</b>       |        |              |                  |                              |
| Less than 2                                      | 0      | 2,113        | 57.6%            | 21.9%                        |
| 2 or more  | 2      | 1,553        | 42.4%            | 26.9%                        |

|   |    |       |       |       |
|---|----|-------|-------|-------|
| <b>Number of Prior Felony Convictions*</b>  |    |       |       |       |
| Less than 2                                 | 0  | 2,113 | 57.6% | 21.9% |
| 2 or more                                   | 2  | 1,553 | 42.4% | 26.9% |
| <b>Current Age *</b>                        |    |       |       |       |
| 59 or older                                 | -2 | 168   | 4.6%  | 8.9%  |
| 40-58                                       | -1 | 1,130 | 30.8% | 20.5% |
| 33-39                                       | 0  | 878   | 23.9% | 24.8% |
| 23-32                                       | 1  | 1,289 | 35.2% | 27.2% |
| Under 23                                    | 2  | 201   | 5.5%  | 32.3% |
| <b>Active Gang*</b>                         |    |       |       |       |
| No  | 0  | 3,166 | 86.4% | 22.8% |
| Yes   | 2  | 500   | 13.6% | 31.4% |
| <b>DOC certified edu/voc/treat program*</b> |    |       |       |       |
| Yes   | -1 | 1,330 | 36.3% | 20.5% |
| No  | 0  | 2,336 | 63.7% | 26.0% |
|   |    |       |       |       |

| <b>Scoring Item</b>                   | <b>Weight</b> | <b>Number</b> | <b>Percent of Total</b> | <b>Percent Readmitted to Prison</b> |
|---------------------------------------|---------------|---------------|-------------------------|-------------------------------------|
| <b>Total</b>                          |               | <b>3,666</b>  | <b>100.0%</b>           | <b>24.0%</b>                        |
| Misconducts in Past Year              |               |               |                         |                                     |
| No Misconducts                        | 0             | 2,524         | 68.8%                   | 24.0%                               |
| One or more                           | 2             | 1,142         | 31.2%                   | 24.0%                               |
| Current Custody Level*                |               |               |                         |                                     |
| Minimum or medium                     | 0             | 3,532         | 96.3%                   | 24.4%                               |
| Close/max or disciplinary segregation | 2             | 134           | 3.7%                    | 14.2%                               |

Table 6.

## New Instrument Releases by Total Score and Risk Level

| Total Assessment Score                               | Risk Level | Number       | Percent of Total | Percent Readmitted to Prison |
|--|------------|--------------|------------------|------------------------------|
| <b>Total</b>   |            | <b>3,666</b> | <b>100.0%</b>    | <b>24.0%</b>                 |
| -3   | Low        | 9            | 0.2%             | 0.0%                         |
| -2   |            | 12           | 0.3%             | 0.0%                         |
| -1   |            | 21           | 0.6%             | 0.0%                         |
| 0  |            | 36           | 1.0%             | 0.0%                         |
| 1  |            | 61           | 1.7%             | 1.6%                         |
| 2  |            | 91           | 2.5%             | 2.2%                         |
| 3  |            | 130          | 3.5%             | 10.0%                        |
| 4  |            | 141          | 3.8%             | 8.5%                         |
| 5  |            | 211          | 5.8%             | 11.8%                        |
| 6  |            | 263          | 7.2%             | 15.6%                        |
| <b>7</b>   |            | <b>353</b>   | <b>9.6%</b>      | <b>22.1%</b>                 |
| <b>Low</b>   |            | <b>1,328</b> | <b>36.2%</b>     | <b>13.0%</b>                 |
| 8  | Moderate   | 393          | 10.7%            | 24.4%                        |
| 9  |            | 521          | 14.2%            | 30.9%                        |
| 10   |            | 483          | 13.2%            | 28.6%                        |
| <b>11</b>  |            | <b>386</b>   | <b>10.5%</b>     | <b>32.1%</b>                 |
| <b>12</b>  |            | <b>302</b>   | <b>8.2%</b>      | <b>35.8%</b>                 |
| <b>13</b>  | <b>173</b> | <b>4.7%</b>  | <b>37.6%</b>     |                              |
| <b>Moderate</b>                                      |            | <b>2,258</b> | <b>61.6%</b>     | <b>30.6%</b>                 |
| 14   | High       | 42           | 1.1%             | 23.8%                        |
| 15   |            | 21           | 0.6%             | 9.5%                         |
| 16+  |            | 16           | 0.5%             | 30.8%                        |
| <b>High</b>  |            | <b>79</b>    | <b>2.2%</b>      | <b>21.0%</b>                 |
| Avg. Score 8.2; Pearson Correlation .212; $p < .001$ |            |              |                  |                              |



# Options

- Option #1: Delete the two dynamic factors and adjust the cut-off points.
- Option #2: Retain the two dynamic factors but modify them as follows:
  1. Adjust the Current Classification level so that prisoners classified as Minimum receive a score of -1 and all others a score of zero; and,
  2. Adjust the Misconducts in the past year score so that prisoners with no misconducts receive a score of -1 and all others a score of zero.

Redefine "High" risk as "Higher" risk given the relatively low recidivism rates.

**Table 7.**  
**Revised Total Score and Risk Level**

| <b>Cut-off Points</b>   | <b>Total Assessment Score</b> | <b>Number</b> | <b>Percent of Total</b> | <b>Percent Readmitted to Prison</b> |
|---|-------------------------------|---------------|-------------------------|-------------------------------------|
|   | <b>Total</b>                  | <b>5,717</b>  | <b>100.0%</b>           | <b>24.0%</b>                        |
| <b>Low</b>  | -4                            | 1             | 0.0%                    | 0.0%                                |
|   | -3                            | 10            | 0.3%                    | 0.0%                                |
|   | -2                            | 13            | 0.4%                    | 0.0%                                |
|   | -1                            | 24            | 0.7%                    | 0.0%                                |
|   | 0                             | 49            | 1.3%                    | 0.0%                                |
|   | 1                             | 66            | 1.8%                    | 1.5%                                |
|   | 2                             | 102           | 2.8%                    | 3.9%                                |
|   | 3                             | 137           | 3.7%                    | 8.8%                                |
|   | 4                             | 171           | 4.7%                    | 7.6%                                |
|   | 5                             | 258           | 7.0%                    | 11.2%                               |
| <b>Low Total</b>  | <b>Avg. Score=3.0</b>         | <b>831</b>    | <b>22.7%</b>            | <b>7.1%</b>                         |
| <b>Mod.</b>   | 6                             | 306           | 8.3%                    | 17.3%                               |
|   | 7                             | 432           | 11.8%                   | 22.9%                               |
|   | 8                             | 482           | 13.1%                   | 27.4%                               |
| <b>Moderate Total</b>   | <b>Avg. Score=7.1</b>         | <b>1,220</b>  | <b>33.3%</b>            | <b>23.3%</b>                        |
| <b>Higher</b>   | 9                             | 613           | 16.7%                   | 33.3%                               |
|   | 10                            | 497           | 13.6%                   | 31.0%                               |
|   | 11                            | 290           | 7.9%                    | 36.6%                               |
|   | 12                            | 144           | 3.9%                    | 34.0%                               |
|   | 13                            | 56            | 1.5%                    | 32.4%                               |
|   | 14                            | 15            | 0.4%                    | 40.0%                               |
| <b>Higher Total</b>   | <b>Avg. Score=10.1</b>        | <b>1,615</b>  | <b>44.1%</b>            | <b>33.3%</b>                        |
| <b>Average Score 7.5 Pearson Correlation .238, Significant at the .01 level</b> |                               |               |                         |                                     |

Figure 1. Current vs. Option #1 Recidivism Rates

