

OYA Recidivism Risk Assessment – Violent Crime

As the state’s juvenile corrections agency, the Oregon Youth Authority (OYA) is responsible for youth who cannot safely live in the community and provides supervision and treatment opportunities to youth offenders throughout Oregon.

Whereas any new crime is unacceptable, reducing violent crime is among OYA’s very highest priorities. This, coupled with diminishing resources for juvenile corrections, lends urgency to the agency’s ongoing efforts to improve its ability to target supervision and treatment to youth who pose the greatest risk to public safety.

The ORRA-V Model

The OYA Recidivism Risk Assessment – Violent Crime (ORRA-V) predicts the likelihood a youth will be convicted or adjudicated for a violent felony crime within 36 months of commitment to probation or release from OYA close custody. The model assesses risk for violent or threatening crimes that result in—or could result in—physical harm. Examples include homicide, assault, rape, robbery, and weapon offenses.

A mathematical equation that relies solely on data collected as part of standard practice on all youth with records in Oregon’s statewide Juvenile Justice Information System (JJIS), ORRA-V quantifies the relationship of those factors found to be most closely associated with violent felony recidivism. All nine of the independent predictor variables (Table 1) included in the ORRA-V model were associated with an increased likelihood of recidivating.

The ORRA-V equation, which has been programmed into JJIS, produces a numeric score between zero and one. An ORRA-V score near zero indicates the youth is very unlikely to recidivate with with one of the violent crimes listed in Table 2, while a number near one identifies the youth as highly likely to recidivate with one of those violent crimes.

Developed on a large dataset of records from JJIS, the ORRA-V model is tuned specifically to predicting violent recidivism risk among Oregon’s youth offenders. ORRA-V recidivism risk scores can be generated automatically for youth in any of the following population groups:

- Juveniles placed on county probation
- Juveniles committed to OYA probation
- Juveniles released from OYA close custody
- DOC youth released to post-prison supervision (PPS) from OYA close custody

Table 1: ORRA-V Predictor Variables

VIOLENT FELONY RECIDIVISM PREDICTOR VARIABLES
Male
Prior weapon offense referral
Total prior misdemeanor referrals
Total prior felony referrals
Prior felony assault referral
Prior felony theft referral
Prior misdemeanor theft referral
Prior curfew violation referral
Total prior runaway referrals



Application of ORRA-V Scores

Placement and treatment decisions. While the agency has little direct influence over how many youth are committed to its custody, OYA does determine the specific close custody or residential placements for those youth. To protect the public, OYA places youth at higher risk of recidivating under higher levels of supervision. However, capacity in the system is not unlimited. Hence, the agency can consider ORRA-V scores along with other risk and needs information to determine which youth pose the greatest public safety risk.

The agency can also use ORRA-V scores to assist in determining the best treatment options for a youth. Youth at higher risk of violent recidivism may require not only a higher level of supervision but also a more intensive treatment program and longer dosage. Youth at lower risk may benefit from the provision of treatment programs in less restrictive—typically less costly—settings. This aligns well with OYA’s current practice of placing adjudicated juveniles in the least restrictive environment possible in which they can achieve their treatment goals.

Parole decisions. OYA has paroling authority for adjudicated juveniles committed to a youth correctional facility. Taken together with other available information about a youth—e.g., completion of treatment, school progress, behavior in the facility—ORRA-V results can help gauge a youth’s readiness for transition back into a community setting.

Sentencing practices. Making information about a youth’s risk for violent recidivism available to the judge, district attorney, youth’s lawyer, and family may make it possible to improve youth outcomes and conserve expensive resources without compromising public safety.

Summary

As the Oregon economy struggles to recover, government agencies are faced with record deficits in the current and coming biennia. In this environment, OYA services must be not only effective but *cost-effective*. ORRA-V—the agency’s most accurate and reliable tool for predicting whether a youth will recidivate with a violent crime—will be a valuable and practical asset for OYA as it endeavors to achieve its public safety mission through the prudent allocation of scarce resources to the supervision and rehabilitation of youth in its care. Results from ORRA-V will assist in individual youth case planning, youth placement, parole release decisions, and targeting factors related to violent offending.

Table 2: ORRA-V Violent Offenses

ORRA-V predicts a youth’s risk to recidivate with a felony conviction or adjudication for committing, conspiring, attempting, or soliciting someone to commit one of these crimes.

OFFENSE DESCRIPTION
Aggravated Animal Abuse
Arson
Assault
Burglary, Theft by Extortion
Child Neglect
Coercion
Compelling Prostitution
Criminal Mistreatment
Custodial Interference
Custodial Sexual Misconduct
Incest
Intimidation
Kidnapping
Murder, Homicide, Manslaughter
Possession of Child Sex Material
Rape, Sodomy, Sexual Penetration, Sexual Abuse
Riot
Robbery
Treason
Unlawful Possession of Firearms / Silencer, Unlawful Manufacture / Sale / Possession of Firearms
Using Child in Display of Sexually Explicit Conduct, Encouraging Child Sex Abuse