OYA Recidivism Risk Assessment

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. Recidivism—relapsing into criminal behavior—is the key measure of the extent to which OYA services have been able to protect the public.

The ORRA Model

The OYA Recidivism Risk Assessment (ORRA) predicts the likelihood a youth will recidivate with a felony conviction or adjudication within 36 months of commitment to probation or release from OYA close custody.

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 quantifies the relationship of those factors that were found to be most closely associated with recidivism. Of the 12 predictor variables included in the ORRA model, the only factor that reduced the likelihood of recidivating was a current sex offense disposition. The presence of all other factors increased the ORRA score.

ORRA MODEL: RECIDIVISM PREDICTOR VARIABLES
Prior felony drug or alcohol referral
Prior weapon offense referral
Age at start tracking (This is the age at the youth's release from close custody or the start of probation)
Prior criminal mischief referral
Total prior misdemeanor referrals
Total prior theft referrals
Prior delinquency adjudication
Total prior drug or alcohol referrals
Current sex offense disposition
Total prior runaway referrals
Total prior felony referrals
Male

The ORRA equation, which has been programmed into JJIS, produces a numeric score between zero and one. An ORRA score near zero indicates the youth is very unlikely to recidivate, while a number near one identifies the youth as highly likely to recidivate.

Developed on a large dataset of youth records from JJIS, the ORRA model is tuned specifically to predicting recidivism risk among Oregon's youth offenders. ORRA 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

Application of ORRA Scores

Placement and treatment decisions. OYA must carefully weigh how to best achieve its mission through the prudent allocation of scarce resources to youth in the agency's care. Knowledge of a youth's ORRA score and treatment needs can assist the OYA Director and other agency managers in identifying appropriate supervision levels, service dosage, and placement for each youth committed to OYA custody. The agency can minimize current and future public risk by reserving the most intensive—and most costly—supervision for offenders at the highest risk levels and most severe crimes. Youth at lower risk of recidivating can benefit from the provision of treatment programs in less restrictive—typically less costly—settings.

Parole decisions. OYA has paroling authority for adjudicated juveniles committed to a youth correctional facility. Taken together with other available information about a youth, ORRA results can help gauge a youth's readiness for transition back into a community setting.

Program evaluations. Using ORRA scores and other demographic variables, researchers can employ matched sample research designs that pair youth between any of the four key populations upon which the ORRA model was built and validated. Because youth outside the boundaries of the population under study are unlikely to have received the same treatment, ORRA vastly increases opportunities for matching treated youth with non-treated youth. Program evaluations provide critical input to agency discussions and decisions around selecting treatment programs, improving program implementation, and identifying the youth most likely to benefit from specific services.

Sentencing practices. ORRA risk distributions between the four populations groups were found to be very similar. The implication of this is that risk to recidivate has not been a strong consideration at the time of sentencing. In lieu of this, factors such as crime severity, victim statements, and the number of victims have no doubt had a larger influence in determining sentences. Making information about a youth's risk available to the judge, district attorney, the youth's lawyer, and family may make it possible to improve youth outcomes and conserve expensive resources without compromising public safety.

Foundation for future improvements in risk assessment. The current ORRA equation represents a starting point. Analysts fully anticipate that the model will evolve as the agency gains experience with the tool and new data elements become available. In the near-term, analysts will begin evaluating the ORRA model for predictive accuracy against major subpopulations—such as sex, crime type, and race/ethnicity—to determine whether the tool is assessing risk appropriately for all youth. Currently under development are risk tools for predicting violent recidivism and an enhanced version of ORRA that improves predictive accuracy specifically for youth released from OYA close custody.

Summary

As the Oregon economy struggles to recover, government agencies are faced with record deficits in the current and coming biennia. In this environment, agency services must be not only effective but *cost*-effective. The ORRA model will play an important role not only in making supervision and treatment decisions for individual youth but also in facilitating research into the effectiveness of program offerings for youth offenders.