

Risk Assessment and Racial Fairness: The Proper Use of Risk-Needs Assessments

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Actuarial risk-needs assessment tools are used in the justice system to determine a person's risk of recidivism and criminogenic needs. These tools can provide judges and probation and parole officers with valuable information to assist them in determining what support and services, and what level of support and services, will best help a person succeed on supervision and beyond. There is real and legitimate concern, however, about the impact of these tools on racial and ethnic disparities in the justice system. In light of our nation's history of systemic racism, it is important to question and carefully examine the proper use of risk-needs assessment information in the sentencing process and in supervision.

Risk Assessment Versus Risk-Needs Assessment

Both risk assessments and risk-needs assessments are used in the justice system. It is important to understand and appreciate the ways in which these two types of tools differ from one another. Actuarial risk assessment tools are often referred to as *static* risk assessment tools because the factors on which they are based (e.g., age, gender, prior criminal history) are static and cannot be changed. Risk assessment tools are commonly used in justice settings where the focus is on determining a person's *current* risk of being rearrested, fleeing, or failing to appear in subsequent proceedings. Such tools are then used to decide the nature and intensity of conditions of probation,¹ parole, or pretrial release that may be appropriate to constrain such risks or, sometimes, upon determining that no conditions of release would sufficiently mitigate such risks, whether to temporarily detain a person.²

Risk-needs assessment (RNA) tools, on the other hand, were developed for use primarily in post-conviction community supervision settings (probation and parole) to assist supervising officers in determining the most appropriate supervision strategies, interventions, and services to reduce the risk of a person's rearrest.³ That is, their intended use is not merely to constrain *current* risk but to reduce *future* risk. These tools are often referred to as *dynamic* risk assessment tools because, in addition to assessing static risk factors, they also assess dynamic risk factors, or needs—those characteristics of a person that are statistically associated with risk of recidivism but that, through the use of appropriate interventions, can be changed in ways that are statistically proven to lead to a reduction of future law violations. Common dynamic risk factors include a person's social attitudes, associates, and behaviors; substance use; education and employment; and family situation.

Whereas high risk scores on a static risk assessment tool typically result in the use of increasingly constraining conditions of supervision, high risk scores on an RNA tool typically result in the provision of programming and treatment services that seek to address a person's most influential dynamic risk factors and reduce the risk of recidivism.

The Benefits of RNA Tools

When making sentencing and supervision decisions, judges and probation and parole officers usually consider risk factors such as age, prior criminal history, attitudes, associates, education, employment, family situation, and substance use. As noted above, RNA tools consider the same risk factors, but an overwhelming body of research demonstrates that they assess risk and the most relevant risk factors more accurately, fairly, transparently, and consistently than reliance on individual subjective judgment.⁴

Differential Validity and Predictive Parity

The two most common statistical tests of fairness are “differential validity” and “predictive parity.”

Differential validity means that subgroups are assessed as high risk at the same rate (e.g., the same percentages of African Americans and whites are assessed as high risk). Predictive parity means the assessment is equally accurate in predicting arrests among subgroups (e.g., African Americans who are high risk are rearrested at the same rate as whites who are high risk).

But because arrest rates among African Americans are generally higher than arrest rates among whites, it is statistically impossible for a risk assessment tool to have both differential validity and predictive parity.⁷

As an example, one study demonstrated that, unaided by risk assessments, even trained probation officers tend to overestimate risk and are inconsistent in their risk judgments. The study also demonstrated that actuarial risk assessments are more accurate than subjective risk assessments.⁵ Over 1,000 well-trained and highly skilled federal probation officers were asked to assess a person's risk level after watching a 24-minute video of a mock interview, and then again the following day after being trained on how to use the recently developed and validated federal Post Conviction Risk Assessment (PCRA). Before receiving their PCRA training, 17% of the federal probation officers identified the person as high risk, 51% as moderate risk, 30% as low-moderate, and 2% as low. Later, after completing the PCRA training, none of the officers assessed the person as high risk, 2% assessed him as moderate risk, 91% as low-moderate (which was the correct assessment based on the validated tool), and 7% as low.⁶

RNA and Racial Fairness

Properly validated RNA tools are not biased; they accurately assess the likelihood of future events regardless of a person's race, gender, or other individual factors.⁸ There are legitimate concerns, however, about racially disparate risk assessment outcomes. Systemic and historical disparities in our justice system are reflected in justice system data, including data routinely relied upon by justice system decision-makers and upon which actuarial risk assessments are based. Reducing reliance on *subjective* assessment of that data and instead considering *actuarial* measures of risk decreases opportunities for explicit and implicit biases in decision-making.⁹

Among the factors considered by RNA tools, it is a person's criminal history—reflecting historically disparate arrest records—that contributes most significantly to racially disparate risk assessment

outcomes.¹⁰ Depending on what types of arrest are considered, the base rearrest rate difference between African Americans and whites, for example, reflected in most tools is typically around 25–40%.¹¹ The analysis of the PCRA tool found that the rearrest rate of whites was 24%, and of African Americans 31%: a 29% difference.¹² Where base rearrest rates differ between two subgroups, an assessment instrument will necessarily, by one statistical test or another, indicate some degree of apparent unfairness (see sidebar on page 2).

There is also concern that bias-infected criminal history records will predict future biased arrest decisions. However, RNA tools' noncriminal history items are also predictive of future arrests. In addition, the instruments are consistent with self-reported and collateral-reported offending that is not infected by law enforcement bias.¹³ Assessment tools based on a broader set of factors than criminal history alone can better predict recidivism and tend to be less correlated with race.¹⁴ Indeed, differences between African Americans and whites on the dynamic risk factors of social networks, substance abuse, and social attitudes are negligible.¹⁵ Studies have also shown that the “criminal thinking” variable commonly contained in risk-needs assessment tools predicts recidivism similarly for people without regard to race, gender, or age.¹⁶

The evidence is clear that actuarial risk assessment information is more accurate, more consistent, and less subject to personal bias than unstructured discretion. As Professor Sandra Mayson concluded in her 2019 *Yale Law Journal* article:

[T]here is every reason to expect that subjective risk assessment produces greater racial disparity than algorithmic risk assessment—and that it does so with less transparency and less potential for accountability or intervention. To the extent that this is true, rejecting algorithmic methods in favor of subjective risk assessment not only will fail to eliminate predictive inequality, but also might exacerbate it. At best, then, rejection of actuarial risk assessment is a superficial measure.... Not only will subjective prediction continue to generate racial disparity, but in the absence of algorithmic methods, the disparity will be harder to see and to redress. Actuarial risk assessment, in other words, has not created the problem of racially disparate prediction, but rather exposed it. Its contribution is to illuminate—in formal, quantitative terms—the way in which prediction replicates and magnifies inequality in the world.... Rejecting the precise mirror of algorithmic prediction in favor of subjective risk assessment does not solve the problem. It merely turns a blind eye.¹⁷

The Uses of RNA Information

Actuarial RNA tools were designed to provide judges and probation and parole agencies and officers with accurate, objective, and reliable information about people's risk and needs; they were not designed to provide information for use in determining appropriate sanctions or penalties for violations of law or conditions of supervision. Further, RNAs provide individual assessments based on group data. They do not predict whether an individual will or will not violate the law again; they simply provide information that a person is a member of a group of people who share either a low, medium, or

high risk (i.e., likelihood) of recidivism. The availability of RNA information allows probation and parole agencies to improve supervision outcomes in multiple ways.

1. Agencies Can Better Match the Type, Amount, and Frequency of Services to a Person's Risk and Needs

Needs assessment information is critical in tailoring supervision interventions to specific risk factors identified in a person's assessment. Outcomes improve when programming and services closely focus on the most critical dynamic risk factors identified by the RNA.¹⁸ Where appropriate, as in addressing substance use disorders and behavioral health issues, additional clinical assessments should be performed.

Information about risk, as identified in the RNA and related clinical assessments, should also be used to determine the amount and frequency of intervention, or dosage, that would most benefit a person, with those who are higher risk receiving higher dosage.¹⁹ Evidence suggests that we reach maximum risk reduction potential for adults who are medium risk when they receive 100 hours of programming focused on their criminogenic needs; for adults who are medium-high risk, the recommended dosage is 200 hours; and for adults who are high risk, the recommended dosage is 300 hours.²⁰

2. Agencies Can Better Prevent and Respond to Noncompliance

Often, noncompliance is a continuation of the behavior that resulted in a person's initial involvement in the justice system; it is not necessarily a reflection of disregard for rules. Therefore, effectively targeting a person's assessed criminogenic needs not only reduces the risk of recidivism but also helps increase the likelihood of compliance.

In response to noncompliance, the RNA plays a role in at least three ways:

- First, the level of risk is a key consideration in determining the level of response. The interest of community well-being and safety advises more prompt and more restrictive (but not necessarily incarcerative) responses to noncompliance by people assessed as higher risk than those assessed as lower risk.
- Second, the type of response depends in part on whether noncompliance relates to a "proximal" objective of supervision (one that the person is readily capable of achieving) or to a "distal" objective of supervision (one that is highly challenging for the person). Responses to noncompliance should be *more* severe when the behavior is proximal, or less challenging—for example, when a person who does not have a substance use disorder tests positive on a drug test. Responses to noncompliance should be *less* severe when the behavior is distal, or more difficult to achieve—for example, when a person who has a substance use disorder tests positive for a drug the person commonly uses.
- Third, appropriate responses depend on the relationship of noncompliance to critical risk factors in the case. A person fired by an employer for drug use might be referred for drug treatment, whereas a person fired for antisocial behavior in the workplace might be referred for cognitive behavioral programming.

3. Agencies Can Better Tailor Responses to Prosocial Behaviors

People on supervision may not be intrinsically motivated and capable of making the behavioral changes required to engage in risk reduction activities that address their dynamic risk factors. Research indicates that the consistent use of incentives/rewards and sanctions in a ratio of 4:1 or greater is most effective in promoting compliance and behavior change.²¹ Further, responses to prosocial behaviors are most effective when they reflect:

- the relationship between the behavior and a person's criminogenic needs, with greater incentives/rewards for prosocial behaviors associated with the person's criminogenic needs;
- the complexity of a person's behavior (proximal and distal objectives), with more challenging behaviors typically earning greater incentives/rewards; and
- the degree to which a person has mastered the behavior, with behaviors that have not yet become habitual earning higher-level responses.

4. Agencies Can Better Manage Their Resources

RNA information can be used to help agencies better manage their resources by creating specialized caseloads based on risk level.

- Staff supervising people who are low risk should carry relatively large caseloads (e.g., 200 cases) in which there are few reporting requirements and there is little need for programming.
- Staff supervising people who are moderate risk should carry medium-size caseloads (e.g., 50–100 cases) in which there are increased reporting requirements (e.g., one 45-minute appointment/month) and programming requirements based on actuarial and clinical assessments of need.
- Staff supervising people who are high risk should carry small caseloads (e.g., 20–50 cases) in which there are high reporting requirements (e.g., one appointment/week or every two weeks) and intensive programming requirements based on actuarial and clinical assessments of need.²²

The Importance of Quality Assurance²³

Instrument validation is essential to demonstrate predictive accuracy and establish stakeholder confidence. Local validation (or “norming”) to inform the development of appropriate cutoff values for categorizing people into appropriate risk levels should also be undertaken.

Use of a validated RNA tool is a necessary but not sufficient condition to ensure effective supervision practices. Staff must be equipped with the knowledge and skills needed to use the tool properly. A quality assurance program, including initial and ongoing staff training, coaching and mentoring, routine data monitoring, and fidelity testing is also important.

Routine data monitoring should include examination of the distribution of assessed individuals across risk categories by gender and race to minimize disparities, along with careful scrutiny of

the implementation of any policy on administrative overrides that the agency has established or authorized. Staff training and data monitoring should also ensure interrater reliability—that is, that assessments are conducted in accord with uniform procedures such that assessment results do not depend upon the person conducting the assessment.

The Importance of the Relationship Between Probation Officers and People on Supervision

Concerns about racial fairness are sometimes raised by data—for example, data showing that African Americans are assessed or treated differently than similarly situated whites. But perceptions of racial bias are also often based on the way people feel they have been treated by others. With people on supervision, experiences that will most often influence their perceptions about how they are treated while on supervision are their interactions with their probation officers. When people on supervision feel that a “professional alliance” has been established between them and their probation officers—that is, when they feel they have rapport with their probation officers and have been treated with respect and procedural fairness—they are much less likely to feel that they are victims of racial bias.

Importance of Client Relationship

In a study of what probation officers consider “quality” in probation services, three of the top five responses out of 19 possible responses identified aspects of the officer–client relationship:

- really engaging with the person;
- mutual trust/respect; and
- sufficient time to work with people.²⁴

Probation Officer as Coach

Dr. Brian Lovins and other probation experts argue that when behavioral change is the goal, recent advances in evidence-based supervision practices will further benefit from staff approaching their role not as a referee but as a coach.²⁵ The starting point for individual behavioral change is the transition from compelled compliance to self-motivation, from extrinsic motivation to intrinsic motivation. Staff’s likelihood of success in helping people make this transition is enhanced by building a professional alliance with them.

A Balanced, Dual-Role and Procedurally Fair Approach

Research indicates that a balanced approach to supervision is more effective in reducing incidence of rearrest and revocations than either a purely “law enforcement” approach at one extreme or “social worker” approach at the other.²⁶ Similar research demonstrates that this dual-role relationship characterized by a firm but fair and caring relationship with the person on supervision significantly

reduces risk of recidivism.²⁷ Other research in the field of procedural fairness indicates that an officer's ability to secure compliance depends on the extent to which the person views the decision-making process to be fair, with an impartial decision-maker, an opportunity to be heard, treatment with respect, and trust in the motives of the decision-maker being key.²⁸

Ten Key Takeaways

The issue of racial disparities in actuarial assessments is both complex and critical to achieving the goal of a fair and effective justice system. The following are ten key takeaways on the proper use of assessments:

1. It is not possible to extract a history of systemic racism from assessments as long as those assessments rely on historical factors such as prior arrests and convictions.
2. The risk factors on which actuarial assessments are based are largely the same factors commonly considered by justice system practitioners in making sentencing and supervision decisions without an actuarial assessment (e.g., age, prior criminal history, attitudes, associates, education, employment, family situation, and substance use).
3. Choosing not to use an actuarial assessment tool does not eliminate or reduce explicit or implicit racial biases. In fact, studies suggest that actuarial assessments are more accurate, more consistent, and less biased than unstructured discretion in assessing risk of recidivism.
4. By identifying relevant criminogenic needs, risk-needs assessments are critical in determining the most appropriate supervision strategies, interventions, and services to reduce risk of recidivism.
5. As the risk-needs assessment score increases, the amount (dosage) and intensity of programming must increase in order to maximize risk reduction benefits.
6. Risk-needs assessments help probation and parole agencies match the type of services to a person's needs, provide a more tailored response to noncompliant and compliant behaviors, and better manage limited resources.
7. Actuarial tools should be validated and normed on local populations to ensure they are accurate and able to measure what they intend to measure.
8. Assessment data should be routinely analyzed to ensure the tool is statistically fair across race and gender.
9. Risk-needs assessors should be trained to conduct assessments properly and required to participate in interrater reliability processes.
10. The assessment and ongoing relationship between the probation officer and person on supervision improve when the relationship is built on a foundation of respect, fairness, and trust.

This brief was sponsored by the Pennsylvania Partnership for Criminal Justice Improvement initiative and endorsed by the County Chief Adult Probation and Parole Officers Association of Pennsylvania. Funding was provided by the Pennsylvania Council of Crime and Delinquency. Special thanks to Mark Carey, of The Carey Group, and Debbie Smith for their assistance and support in preparing this publication.

Notes and References

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