ARE RISK ASSESSMENTS RACIALLY BIASED?

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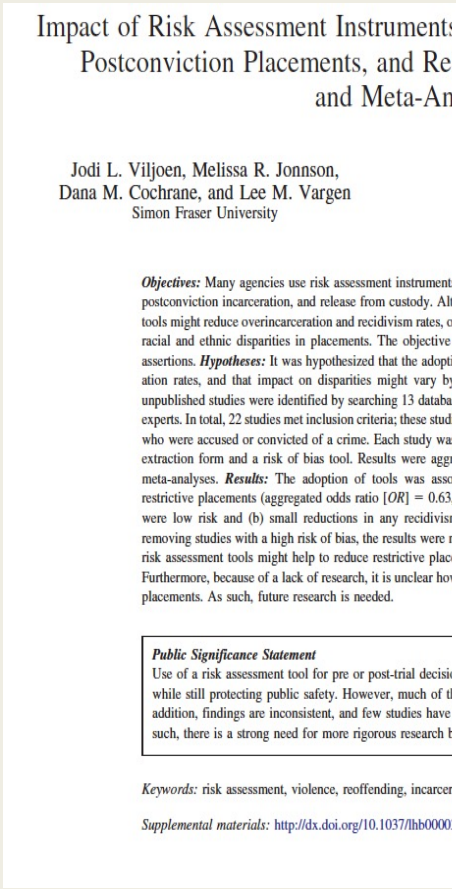
Benefits of Proper Use of Risk Tools



Impact of Risk Assessment Instrument
Postconviction Placements, and Re
and Meta-An

Jodi L. Viljoen, Melissa R. Jonnson,
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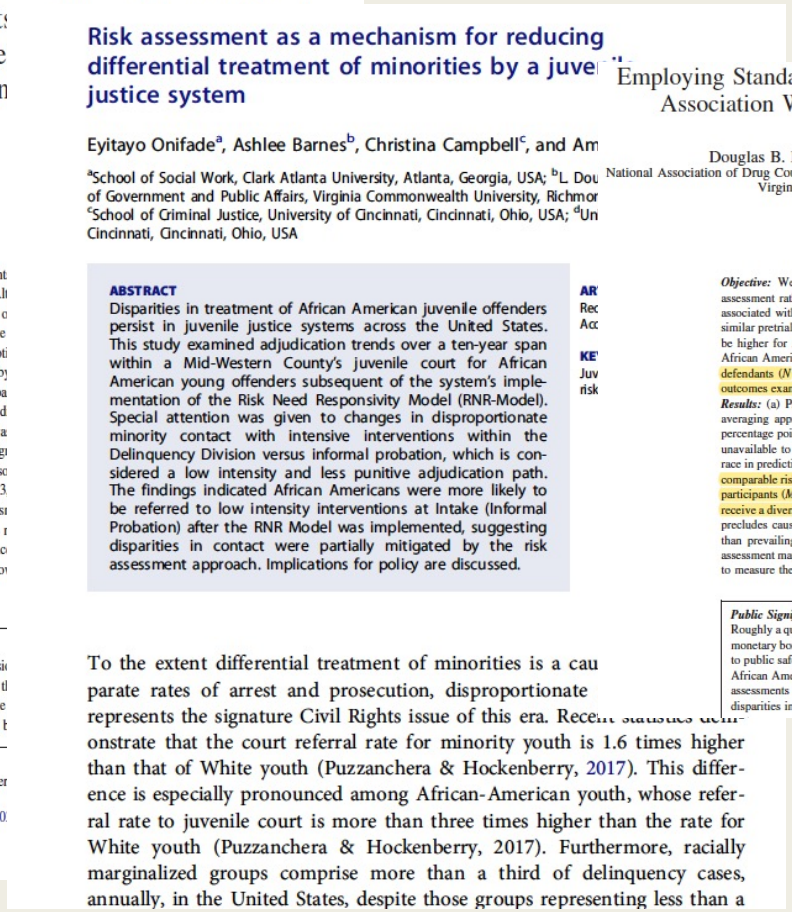
Objectives: Many agencies use risk assessment instrument
postconviction incarceration, and release from custody. Alt
tools might reduce overincarceration and recidivism rates, c
racial and ethnic disparities in placements. The objective
assertions. ***Hypotheses:*** It was hypothesized that the adopti
ation rates, and that impact on disparities might vary by
unpublished studies were identified by searching 13 databa
experts. In total, 22 studies met inclusion criteria; these stud
who were accused or convicted of a crime. Each study wa
extraction form and a risk of bias tool. Results were aggr
meta-analyses. ***Results:*** The adoption of tools was asso
restrictive placements (aggregated odds ratio [*OR*] = 0.63
were low risk and (b) small reductions in any recidivis
removing studies with a high risk of bias, the results were
risk assessment tools might help to reduce restrictive plac
Furthermore, because of a lack of research, it is unclear ho
placements. As such, future research is needed.

Public Significance Statement
Use of a risk assessment tool for pre or post-trial decisi
while still protecting public safety. However, much of t
addition, findings are inconsistent, and few studies have
such, there is a strong need for more rigorous research b

Keywords: risk assessment, violence, reoffending, incarcer

Supplemental materials: http://dx.doi.org/10.1037/lhb0000



Risk assessment as a mechanism for reducing differential treatment of minorities by a juve justice system

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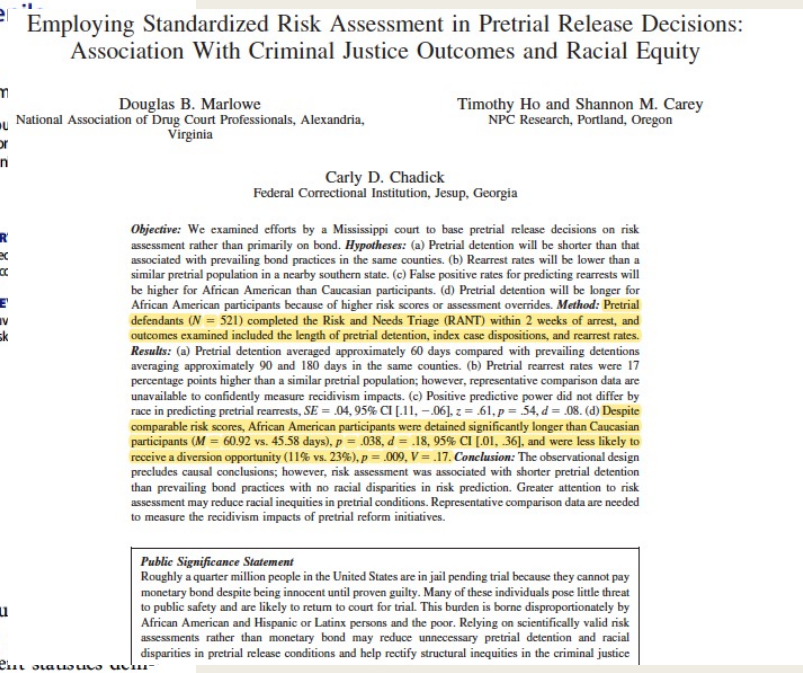
ABSTRACT
Disparities in treatment of African American juvenile offenders persist in juvenile justice systems across the United States. This study examined adjudication trends over a ten-year span within a Mid-Western County's juvenile court for African American young offenders subsequent of the system's implementation of the Risk Need Responsivity Model (RNR-Model). Special attention was given to changes in disproportionate minority contact with intensive interventions within the Delinquency Division versus informal probation, which is considered a low intensity and less punitive adjudication path. The findings indicated African Americans were more likely to be referred to low intensity interventions at Intake (Informal Probation) after the RNR Model was implemented, suggesting disparities in contact were partially mitigated by the risk assessment approach. Implications for policy are discussed.

To the extent differential treatment of minorities is a cau
parate rates of arrest and prosecution, disproportionate
represents the signature Civil Rights issue of this era. Recent statistics dem-
onstrate that the court referral rate for minority youth is 1.6 times higher than that of White youth (Puzzanchera & Hockenberry, 2017). This difference is especially pronounced among African-American youth, whose referral rate to juvenile court is more than three times higher than the rate for White youth (Puzzanchera & Hockenberry, 2017). Furthermore, racially marginalized groups comprise more than a third of delinquency cases, annually, in the United States, despite those groups representing less than a



Employing Standardized Risk Assessment in Pretrial Release Decisions:
Association With Criminal Justice Outcomes and Racial Equity

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NPC Research, Portland, Oregon

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Objective: We examined efforts by a Mississippi court to base pretrial release decisions on risk assessment rather than primarily on bond. ***Hypotheses:*** (a) Pretrial detention will be shorter than that associated with prevailing bond practices in the same counties. (b) Rearrest rates will be lower than a similar pretrial population in a nearby southern state. (c) False positive rates for predicting rearrests will be higher for African American than Caucasian participants. (d) Pretrial detention will be longer for African American participants because of higher risk scores or assessment overrides. ***Method:*** Pretrial defendants (N = 521) completed the Risk and Needs Triage (RANT) within 2 weeks of arrest, and outcomes examined included the length of pretrial detention, index case dispositions, and rearrest rates. ***Results:*** (a) Pretrial detention averaged approximately 60 days compared with prevailing detentions averaging approximately 90 and 180 days in the same counties. (b) Pretrial rearrest rates were 17 percentage points higher than a similar pretrial population; however, representative comparison data are unavailable to confidently measure recidivism impacts. (c) Positive predictive power did not differ by race in predicting pretrial rearrests, SE = .04, 95% CI [.11, −.06], z = .61, p = .54, d = .08. (d) Despite comparable risk scores, African American participants were detained significantly longer than Caucasian participants (M = 60.92 vs. 45.58 days), p = .038, d = .18, 95% CI [.01, .36], and were less likely to receive a diversion opportunity (11% vs. 23%), p = .009, V = .17. ***Conclusion:*** The observational design precludes causal conclusions; however, risk assessment was associated with shorter pretrial detention than prevailing bond practices with no racial disparities in risk prediction. Greater attention to risk assessment may reduce racial inequities in pretrial conditions. Representative comparison data are needed to measure the recidivism impacts of pretrial reform initiatives.

Public Significance Statement
Roughly a quarter million people in the United States are in jail pending trial because they cannot pay monetary bond despite being innocent until proven guilty. Many of these individuals pose little threat to public safety and are likely to return to court for trial. This burden is borne disproportionately by African American and Hispanic or Latinx persons and the poor. Relying on scientifically valid risk assessments rather than monetary bond may reduce unnecessary pretrial detention and racial disparities in pretrial release conditions and help rectify structural inequities in the criminal justice

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There's software used across the count
it's biased agai

by Julia Angwin, Jeff Larson, Surya Mattu

May 23, 2

False Positives, False Negatives, and False Analyses: A Rejoinder to "Machine Bias: There's Software Used Across the Country to Predict Future Criminals. And It's Biased Against Blacks."

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The validity and intellectual honesty of conducting and reporting analysis are critical, since the ramifications of published data, accurate or misleading, may have consequences for years to come.
—Marco and Larkin, 2000, p. 692

PROPUBLICA RECENTLY RELEASED a much-heralded investigative report claiming that a risk assessment tool (known as the COMPAS) used in criminal justice is biased against black defendants.[12] The report heavily implied that such bias is inherent in all actuarial risk assessment instruments (ARAIs).

We think ProPublica's report was based on faulty statistics and data analysis, and that the report failed to show that the COMPAS itself is racially biased, let alone that other risk instruments are biased. Not only do ProPublica's results contradict several comprehensive existing studies concluding that and/or gender bias, a correct analysis of the underlying data (which we provide below) sharply undermines ProPublica's approach.

Our reasons for writing are simple. It might be that the existing justice system is biased against poor minorities due to a wide variety of reasons (including economic factors, policing patterns, prosecutorial behavior, and judicial biases), and therefore, regardless of the degree of bias, risk assessment tools informed by objective data can help *reduce* racial bias from its current level. It would be a shame if policymakers mistakenly thought that risk assessment tools were somehow worse than the status quo. Because we are at a time in history when there appears to be bipartisan political support for criminal justice reform, one poorly executed study that makes such absolute claims of bias should not go unchallenged. The gravity of this study's erroneous conclusions is exacerbated by the large-market outlet in which it was published (ProPublica).

percentages in recent years and at year-end 2014 the prison population was the smallest it had been since 2004. Yet, we still incarcerated 1,561,500 individuals in federal and state correctional facilities (Carson, 2015). By sheer numbers, or rates per 100,000 inhabitants, the United States incarcerates more people than just about any country in the world that reports reliable incarceration statistics (Wagner & Walsh, 2016).

Further, it appears that there is a fair amount of racial disproportion when comparing the composition of the general population with the composition of the prison population. The 2014 United States Census population projection estimates that, across the U.S., the racial breakdown of the 318 million residents comprised 62.1 percent white, 13.2 percent black or African American, and 17.4 percent Hispanic. In comparison, 37 percent of the prison population was categorized as black, 32 percent was categorized as white, and 22

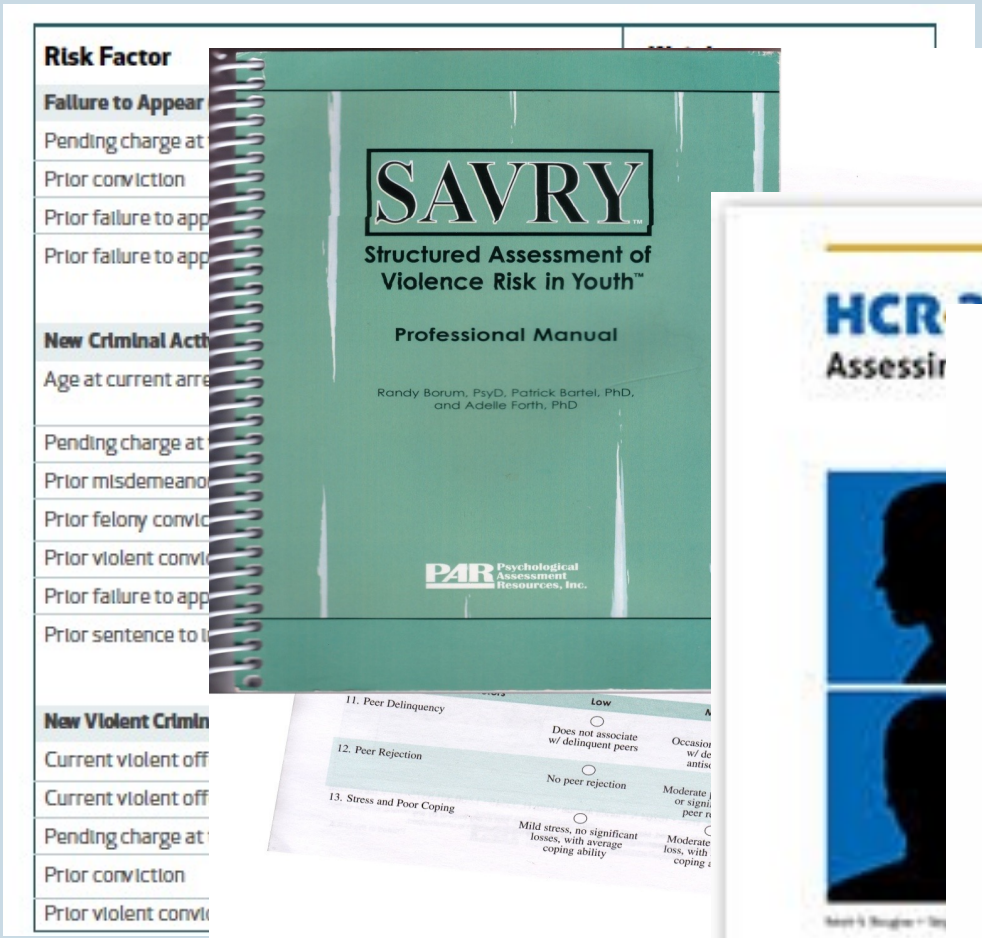
3 Points

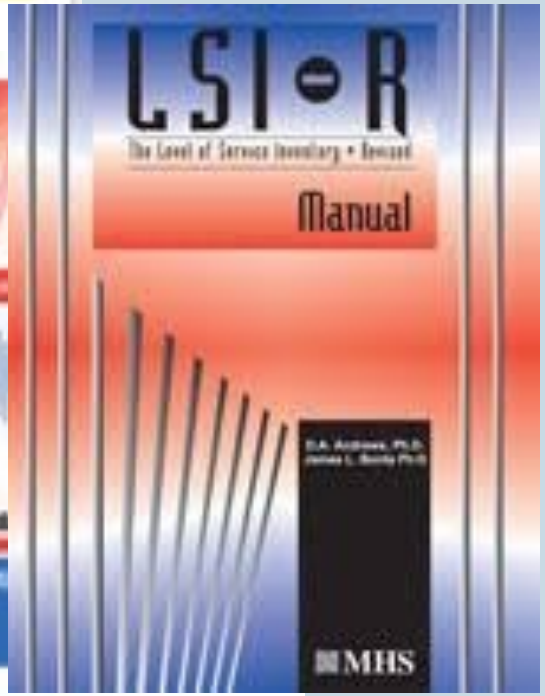
1. Risk assessment instruments are not all created the same

2. There has been confusion about what it means for an instrument to be racially biased

3. Racial bias versus disparate impact

Point #1: Risk Instruments are Not Created The Same Different Purposes





c Safety Assessment
a and John Arnold Foundation)

Other Ways Risk Assessments Differ

- The Way Risk Level is Determined
  - *Actuarial = formulaic/algorithm*
  - *Structured professional judgment = combine structure with professional judgment, no formula*
- The Methods of Construction/Validation
  - *Items selected based on statistics-only vs. based on research*
  - *Validation across race groups – some have it and some do not*
- The Composition of Items Included
  - *Static to dynamic risk factor ratio*
  - *Reliance on official records for scoring risk factors*

Point #2 - What Does it Mean For A Risk Assessment Instrument to be Biased?

Is Bias present when…..?

1. *One group scores significantly higher on a risk assessment than another group, on average*

2. *The risk instrument falsely classifies one group as high risk at a significantly higher rate than another group (false positives – error in classification)*

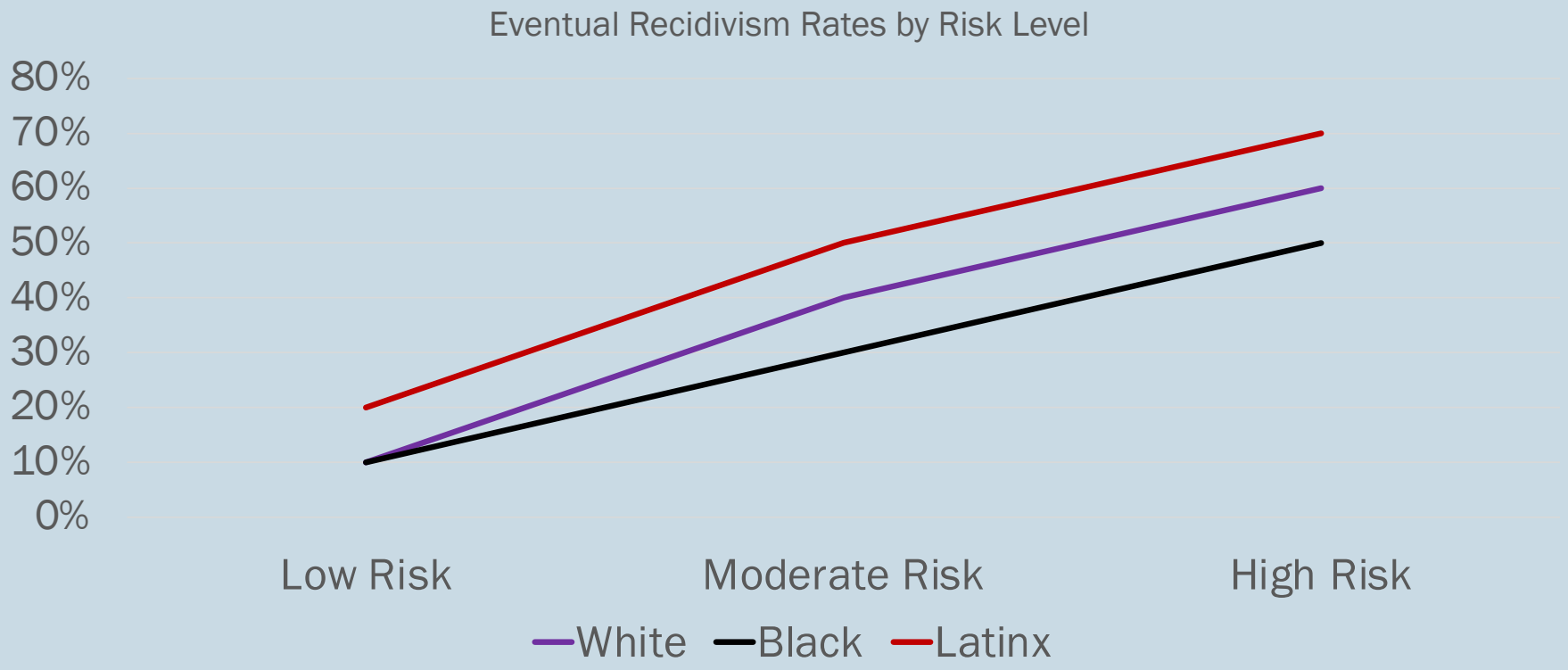
3. *Risk scores are differentially related to recidivism for different groups of people regardless of whether one group generally scores higher than another (predictive equivalence or parity)*

Bias: Risk Scores Differentially Relate to Recidivism for Different Groups

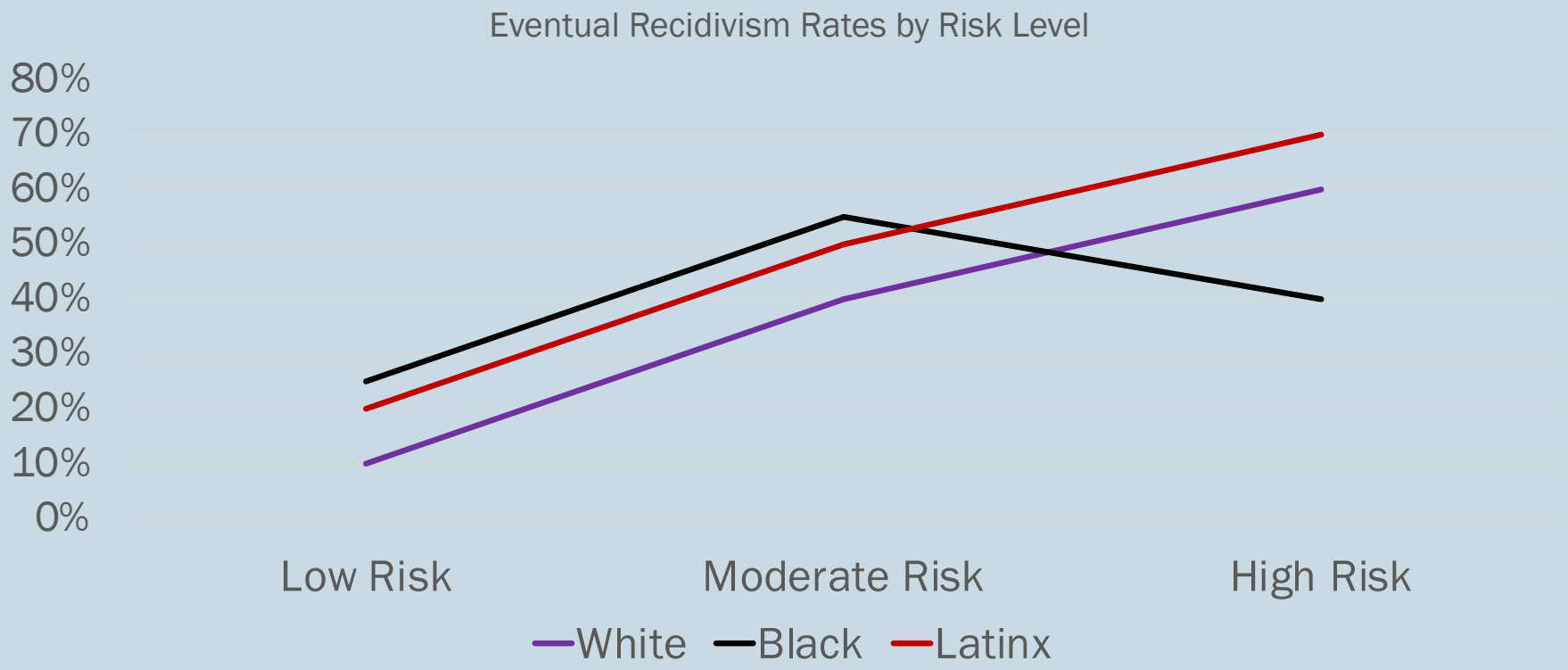
Ethical Standards for Educational and Psychological Testing (American Educational Research Association, National Council on Research in Education, & American Psychological Association, 2014).

- **Test bias** = Scores are differentially related to recidivism based on group status (Skeem & Lowenkamp, 2016)
  - *In other words, if scores for one race 'mean' something different than for another race*

Not Biased (hypothetical data)



Biased (hypothetical data)



What is the Evidence for Racial Bias in Risk Instruments?

12 studies of risk instruments' association with recidivism used this method

- 8 found **no significant interaction** by race in the prediction of recidivism = no bias
  - *2 of these were pretrial risk instruments for adults (PSA, SRA)*

- 4 found there **was differential prediction** = bias
  - *2 of these studies showed the 'bias' was in Black youths' favor*
  - *1 adult pretrial tool (PTRA) found - bias with Latinx adults*
  - *1 short youth tool (JRM) found bias with Black youth*

- Earlier studies -- strength of predictive accuracy
  - *On balance, few significant differences; depends on tool & population*

Summary

- To date, where racial bias has been found, it has had more to do with the specific instrument or culture/race assessed than with risk assessment instruments in general.

- Research has been mostly limited to White vs Black individuals

- It will be impossible to have a highly accurate tool calibrated to your recidivism rates AND a low mis-classification of individuals as high-risk rate at the same time if your system has significant disparity in who is rearrested
  - *Many tools are NOT that well-calibrated to the system so may not be a concern*

Point #3 – Disparate Impact: How the State Uses the Tool

- **Concern:** Significant mean score or error rate differences on risk instruments will result in harsher system responses

- Currently no strong evidence instruments are leading to greater system disparity but ideally states will track this

There is some evidence disparity occurred when risk assessments were conducted but <u>not</u> followed:

- Structured disposition guidelines – Black youth more likely to get overrides (Lehmann et al., 2020)
- African-American adults detained longer than Caucasians and less likely diverted despite comparable risk scores (Marlowe et al., 2020)

Recommendations: Promising Approaches for Minimizing Bias

1. Only use instruments that have been appropriately validated by race/ethnicity and are not heavily weighted based on official records
   - *Include dynamic risk factors (needs) as much as possible*

2. Never make decisions based solely on score-based classifications of risk
   - *Remember the job is to prevent not predict*
   - *Think beyond the algorithm (Picard et al., 2019)*
   - *Consider the relevance of different risk factors to different racial groups/cultures - Educate decision-makers*

3. Track outcomes by race/ethnicity and other characteristics