

PROBATION OFFICER ASSESSMENTS OF RISK WHEN THE YOUTH LOOK DIFFERENT: CONTRIBUTIONS OF SPJ TO CONCERNS ABOUT RACIAL BIAS

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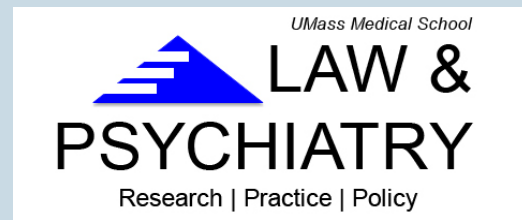
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Earlier Concerns



Former Attorney
General Holder

Holder (2014) - “These tools could have a disparate and adverse impact on the poor, on socially disadvantaged offenders, and on minorities”

“...they may exacerbate unwarranted and unjust disparities that are already far too common in our criminal justice system and in our society.”

Report from the U.S. Sentencing Commission:

“...analysis of current risk assessment tools demonstrate that utilizing such tools for determining prison sentences to be served will have a disparate and adverse impact on offenders from poor communities already struggling with social ills.” (US DOJ, Criminal Division, July 2014)

****Systemic Problems- example** (Puzzanchera & Hockenberry, 2017)

- Referral rate to juvenile court for African-American youth > 3X higher than White youth



Bernard P.

Machine

There's software used across the country to predict future criminals. And it's biased against Blacks.

by Julia Angwin, Jeff Larson, Surya Mattu
May 23, 2016

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."

Anthony W. Flores
California State University, Bakersfield
Kristin Bechtel
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Probation and Pretrial Services Office

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 (ARAI)s.

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, 22 percent was categorized as white, and 22

T
S

More Recent Concerns

We now see that pretrial risk assessment tools, designed to predict an individual's appearance in court without a new arrest, can no longer be a part of our solution for building equitable pretrial justice systems. Regardless of their science, brand, or age, these tools are derived from data reflecting structural racism and institutional biases and practices. Use of

Update
Pretrial
2.7.2020

MAPPING PRETRIAL INJUSTICE: A COMMUNITY-DRIVEN DATABASE

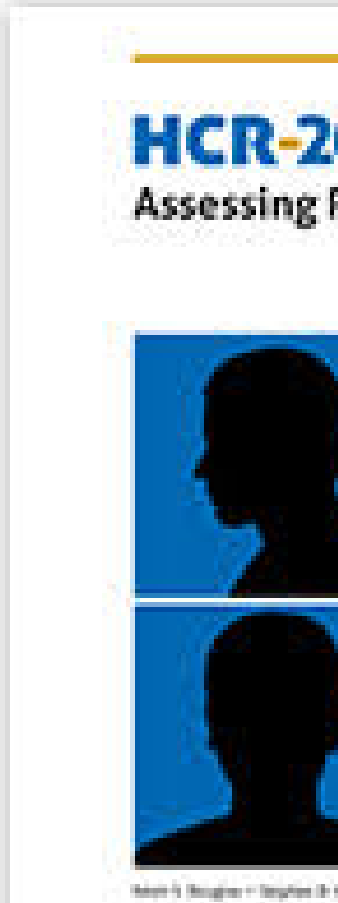
In thousands of communities across the United States, courts are embedding risk assessment tools into high-stakes pretrial incarceration, supervision, and release decisions. The way these tools are used and the biases they can embody are usually not obvious to the public.

Movement Alliance Project and MediaJustice created this website, a [#NoDigitalPrisons project](#), as a tool for organizers seeking pretrial decarceration. Our research with hundreds of jurisdictions across the country clarifies how and where these risk assessments are used, and challenges the notion that risk assessments offer real solutions to pretrial incarceration.

[HTTPS://PRETRIALRISK.COM](https://pretrialrisk.com) - Movement Alliance Project
& MediaJustice

Risk Instruments Come in Different Shapes and Sizes

Risk Factor	Weights
Failure to Appear (maximum total weight = 7 points)	
Pending charge	
Prior conviction	
Prior failure to appear	
Prior failure to appear	
New Criminal	
Age at current offense	
Pending charge	
Prior miscellaneous	
Prior felony	
Prior violent	
Prior failure to appear	
Prior sentenced	
New Violent	
Current violent offense	
Current violent offense & 20 years old or younger	
Pending charge at the time of the offense	No = 0; Yes = 1
Prior conviction	No = 0; Yes = 1
Prior violent conviction	0 = 0; 1 or 2 = 1; 3 or more = 2



Public Safety Assessment

SAVRY
Structured Assessment of Violence Risk in Youth™
Professional Manual
Randy Borum, PsyD, Patrick Bartel, PhD, and Adelle Forth, PhD
PAR Psychological Assessment Resources, Inc.

Sample Form Items:

- 11. Peer Delinquency: Does not associate w/ delinquent peers (Low), Occasionally associates w/ delinquent or antisocial peers (Moderate), Frequently associates with criminal or antisocial peers (High), Critical Item.
- 12. Peer Rejection: No peer rejection (Low), Moderate peer rejection or significant past peer rejection (Moderate), Significant peer rejection (High), Critical Item.
- 13. Stress and Poor Coping: Mild stress, no significant losses, with average coping ability (Low), Moderate stress or loss, with adequate coping ability (Moderate), Moderate to significant stress or loss, with poor coping ability (High), Critical Item.

(continued)

Extent of the Problem

- Most individual sample studies of risk assessment instruments are not finding racial or cultural bias – but some have (e.g. PTRA for Latinx, JRM for Black youth)
- Small reductions in restrictive placements
- Potential for reducing disparities in diversion

*** Much more research needed

RACIST ALGORITHMS OR SYSTEMIC PROBLEMS?

Impact of Risk Assessment Instruments on Rates of Pretrial Detention, Postconviction Placements, and Release: A Systematic Review and Meta-Analysis

Risk assessment as a mechanism for reducing differential treatment of minorities by a juvenile 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.

ARTICLE HISTORY

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KEYWORDS

Juveniles; race; recidivism; risk assessment

To the extent differential treatment of minorities is a causal factor in disparate rates of arrest and prosecution, disproportionate minority contact represents the signature Civil Rights issue of this era. Recent statistics demonstrate 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

Evaluator Bias

Evaluator bias in risk assessment - discipline (Murrie et al., 2008), who is paying the evaluator (Murrie et al., 2009), ambiguity of evidence (Charman et al., 2017), years of experience (Leifker & Sample, 2011).

- *PO bias - Race (Bridges & Steen, 1998)*

Structured Professional Judgment (SPJ) instruments may introduce more bias as a result of permitting more rater discretion than actuarial instruments (Grove & Meehl, 1996)

Studies have not considered whether bias is more or less present when the evaluator's and evaluatee's race/ethnicity match vs do not match

- *Ingroup vs. outgroup - matched may be more lenient*
- *Black Sheep Effect - matched may be harsher*

Research Questions

Study 1: Munoz, Perrault, & Vincent (2020)

1. Did probation officers' (POs) ratings of risk domains and e differ when youth matched vs. did not match their race/et

Hypothesis: Matched POs will be more lenient

2. Did POs weight risk domains or factors differently in their f when evaluating a youth who matched vs. did not match th effect)?


Hypothesis: POs will put more weight on internal risk factors for youth who do not match their race, and external risk factors for youth who do match their race

Study 2:

Do POs Make Valid Ratings of Risk for Youth From a Different Race/Ethnicity? (predictive validity)

Article

Probation Officer Assessments of Risk when the Youth Look Different: Contributions of Structured Professional Judgment to Concerns About Racial Bias

Carla G. Munoz, PhD¹ , Rachael T. Perrault, MA²,
and Gina M. Vincent, PhD²

Abstract

Various groups have expressed considerable concern about the potential for actuarial risk assessments to exacerbate racial disparities in justice settings. This study examined that potential when using a different approach to risk assessment, structured professional judgment (SPJ), by comparing risk decisions made by evaluators when the examinee's race was different versus the same as theirs. A large sample of youth (N = 1,308) evaluated on the Structured Assessment of Violence Risk in Youth (SAVRY) by 137 juvenile probation officers (JPOs) in five states indicated the only moderation effect for the match or mismatch between JPOs' and youths' race/ethnicity was in the weight JPOs placed on five (out of 24) risk factors in their overall risk opinions. The match between JPOs' and youths' race had no bearing on JPOs' final determination of youths' risk levels. This study lends support for investigating the use of SPJ instruments as a method for minimizing racial bias.

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1-21
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Sample: POs and Youth From Offices Across 5 States

MacArthur Foundation



1. Risk/Needs Assessment in Juvenile Probation (RNAJP) (Vincent, Guy, Perrault, Gershenson, 2016; Vincent, Drawbridge, & Perrault, 2020)

Louisiana

2. Risk Assessment and Mental health Screening Among Youth (RAMSAY) (Guy, Perrault, Vincent, Grisso, 2015)

Connecticut

Mississippi

3. Risk Assessment and Behavioral health Screening (RABS) (Vincent & Perrault, 2018)

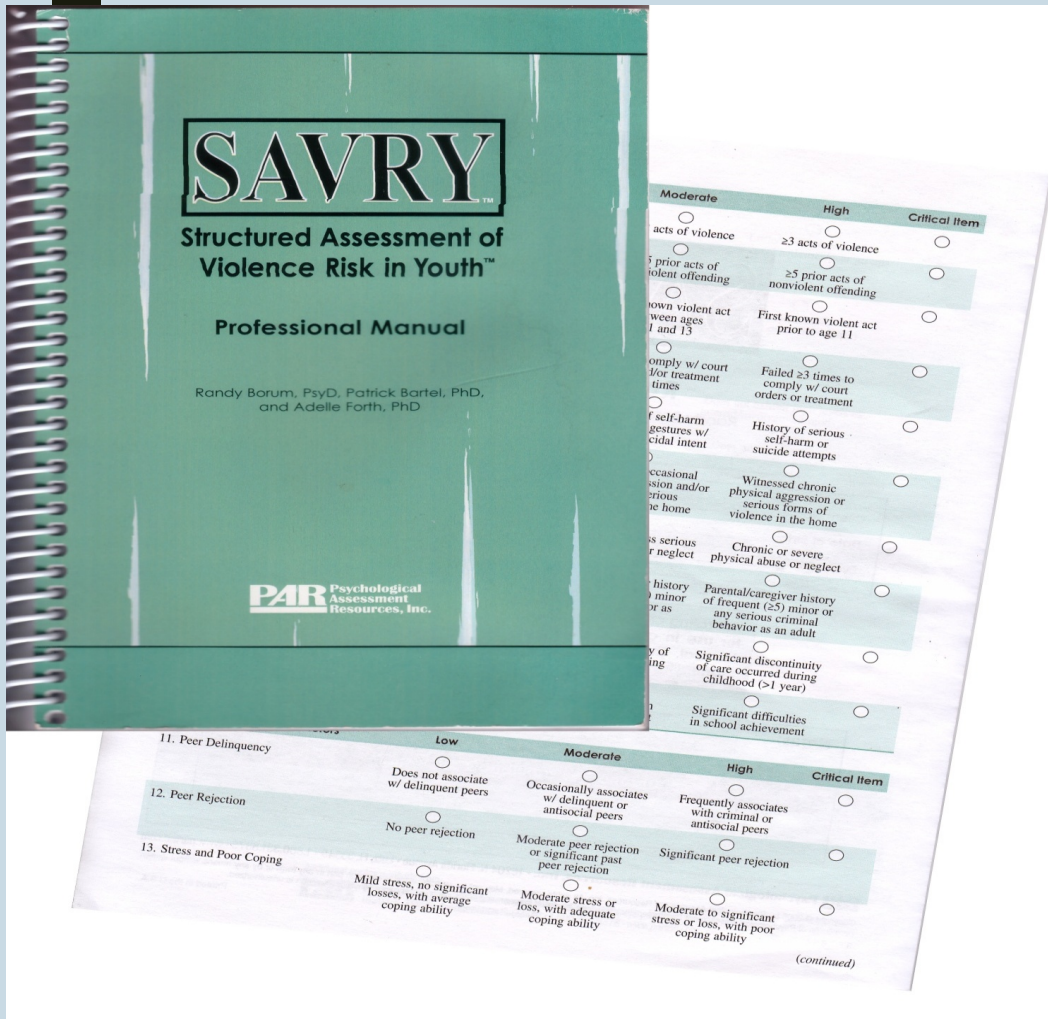
Arkansas

Rhode Island

State	PO's	Youth
Louisiana	53	583
Connecticut	20	203
Mississippi	11	88
Arkansas	31	289
Rhode Island	22	143
Total	137	1308

Structured Assessment of Violence Risk in Youth (SAVRY)

(Borum et al., 2006)



Domains:

- Historical
- Social/Contextual
- Individual/Clinical
- Protective

Summary Risk Rating

- Low 51.6%
- Moderate 36%
- High 12.4%

State

SRR
ICCs

Louisiana

.71

Connecticut

.88

Mississippi

.95

Arkansas

.80

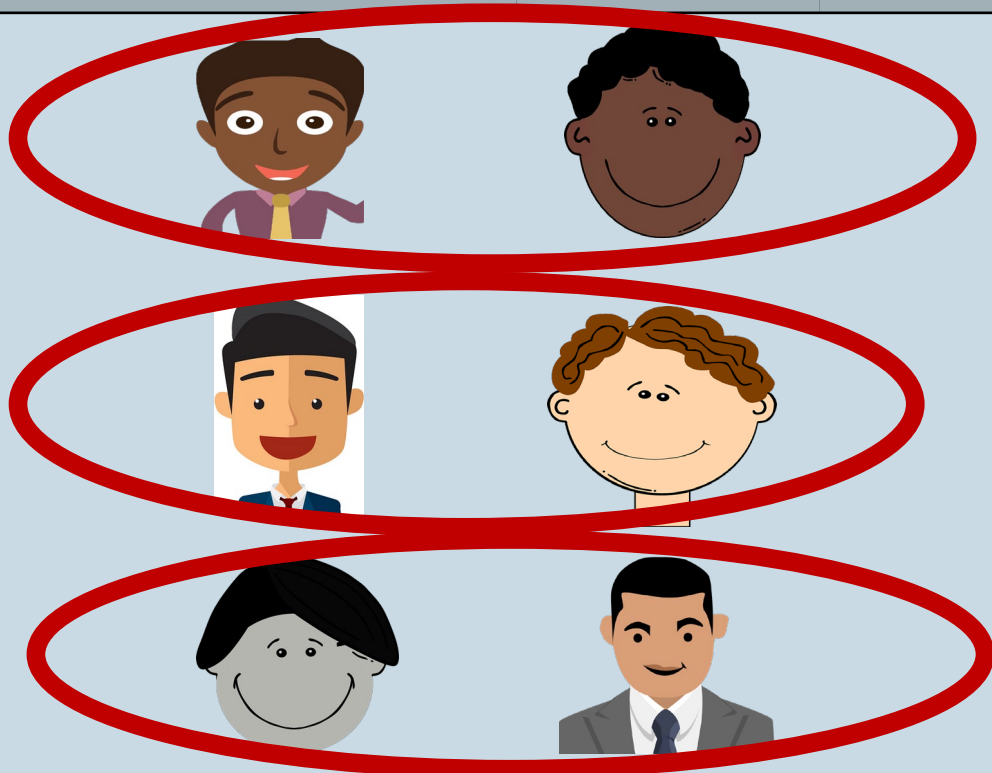
Rhode Island

.92

Inter-Rater
Reliability for the
SRR in the Field
Good to Excellent
among POs in all
states

Sample

		Age	Gender	Race/Ethnicity			Years of Experience	
	N	M(SD)	Male/Female	White	Black	Other Race	Latinx	M(SD)
Probation Officers	137	37 (8.77)	41% / 59%	53%	43%	3.6%	7%	12 (9.08)
Youth	1308	15 (1.72)	72% / 28%	38%	60%	1.5%	9%	--



Matched Pairs = 688 (52.6%)

Sample

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Matched Pairs = 688 (52.6%)

Unmatched Pairs = 620 (47.4%)

Matched group significantly more likely to have:

- POs with fewer years of experience
- POs-Black
- Youth-Latinx
- Youth-Black

Included as covariates where needed

Did POs' risk factor ratings and estimates of risk level differ for matched vs. unmatched youth?

GLM Comparisons – Adjusted Means

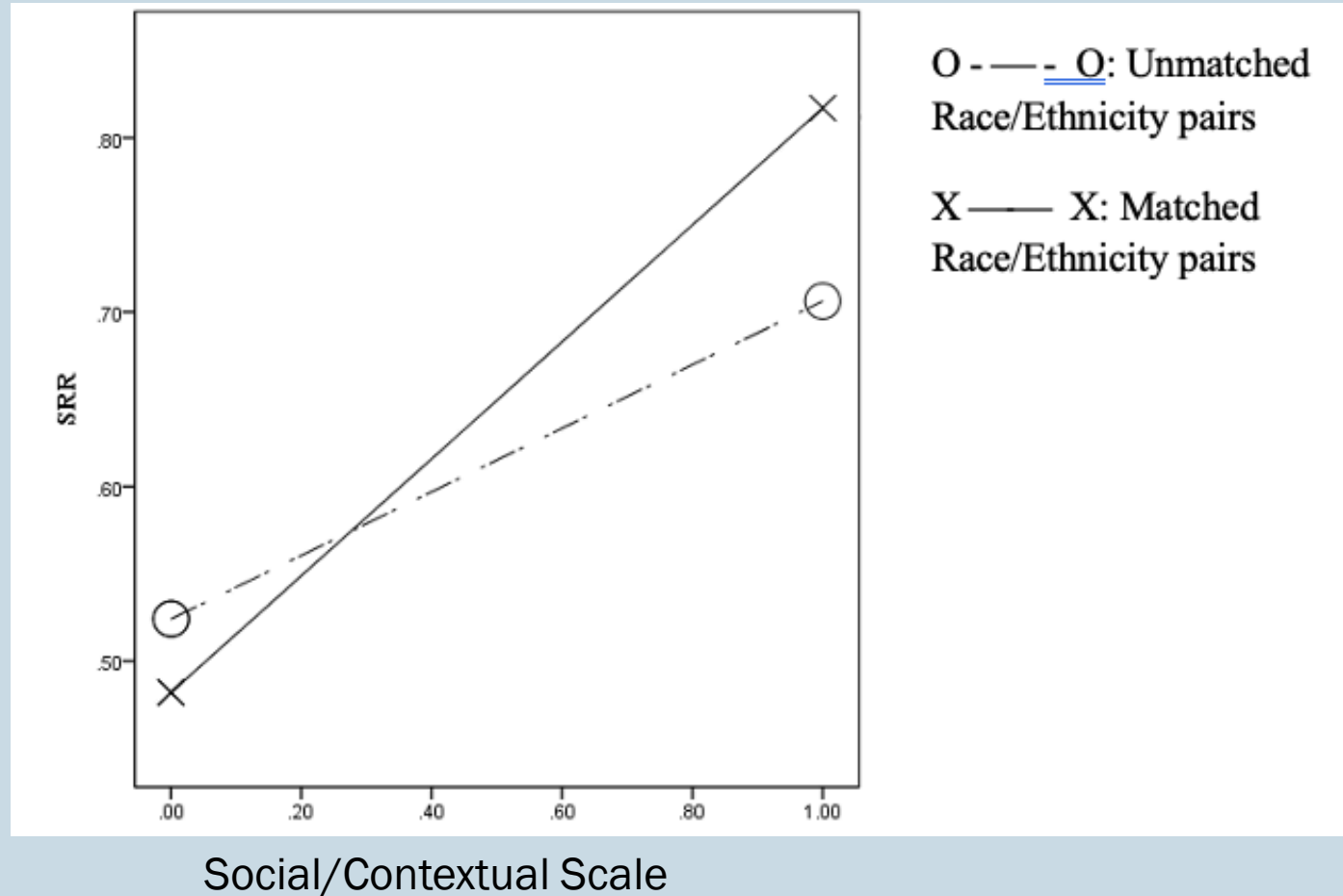
	Matched (n = 688)	Unmatched (n = 620)	p
Summary Risk Rating	.62 (.03)	.57 (.03)	.225
Total Risk Score	12.74 (.34)	13.68 (.36)	.062
Historical	4.91 (.15)	5.22 (.16)	.174
Social/Contextual	3.22 (.10)	3.44 (.10)	.119
Individual/Clinical	4.78 (.15)	4.88 (.15)	.643
Protective Domain	3.66 (2.00)	3.76 (1.82)	.341

ANSWER = NO
 No mean differences in estimates of youths' risk levels or 'scores' on Risk Domains

Summary Risk Rating		
Low	52.18%	50.97%
Moderate	34.59%	37.58%
High	13.23%	11.49%

Did POs weight risk domains differently in their final risk judgments for matched vs unmatched?

Tested moderator effects – hierarchical regression with Match X Domain interaction term



Social/Contextual Domain:
When domain HIGH, it had a greater influence on POs' risk estimates for matched youth (rated their overall risk higher) than for unmatched youth

Did POs weight risk factors differently in their final risk judgments for matched vs unmatched?

Stepwise regression – risk factors contributing most to the SRR

Most Significant Contributors to the SRR (Overall)

	<i>R</i>		<i>R</i>
1 Community Disorganization	.21	6 Negative Attitudes	.10
2 Anger Management	.16	7 Early Initiation of Violence	.09
3 Poor Compliance	.15	7 Stress Poor Coping	.09
4 Hx of Violence	.14	7 Exposure to Violence	.09
4 Low Empathy/Remorse	.14	8 Risk taking/Impulsivity	.07
5 Poor School Achieve	.11	8 Peer Rejection	.07
5 Past Supervision Fail	.11	8 Substance Use	.07

Historical
Social/Contextual
Individual/Clinical

Risk factors where weighting on SRR was moderated by match

Community Disorganization

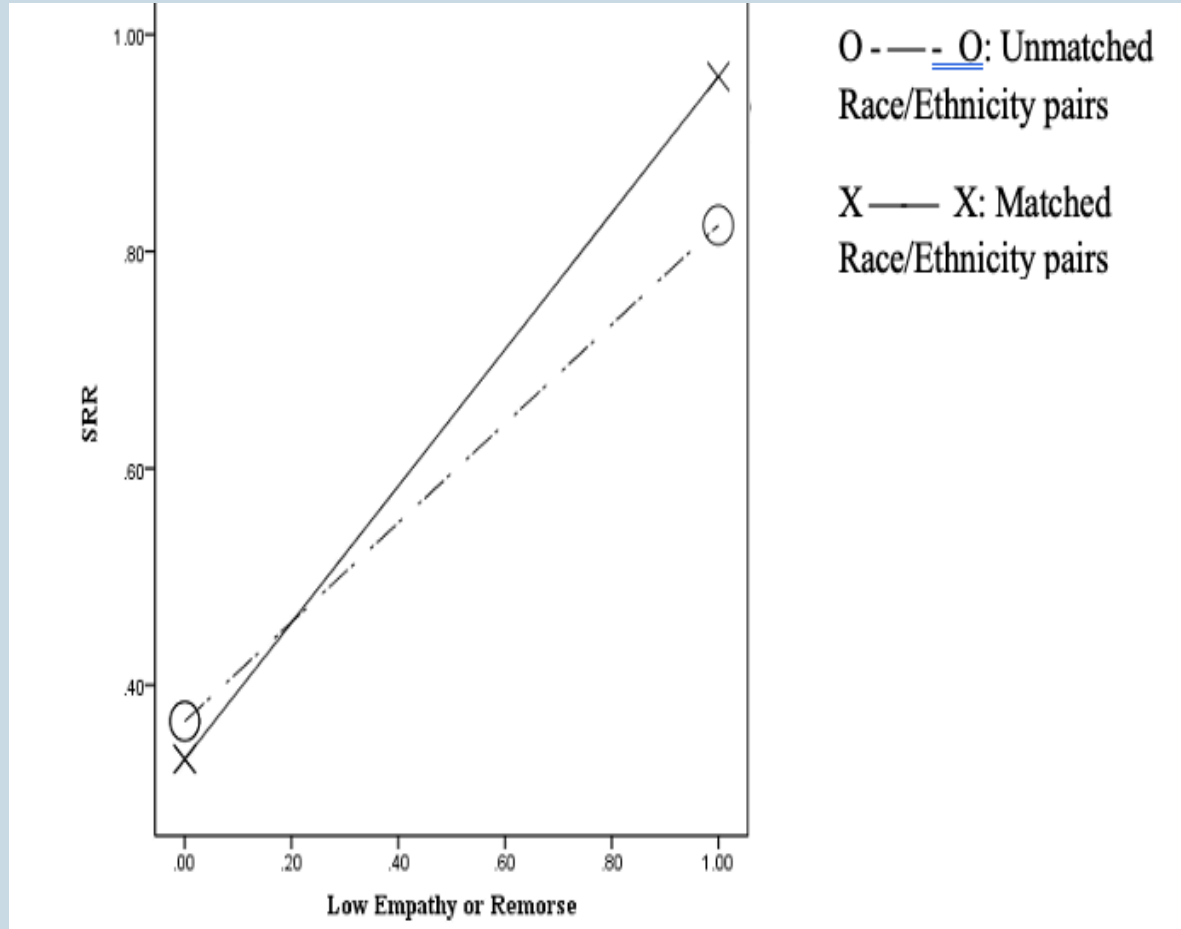
Low Empathy/Remorse

Poor School Achievement

Failure of Past Intervention/Supervision

Peer Rejection

Moderator Effect of Matched/Unmatched Race on the Weighting of 5 Items in Risk Levels



When the risk factors were high:

Unmatched youth's overall risk level



Matched youth's overall risk level



Summary Study 1

- Did POs ratings of risk domains and estimates of risk level on the SAVRY differ when youth matched vs. did not match their race/ethnicity?
 - **NO**
- Did POs weight risk domains or factors differently in their final overall risk level judgments when evaluating a youth who matched vs. did not match their race/ethnicity (moderator effect)?
 - **YES FOR 5 RISK FACTORS**
 - *Factors were mostly internal with one external (community disorga*
 - *In all cases, estimated the overall risk levels of youth more like t*
 - *Small effects*



Study 2: Do POs Make Valid Ratings of Risk for Youth From a Different Race/Ethnicity?

Defining Bias

- **Test bias** = When scores are differentially related to recidivism based on group status (Skeem & Lowenkamp, 2016)
 - *Example: If scores for one race 'mean' something different than for another race*
- *Ethical Standards for Educational and Psychological Testing* (American Educational Research Association, National Council on Research in Education, & American Psychological Association, 2014).

Do risk for violence estimates mean something different when made by an evaluator who does not match the evaluatee's race/ethnicity?

- Is there equity in the predictive validity for recidivism?

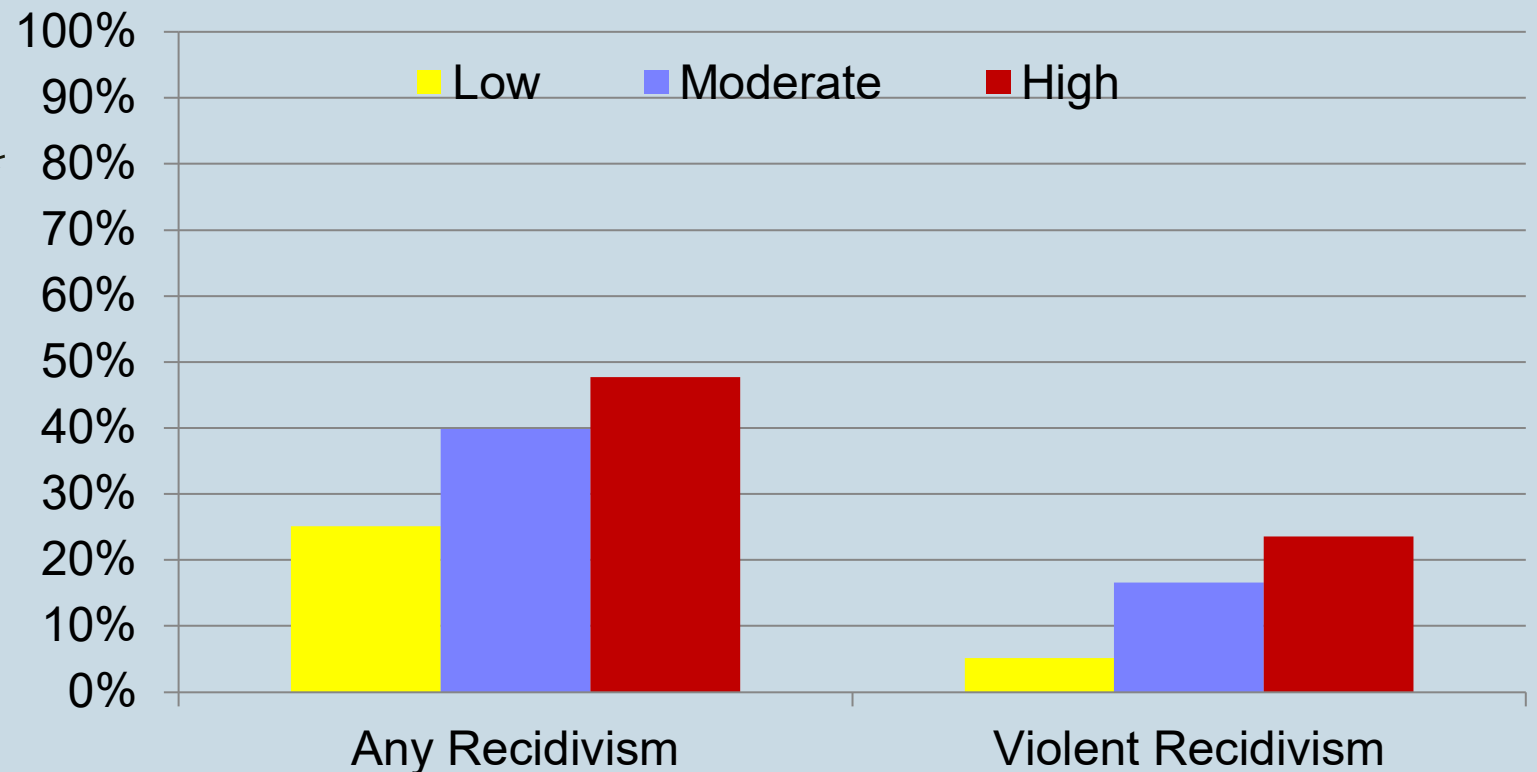
Method & Findings

- Recidivism = new petition (filing) or conviction on juvenile or adult record
- Follow-up Period = 32 to 763 days; Average follow-up length = 386 days (SD = 145.82)
- Sample = N = 1216; Matched = 645 (53%) & Unmatched = 572 (47%)
- Baserate: Any recidivism = 35% Violent recidivism = 13%

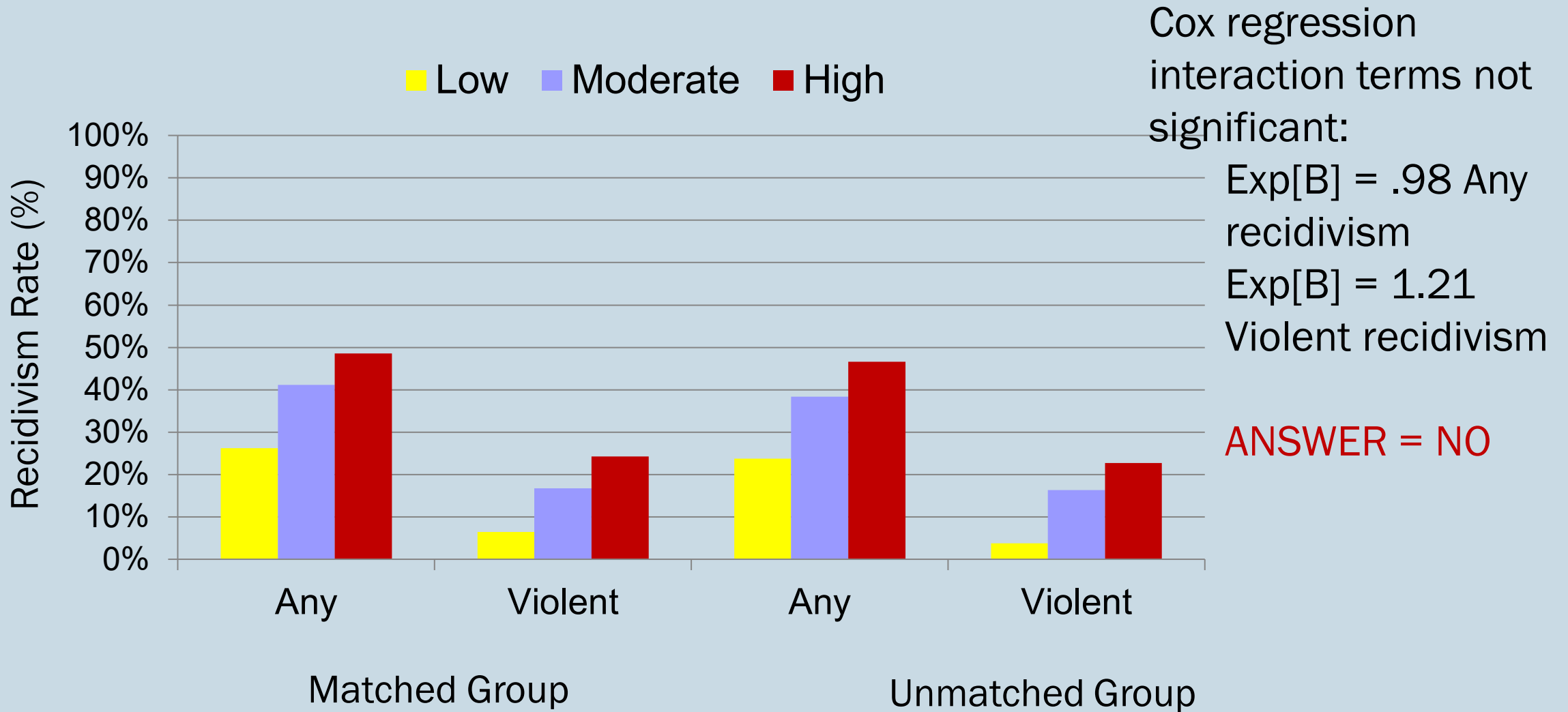
- Cox Regression

- *Any Exp[B] = 1.54****

- *Violent Exp[B] = 2.12****



Was the Predictive Validity of POs' Risk Estimates (SRR) Moderated by Matching/Unmatching Race?



Study 2: Conclusions

- The validity of PO's decisions about youths' risk levels did not differ regardless of whether the youth looked similar or different to them
- There were some small differences in the weighting of risk factors on their decisions
 - *SPJ enables them to automatically adjust to the individual being evaluated – could this be why?*

Overall Study Limitations

Cannot disentangle state differences from match vs unmatched

Fewer Latinx POs and youth than White or Black – more research needed

Recommendations – Bias in Instruments


It is critical for researchers and instrument developers to make a concerted effort to carefully attend to disparities and adequately validate and avoid biases in risk assessment instruments.


Due to simple mathematics, we must expect rate of official recidivism than White defendants predictive of or well-calibrated to those outcomes. A disproportionate proportion of defendants of color as high risk defendants of color who ultimately do not re-offend risk (Skeem & Lowenkamp, 2020).

- To date, where racial bias has been found in a risk assessment instrument than with risk assessment instruments.

RACIST ALGORITHMS OR SYSTEMIC PROBLEMS?

Risk Assessments and Racial Disparities

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As recent and historical events attest, racial and ethnic disparities are widely engrained into the justice system. Recently, scholars and policymakers have raised concerns that risk assessment instruments may exacerbate these disparities. While it is critical that risk instruments be scrutinized for racial bias, some concerns, though well-meaning, have gone beyond the evidence. This article explains what it means for an instrument to be “biased” and why instruments should not all be painted with the same brush (some will be more susceptible to bias than others). If some groups get apprehended more, those groups will score higher on non-biased, well-validated instruments derived to maximize prediction of recidivism because of mathematics. Thus, risk instruments shine a light on long-standing systemic problems of racial disparities. This article concludes with suggestions for research and for minimizing disparities by ensuring that systems use risk assessments to avoid unnecessary incarceration while allowing for structured discretion.

Keywords: criminal justice; risk assessment; race; ethnicity; decision-making

Recommendations: Promising Approaches for Minimizing Bias

1. Only use instruments that have been appropriately validated by race and do not rely solely on official records for its risk factors
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. Professionals/decision-makers delve deeper to recognize power imbalances in the field and implicit biases when weighing the relevance of specific risk factors to members from specific groups

Future Directions: Racial Bias vs Disparate Impact

Studied instances as to when risk assessment conducted but not 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 to be **diverted from confinement** despite comparable risk scores (Marlowe et al., 2020)
- Currently no strong evidence instruments are leading to greater system disparity, but do appear to be leading to....
 - *Small reductions in restricted placements in general (Viljoen et al., 2019)*
 - *Increased diversion (Vincent et al., 2016; 2020), particularly for African-American youth (Onifade et al., 2019)*
 - *Reductions in intensity of supervision (Vincent et al., 2016)*
- ****More research needed