REDUCING RECIDIVISM OR MISCLASSIFYING OFFENDERS?: HOW IMPLEMENTING RISK AND NEEDS ASSESSMENT IN THE FEDERAL PRISON SYSTEM WILL PERPETUATE RACIAL BIAS

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Your Honor, I understand the appeal of using this sentencing software, EVALUATE. I do. It appears to be efficient, precise, immune to emotion and lapses in logic. It seems fair and unbiased, so shouldn’t we attempt to be fair and unbiased in evaluating whether it actually works? 32, 19, 34 . . . 32% is the federal recidivism rate. 19%? 19% is the recidivism rate of defendants tried and sentenced in your court, Judge Barish. It’s one of the lowest in the Southern District. 34%? That’s the recidivism rate of EVALUATE, higher than the national average, 15 points behind you.¹

INTRODUCTION

Mr. Eric Loomis, a Wisconsin defendant, was charged with five criminal counts in response to a drive-by shooting in La Crosse, Wisconsin.² He pled guilty to “attempting to flee a traffic officer and

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¹ For the People: 18 Miles Outside of Roanoke (ABC television broadcast Mar. 27, 2018).

² Criminal Law — Sentencing Guidelines — Wisconsin Supreme Court Requires Warning Before Use of Algorithmic Risk Assessment in Sentencing — State v. Loomis, 881 N.W.2d 749 (Wis. 2016), 130 HARV. L. REV. 1530, 1531 (2017) [hereinafter Algorithmic Risk Assessment]; State v. Loomis, 881 N.W.2d 749, 754 (Wis. 2016) (“[The State] charged him with five counts, all as a repeater: (1) First-degree recklessly endangering safety (PTCA); (2) Attempting to flee or
operating a motor vehicle without the owner’s consent.”

Neither crime warranted prison time. In State v. Loomis, Justice Bradley used a state risk-assessment tool, Correctional Offender Management Profiling for Alternative Sanctions (“COMPAS”), which categorized Mr. Loomis as “an individual who is at high risk to the community.” Justice Bradley sentenced him to six years in prison and five years of extended supervision.

On appeal, appellant-defendant Mr. Loomis asserted that the risk assessment program used during sentencing violated his due process rights to be “sentenced upon accurate information,” and “not to be sentenced on the basis of gender.” The Wisconsin Supreme Court acknowledged that COMPAS could disproportionately categorize minority groups as high-risk offenders simply because of factors

elude a traffic officer (PTAC); (3) Operating a motor vehicle without the owner’s consent; (4) Possession of a firearm by a felon (PTAC); (5) Possession of a short-barreled shotgun or rifle (PTAC).”

Ellora Thadaney Israni, When an Algorithm Helps Send You to Prison, N.Y. TIMES (Oct. 26, 2017), https://www.nytimes.com/2017/10/26/opinion/algorithm-compas-sentencing-bias.html (suggesting that, absent the judge using the risk and needs assessment algorithm, Mr. Loomis would not have been sent to prison).

Loomis, 881 N.W.2d at 755 (noting how the Circuit Court used Correctional Offender Management Profiling for Alternative Sanctions (“COMPAS”) risk scores to rule out probation by citing the defendant’s “high risk of violence, high risk of recidivism, [and] high pre-trial risk.”).

Id. at 749 (affirming the trial court’s finding that the defendant should be “sentenced to four years, with initial confinement of two years and extended supervision of two years on the attempting to flee charge and seven years, with four years of initial confinement and three years of extended supervision, to be served consecutively with the prior sentence.”).

Id. at 760 (citing State v. Travis, 832 N.W.2d 491, 496 (Wis. 2013) (discussing how a “defendant has a constitutionally protected due process right to be sentenced upon accurate information.”)); see also State v. Tiepelman, 717 N.W.2d 1, 3 (Wis. 2006) (citations omitted).

Loomis, 881 N.W.2d at 765 (arguing that the use of gender in COMPAS violates due process); see also State v. Harris, 786 N.W.2d 409, 416 (Wis. 2010) (stating that a “defendant has a constitutional due process right not to be sentenced on the basis of race or gender.”).
such as education or familial background. The court circumvented the idea of disclosing COMPAS’s methodology to prevent inaccuracies which may affect a defendant’s right to be sentenced using the most accurate information. Instead, the court concluded COMPAS was not a determinative factor, and that the defendant “had an opportunity to challenge his risk scores by arguing that other factors or information demonstrate their inaccuracy.” Although Mr. Loomis should have raised an equal protection claim on the basis of gender, he instead challenged the use of gender in the risk and needs assessment (“assessment”) algorithms used at sentencing. In response, the court referenced statistical evidence differentiating men and women’s recidivism rates. Yet, the court evaded the issue of gender bias, and instead found that Mr. Loomis did not demonstrate how the court had relied on COMPAS assessment in imposing his sentence.

9 Loomis, 881 N.W.2d at 763 (highlighting the controversial studies that suggest risk and needs assessment tools misclassify minority offenders as high risk because of “factors that may be outside their control.”); see also Cecelia Klingele, The Promises and Perils of Evidence-Based Corrections, 91 NOTRE DAME L. REV. 537, 577 (2016) (discussing how reliance on risk and needs assessment tools in correctional decision-making subjects minorities and indigent individuals to harsher treatment).

10 Loomis, 881 N.W.2d at 761 (stating COMPAS is a trade secret and, “[a]ccordingly, it does not disclose how the risk scores are determined or how the factors are weighed.”).

11 Id. at 761–62.

12 Id. at 767.


14 Loomis, 881 N.W.2d at 767 (highlighting how the court referenced the risk assessment tools which inherently rely on gender by considering it as a one of the “various factors” included in the test itself); see also Algorithmic Risk Assessment, supra note 2, at 1532 (noting that, on appeal to the Supreme Court, “Justice Bradley found that the use of gender as a factor in the risk assessment served the nondiscriminatory purpose of promoting accuracy and that Loomis had
Artificial intelligence has been used to send defendants to prison in situations where, if a human had been the decisionmaker, the defendant may not have served any time at all. Further compounding this issue, after Mr. Loomis serves his time, risk-assessment algorithms may also be used to determine the conditions of his parole. Artificial intelligence, void of all human interaction, has been used to inform probation, sentencing, and parole decisions on the state level, and probation on the federal level. Allowing courts to use risk assessment tools as the foundation for their decision-making has been shown to result in disproportionate sentencing. Despite this, Congress has proposed and passed legislation permitting the use of artificial intelligence programs in the federal prison system, the Bureau of Prisons (“BOP”).

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not provided sufficient evidence that the sentencing court had actually considered gender.”).

15 See Karen Hao, AI is sending people to Jail – and getting it wrong, MIT TECH. REVIEW (Jan. 21, 2019), https://www.technologyreview.com/s/612775/algorithms-criminal-justice-ai/ (discussing how “AI is sending people to jail” by using risk and needs assessment tools that are considered a form of machine-learning algorithms).

16 See Thadaney Israni, supra note 4.


18 Id.; see also NAT’L CTR. FOR STATE COURTS, USE OF RISK AND NEEDS ASSESSMENT INFORMATION IN STATE SENTENCING PROCEEDINGS 1 (2017), https://www.ncsc.org/-/media/Microsites/Files/CSI/EBS%20RNA%20brief%20Sep%202017.ashx (indicating that judges use risk and needs assessment to guide decisions pertaining to whether “the defendant is amenable to community supervision” and if so, to determine the appropriate terms of community supervision).

19 See Jeremy Luallen et al., The Predictive Validity of the Post-Conviction Risk Assessment Among Federal Offenders, 43 CRIM. JUST. & BEHAV. 1173, 1173 (2016).

20 See, e.g., Klingele, supra note 9.

Implementing a similar assessment instrument for offenders’ post-conviction and prerelease decisions perpetuates inherent racial biases by disproportionately punishing minority groups.\(^{22}\) An idealistic, long-term solution will seek to address existing prejudice in mandatory minimums and racially driven policing. In the interim, software developers can aim to steer away from using unchangeable variables in these assessment tools and instead focus on an inmate’s developmental, psychological, and behavioral changes while he is incarcerated.

Part I of this Note will begin by examining federal assessment instruments, as applied at each decision point.\(^{23}\) It will also advise against adopting similar risk assessment programs used on the state level. Part II will compare current state risk assessment programs and studies to demonstrate the potential negative ramifications of those programs. Part III will provide case studies demonstrating how assessment programs have inherent racial, economic, and gender biases, because the programs incorporate outdated factors that primarily focus on the initial point of incarceration. Part IV will explore the underlying constitutional considerations of risk assessment programs, highlighting how the reliance on these instruments may violate an offender’s right to due process and equal protection under the Fourteenth Amendment. Part V will examine pieces of legislation Congress has either proposed or passed, as well as other proposed solutions to prevent racial and gender bias in assessment tools. Part VI will argue against adopting existing assessment tools and instead propose both long-term and short-term solutions to reduce the inherent biases in determining an offender’s risk of recidivism in the federal prison system.

\(^{22}\) Julia Angwin & Jeff Larson, Bias in Criminal Risk Scores Is Mathematically Inevitable, Researchers Say, PROPUBLICA (Dec. 30, 2016), https://www.propublica.org/article/bias-in-criminal-risk-scores-is-mathematically-inevitable-researchers-say (noting how “researchers found that the formula . . . [has] been written in a way that guarantees black defendants will be inaccurately identified as future criminals more often than their white counterparts.”).

\(^{23}\) See JAMES, CRIMINAL JUSTICE SYSTEM, supra note 17; NAT’L CTR. FOR STATE COURTS, supra note 18.
I. RISING PRISON POPULATIONS AND THE INCREASING NEED FOR RISK-NEEDS-RESPONSIVITY

From 1980 to 2013, the federal prison population drastically increased from 24,640 to over 219,298 federal inmates in BOP custody.24 Although the number has decreased from the peak in 2013 by about 33,681, in 2017 the BOP still reported a staggering 185,617 inmates in the federal prison system.25 To reduce overcrowding in the federal prison system, some have proposed “diverting ‘low-level drug offenders’ from prison or granting non-violent offenders early release.”26 While this seems fitting, the proposal is flawed because the offense itself does not necessarily indicate an offender’s risk to the community.27 Inmates convicted of certain crimes may be characterized as violent even if they have no prior history of violence.28 Conversely, those considered “violent” offenders may reduce their sentence to a nonviolent offense if they accept a plea deal.29

The desire to predict an inmate’s risk to the community led to the creation of risk assessment tools designed to predict future criminal behavior and match prisoners to appropriate rehabilitative


26 James, Criminal Justice System, supra note 17, at 1.

27 See William Rhodes et al., Recidivism of Offenders on Federal Community Supervision 28 (2012), https://www.ncjrs.gov/pdffiles1/bjs/grants/241018.pdf (discussing the arbitrary standard for classifying offenses based on severity); see also James, Criminal Justice System, supra note 17, at 1 (explaining how “the crime someone is convicted of is not always the best proxy for the risk that person might pose to the community.”).

28 James, Criminal Justice System, supra note 17, at 1.

29 Id.
programming.\textsuperscript{30} Prior to the 1970s, prison staff used their professional judgment to determine an inmate’s “safety or security risk.”\textsuperscript{31} Currently, the BOP uses inmate security and custody designations to review inmates’ classifications using the presentence report\textsuperscript{32} prepared by the Office of Probation and Pretrial Services and U.S. Marshals.\textsuperscript{33} The BOP’s classifications rest on the notion that “misconduct and recidivism are correlated.”\textsuperscript{34} However, the BOP has yet to evaluate how well actuarial assessment tools predict recidivism, but they have validated assessment tools to evaluate individuals to determine “risk of institutional misconduct.”\textsuperscript{35} Given the demand for a more uniform and unbiased system, Congress suggested using assessment to calculate the risk

\textsuperscript{30} Id. at 2 (citing Edward J. Latezza & Brian Lovins, The Role of Offender Risk Assessment: A Policy Maker Guide 212 (2010) http://faculty.uml.edu/chigginsobrien/44.327/TOPICS/The%20Role%20of%20Offender%20Risk%20Assessment%20PDF.pdf) (noting how the “best models” predict recidivism with approximately 70% accuracy)).


\textsuperscript{35} Charles Colson Task Force on Fed. Corr., supra note 34, at 32.
of recidivism.\textsuperscript{36} However, the tool’s noticeable shortfalls and implicit errors will outweigh the benefits in assessing recidivism in the federal prison system to reduce prison populations.

The Risk-Needs-Responsivity (“RNR”) model is the central model for assessment programs designed to place offenders in rehabilitative programs.\textsuperscript{37} The RNR model evaluates an inmate based on earned time credits while incarcerated, which may lead to prerelease custody.\textsuperscript{38} The RNR instrument focuses on a convicted offender’s risk level, criminogenic needs,\textsuperscript{39} and rehabilitative style to reduce risk of recidivism.\textsuperscript{40} This program assesses offenders and categorizes them into a particular risk level (high-risk, medium-risk, or low-risk) to determine the level of intervention necessary to provide treatment.\textsuperscript{41} The assessment program examines several risk factors including static factors such as age at first arrest, prior alcohol abuse, mental health issues, and gender, as well as dynamic factors such as “educational level, marital status, employment status, current substance use, and residential stability.”\textsuperscript{42}

In the RNR model, first, the risk principle matches the risk level of the offender to the appropriate level of intervention.\textsuperscript{43} Next, the needs principle focuses on the “criminogenic needs that contribute to criminal behavior.”\textsuperscript{44} Lastly, the responsivity principle attempts to generate rehabilitative programming tailored to the offender’s

\textsuperscript{37} See JAMES, FEDERAL PRISON SYSTEM, supra note 31, at 3–5.
\textsuperscript{38} See id.
\textsuperscript{39} Id. at 3 (“Dynamic risk factors, also called ‘criminogenic needs,’ change and/or can be addressed through interventions. Examples include current age, education level, marital status, employment status, current substance use, and residential stability.”).
\textsuperscript{40} Id. at 2.
\textsuperscript{41} Id. at 2–3.
\textsuperscript{42} Id. at 3.
\textsuperscript{43} Id. at 5 (“The risk principle states that high-risk offenders need to be placed in programs that provide more intensive treatment and services while low-risk offenders should receive minimal or even no intervention.”).
\textsuperscript{44} JAMES, FEDERAL PRISON SYSTEM, supra note 31.
learning style.\textsuperscript{45} Despite the comprehensive objective to assign an offender a risk factor based on that offender’s past criminal behavior and developmental changes in personality, research indicates that low-risk offenders placed in intensive rehabilitation programs had an increased likelihood of recidivism because it exposed them to high-risk behaviors.\textsuperscript{46} The RNR paradigm used in assessment tools, which has been implemented on both the federal and state levels,\textsuperscript{47} does not accurately classify offenders into their appropriate risk levels based on unchangeable static factors and misapplied dynamic risk factors.

II. COMPARISON BETWEEN EXISTING FEDERAL AND STATE PROGRAMS TO HIGHLIGHT THE IMPROPER RELIANCE ON STATIC RISK FACTORS

Existing assessment programs were designed to assess an offender’s risk of recidivism at multiple decision points from arrest to reentry, including pretrial release and case management.\textsuperscript{48} Each program incorporates unique dynamic factors in an effort to produce a more accurate algorithmic tool, but none are specifically designed to evaluate incarcerated individuals while they are serving time.\textsuperscript{49}

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\textsuperscript{45} Id. at 5, n.30; see Guy Bourgon et al., Program Design, Implementation, and Evaluation in “Real World” Community Supervision, 74 FED. PROB. 1, 6–7 (2010) (“Adherence to the Responsivity Principle is arguably the most challenging because there are a number of techniques, skills, and intervention strategies that can promote or diminish an effective learning environment for offenders.”).

\textsuperscript{46} JAMES, FEDERAL PRISON SYSTEM, supra note 31, at 7.

\textsuperscript{47} JAMES, CRIMINAL JUSTICE SYSTEM, supra note 17, at 5; Luallen, supra note 19; Jeff Larson et al., How We Analyzed the COMPAS Recidivism Algorithms, PROPUBLICA (May 23, 2016), https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm.


\textsuperscript{49} See id. (noting how risk needs responsivity (“RNR”) tools were “developed to inform decisions about community-based supervision and treatment strategies,” but “[s]everal RN[R] tools include separate components
Further, the improper reliance on unchangeable, static factors\textsuperscript{50} is apparent across multiple programs.\textsuperscript{51} Both dynamic and static factors used in existing programs reflect the criminal justice system’s inherent racial and gender biases; adopting these programs means affirming those prejudices.

\textit{A. Federal Program: Post-Conviction Risk Assessment}

As early as the 1970s, federal judicial policy required probation officers to classify offenders into minimum, medium, and maximum supervision categories based on severity of the offense, criminal history, and personal background factors.\textsuperscript{52} The previous renditions of assessment instruments transformed into the existing tool on the federal level for probation known as Post-Conviction Risk Assessment (“PCRA”), which was designed to assess an offender’s risk while under supervision.\textsuperscript{53} The PCRA model appropriately sought to incorporate dynamic risk factors to reflect changes in an offender’s circumstances while on probation and develop a case

designed for use at other decision points such as pre-trial release or release from prison (e.g. [ ] COMPAS).”)

\textsuperscript{50} Static factors highlight an offender’s criminal history or previous relationships rather than focusing on behavioral changes. Especially given the case of a non-violent offender, the reliance on unchangeable factors ignores any prudent steps taken towards rehabilitation. Although many U.S. prisons focus on punishment, rehabilitation programs are inextricably intertwined with a reduced risk of recidivism. \textit{See} Jacob Reich, \textit{The Economic Impact of Prison Rehabilitative System, WHARTON U. OF PA.} (Aug. 17, 2017), https://publicpolicy.wharton.upenn.edu/live/news/2059-the-economic-impact-of-prison-rehabilitation/for-students/blog/news.php.


\textsuperscript{52} Those factors included “age at the start of supervision, number of prior arrests, whether a weapon was used in the instant offense, employment status, history of drug and alcohol abuse, whether the person absconded from supervision, whether the person has a college degree, and whether the person was living with a spouse and/or children at the start of supervision.” \textit{ADMIN. OFFICE OF THE U.S. COURTS OFFICE OF PROB. AND PRETRIAL SERVS., AN OVERVIEW OF THE FEDERAL POST CONVICTION RISK ASSESSMENT 4, 6} (2011), https://www.uscc.gov/sites/default/files/pdf/training/annual-national-training-seminar/2014/PCRA_2011.pdf.

\textsuperscript{53} Luallen, \textit{supra} note 19, at 1773–74.
supervision plan accordingly.54 Similar to the dynamic criminogenic factors used in the RNR model, the PCRA considers an offender’s education, employment, substance abuse, social networks, and supervision attitudes, in addition to static factors.55 Despite Congress’ expansion of assessment testing to individuals in the federal prison system, decades later they still have not proposed unique dynamic factors to account for time incarcerated.

Applying the dynamic risk factors used in PCRA to federal prisons, where “education/employment [is] the most amenable to change,”56 ignores the limited opportunities to improve an offender’s education and employment while incarcerated.57 The Federal Probation System’s use of actuarial risk assessment tools at one stage of an offender’s conviction does not necessarily suggest that Congress should adopt a similar program for incarcerated individuals.58 The desire to implement the existing RNR model59 in the federal prison system is an idealistic goal based on the overwhelming prison population.60 However, until software developers or Congress adjust the dynamic risk factors to account for time incarcerated, the assessment will fall short of accurately assessing risk.

54 Id. at 1175.
56 Id. at 59.
57 See U.S. DEP’T OF JUSTICE, FEDERAL BUREAU OF PRISONS EDUCATION PROGRAM ASSESSMENT i–ii (2016), https://www.justice.gov/archives/dag/page/file/914026/download (highlighting the need for improvements in quality and scope of educational programs for federal inmates in order for the programs to be more successful regarding enrollment and impact by giving inmates skills which are attractive to employers).
58 Each decision-making point in an offender’s conviction raises unique concerns based whether the individual is released on probation or sentenced to time in federal prison.
60 See JAMES, CRIMINAL JUSTICE SYSTEM, supra note 17, at 1.
B. State Risk and Needs Assessment Programs: How Adopting Existing State Programs Will Adopt Existing Errors and Inherent Bias

Nationwide, probation and parole officers use state risk-assessment algorithm tools such as COMPAS to predict an offender’s likelihood of recidivism.\textsuperscript{61} Although these tools were originally developed for probation agencies to ensure that defendants receive appropriate probation supervision, and to promote court efficiency to reduce likelihood of recidivism, courts have begun to incorporate risk assessment in sentencing and parole decisions.\textsuperscript{62} The state programs are problematic on their face because most use the same risk assessment programs across different issues, and these programs are not tailored according to probation, sentencing, or parole.\textsuperscript{63} Adopting the PCRA instrument or existing state risk assessment programs will counteract the goal to reduce risk of recidivism, and alternatively will increase harm to federal inmates by perpetuating the institutional bias inherent in risk assessment algorithms. Furthermore, using similar tools in the federal prison system to predict recidivism will open the floodgates to due process claims.\textsuperscript{64}


COMPAS is a national risk and assessment tool based on a sample size of 30,000 imprisoned offenders between 2004 and 2005, “designed to help criminal justice practitioners determine the placement, supervision, and case-management of offenders in community and secure settings.”\textsuperscript{65} Independent studies generated

\textsuperscript{61} Larson et al., supra note 47.
\textsuperscript{62} See NAT’L CTR. FOR STATE COURTS, supra note 18, at 2–3.
\textsuperscript{63} See JAMES, CRIMINAL JUSTICE SYSTEM, supra note 17, at 4–5; NAT’L CTR. FOR STATE COURTS, supra note 18.
\textsuperscript{64} See generally State v. Loomis, 881 N.W.2d 749 (Wis. 2016) (evaluating whether COMPAS infringed on the defendant’s due process right to be sentenced using accurate information and his due process right to an individualized sentence).
\textsuperscript{65} CASEY ET AL., supra note 48, at A-20.
conflicting results due to the small sample size and incomplete data.\textsuperscript{66} Nonetheless, the model has been adopted by numerous state correctional facilities.\textsuperscript{67} Although correctional facilities adopted COMPAS for incarcerated offenders, the tool focuses on some criminogenic needs, which are relatively unchangeable while serving time—criminal involvement, relationships/lifestyle, personality/attitudes, family, and social exclusion.\textsuperscript{68} Fortunately, over fifty percent of COMPAS’s risk assessment factors are dynamic to deviate from the unalterable, static factors.\textsuperscript{69} It is impermissible to concentrate on an offender’s past criminal history to subdivide the criminal population into low-risk, medium-risk, and high-risk.\textsuperscript{70}

Nevertheless, states continue to rely on analytics such as COMPAS, despite racial and gender biases in predicting recidivism.\textsuperscript{71} Northpointe Inc., a case management software company,\textsuperscript{72} determined African American defendants “were far more likely than white defendants to be incorrectly judged at a higher risk of recidivism,” and white defendants were more likely “to be incorrectly flagged as a low risk.”\textsuperscript{73} Compared to the actual

\textsuperscript{66} See id. at A-24.

\textsuperscript{67} Id. at A-20 (detailing that the California Department of Corrections and Rehabilitation, Michigan Department of Corrections, New Mexico Corrections Department, New York State Department of Corrections and Community Supervision, South Carolina Department of Corrections, Wisconsin Department of Corrections, Wyoming Department of Corrections, and probation departments in San Diego, San Francisco, Tulare, San Bernardino, and Riverside counties have all adopted COMPAS).

\textsuperscript{68} Id. at A-21 (noting that COMPAS incorporates nineteen criminogenic needs subdivided into five general areas and four risk factors to assess adult offenders).

\textsuperscript{69} Id.

\textsuperscript{70} Contra CASEY ET AL., supra note 48, at A-22 (noting how the risk assessment using decile cutoffs is combined with an interviewer statement to determine treatment).


\textsuperscript{73} Larson et al., supra note 47.
recidivism numbers, COMPAS only has a 61% accuracy rate for an offender’s recidivism, and only has 20% accuracy in predicking violent recidivism.74 The test was 77% more likely to think African American defendants would commit a future crime than their white counterparts, even isolating static factors such as criminal history and race.75 Although screeners may not directly record an offender’s race, the sample COMPAS questionnaire incorporates inherently racially driven questions, including whether the screener perceives the offender as a gang member, whether the offender’s acquaintances have been arrested, or whether a parent has been sent to prison.76

The existing criminogenic risk factors in COMPAS may assist in determining a defendant’s risk of recidivism at sentencing or for probation, but lack any prison-specific developmental questions.77 COMPAS attempts to account for substantive differences at different decision points by incorporating “separate components,” but this does not eliminate the existing factors.78 To use the same dynamic risk factors to determine an inmate’s parole ignores an offender’s development since the initial offense. When implemented in federal prison systems, especially when assessing an offender periodically, the assessment will need to incorporate dynamic factors as applied to incarcerated individuals, such as prison

74 Id.
77 See id. (listing 137 questions in the “CORE” survey which “was obtained from Wisconsin, a state that uses COMPAS at every stage of the criminal justice system after conviction,” and including only one question related to incarceration: “[h]as this person, while incarcerated in jail or prison, ever received serious or administrative disciplinary infractions for fighting/threatening other inmates or staff?”).
78 CASEY ET AL., supra note 48 (“Several RN[R] tools include separate components designed for use at other decision points such as pre-trial release or release from prison.”).
relationships or educational programs. To merely designate separate sections does not eliminate the problem with using the same assessment tool at each decision point. The algorithm merely perpetuates existing racial and gender biases by fixating on static factors and not incorporating any prison-specific dynamic factors.

2. Offender Screening Tool

The Offender Screen Tool (“OST”), originally developed for the Maricopa County Adult Probation Department in Arizona, was adopted by the Arizona Administrative Office of the Courts in 2005, and now is also used in Virginia in local probation departments. OST consists of a full assessment conducted prior to sentencing, a reassessment, and a brief screening. Unique to the OST RNR model, Arizona uses the Field Reassessment Offender Screening Tool to evaluate offenders every six months to assess developing risks and needs. In contrast with COMPAS, the OTS assessment program incorporates a greater number of dynamic factors, shifting away from a focus on unalterable variables. As opposed to the

79 See MAC TAYLOR, IMPROVING IN-PRISON REHABILITATION PROGRAMS 3 (2017), https://lao.ca.gov/reports/2017/3720/In-Prison-Rehabilitation-120617.pdf (describing the shift from prison as a form of punishment to a form of rehabilitation and noting that “[r]ehabilitation programs are generally offered to offenders who are incarcerated in either state prison or county jail, as well as those who are supervised in the community by state parole agents or county probation officers.”); see also Richard Berk, Do We Incarcerate Too Many People, PENN ARTS & SCIENCES DEP’T OF CRIMINOLOGY, https://crim.sas.upenn.edu/fact-check/do-we-incarcerate-too-many-people (last visited Mar. 10, 2019) (noting how incarceration can “sever constructive ties” between inmates and their family members).

81 Id. at A-45.
82 Id.
83 Id. at A-46 (OST is comprised of “vocational/financial (5 items), education (3 items), family & social relationships (8 items), residence & neighborhood (2 items), alcohol (3 items), drug abuse (3 items), mental health (2 items), attitude (7 items), and criminal behavior (9 items).”).
three risk levels, OST creates four categories with a different point system for males and females.\textsuperscript{84}

The OST model sets forth a more realistic and attainable assessment of a convicted offender by reevaluating the individual periodically. If Congress elects to adopt an existing assessment tool in the federal prison system, it should adopt a model similar to the OST’s progressive forward-looking approach, which accounts for the possibility of developmental changes while serving time. Assessing developmental changes as early as six months will allow the BOP to focus on specific areas of improvement. Periodic assessments will undoubtedly ensure accuracy and reduce risk of error to avoid mischaracterizing an offender’s risk of recidivism. Given the risk of critical data inaccuracies, the OST model reevaluates an offender regularly to note any inconsistencies, and more accurately determine an offender’s risk of recidivism.


The Static Risk and Offender Needs Guide (“STRONG”)\textsuperscript{85} most resembles the RNR model.\textsuperscript{86} Although STRONG identifies inherent gender and racial biases by acknowledging the errors with property recidivism, violent recidivism, and high drug recidivism,\textsuperscript{87} the instrument places an unnecessarily strong emphasis on static risk factors.\textsuperscript{88} It fixates on unchangeable factors or “historical factors”

\textsuperscript{84} Id. at A-47 (“For males, low (1-5 points), moderate (6-10 points), moderate-high (11-17 points), and high (18+ points); for females, low (0-8 points), moderate (9-13 points), moderate-high (14-20 points), and high (21+ points).”)

\textsuperscript{85} Id. at A-61 (“The Static Risk Assessment component of the STRONG collects information on 26 items in 6 general categories: demographic information (2 items), juvenile felony convictions and commitments (4 items), DOC commitments (1 item), felony conviction types (9 items), misdemeanor conviction types (9 items), and adult sentence violations (1 item).”)

\textsuperscript{86} See id. at A-60.

\textsuperscript{87} Id. at A-62.

\textsuperscript{88} Id. at A-61, A-62 (indicating how STRONG uses the Static Risk Assessment portion “to assess offender risk for reoffense and classify each offender to a single risk category for case management purposes,” whereas the Offender Needs Assessment evaluates whether the result is considered the appropriate “protective factor[].”


are simply that—“historical.” Moreover, it is likely some static factors, such as age of first arrest, are attributable to more frequent policing in minority neighborhoods or historical drug use in certain neighborhoods.

It would be wrong to ignore the existence of repeat offenders, but to presume an offender will reoffend simply because he committed a crime in the past undermines the criminal justice system’s forward-looking objectives such as deterrence, rehabilitation, and incapacitation. The STRONG instrument has no place in determining an offender’s likelihood to reoffend, especially when it is used after years of incarceration.

III. RISK AND NEEDS ASSESSMENT TOOLS IN USE

Flawed input values in risk assessment programming create disproportionate output values and directly negatively impact human lives. Since the federal prison system eliminated parole for

89 Id. at A-19.
90 Id. at 6.
93 See Mike C. Materni, Criminal Punishment and the Pursuit of Justice, 2 BR. J. AM. LEG. STUD. 263, 294–95 (2013) (discussing how forward-looking rationalities share a common utilitarian characteristic which strive to “punish” to deter the offender from committing future crimes, rehabilitate to prevent future crimes, or in more extreme cases, incapacitate to prevent an offender from offending in the future).
94 See James Austin, The Proper and Improper Use of Risk Assessment in Corrections 1, 4 (2004), http://www.jfa-associates.com/publications/pcras/proper%20userand%20misuse%20of%20risk.pdf (listing static factors that increase rate of recidivism: earlier age at first arrest; male gender; prior violations; current offense including robbery, burglary, and theft; past problems with mental health, substance abuse, and alcohol abuse; never married, low education, poor past employment record, past gang affiliation involvement, and past involvement with criminal peer groups. Dynamic factors
prisoners convicted after 1987, for the purposes of this Note and as suggested by Congress, risk assessment used on the federal level prior to release is analogous to instruments used on the state level in aiding parole board decisions. From the onset, risk and need assessments pose grave problems, concentrating on static risk factors and failing to use appropriate dynamic risk factors in accordance with an offender’s environment. Yet decision-making has become almost entirely reliant on these assessments as the foundation for sentencing and parole determinations. Although assessment tools attempt to address the arbitrary decisions within Parole Boards, the programs themselves merely reflect and perpetuate the prejudice found in the commissioners themselves. The programming circumvents the ambiguity, but instead focuses in on static factors to justify their decision-making. Luckily, several appellate decisions rejected placing emphasis on the original offense for parole board determinations, a more progressive, beneficial approach. Considering criminal history as opposed to strictly

that decrease rate of recidivism: older than 40 years old, higher achievement education level, married marital status, lower class level, positive prison conduct record, employment, financial assistance, limited association with offenders, stable location, and if necessary, in treatment; see also Digital Decisions, CDT, https://cdt.org/issue/privacy-data/digital-decisions/ (last visited Mar. 14, 2019) (discussing how machine-learning algorithms reflect human value judgments).


Strutin, supra note 71.


Strutin, supra note 71.

See, e.g., Gulsomino v. NY State Bd. of Parole, 82 A.D.3d 1097, 1098 (2d Dep’d 2011) (holding the petitioner was entitled to a new parole determination
deciding an offender’s risk based on severity of arrest is a step in the right direction; however, the COMPAS questionnaire itself highlights an offender’s environment prior to sentencing and ignores human change.

Judge Boessenecker, an evidence-based sentencing consultant, advised colleagues against using assessment scores because “[a] guy who has molested a small child every day for a year could still come out as a low risk because he probably has a job,” or “a drunk guy will look high risk because he’s homeless.” Although Tim Brennan, former professor at University of Colorado, acknowledges issues such as poverty, joblessness, and social marginalization as being associated with race, he admits that the program’s accuracy will decrease if screeners choose to omit the data. Simply acknowledging racial disparities and inherent prejudices does not eliminate the issue, but instead raises an additional due process concern. Concentrating release determinations on “static factors and immutable characteristics” prevents an incarcerated individual from reentering the community.

For example, in a case involving a defendant convicted of stealing a lawnmower and other tools, the defendant’s attorney and

because the Parole Board only cited his underlying crimes); Johnson v. NY State Div. of Parole, 65 A.D.3d 838, 839 (4th Dep’t 2009) (concluding the Parole Board did not properly consider institutional record); Wallman v. Travis, 18 A.D.3d 304, 311 (1st Dep’t. 2005) (finding the appeal required a de novo hearing because the Parole Board focused only on the severity of the defendant's past crime); Friedgood v. NY State Bd. of Parole, 22 A.D.3d 950, 951 (3d Dep’t 2005) (finding the Parole Board improperly focused on the seriousness of the defendant's past crime).

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100 Angwin, ProPublica, supra note 76.
101 Strutin, supra note 71; see Shivani Tomar, The Psychological Effects of Incarceration on Inmates: Can We Promote Positive Emotion in Inmates, 16 DELHI PSYCHIATRY J. 66, 66 (2013) (discussing how human change can refer to positive psychological conditioning or psychological deterioration including increasing hostility levels).
102 Angwin, Machine Bias, supra note 75.
103 Id.
104 Strutin, supra note 71.
105 Id.
prosecution agreed to a one-year sentence at the county jail.\textsuperscript{106} Instead, Judge Babler discounted the plea deal and sentenced the defendant to two years.\textsuperscript{107} Using COMPAS, the tool predicted the defendant was at a high risk for recidivism for violent crime and “medium risk for general recidivism.”\textsuperscript{108} At trial, Judge Babler stated, “When I look at the risk assessment . . . it is about as bad it could be.”\textsuperscript{109} On appeal he explained, “Had I not had the COMPAS, I believe it would likely be that I would have given one year [and] six months.”\textsuperscript{110} If implemented in the federal prison system, computer assessment will likely have an equally prominent role in determining an inmate’s risk of recidivism.

IV. CONSTITUTIONAL CONSIDERATIONS: FOURTEENTH AMENDMENT

Explicitly requesting that a screener disclose an offender’s gender or race may violate an individual’s due process rights post-conviction, or may raise a claim under the Equal Protection Clause.\textsuperscript{111} Beneath the surface, these assessment tools incorporate socioeconomic variables correlated with racial and economic disparities,\textsuperscript{112} thus discriminating against indigent offenders.\textsuperscript{113}

\textit{A. Due Process}

After examining how inputting flawed variables based on human prejudice creates racially disproportionate results in predicting an individual’s risk of recidivism, the Supreme Court of Wisconsin

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{107} \textit{Id.}
\item \textsuperscript{108} \textit{Id.}
\item \textsuperscript{109} \textit{Id.}
\item \textsuperscript{110} \textit{Id.} at 319–20.
\item \textsuperscript{111} DANIELLE KEHL ET AL., ALGORITHMS IN THE CRIMINAL JUSTICE SYSTEM: ASSESSING THE USE OF RISK ASSESSMENTS IN SENTENCING 21–22 (2017), https://dash.harvard.edu/bitstream/handle/1/33746041/2017-07_responsivecommunities_2.pdf?sequence=1&isAllowed=y.
\item \textsuperscript{112} Starr, \textit{supra} note 13, at 836.
\item \textsuperscript{113} KEHL ET AL., \textit{supra} note 111, at 26; Starr, \textit{supra} note 13, at 836–37.
\end{itemize}
\end{footnotesize}
should reexamine the constitutional claim raised in *Loomis*.\textsuperscript{114} The constitutional violation should be examined under an evidence-based parole system, which is most analogous to the recidivism assessment test proposed for the BOP. Although designed to create an “evidence-based’ parole system[ ],”\textsuperscript{115} the system ignores the recent “judicial willingness to apply due process principles to the post-conviction criminal process.”\textsuperscript{116} Several circuits adopted the presumption that due process requires an offender to receive a statement of reasons in the interest of fairness.\textsuperscript{117} Although the Supreme Court has not definitively determined whether due process practices apply to parole proceedings,\textsuperscript{118} precedent is beginning to shift away from a reluctance to adopt procedural safeguards for parole decisions.\textsuperscript{119}

In relying on assessment instruments in parole practice, parole boards seem to rely on actuarial-based studies as opposed to “subjective, nuanced predictions of human behavior.”\textsuperscript{120} As opposed to being one of many considerations used at a decision-making stage, assessment has become a prominent factor, at least in

\begin{footnotes}
\textsuperscript{114} See generally State v. Loomis, 881 N.W.2d 749 (Wis. 2016) (holding that the use of the risk and needs assessment instrument did not violate the defendant’s constitutional due process rights).


\textsuperscript{117} See Franklin v. Shields, 569 F.2d 784, 797 (4th Cir. 1977) (holding “that the due process clause requires the Board to furnish a written statement of its reasons for denying parole”); *see also* Childs v. U.S. Bd. of Parole, 511 F.2d 1270, 1285 (D.C. Cir. 1974) (holding that due process requires a written statement of reasons for denying a defendant parole).

\textsuperscript{118} See, e.g., Greenholtz v. Inmates of Nebraska Penal & Corr. Complex, 442 U.S. 1, 2 (1979) (finding that the Nebraska parole procedure in place, affording an offender the right to be heard and informing him of why he may not qualify for parole, complied with due process); *see also* Fourteenth Amendment – Parole Release Determinations, 70 J. CRIM. L. CRIMINOLOGY 466, 473 (1979) (recognizing that the Supreme Court narrowly construed the constitutional safeguard applied in *Greenholtz* and courts still may “refuse to apply due process protections” absent any statutory language).

\textsuperscript{119} Parsons-Lewis, *supra* note 116.

\textsuperscript{120} Thomas & Reingold, *supra* note 115, at 216.
\end{footnotes}
part, in deciding whether to release an offender. Yet, surprisingly, offenders cannot challenge the risk-assessment’s scientific validity because courts do not present them with data regarding how the weight of each factor or how the program calculates risk using the factors. To argue risk assessment tools’ reliance on static risk factors and universal dynamic variables do not give rise to a potential due process violation post-conviction, especially when the parole board strictly relies on the RNR model, would ignore an offender’s due process rights entirely. If parole boards opt to rely on assessment tools, offenders should have a right to challenge their results.

B. Equal Protection Clause

In 2014, at the National Association of Criminal Defense Lawyers, former Attorney General, Eric Holder, addressed the audience regarding risk assessment used in sentencing:

Criminal sentences must be based on the facts, the law, the actual crimes committed, the circumstances surrounding each individual case, and the defendant’s history of criminal conduct. They should not be based on unchangeable factors that a person cannot control, or on the possibility of a future crime that has not taken place. Equal justice can only mean individualized justice, with charges, convictions, and sentences befitting the conduct of

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121 See id. at 245 (“A 2008 report found that thirty-two of thirty-seven responding states were using some kind of risk assessment instrument as part of the parole process.”); “Since the 1970s, parole authorities have moved away from traditional ‘pen and paper’ clinical evaluations conducted by correctional or parole personnel toward automated, actuarial-based risk and needs assessments, which are believed to more accurately predict recidivism.” Laura Cohen, Freedom’s Road: Youth, Parole, and the Promise of Miller v. Alabama and Graham v. Florida, 35 CARDOZO L. REV. 1031, 1070 (2014).

122 See State v. Loomis, 881 N.W.2d 749, 761 (Wis. 2016) (“Although Loomis cannot review and challenge how the COMPAS algorithm calculates risk, he can at least review and challenge the resulting risk scores set forth in the report attached to the [presenting report].”).
each defendant and the particular crime he or she commits.\textsuperscript{123}

A few days before former Attorney General Holder addressed how risk assessment tools used in sentencing “may inadvertently undermine our efforts to ensure individualized and equal justice,”\textsuperscript{124} the Director of Office of Policy and Legislation of the Criminal Division within the Department of Justice, Jonathan Wroblewski, noted the constitutional concerns with using “group-based characteristics and suspect classifications in the analytics.”\textsuperscript{125} Incorporating unrelated static factors will not accurately predict future criminal behavior, but instead will highlight “offenders from poor communities already struggling with many social ills.”\textsuperscript{126}

Assessment testing encompassing gender as a static risk factor may violate the Equal Protection Clause.\textsuperscript{127} Although Federal Sentencing Guidelines prohibit consideration of sex,\textsuperscript{128} a defendant’s gender is one of the preliminary questions on the COMPAS questionnaire used in sentencing.\textsuperscript{129} In an attempt to remain neutral, the RNR model has demonstrated the contradictory effect.\textsuperscript{130} Incorporating gender in an assessment merely circumvents the Supreme Court’s decision to reject statistical discrimination to justify gender discrimination.\textsuperscript{131} While developers may attempt to bridge the gap between racial, gender, and economic disparities by including an offender’s gender as a static risk factor, offenders have


\textsuperscript{124} Id.

\textsuperscript{125} Letter from Office of the Assistant Attorney General, U.S. Dep’t of Justice, to Judge Saris, U.S. Sentencing Comm’n (July 29, 2014) (on file with Dep’t of Justice).

\textsuperscript{126} Id.

\textsuperscript{127} KEHL ET AL., supra note 111, at 25.


\textsuperscript{129} Angwin, ProPublica, supra note 76.

\textsuperscript{130} Angwin & Larson, supra note 22.

the capacity to raise a gender discrimination claim in violation of the
Constitution under the Equal Protection Clause.  

Professor Sonja B. Starr, Professor of Law at University of
Michigan, implicitly strives to eliminate gender disparities in
assessment testing by challenging invariable, static, socioeconomic
variables such as, employment status, education level, annual
income, job skills, professional skills, and socioeconomic status.
Professor Starr rightfully challenges the inherent bias in these
factors and seeks to eliminate economic disparities in evaluating risk
of recidivism by noting how the static factors essentially
discriminate against indigent defendants. Courts have opted to
decline to consider economic considerations in criminal trials.
However, assessments such as COMPAS dedicate entire sections to
education and vocation, which merely highlight an offender’s
economic status or inability to acquire work in a specific
neighborhood. Further, it is proven that racial segregation still
exists, and neighborhood disparities create “racialized concentrated
poverty.” In turn, offenders assigned a lower socioeconomic status
face longer sentences, and thus contribute to time incarcerated
to predict recidivism.

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132 KEHL ET AL., supra note 111, at 25.
133 Starr, supra note 13, at 823, 830.
134 KEHL ET AL., supra note 111, at 26.
emphasizes several empirical studies suggesting a correlation between poverty
and crime.”); see id. at 660 (discussing how the state may not “revoke a
defendant’s probation for failure to pay a fine”); see also Boddie v. Connecticut,
401 U.S. 371, 383 (1971) (finding due process prohibits a state from denying
defendants access to courts because of inability to afford court fees); Griffin v.
Illinois, 351 U.S. 12, 17 (1956) (holding that “[i]n criminal trials a State can no
more discriminate on account of poverty than on religion, race, or color.”).
136 Angwin, ProPublica, supra note 76.
137 Solomon Greene et al., Racial Residential Segregation and
Neighborhood Disparities, MOBILITY FROM POVERTY (Aug. 29, 2017),
https://www.mobilitypartnership.org/publications/racial-residential-segregation-
and-neighborhood-disparities.
VOX (Mar. 14, 2018),
As indicated, racially segregated neighborhood characteristics correlate with socioeconomic variables, but the distinction amongst offenders within a particular neighborhood “is more disputable.”\textsuperscript{139} Proposals should strive to take account of income inequalities based on an offender’s environment and available resources in the neighborhood.\textsuperscript{140} Evidence-based sentencing tools such as the RNR model “produce higher risk estimates . . . for subgroups whose members are already disproportionately incarcerated, and so it is reasonable to predict [RNR models] will exacerbate these disparities.”\textsuperscript{141} To avoid potential equal protection violations, software developers or Congress need to either create testing based on an offender’s environment or alter static factors to prevent discrimination against indigent offenders.

V. CURRENT PROPOSALS: CONGRESS’ PUSH FOR LEGISLATION AND OTHER SOLUTIONS

Policymakers have acknowledged the existing flaws and potential errors in these assessment tools,\textsuperscript{142} yet pending and enacted legislation seeks to adopt existing programs. The suggestion that developers address the scientific validity and accuracy of the assessment tool is a step in the right direction,\textsuperscript{143} but these proposed solutions fail to provide a remedy for the foundational issues. Furthermore, the proposed validation studies will not predict

\begin{itemize}
\item \textsuperscript{139}Starr, \textit{supra} note 13, at 836.
\item \textsuperscript{140}See \textit{id.} at 838.
\item \textsuperscript{141}Id. at 837.
\item \textsuperscript{142}Larson et al., \textit{supra} note 47. As U.S. Attorney General, Eric Holder requested that the U.S. Sentencing Commission study potential bias in risk assessment tests, stating, “Although these measures were crafted with the best of intentions, I am concerned that they inadvertently undermine our efforts to ensure individualized and equal justice . . . [and] they may exacerbate unwarranted and unjust disparities that are already far too common in our criminal justice system.” \textit{Id.}
\end{itemize}
accurate results without first accounting for racial and economic biases amongst policymakers, developers, and public officials.

A. Legislation

Congress seeks to implement existing assessment on the state level and the current assessment used for federal probation on the federal level to reduce recidivism. However, using existing instruments will inaccurately predict an offender’s risk of reoffending, and instead will apply an already flawed system to a different decision point. United States Senator Chuck Grassley introduced the Sentencing Reform and Corrections Act of 2017, S.1917 in 2017, and United States Senator John Cornyn introduced the “Corrections Oversight, Recidivism Reduction, and Eliminating Costs for Taxpayers in our National System Act of 2017” (“Corrections Act”) to require the Department of Justice (“DOJ”) to develop a post-sentencing assessment program. These two bills use the same language, except that the former incorporates several additional sections. Title II of the Corrections Act instructs the Attorney General to develop a system to assess recidivism levels. Specifically, the assessment system will assign each offender to a recidivism program based on risk level and criminogenic needs. The bill directs the Attorney General to “develop a suitable tool to assess the recidivism risk level of prisoners,” and permits the use of existing assessment instruments. Therefore, Congress suggests that the BOP adopt and adjust previously used state risk assessment programs based on RNR models such as COMPAS, OST, or STRONG to assess the federal prison population.

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145 S. 1917 § 203.
147 S. 1917 § 202.
148 S. 1917 § 203.
149 Id.
150 Id.
The proposed legislation optimistically strives to ensure tailoring to specific criminogenic needs and reduce racial disparities.\textsuperscript{151} However, drafters allow the use of state programs by suggesting that the “Attorney General may use existing risks and needs assessment tools.”\textsuperscript{152} Further, the subheading “Risk Assessment” suggests the BOP shall not update assessments less than once a year if an offender’s expected release date “is within 3 years,” not more than once every two years if expected within ten years, and once every three years for other offenders.\textsuperscript{153} Although the recommendations do not explicitly encourage infrequent testing, the minimums ignore potential human change within a year of sentencing, which fails to incorporate in-prison rehabilitative programs. If the BOP adopts a state-based risk-assessment program, it will merely draw on static factors and pre-sentencing information.

United States Representative Doug Collins introduced the Redemption Act,\textsuperscript{154} similarly requesting the DOJ to develop and implement an assessment system to assess recidivism risk, which is reflected in part by the First Step Act of 2018 (“FIRST STEP Act”).\textsuperscript{155} Although the Redemption Act shares similar goals with the Corrections Act, the Redemption Act bill instructs the Attorney General to adopt the PCRA test as referenced above, a separate risk assessment tool designed by the Administrative Office of the U.S. Courts.\textsuperscript{156} The bill ignores significant differences between probation and parole; with the former, an offender has the capacity to acquire new employment, pursue higher education, and improve familial relationships.\textsuperscript{157} Therefore, adopting a federal system for post-

\textsuperscript{151} Id.
\textsuperscript{152} Id.
\textsuperscript{153} Id.
\textsuperscript{156} H.R. 3356 § 101.
sentencing based on probation adopts dynamic factors an offender may not have control over while incarcerated.

The bill “uses dynamic risk factors, indicators of progress, and of regression” to incorporate changes in attitude and behavior, however PCRA’s supervision focuses on probation and not on time served. The Redemption Act does seek to implement a system to reduce disparities amongst demographic groups, but based on the legislation as currently written, using dynamic factors based on probation will not account for the developmental changes while an offender is incarcerated. As much as this legislation seeks to eliminate racial and economic disparities, without adjusting the dynamic factors to apply in different settings, the test will strictly analyze static factors and thus perpetuate inherent biases. Moreover, the bill intrinsically incorporates dynamic risk factors through reduction programs and housing assignments to create a reward system for prisoners to earn phone privileges and time credits. Congress ought to develop this program to assess progress by adjusting the remaining dynamic factors according to the federal prison setting.

Recently, Congress passed the FIRST STEP Act, introduced by Senator Dan Sullivan and designed to review the current assessment systems in place. The FIRST STEP Act, along with several notable rehabilitative programs, seeks to develop and implement an assessment program in federal prisons. As opposed to suggesting the DOJ adopt the PCRA risk assessment program, here the

158 H.R. 3356 § 102.
160 H.R. 3356 § 102.
161 Id. However, this keys in on the racial disparities associated with low-level offenses by incorporating an extensive list of ineligible participants based on crime. Id. The exclusion may possess its own issue by highlighting the severity of an inmate’s crime, which the entirety of risk-needs assessment programs should strive to weigh less heavily. See id.
162 Id.
164 § 102.
legislation allows for the Attorney General and an independent review committee to examine the most effective program and review any new programs available.165 Additionally, Congress elected to use reduction programs and time credits to assess an inmate’s progression post-conviction.166 This beneficial earned time credit system allows for constant positive reinforcement based on actively participating in programs designed to reduce recidivism.167 In turn, the application of time credits earned by participating in recidivism reduction programs may contribute to pre-release custody.168

Further, the FIRST STEP Act “shall be used” to “reassess the recidivism risk of each prisoner periodically . . . [and] reassign the prisoner to appropriate evidence-based recidivism reduction programs or productive activities based on the revised determination.”169 Therefore, the inherent premise of the act does account for developmental changes over a specific period of time.170 However, the FIRST STEP Act uses offender participation in prison rehabilitative programs as a predictive measure of risk of recidivism, and if Congress elects to adopt preexisting assessment tools without accounting for these programs, the test will not reflect any “productive activities in prisons.”171 Requesting periodic reports on the status of implementing assessment tools in federal prisons and specific data on rate of recidivism amongst offenders urges legislators to address the implicit bias in current assessment tools.

B. Validity and Accuracy

Current proposals address potential solutions to improve parole release nationwide.172 Although these recommendations in part seek

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165 §§ 101, 107.
166 § 101.
167 See id.
168 § 102.
169 § 101.
170 See §§ 101-102.
171 § 101.
to deconstruct and rebuild the parole board’s institutional structure,\textsuperscript{173} they ignore the foundational issues that created the disparate results, such as mandatory minimums, factors available for sentencing, and human bias. Assessment-guided decision-making merely serves as a means to perpetuate the flaws in the criminal justice system. The current proposed solutions aid in improving the decision-making process; however, this does not address the static and dynamic factors that were not designed for federal prisons. Nor do the proposed validity and accuracy tests prevent human bias, since there is no present assurance that the same individuals who develop the tools do not conduct the tests as well.\textsuperscript{174} Altering the assessment programming helps decrease the current prison population by accurately predicting recidivism, but likely will not affect offenders serving lengthy and burdensome sentences.

The Justice Center (“The Center”) proposed conducting a validation study by an independent party in each agency, as opposed to relying on the developer’s assessment using multiple statistical tests.\textsuperscript{175} The vague practice of “determin[ing] the tool’s predictive accuracy by race and gender” merely attempts to isolate each item by race and gender to determine whether those factors contribute to bias.\textsuperscript{176} However, inherent bias in specific factors is undisputed.\textsuperscript{177} To identify and isolate risk factors contributing to bias would almost entirely eliminate the assessment. “Assess[ing] [the] quality of implementation” and “develop[ing] a plan to address any bias with the assessment tool itself” does not propose a solution, but instead places administrators on alert that such a bias exists.\textsuperscript{178} The Center developed a Risk Assessment Quality Improvement checklist to assist correctional facilities in analyzing the effectiveness of their

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Improving-Parole-Release-in-America.pdf (discussing ten suggestions for improving the parole system).

\textsuperscript{173} See id.

\textsuperscript{174} See Three Things You Can Do to Prevent Bias in Assessment, supra note 143.

\textsuperscript{175} Id.

\textsuperscript{176} Id.

\textsuperscript{177} See Strutin, supra note 71; Angwin, Machine Bias, supra note 75.

\textsuperscript{178} Three Things You Can Do to Prevent Bias in Assessment, supra note 143.
assessment tools and to identify any potential problems.\textsuperscript{179} This protocol demonstrates the potential errors with validation and reliability for state RNR models.\textsuperscript{180} Similar to proposed solutions to alter the parole board, the recommendations to improve the risk assessment tool focus on implementation and do not change existing factors, nor do they address the core issue—human prejudice.

VI. ALTERNATIVE SOLUTIONS: IDEALISTIC LONG-TERM AND REALISTIC SHORT TERM

Congress has enacted legislation to use assessment tools to reduce federal prison populations by accurately assessing an offender’s risk of recidivism to provide appropriate individualized rehabilitative programming.\textsuperscript{181} Congress intended to incarcerate high risk offenders to promote safety and release low-level offenders to avoid further restricting an individual’s liberty. However, as proven, existing assessment testing generates racially disparate results.\textsuperscript{182} Although a noble goal, risk and needs instruments use inherently biased variables to evaluate an offender. For example, using a static risk factor such as criminal history\textsuperscript{183} ignores how broken windows policing\textsuperscript{184} targets minority communities, and how the government “send[s] police to areas


\textsuperscript{180} See Three Things You Can Do to Prevent Bias in Assessment, supra note 143.


\textsuperscript{182} Winerip et al., supra note 97.


where they expect more crime, which are often minority neighborhoods.\textsuperscript{185} In an attempt to bridge the gap between racial, gender, and economic disparities, Congress implemented mandatory minimums.\textsuperscript{186} Not only has this increased the federal prison population, specifically among African Americans and Latinos, but it has also given low-level drug offenders a significant criminal history record.\textsuperscript{187} To ignore the institutionalized racism embedded in our nation’s history would ignore “the roots of the problem.”\textsuperscript{188} Technological innovations such as assessment tools are further compounding the problem because humans create these algorithms; machine learning merely reflects human stereotypes and prejudices.\textsuperscript{189}

Artificial intelligence software and machine learning programs—Google image recognition, LinkedIn, Twitter, Netflix—“observ[e] the world (or at least what we show them) and identify[ ] patterns.”\textsuperscript{190} For instance, PredPol, a program designed to predict the location of a future crime based on arrest and past crime statistics suggested “crime hotspots” in predominantly African American

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\textsuperscript{186} \textit{Mandatory Minimums and Sentencing Reform – Summary}, CRIM. JUST. POLICY FOUND., https://www cjpf org/mandatory-minimums/ (last visited Mar. 10, 2019) (“Unlike the complementary system of sentencing guidelines, which now provide a suggested sentence range after a computation of circumstances by the judge . . . mandatory minimum laws allow no room for judicial discretion.”).


\textsuperscript{189} Buranyi, \textit{supra} note 91.

\textsuperscript{190} \textit{Id.}
neighborhoods, where the city’s predicted drug use “was much more evenly distributed.”\footnote{Id.} On the surface, information regarding historical drug use in a particular area seems like a reasonable indicator for future arrests; however, this ignores police officers targeting particular residents and neighborhoods.\footnote{Id.} A disproportionate number of officers in a particular community preserves inherent prejudice. Without addressing these fundamental concerns, assessment tools will continue to generate disparate results and exacerbate existing issues.

\section*{A. Long-Term Solutions}

Statistical testing proves that “[i]nvariably there will be lower-risk offenders who reoffend and higher-risk offenders who do not reoffend.”\footnote{PEW CTR. ON THE STATES, RISK/NEEDS ASSESSMENT 101: SCIENCE REVEALS NEW TOOLS TO MANAGE OFFENDERS, 5 (2011), https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pcs_assets/2011/pewriskassessmentbriefpdf.} Understandably so, as with most statistical data, there is a risk of error. However, in terms of assessment, the tools quantify human lives and discard them back into the federal prison system without a second look. Proponents may argue that the RNR model is not a determinative factor; however, parole boards rely almost entirely on the system.\footnote{See Strutin, supra note 71; Winerip et al., supra note 97.} Deconstructing the static factors used in assessments to address racial bias will convert unchangeable, biased variables into practical risk factors.

First, although slightly attenuated from risk assessments, combating the large-scale war on drugs (which is inextricably correlated with racial profiling) will in turn affect an inmate’s criminal history,\footnote{See Silton, supra note 188, at 60–62.} which is a static factor used in the RNR model.\footnote{See Makarios & Latessa, supra note 183, at 1451.} Tackling mandatory minimums will eliminate lengthy prison terms and extensive criminal history for primarily minority

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\item \footnote{Id.}{Id.}
\item \footnote{PEW CTR. ON THE STATES, RISK/NEEDS ASSESSMENT 101: SCIENCE REVEALS NEW TOOLS TO MANAGE OFFENDERS, 5 (2011), https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pcs_assets/2011/pewriskassessmentbriefpdf.}{See Strutin, supra note 71; Winerip et al., supra note 97.}
\item \footnote{See Silton, supra note 188, at 60–62.}{See Silton, supra note 188, at 60–62.}
\item \footnote{See Makarios & Latessa, supra note 183, at 1451.}{See Makarios & Latessa, supra note 183, at 1451.}
\end{itemize}
inmates.\textsuperscript{197} Eliminating mandatory minimums for non-violent drug offenses will directly decrease an offender’s federal prison sentence and attempt to equalize sentencing amongst diverse communities. Unfortunately, this may leave too much judicial discretion in the hands of the courts; however, using reformed sentencing guidelines as opposed to forcing mandatory minimums on defendants may assist in bridging the racial disparity gap.\textsuperscript{198} Addressing static factors by looking to the root of the problem ideally will attack the biased system directly, instead of perpetuating the bias through risk assessment testing.

Second, static factors such as criminal history and previous convictions\textsuperscript{199} are associated with dismissing racial profiling concerns.\textsuperscript{200} This is not to say white offenders are not subjected to mandatory minimums or unfair treatment;\textsuperscript{201} however, to predict an offender’s risk of recidivism on a more equal playing field, Congress must consider how practices disproportionately affect minority groups. For example, if Congress opts to tackle racial profiling,\textsuperscript{202} this will likely decrease the frequency of arrests, which is another static factor\textsuperscript{203} used in the RNR model. Requiring

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\textit{Silton, supra note 188, at 88.}
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\textit{Id. at 64–65.}
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requisite training and mandating data collection, police officers may reduce an arrest based on an individual’s race, ethnicity, or national origin.\textsuperscript{204} It is undisputed that racial profiling leads to a disproportionate number of criminal prosecutions, particularly for low-level drug offenses with tacked-on lengthy prison sentences.\textsuperscript{205} To help reverse the vicious cycle of incarceration due to living in police targeted communities, Congress should mandate data reporting to account for the disproportionate treatment.

Developers introduce artificial intelligence programs to combat racial bias by producing statistical numbers to justify an offender’s risk of recidivism, but because humans create these variables, the numbers only reinforce the inherent racial bias.\textsuperscript{206} As presented, dynamic risk factors such as employment status or education level\textsuperscript{207} may vary depending on an individual’s environment. Altering dynamic risk factors to account for each decision point from arrest to release will improve the testing, but strictly considering socioeconomic factors as presented once again ignores the root of the problem—income inability, limited access to resources, or personal circumstances. For example, if policymakers concentrate

\textsuperscript{204} S. POVERTY LAW CTR, supra note 202, at 5, 12 (“Police officers’ disproportionate focus on people of color means that they are disproportionately ticketed, arrested, prosecuted, and ultimately imprisoned. In 2016, for instance, black adults comprised only 30.6% of Louisiana’s adult population but 53.7% of adults who were arrested and 67.5% of adults in prison. Overall, black adults are 4.3 times as likely as white adults to be serving a felony prison sentence in Louisiana.”).

\textsuperscript{205} See id. at 5 (“For example, in 2016, black people were 2.9 times as likely as white people to be arrested for marijuana possession in Louisiana, despite evidence that black people and white people use marijuana at similar rates. The disparities are much greater in some areas: A black person was six times as likely as a white person to be arrested by the Baton Rouge Police Department (BRPD) for marijuana possession in 2016.”).

\textsuperscript{206} Angwin & Larson, supra note 22.

\textsuperscript{207} JAMES, FEDERAL PRISON SYSTEM, supra note 31, at 3.
on addressing income inequality, this may allow indigent individuals to receive higher wages or afford an education.\textsuperscript{208}

Dynamic factors focus on improving an offender’s environment, but without redirecting resources towards improving one’s ability to acquire employment or afford higher education means that these dynamic factors remain stagnant. By isolating and tackling each variable used in assessment, Congress may be able to divulge into political discourse to reduce economic disparities in assessment from an early stage. Nonetheless, this serves as a long-term idealistic goal, especially in light of pending and passed legislation seeking to adopt preexisting assessment testing in the BOP.\textsuperscript{209}

\textbf{B. Short-Term Solutions}

Breaking down systematic institutionalized racism by addressing mandatory minimums used in sentencing and racial profiling will likely address the biased criminal justice system from the onset. However, addressing each policy concern behind both static and dynamic risk actors is costly, time-consuming, and vastly ineffective for a time-sensitive issue.

\textbf{1. FIRST STEP Act of 2018}

Congress needs to take action regarding the vague plans in the FIRST STEP Act and develop an entirely new assessment. It ought to specify the dynamic risk factors to account for developmental changes based on time incarcerated, because “[i]t is time that dynamic risk prediction become just that; \textit{dynamic}.\textsuperscript{210} As noted in the FIRST STEP Act, Congress seeks to build off current systems; however, certain dynamic factors in existing assessment tools, such as employment status or income, are unalterable while serving


\textsuperscript{210} Scott VanBenschoten, \textit{Risk/Needs Assessment: Is This the Best We Can Do?}, 72 FED. PROB. 2, https://www.uscourts.gov/sites/default/files/72_2_5_0.pdf.
time. For example, considering an offender’s use of educational programs while incarcerated, or adding new dynamic factors such as relationships with fellow inmates will focus on an inmate’s behavioral, psychological, and developmental changes while serving his sentence.

Using the same assessment tools across different stages of decision-making—probation, sentencing, incarceration, and parole—poses the risk of misapplying unique dynamic factors to different settings. Similarly, the tendency to adapt or borrow other assessment programs will not reflect the “attributes of persons who commit crimes.” As with the economic and racial disparities apparent in different neighborhoods, using risk assessment on multiple population groups under diverse conditions will be ineffective. As opposed to readjusting the dynamic factors entirely, developers should consider applying specific dynamic risk factors to reflect a “person’s current social and economic environment.”

2. Full Transparency Gives the Right to Challenge

One of the key solutions to almost any new design or testing is to provide full transparency to users. The Freedom of Information Act holds the government accountable and requires full transparency by “allowing individuals access to information being used by the government.” The issue with presenting assessment static and dynamic factors to offenders is providing them with the data behind the algorithm to challenge its scientific validity. The fact that companies can opt not to disclose algorithms in risk assessment means that defendants and offenders “cannot challenge the accuracy of the results.” To arbitrarily decide that because an offender has

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212 AUSTIN, supra note 94, at 3.
213 See id. at 1, 4.
214 See id. at 4.
215 See generally Carlson, supra note 106 (arguing that, given the rise of predictive risk and needs assessment to reduce recidivism, private developers should be held to the same transparency requirements as public agencies).
216 Carlson, supra note 106, at 317.
217 Id. at 322.
“never [been] married means high rates” of recidivism, or to correlate substance abuse with the risk of recidivism without providing supporting data, does not disclose how the algorithm calculates risk of recidivism.\textsuperscript{218} Providing the assessed and the assessors with access to this information allows for a more precise evaluation.\textsuperscript{219} As the government continues to rely on the rising use of artificial intelligence in evaluating an offender’s risk of recidivism, Congress should focus on requiring full transparency to allow individuals to challenge the assessment’s validity.

\section*{Conclusion}

Predicting an offender’s risk of recidivism while incarcerated to provide appropriate rehabilitative programs proves a daunting task. Under the RNR model, probation officers, courts, and parole boards have used risk and needs factors to evaluate an individual’s risk of re-offense.\textsuperscript{220} In an attempt to use a uniform system to bridge racial and economic disparities, these assessments merely reinforce the current biased system.\textsuperscript{221} Existing tools cannot be used across all settings without adjusting the risk assessment tool itself, or altering the dynamic risk factors to account for time while incarcerated.\textsuperscript{222} Once adjusted accordingly, developers should provide full transparency to allow offenders to challenge the scientific validity of the assessments and to avoid constitutional violations.\textsuperscript{223} On a large scale, policymakers should focus on racially and economically driven issues such as racial profiling, mandatory minimums, or income-inequality gaps.\textsuperscript{224} However, there are short-term solutions that are more realistic and plausible to combat bias in artificial intelligence.\textsuperscript{225} The aforementioned policy recommendations, such as addressing racially driven policing, eliminating mandatory minimums, providing full transparency, adjusting dynamic risk

\begin{itemize}
\item \textsuperscript{218} Austin, supra note 94, at 4.
\item \textsuperscript{219} See Carlson, supra note 106, at 322–24.
\item \textsuperscript{220} See supra Part I.
\item \textsuperscript{221} See supra Part VI.
\item \textsuperscript{222} See supra Section II.A, Section II.B.1, Part III, Part V, Part VI.
\item \textsuperscript{223} See supra Section IV.A, Section VI.B.2.
\item \textsuperscript{224} See supra Section VI.A.
\item \textsuperscript{225} See supra Part VI.B.
\end{itemize}
factors, and adopting pending legislation, will focus on tackling inherent racial and economic bias as whole, specifically in the assessment instruments recommended for the federal prison system.