Risk and Needs Assessment in the Federal Prison System

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Summary

The number of people incarcerated in federal prisons increased dramatically over the past three decades. While the number of inmates in the federal prison system has decreased since FY2013, the federal prison population remains substantially larger than it was three decades ago.

Concerns about both the economic and social consequences of the country’s reliance on incarceration have led to calls for reforms to the nation’s criminal justice system, including improving the federal prison system’s ability to rehabilitate incarcerated offenders by better assessing their risk for recidivism and addressing their criminogenic needs. “Criminogenic needs,” are factors that contribute to criminal behavior that can be changed and/or addressed through interventions.

There have been legislative proposals to implement a risk and needs assessment system in federal prisons. The system would be used to place inmates in appropriate rehabilitative programs. Under the proposed system some inmates would be eligible for earned time credits for completing rehabilitative programs that reduce their risk of recidivism. Such credits would allow inmates to be placed on prerelease custody earlier. The proposed system would exclude inmates convicted of certain offenses from being eligible for earned time credits.

Risk and needs assessment instruments typically consist of a series of items used to collect data on offender behaviors and attitudes that research indicates are related to the risk of recidivism. Generally, inmates are classified as being at a high, moderate, or low risk of recidivism. Assessment instruments are comprised of static and dynamic risk factors. Static risk factors do not change (e.g., age at first arrest or gender), while dynamic risk factors can either change on their own or be changed through an intervention (e.g., current age, education level, or employment status). In general, research suggests that the most commonly used assessment instruments can, with a moderate level of accuracy, predict who is at risk for violent recidivism. It also suggests that of the most commonly used risk assessments none distinguishes itself from the others when it comes to predictive validity.

The Risk-Needs-Responsivity (RNR) model has become the dominant paradigm in risk and needs assessment. The risk principle states that convicted offenders need to be placed in programs that are commensurate with their risk level; in other words, provide more intensive treatment and services to high-risk offenders while low-risk offenders should receive minimal or even no intervention. The need principle states that effective treatment should also focus on addressing the criminogenic needs that contribute to criminal behavior. The responsivity principle states that rehabilitative programming should be delivered in a style and mode that is consistent with the ability and learning style of the offender.

There are several issues policymakers might contemplate should Congress choose to consider legislation to implement a risk and needs assessment system in federal prisons, including the following:

- Is there the potential for bias in the use of risk and needs assessment?
- Should certain inmates be ineligible for earned time credits?
- Should prison programming focus on inmates at high risk of recidivism?
- Should risk assessment be incorporated into sentencing?
- Should there be a decreased focus on long prison sentences?
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The number of people incarcerated in federal prisons increased dramatically over the past three decades. The total number of inmates in the federal prison system increased from approximately 25,000 in FY1980 to over 219,000 in FY2013. Since the peak in FY2013, the number of inmates in the federal prison system decreased each subsequent fiscal year, falling to approximately 186,000 inmates in FY2017. However, even with the recent decrease in the number of federal prison inmates, the federal prison population is more than seven times larger than it was three decades ago.

While research indicates that the expanded use of incarceration during the 1980s and 1990s contributed to the declining crime rate, the effect was likely small, and it has likely reached the point of diminishing returns. Concerns about both the economic and social consequences of the country’s burgeoning prison population have resulted in a range of organizations including the American Civil Liberties Union, Right on Crime, and the American Conservative Union’s Center for Criminal Justice Reform calling for reforms to the nation’s criminal justice system. Congress also formed the Charles Colson Task Force on Federal Corrections to examine the growth of the federal prison population and provide recommendations for reforms.

There are two, not mutually exclusive, methods to reduce the number of incarcerated individuals in the United States: send fewer people to prison (e.g., placing offenders on probation or in a diversion program like a drug court) and/or shorten prison sentences (e.g., allowing inmates to serve a portion of their prison sentence on parole or granting them early release by allowing them to earn time off their prison sentence). While diverting “low-level drug offenders” from prison or granting nonviolent offenders early release have been popular proposals to reduce the prison population, the crime someone is convicted of is not the best proxy for the risk that person might pose to the community. For example, an offender who has no history of violence and who poses a low risk for future violence might be convicted of what is legally defined as a violent crime (e.g., illegal gun possession or driving the get-away car for someone who committed an armed robbery). On the other hand, an offender with a history of violence might be sentenced to prison for a nonviolent crime or have a violent offense downgraded to a nonviolent offense as a result of a plea deal.

The assessment of offender risk was originally a matter of professional judgment. Prison staff, based on their own experience and training, would typically determine at intake which offenders were more or less likely to be a safety or security risk. These assessments would then be used to assign inmates to the appropriate institution or unit based on their risk determination. Over time,

1 Data on the number of federal prison inmates can be found online at https://www.bop.gov/about/statistics/population_statistics.jsp.
2 In FY2013, the number of inmates under BOP’s jurisdiction was 219,298, in FY2014 it was 214,149, in FY2015 it was 205,723, in FY2016 it was 192,170, and in FY2017 it was 185,617. At the time this report was updated, FY2017 was the most recent fiscal year for which federal prison population data were available.
3 Research by the Brennan Center for Justice and the New York University School of Law estimates that 0%-7% of the decline in crime in the 1990s can be attributed to increased incarceration, while 0%-1% of the decrease in crime since 2000 can be attributed to increased incarceration. Oliver Roeder, Lauren-Brooke Eisen, and Julia Bowling, What Caused the Crime Decline?, Brennan Center for Justice, New York, NY, February 12, 2015, p. 6.
7 Ibid.
the limitations of using professional judgment alone were increasingly recognized and beginning in the 1970’s actuarial tools to assess risk were developed and implemented in correctional settings. Subsequent research on these tools revealed that they were better at predicting future criminal behavior than professional judgment alone. Since then, a variety of risk assessment tools have been developed and implemented incorporating important advances suggested by research, including adding factors because they are theoretically relevant (versus adding factors that are simply available in correctional data systems), adding factors that are changeable (e.g., dynamic factors), and conducting risk assessment in the context of a risk and recidivism reduction model.\(^8\)

Because courts and correctional officials make decisions every day about who can safely be diverted from incarceration or granted early release, they may benefit from tools that can help in this process. Actuarial risk assessment tools may serve this purpose. Needs assessments could also help correctional officials make determinations about which offenders need higher levels of supervision and/or match them to the appropriate rehabilitative programming.

The use of risk and needs assessment in the criminal justice system is not without controversy, however. Proponents of assessment assert that the tools used to measure the risk and needs of inmates are better than the independent judgment of courts and corrections officials alone, and that research on the tools have demonstrated their ability to make relevant distinctions between high- and low-risk offenders.\(^9\) Nonetheless, risk and needs assessment is not 100% accurate. Two experts in the field note that “[a]lthough statistical risk assessment reduces uncertainty about an offender’s probable future conduct, it is subject to errors and should be regarded as advisory rather than peremptory. Even with large data sets and advanced analytical techniques, the best models are usually able to predict recidivism with about 70% accuracy—provided it is completed by trained staff.”\(^10\)

Legislation has been introduced in the current Congress that would require the Bureau of Prisons (BOP) to implement a risk and needs assessment system.\(^11\) Currently, BOP utilizes a classification and designation tool to make determinations about inmates’ security and custody classification.\(^12\) However, BOP’s classification and designation system is only validated to predict institutional misconduct.\(^13\) In addition, BOP staff use their discretion to determine the rehabilitative programs in which inmates will be placed.\(^14\) While the process involves evaluations by a psychologist and subsequent assessments by a case manager, BOP does not use a validated assessment instrument

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\(^11\) See, for example, S. 1917, S. 1994, and H.R. 3356.

\(^12\) BOP makes determinations based on a review and coding of sentencing material, including the presentence report, provided by the sentencing court, the Office of Probation and Pretrial Services, and the U.S. Marshals. Factors that can affect an inmate’s security and custody classification include criminal history, prior substance abuse, education level, public safety factors, and program needs. For more information see U.S. Department of Justice, Bureau of Prisons, Inmate Security Designation and Custody Classification, Program Statement 5100.08, http://www.bop.gov/policy/progstat/5100_008.pdf.


\(^14\) Ibid.
to place inmates in rehabilitative programs. The system that would be established by legislation before Congress would evaluate inmates and be used to determine appropriate levels of supervision and place them in rehabilitative programs and productive activities that match their needs. Under the proposed system, some inmates would be eligible for earned time credits for participating in rehabilitative programs that reduce their risk of recidivism. Such credits would allow inmates to be placed in prerelease custody earlier than under their original sentences.

This report provides information on the use of risk and needs assessment instruments. It starts with an overview of risk and needs assessment. This includes a discussion of the Risk-Needs-Responsivity principles, which has become the dominant paradigm for reducing the likelihood of recidivism among convicted offenders. The report concludes with a discussion of the issues policymakers might consider if they debate legislation to expand the use of risk and needs assessment in the federal prison system.

### An Overview of Risk and Needs Assessment

A risk and needs assessment instrument measures offenders’ criminogenic risk factors and specific needs that, if addressed, will reduce the likelihood of future criminal activity. Assessment instruments typically consist of a series of questions that help guide an interview with an offender in order to collect data on behaviors and attitudes that research indicates are related to the risk of recidivism. Data collected during the interview is typically supplemented with information from an official records check, such as a criminal history records check. The risk and needs assessment instrument generates a total score that places the offender into a risk category (typically “low,” “moderate,” or “high”).

### Risk and Needs Factors

Generally speaking, risk and needs assessment instruments consist of both static and dynamic risk factors. Static risk factors do not change over time. Examples include age at first arrest, gender, past problems with substance or alcohol abuse, prior mental health problems, or a history of violating terms of supervision (e.g., parole or probation).

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.

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15 Ibid.
16 “Criminogenic” is commonly understood to mean factors that can contribute to criminal behavior.
18 Ibid.
19 Ibid.
Can Risk and Needs Assessment Instruments Accurately Predict Risk?

In general, research indicates that most commonly used risk and needs assessment instruments can, with a moderate level of accuracy, predict who is at risk for recidivism.\(^{22}\) It also indicates that of the most commonly used risk and needs assessments, no one instrument is superior to any other when it comes to predictive validity.\(^{23}\) One group of researchers concluded that “[o]verall, our results showed that all of the nine tools predicted violence at above-chance levels, with medium effect sizes, and no one tool predicting [sic] violence significantly better than any other. In sum, all did well, but none came first.”\(^{24}\)

Two scholars have posited two explanations for why well-validated risk and needs assessment instruments have similar levels of performance. First, some evidence suggests that there is a “natural limit” to the predictive utility of instruments.\(^{25}\) Simply stated, there is a limit to how accurately recidivism can be predicted given the current level of knowledge about the causes and correlates of criminal behavior. Second, well-validated instruments may show similar levels of performance because they are tapping “common factors” or shared dimensions of risk, even though the instruments utilize different items or have different approaches.\(^{26}\) For example, research has found that assessment instruments typically gauge four overlapping dimensions: criminal history, persistent antisocial lifestyle, psychopathic personality, and alcohol/mental health issues.\(^{27}\)

Risk-Needs-Responsivity (RNR) Principles

The Risk-Needs-Responsivity (RNR) model is one of the most dominant paradigms in the risk and needs assessment field. It has emerged as a prominent framework for guiding offender assessment and treatment because it is one of the few comprehensive theories of how to provide effective recidivism reduction interventions to offenders. Experts in the field of risk and needs assessment assert that assessment systems should adhere to the RNR model. As the Vera Institute of Justice notes, “[u]nderlying the development of evidence-based practices in the criminal justice system are the risk, need, and responsivity principles” [emphasis original].\(^{28}\)

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\(^{26}\) Ibid.


\(^{28}\) Vera Institute of Justice’s Center of Sentencing and Corrections, Risk and Needs Assessment, memorandum to the

Congressional Research Service
The RNR model of risk and needs assessment and offender treatment incorporates evidence-based practices for reducing recidivism. As the name implies, the model has three main principles: assessing risk, addressing criminogenic needs, and providing treatment that is responsive to the offender’s abilities and learning style.

The RNR model is based on the social psychology of offending, which posits that individuals and social/situational factors intersect to create values, cognitions, and personality orientations that are conducive to criminal conduct. These ways of thinking and responding are learned and become reinforced through feedback, and eventually result in individual differences in the propensity for criminal behavior.

Many other theories of criminal behavior focus on the social causes of criminal behavior, factors that cannot be addressed through individual-level treatment. On the other hand, the RNR model focuses on the proximate causes of criminal behavior, which can be the targets of evidence-based correctional treatment.

**Risk Principle**

The risk principle has two aspects: (1) the risk of criminal behavior can be predicted, and (2) the level of intervention should be matched to the risk level of the offender. 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.

**Needs Principle**

The needs principle states that effective treatment should focus on addressing criminogenic needs, that is, dynamic risk factors that are highly correlated with criminal conduct. Also, according to the needs principle, effective treatment should not focus on addressing other...
noncriminogenic needs, because changes in noncriminogenic needs are not associated with reduced recidivism.\textsuperscript{35}

**Responsivity Principle**

The responsivity principle states that rehabilitative programming should be delivered in a style and mode that is consistent with the ability and learning style of the offender.\textsuperscript{36} The responsivity principle is further divided into two elements. The general responsivity principle states that cognitive-behavioral and social learning therapies are the most effective form of intervention.\textsuperscript{37} The specific responsivity principle states that treatment should consider the relevant characteristics of the offender (e.g., the offender’s motivations, preferences, personality, age, gender, ethnicity, and cultural identification, along with other factors).

**“Central Eight” Risk and Needs Factors**

The developers of the RNR principles identified what they deem the “central eight” risk and needs factors. These risk and needs factors include the “big four,” which they believe to be the “major predictor variables and indeed the major causal variable in the analysis of criminal behavior in individuals.”\textsuperscript{38} The remaining four risk and needs factors are referred to as the “moderate four.” The “central eight” risk and needs factors are presented in Table 1.

Even though antisocial behavior is the most prominent of the “central eight” risk and needs factors, a common mistake in risk assessment is conflating past antisocial behavior with current antisocial behavior. The seriousness of the current offense is not a risk factor.\textsuperscript{39} A history of antisocial behavior is what is correlated with the risk of future offending.

### Table 1. Major Risk and Needs Factors: The “Central Eight”

<table>
<thead>
<tr>
<th>Risk/Need Factor</th>
<th>Indicator</th>
<th>Target for Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Big Four</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of Antisocial Behavior</td>
<td>This includes early involvement in any number of a variety of antisocial activities. Major indicators include being arrested at a young age, a large number of prior offenses, and rule violations while on conditional release.</td>
<td>History cannot be changed, but targets for change include developing new noncriminal behaviors in high-risk situations and building self-efficacy beliefs supportive of prosocial behavior.</td>
</tr>
<tr>
<td>Antisocial Personality Pattern</td>
<td>People with this factor are impulsive, adventurous, pleasure-seeking, involved in generalized trouble, restless aggressive, and show a callous disregard for others.</td>
<td>Building skills to address weak self-control, anger management, and poor problem-solving.</td>
</tr>
</tbody>
</table>

\textsuperscript{35} The Psychology of Criminal Conduct, p. 49.

\textsuperscript{36} Ibid., p. 49.

\textsuperscript{37} Ibid., pp. 49-50.

\textsuperscript{38} Ibid., p. 55.

\textsuperscript{39} Ibid., p. 60.
<table>
<thead>
<tr>
<th>Risk/Need Factor</th>
<th>Indicator</th>
<th>Target for Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antisocial Cognition</td>
<td>People with this factor hold attitudes, beliefs, values, rationalizations, and personal identity that is favorable to crime. Specific indicators include identifying with criminals, negative attitudes towards the law and justice system, beliefs that crime will yield rewards, and rationalizations that justify criminal behavior (e.g., the “victim deserved it”).</td>
<td>Reducing antisocial thinking and feelings through building and practicing less risky thoughts and feelings.</td>
</tr>
<tr>
<td>Antisocial Associates</td>
<td>This factor includes both association with procriminal others and isolation from anticriminal others.</td>
<td>Reduce association with procriminal others and increase association with anticriminal others.</td>
</tr>
<tr>
<td>The Moderate Four</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family/Marital Circumstances</td>
<td>Poor-quality relationships between the child and the parent (in the case of juvenile offenders) or spouses (in the case of adult offenders) in combination with either neutral or procriminal expectations.</td>
<td>Reduce conflict, build positive relationships, and enhance monitoring and supervision.</td>
</tr>
<tr>
<td>School/Work</td>
<td>Low levels of performance and involvement and low levels of rewards and satisfaction.</td>
<td>Enhance performance, involvement, rewards, and satisfaction.</td>
</tr>
<tr>
<td>Leisure/Recreation</td>
<td>Low levels of involvement in and satisfaction from noncriminal leisure pursuits.</td>
<td>Enhance involvement in and satisfaction from noncriminal leisure activities.</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Problems with abusing alcohol and/or other drugs (excluding tobacco). Current problems with substance abuse indicate a higher risk than past substance abuse problems.</td>
<td>Reduce substance abuse, reduce the personal and interpersonal supports for substance-oriented behavior, and enhance alternatives to substance abuse.</td>
</tr>
</tbody>
</table>

Source: Adapted from Table 2.5 in D.A. Andrews and James Bonta, The Psychology of Criminal Conduct, 5th ed. (New Providence, NJ: Anderson Publishing, 2010).

Empirical Basis for the RNR Principles

Research on the risk principle suggests that targeting high-risk offenders for programs where they receive intensive levels of services have the greatest effect on recidivism.\(^{40}\) In some instances, research also found that low-risk offenders who were placed in intensive treatment programs actually had an increased likelihood of recidivism.\(^{41}\) This could be because placing low-risk offenders in intensive programming interrupts support structures or self-correcting behaviors that already exist, or because it exposes low-risk offenders to high-risk offenders who may have a negative influence on low-risk offenders’ thoughts or behaviors.\(^{42}\)

\(^{40}\) Ibid., p. 48.

\(^{41}\) Ibid.

\(^{42}\) Vera Institute of Justice’s memorandum re: risk and needs assessment, p. 2.
Research suggests that programs that adhere to the RNR principles are more effective at reducing recidivism.\(^4\) Specifically, the more RNR principles a treatment program adheres to, the greater the reduction in the risk of recidivism. Research also indicates that treatment can be more effective when provided in a community setting, though treatment that adheres to the RNR principles can still be effective when provided in a custodial setting (i.e., prison or jail).

The developers of the RNR principles argue that research on risk assessments reveal that the “central eight” risk and needs factors are the best predictors of future criminal behavior. A review of the research on the relationship between certain risk and needs factors and criminal behavior found that both the “big four” and the “moderate four” risk factors were statistically significant predictors of future offending.\(^4\)

### Select Issues for Congress

There is legislation before Congress (see, for example, S. 1917, S. 1994, and H.R. 3356) that would establish a risk and needs assessment system in BOP. This section of the report discusses some of the issues that might arise if Congress considers legislation related to risk and needs assessment.

### Concerns About Bias in Risk and Needs Assessment

An overarching issue policymakers might consider is whether BOP should use risk and needs assessment to classify offenders by risk level and identify the criminogenic needs that might be addressed by prison programming. Research suggests that assessment instruments can make distinctions between high-, medium-, and low-risk offenders with some degree of accuracy. Furthermore, the latest research suggests that assessment systems and offender programming that adhere to the RNR principles are more effective at reducing recidivism than those that do not. Implementing an assessment system and offender programming regime that adheres to the RNR principles in federal prisons is, based on the current research, an evidence-based way to better match inmates with the rehabilitative programming they need, and when combined with earned time credits for some inmates who complete rehabilitative programs and productive activities, it might provide a means for reducing the federal prison population without increasing the risk to public safety.

However, risk and needs assessment systems are not flawless. There will likely be some false positives (e.g., inmates who are identified as high-risk but who do not recidivate) and false negatives (e.g., inmates who are identified as low-risk but go on to commit new crimes). Even though the predictive accuracy of instruments has improved over the years with more research into the correlates of crime, the recognition that the assessments need to be validated on the population they are being used for, and the development of a theory of criminal behavior and effective rehabilitation (i.e., the RNR model) that serves as a guiding framework for building an effective correctional system, under the best conditions, risk assessment correctly predicts recidivism 70% of the time.

One prominent concern is that the widespread use of risk and needs assessment might exacerbate racial disparities in the nation’s prison systems. While there might be concern about what effect

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\(^4\) The Psychology of Criminal Conduct, pp. 64-65.
risk and needs assessment could have on other racial and ethnic minorities, females, or members of the lesbian, gay, bi-sexual, and transgender (LGBT) community, research on potential discriminatory effects of risk and needs assessment has largely focused on blacks, especially black men, because of disproportionate representation in the criminal justice system and past concerns about whether the criminal justice system discriminates against them. Research by investigative journalists and data scientists with ProPublica\textsuperscript{45} on risk classifications generated by the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) instrument in Broward County, FL, has heightened the debate about racial disparities in risk and needs assessment.\textsuperscript{46} ProPublica found that among defendants who did not go on to reoffend, black defendants were assessed as being medium- or high-risk for recidivism at twice the rate of white defendants.\textsuperscript{47} However, the company that sells COMPAS, Northpointe, argues that the instrument is racially neutral because black and white defendants with similar risk scores reoffended at roughly the same rate.\textsuperscript{48} What explains these contradictory results? In short, algorithms used in risk assessment cannot meet both ProPublica’s (minimizing error rates) and Northpointe’s (predictive parity\textsuperscript{49}) definition of fairness.\textsuperscript{50} Researchers at Stanford University who re-examined the data from ProPublica’s study found the following:

- Within each risk category (“low” and “medium-high”), the proportion of defendants who reoffend was approximately the same regardless of race (Northpointe’s definition of fairness).
- The overall recidivism rate for black defendants was higher than for white defendants (52% compared to 39%).
- Black defendants were more likely to be classified as medium- or high-risk (58% compared to 33%).
- Black defendants who did not reoffend were more likely to be assessed as medium- or high-risk than white defendants who did not reoffend (ProPublica’s criticism of the algorithm).\textsuperscript{51}

These researchers note that

\[\text{If the recidivism rate for white and black defendants is the same within each risk category, and if black defendants have a higher overall recidivism rate, then a greater share of black defendants will be classified as high risk. And if a greater share of black defendants are classified as high risk, then ... a greater share of black defendants who do not reoffend will also be classified as high risk. If Northpointe’s definition of fairness holds, and if the}\]

\textsuperscript{45} ProPublica is an “independent, nonprofit newsroom that produces investigative journalism with moral force.” For more information, see ProPublica, About Us, https://www.propublica.org/about/.


\textsuperscript{48} Ibid.

\textsuperscript{49} “Predictive parity” can be understood as developing an algorithm that generates equally accurate forecasts for all racial groups.


\textsuperscript{51} Ibid.
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The recidivism rate for black defendants is higher than for whites, the imbalance ProPublica highlighted will always occur.52

Another study re-examined the data ProPublica used in their research and found no evidence of racial bias in the COMPAS instrument.53 Among several criticisms of ProPublica’s methodology, the authors of the study assert that ProPublica did not test for bias within excepted standards (i.e., the Standards for Educational and Psychological Testing). Their examination of the data, conducted using published standards, showed that

- black defendants were more likely to be rearrested, both for any reason and for violent offenses;
- low-, medium-, and high-risk black defendants were more likely to be rearrested (both for any arrest and for violent arrests) than similarly assessed white defendants;
- COMPAS was a good predictor of both types of arrest and it predicted outcomes equally well across both races;
- COMPAS did not predict outcome differently across groups of black and white defendants; in other words, a given COMPAS score translated into roughly the same likelihood of recidivism, regardless of race.

These researchers also offer the following critique of the main finding of the ProPublica research:

While it is problematic that they collapsed medium- and high-risk defendants into one category that was then compared against the low-risk defendants, more problematic is their interpretation of what information COMPAS scores provide. Just as medicine uses actuaries to inform patient prognoses and the auto insurance industry uses actuaries to inform probabilities of risky driving behavior, the COMPAS is based on an actuary designed to inform the probability of recidivism across its three stated risk categories. To expect the COMPAS to do otherwise would be analogous to expecting an insurance agent to make absolute determinations of who will be involved in an accident and who won’t. Actuaries just don’t work that way.54

Some policymakers might be concerned that inmates of color will be assessed as being at a higher risk for recidivism and this will result in detrimental outcomes (e.g., being incarcerated for longer periods). This is a valid concern. Even in instances where a risk and needs assessment instrument is shown to have no inherent racial biases, the application of an instrument can have a disparate racial effect.55 However, while there might be concerns about racial bias in risk and needs assessment instruments, it is argued that utilizing actuarial rather than clinical (i.e., professional judgment alone) risk assessment makes the process more objective and less susceptible to rater bias. As mentioned earlier, before the use of actuarial assessments, decisions about who was to be assigned to which treatment program and who was to be released on parole were left to criminal justice professionals who made assessments based on their own experiences and sets of standards, which might have been influenced by overt or subconscious biases.

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52 Ibid.
54 Ibid., p. 45.
Policymakers might be interested in steps that can be taken to reduce the potential for bias in risk and needs assessment. The Council of State Governments identifies three things that can be done to reduce bias in assessments:

- Validate the assessment instrument using an independent third party, and assess the instrument’s predictive accuracy by race and gender.
- Assess if the instrument is being administered properly. This includes determining whether any assessed bias is the result of the instrument itself (e.g., certain items are weighted in a way that is contributing to unintentional bias) or if it is a result of assessor error (e.g., assessors are not scoring the instrument according to established guidelines), and conducting inter-rater reliability exercises and focus groups to review how scoring protocols are being utilized.
- Develop a plan to address any bias in the risk and needs assessment instrument resulting from the instrument itself or the way it is being used. This includes monitoring how the instrument is being administered, providing regular booster training to assessors, or using another instrument, if necessary.\textsuperscript{56}

The recommendations of the Council of State Governments are consistent with requirements in legislation before Congress that would require DOJ to validate the proposed risk and needs assessment instrument on the federal prison population, use the best available research on risk and needs assessment when developing the proposed risk and needs assessment system, make regular adjustments to the system to ensure that it does not result in any unwarranted disparities, train assessors on how to properly use the system, and monitor and assess the use of the system and periodically audit its use in BOP facilities.

**Should Certain Inmates Be Excluded from Receiving Time Credits?**

One issue policymakers might consider is whether certain inmates should be excluded from receiving earned time credits for participating in rehabilitative programs and productive activities. Legislation before Congress would, among other things, exclude inmates who were convicted of certain offenses (e.g., violent or sex offenses, drug offenses, and fraud offenses) from earning additional time credits for participating in rehabilitative programming. Research suggests that inmates should be assessed for risk and needs, and decisions about programming and supervision should be based on those assessments regardless of the inmate’s current offense. However, many still argue that inmates who are convicted of certain offenses, such as violent or sex offenses, should be ineligible for early release, regardless of what they do to reduce their risk of recidivism and prepare for life outside of prison.

A related issue that policymakers might consider is whether excluding inmates convicted of certain offenses would have a disparate effect on racial or ethnic minorities. Given the statistics presented later, some policymakers might be concerned that excluding inmates convicted of certain offenses from being eligible to receive additional time credits under the proposed assessment system might mean that, all else being equal, inmates of color would serve longer prison sentences. However, this would only be true to the extent that inmates of color are more likely to be convicted of offenses that would make them ineligible for earned time credits.

The Bureau of Justice Statistics (BJS), through its Federal Criminal Case Processing Statistics program, publishes data on defendants sentenced in federal courts and inmates held in federal prisons. The data can be used to examine things such as the offense for which inmates were

incarcerated and inmates’ race/ethnicity (see Table 2). However, the most recent year for which data are available is FY2014. The data published by BJS do not allow for an examination of the implications of all of the proposals before Congress (for example, data is not available on how many inmates are repeat offenders), so the following discussion is meant to provide a sense, not an exact prediction, of what proportion of inmates might not be eligible to receive earned time credits under the proposed legislation.

Legislation before Congress would make most inmates convicted of violent or sex offenses ineligible to receive earned time credits. Data from BJS is not detailed enough to assess the implications of some of the exclusions outlined in the three bills with a high level of specificity, but it can provide insight into the characteristics of the federal prison population by the offense type for which they were incarcerated. Most inmates held in federal prisons at the end of FY2014 were incarcerated for something other than a violent or sex offense; inmates convicted of violent or sex offenses accounted for 11% of the federal prison population. Although a relatively small percentage of federal prison inmates were incarcerated because of a conviction for a violent or sex offense, there are large differences in their races/ethnicities. At the end of FY2014, 24% of white inmates, 7% of black inmates, 3% of Hispanic inmates, 60% of Native American inmates, and 9% of Asian/Pacific Islander inmates were incarcerated for a violent or sex offense. These are the inmates that would be ineligible for earned time credits because they were incarcerated for a violent or sex offense. In contrast, of the total federal prison population at the end of FY2014, white inmates accounted for 27%, black inmates 35%, Hispanic inmates 35%, Native American inmates 2%, and Asian/Pacific Islander inmates 1%. Thus, relative to their proportion of the federal prison population, Native American and Asian/Pacific Islander inmates are disproportionately represented among inmates convicted for violent and sex offenses and are the racial groups that would be disproportionately impacted if inmates incarcerated for these offenses were ineligible for earned time credits.

Other proposals would prohibit inmates incarcerated for a drug offense from eligibility for earned time credits. While a policy that prohibits inmates incarcerated for a violent or sex offense from eligibility for earned time credits would exclude 11% of federal inmates, excluding inmates convicted of drug offenses would prohibit a much larger percentage of the federal prison population, given that half of all inmates held in BOP facilities at the end of FY2014 were incarcerated for drug offenses, especially drug trafficking offenses. Some bills would make certain drug offenders (i.e., those convicted manufacturing or distributing a controlled substance where use resulted in death or serious bodily injury, and those with a third or subsequent drug trafficking offense) ineligible for earned time credits. Inmates who would be ineligible to earn additional time credits under the legislation before Congress are a subset of all drug offenders in federal prison, and since data on the race of this subset of all drug offenders is unavailable, it cannot be determined whether this exclusion would have a disproportionate effect on inmates of color.

Some legislation before Congress would make inmates convicted of certain fraud offenses ineligible to receive earned time credits, while other legislation would also make inmates convicted of a federal fraud offense for which they were sentenced to more than 15 years imprisonment ineligible to receive earned time credits. Some bills would also make inmates convicted of bribery, racketeering, and racketeering influenced and corrupt organizations (RICO) ineligible for receiving earned time credits. BJS provides data on the proportion of inmates convicted for fraud (5%), bribery (less than 1%), and racketeering and extortion (3%), but these figures likely include some inmates who would be eligible to receive earned time credits. However, publicly available data from BJS cannot be used to determine whether the exclusions related to fraud, bribery, racketeering, and RICO offenses would have a disproportionate effect on inmates of color.
<table>
<thead>
<tr>
<th>Offense</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Native American</th>
<th>Asian/Pacific Islander</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Violent offenses</td>
<td>3,406</td>
<td>6%</td>
<td>4,029</td>
<td>6%</td>
<td>1,141</td>
</tr>
<tr>
<td>Murder/negligent manslaughter</td>
<td>335</td>
<td>1%</td>
<td>296</td>
<td>&lt;1%</td>
<td>155</td>
</tr>
<tr>
<td>Assault</td>
<td>213</td>
<td>&lt;1%</td>
<td>189</td>
<td>&lt;1%</td>
<td>128</td>
</tr>
<tr>
<td>Robbery</td>
<td>2,605</td>
<td>5%</td>
<td>3,323</td>
<td>5%</td>
<td>576</td>
</tr>
<tr>
<td>Kidnapping</td>
<td>232</td>
<td>&lt;1%</td>
<td>211</td>
<td>&lt;1%</td>
<td>281</td>
</tr>
<tr>
<td>Threats against the president</td>
<td>21</td>
<td>&lt;1%</td>
<td>10</td>
<td>&lt;1%</td>
<td>1</td>
</tr>
<tr>
<td>Sex offenses</td>
<td>9,648</td>
<td>18%</td>
<td>813</td>
<td>1%</td>
<td>1,001</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>293</td>
<td>1%</td>
<td>105</td>
<td>&lt;1%</td>
<td>76</td>
</tr>
<tr>
<td>Other sex offenses</td>
<td>9,355</td>
<td>18%</td>
<td>708</td>
<td>1%</td>
<td>925</td>
</tr>
<tr>
<td>Property offenses</td>
<td>5,636</td>
<td>11%</td>
<td>4,027</td>
<td>6%</td>
<td>1,906</td>
</tr>
<tr>
<td>Fraudulent</td>
<td>4,722</td>
<td>9%</td>
<td>3,564</td>
<td>5%</td>
<td>1,668</td>
</tr>
<tr>
<td>Fraud</td>
<td>4,341</td>
<td>8%</td>
<td>3,313</td>
<td>5%</td>
<td>1,592</td>
</tr>
<tr>
<td>Forgery</td>
<td>58</td>
<td>&lt;1%</td>
<td>26</td>
<td>&lt;1%</td>
<td>13</td>
</tr>
<tr>
<td>Counterfeiting</td>
<td>200</td>
<td>&lt;1%</td>
<td>209</td>
<td>&lt;1%</td>
<td>40</td>
</tr>
<tr>
<td>Embezzlement</td>
<td>123</td>
<td>&lt;1%</td>
<td>16</td>
<td>&lt;1%</td>
<td>23</td>
</tr>
<tr>
<td>Other offenses against property</td>
<td>914</td>
<td>2%</td>
<td>463</td>
<td>1%</td>
<td>238</td>
</tr>
<tr>
<td>Burglary</td>
<td>94</td>
<td>&lt;1%</td>
<td>27</td>
<td>&lt;1%</td>
<td>6</td>
</tr>
<tr>
<td>Larceny</td>
<td>318</td>
<td>1%</td>
<td>246</td>
<td>&lt;1%</td>
<td>96</td>
</tr>
<tr>
<td>Motor vehicle theft</td>
<td>38</td>
<td>&lt;1%</td>
<td>26</td>
<td>&lt;1%</td>
<td>18</td>
</tr>
<tr>
<td>Arson and explosives</td>
<td>111</td>
<td>&lt;1%</td>
<td>26</td>
<td>&lt;1%</td>
<td>6</td>
</tr>
<tr>
<td>Transportation of stolen property</td>
<td>67</td>
<td>&lt;1%</td>
<td>14</td>
<td>&lt;1%</td>
<td>19</td>
</tr>
<tr>
<td>Offense</td>
<td>White</td>
<td></td>
<td>Black</td>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------</td>
<td>----------</td>
<td>-------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Other property offenses</td>
<td>286</td>
<td>1%</td>
<td>124</td>
<td>&lt;1%</td>
<td>93</td>
</tr>
<tr>
<td>Drug offenses</td>
<td>21,283</td>
<td>40%</td>
<td>37,495</td>
<td>55%</td>
<td>37,091</td>
</tr>
<tr>
<td>Drug trafficking</td>
<td>21,258</td>
<td>40%</td>
<td>37,471</td>
<td>55%</td>
<td>36,550</td>
</tr>
<tr>
<td>Drug possession/other drug offenses</td>
<td>25</td>
<td>&lt;1%</td>
<td>24</td>
<td>&lt;1%</td>
<td>541</td>
</tr>
<tr>
<td>Regulatory offenses&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1,599</td>
<td>3%</td>
<td>709</td>
<td>1%</td>
<td>503</td>
</tr>
<tr>
<td>Weapon offenses</td>
<td>7,865</td>
<td>15%</td>
<td>17,644</td>
<td>26%</td>
<td>4,560</td>
</tr>
<tr>
<td>Immigration felonies</td>
<td>676</td>
<td>1%</td>
<td>269</td>
<td>&lt;1%</td>
<td>19,170</td>
</tr>
<tr>
<td>Public order offenses</td>
<td>2,397</td>
<td>4%</td>
<td>2,666</td>
<td>4%</td>
<td>2,042</td>
</tr>
<tr>
<td>Tax law violations</td>
<td>315</td>
<td>1%</td>
<td>112</td>
<td>1%</td>
<td>25</td>
</tr>
<tr>
<td>Bribery</td>
<td>32</td>
<td>&lt;1%</td>
<td>13</td>
<td>&lt;1%</td>
<td>30</td>
</tr>
<tr>
<td>Perjury, contempt and intimidation</td>
<td>49</td>
<td>&lt;1%</td>
<td>24</td>
<td>&lt;1%</td>
<td>9</td>
</tr>
<tr>
<td>National defense</td>
<td>110</td>
<td>&lt;1%</td>
<td>48</td>
<td>&lt;1%</td>
<td>29</td>
</tr>
<tr>
<td>Escape</td>
<td>77</td>
<td>1%</td>
<td>80</td>
<td>&lt;1%</td>
<td>66</td>
</tr>
<tr>
<td>Racketeering and extortion</td>
<td>1,731</td>
<td>3%</td>
<td>2,357</td>
<td>3%</td>
<td>1,863</td>
</tr>
<tr>
<td>All other public order offenses&lt;sup&gt;c&lt;/sup&gt;</td>
<td>83</td>
<td>&lt;1%</td>
<td>32</td>
<td>&lt;1%</td>
<td>20</td>
</tr>
<tr>
<td>Missing/Unknown</td>
<td>793</td>
<td>1%</td>
<td>353</td>
<td>1%</td>
<td>261</td>
</tr>
<tr>
<td>Total</td>
<td>53,303</td>
<td>100%</td>
<td>68,005</td>
<td>100%</td>
<td>67,675</td>
</tr>
</tbody>
</table>


**Notes:** Column percentages have been rounded to the nearest percentage point. Due to rounding, column percentages might not sum to 100%.

a. “Hispanic” includes anyone who identified their ethnicity as Hispanic, regardless of race.

b. “Regulatory offenses” includes convictions for agriculture, antitrust, food and drug, transportation, civil rights, communications, customs laws, postal laws, and other regulatory offenses.

c. “All other public-order offenses” includes convictions for gambling, wildlife, environmental, felony traffic, liquor, and other (undefined) public order offenses.
Should Priority Be Given to High-Risk Offenders?

Policymakers might consider whether the proposed risk and needs assessment system should focus on high-risk inmates. The RNR principles state that high-risk individuals should be the focus of rehabilitative programming.

Research on the risk principle suggests that the greatest improvements in recidivism can be made when the focus is on placing high-risk offenders in programs where they receive intensive levels of evidence-based services.\(^\text{57}\) In some instances, research has also found that low-risk offenders who were placed in intensive treatment programs actually had an increased likelihood of recidivism.\(^\text{58}\) This could be because placing low-risk offenders in intensive programming can interrupt support structures or self-correcting behaviors that already exist, or because it exposes low-risk offenders to high-risk offenders who may have a negative influence on low-risk offenders’ thoughts or behaviors.\(^\text{59}\)

Some legislation before Congress is silent as to whether high-risk inmates should be the primary target of rehabilitative programming.\(^\text{60}\) The legislation would require BOP to make rehabilitative programming and productive activities available to all inmates, but it would give BOP several years to do so, and the requirement is subject to the availability of appropriations. This might raise a few issues that policymakers could consider.

- Will BOP have the resources it needs to expand evidence-based rehabilitative programming and productive activities so that they can be offered to all inmates? Legislation before Congress would require the Department of Justice (DOJ) to use savings realized by implementing the risk and needs assessment system and placing inmates in lower cost prerelease custody earlier to help expand rehabilitative programming and productive activities. But what if those savings are not adequate to fund the needed expansion of these programs? BOP might not be able to realize any significant savings in their operating expenses until the prison population decreases enough that they can start to close prisons and reduce staff. In addition, there is an argument to be made that BOP has been underfunded for several years. Therefore, any near-term reductions in the prison population might only get BOP to the point where they can start to provide an adequate level of services.\(^\text{61}\)

- If evidence-based rehabilitative programming and productive activities cannot be expanded at an adequate rate, should BOP be required to give priority to high-risk inmates? As noted above, targeting high-risk offenders for intensive levels of treatment and services has the greatest effect on recidivism, and low-risk inmates should receive minimal or even no intervention.

- Should low-risk inmates be placed in prerelease custody earlier to help free up spots for moderate- and high-risk inmates? It could be argued that if BOP cannot expand the capacity of its rehabilitative programming at a quick enough rate, it

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\(^{57}\) *The Psychology of Criminal Conduct*, p. 48.

\(^{58}\) Ibid.

\(^{59}\) Vera Institute of Justice’s memorandum re: risk and needs assessment, p. 2.

\(^{60}\) S. 1917 does state that “[the risk and needs assessment system] shall provide guidance on the kind and amount of recidivism reduction programming or productive activities appropriate for each prisoner.”

\(^{61}\) For a more in-depth discussion of issues related to BOP’s budget, see CRS Report R42486, *Appropriations for the Bureau of Prisons (BOP): In Brief.*
might make sense to place inmates at low-risk of recidivism in the community earlier if doing so would allow BOP to provide high-quality rehabilitative programming to medium- and high-risk inmates.

- Should an agency like the National Institute of Corrections (NIC) be required to conduct regular process evaluations to ensure that rehabilitative programs are being implemented with fidelity to the program model? As previously mentioned, research indicates that rehabilitative programming that closely adheres to the RNR principles is the most effective at reducing recidivism. Legislation before Congress would only require NIC to evaluate recidivism reduction programs to “determine whether such programming or activities may be certified as evidence-based and effective at reducing or mitigating offender risk and recidivism.”

Should Risk and Needs Assessment Be Used in Sentencing?

Another issue policymakers might consider is whether risk and needs assessment should be used in sentencing to help identify low-risk offenders who could be diverted to community supervision rather than incarcerated. As discussed previously, research suggests that low-risk offenders should not be subjected to intensive treatment (and some research indicates that it might be criminogenic) and that they could be effectively supervised in the community. Legislation before Congress would require BOP, to the extent practicable, to house low-risk inmates together, which might mitigate some of the criminogenic effects of placing low-risk offenders in prison. The legislation would also provide ways to place some inmates in prerelease custody earlier (e.g., allowing inmates to earn additional time credits that would allow them to serve a greater proportion of their sentence in a Residential Reentry Center, in home confinement, or on supervised release in the community). However, if the purpose of the legislation is to reduce the federal prison population and save money without negatively affecting public safety, it is significantly cheaper to place low-risk offenders on community supervision than incarcerate them.

While some scholars have argued for integrating risk assessment into sentencing guidelines to help judges determine the appropriate sentences for offenders, research suggests that if risk assessments were to be integrated into sentencing, it might be best to use it as a way to screen-out low-risk offenders from prison. However, if risk assessment were integrated into sentencing decisions there is a risk of false negatives, which would mean that an offender who is assessed to be at low risk for recidivism might be diverted from incarceration to some form of community supervision but still go on to recidivate.

During the Obama Administration, DOJ, while acknowledging the important role evidence-based programs and practices play in the effective rehabilitation and reentry of inmates, raised concerns

about making risk assessment a part of determining sentences for federal offenders. DOJ echoed previously mentioned concerns that risk assessment bases individual-level decisions on group dynamics and that determining someone’s risk of reoffending on, in part, static risk factors might place certain groups of offenders at a disadvantage (e.g., being denied pre-trial release or being incarcerated for longer periods for factors that can never be changed). DOJ also argued that using risk assessment in determining sentences would erode certainty in sentencing, something Congress attempted to address when it passed the Sentencing Reform Act (P.L. 98-473), which eliminated parole for federal inmates and established a determinate sentencing structure under the federal sentencing guidelines. DOJ also argued that sentencing should primarily be about holding offenders accountable for their criminal behavior and not about the likelihood of future offending.

**Should There Be a Decreased Emphasis on Long Prison Sentences?**

If Congress were to consider legislation to implement risk and needs assessment in the federal prison system, policymakers might consider whether implementing a policy of making decisions based on an offender’s risk level is compatible with the desire of many for long prison sentences for certain offenders. Legislation before Congress would exempt inmates convicted of certain crimes from being eligible for earned time credits. This would mean that offenders convicted of certain offenses would be required to serve a greater proportion of their sentences in prison even if they are deemed to be at a low risk for recidivism. As discussed previously, it is an offender’s past history of antisocial behavior, among other factors, and not the offender’s current offense, that is indicative of a risk for recidivism. Therefore, the policy of requiring certain offenders to serve most of their sentences in prison might undermine the potential effectiveness of a risk and needs assessment system.

Recent research has explored the effectiveness of incarceration as a way to reduce crime. It suggests that while incarceration contributed to lower violent crime rates in the 1990s, there are declining marginal returns associated with ever-increasing levels of incarceration. The diminishing level of return resulting from higher levels of incarceration might be explained by the fact that continued increases in incarceration are likely to include more offenders who are either at the end of their criminal careers or who are not committing crimes at a high rate. Another possible reason for diminishing marginal returns might be that more of the individuals incarcerated over the past three decades have been incarcerated for crimes where there is a high level of replacement. For example, if a street-level drug dealer is incarcerated and there is no decrease in demand for drugs in the drug market, it is possible that someone will step in to take that person’s role; therefore, few or no further crimes would be averted by incarcerating the street-level dealer. It is also possible that being imprisoned with other offenders will have a criminogenic effect, especially for low-risk offenders for whom prison may serve to increase their risk of recidivism rather than reduce it.

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70 The *Psychology of Criminal Conduct*, p. 433.
Research on the psychology of punishment also provides insight into why incarceration might provide a limited deterrent effect. For punishment to be successful at suppressing behavior it requires

- the immediate delivery of a punishment,
- catching and punishing criminals for every offense,
- not allowing the offender to be able to escape from the consequences of the behavior,
- making the intensity of the punishment associated with the behavior greater than the intensity of the rewards, and
- the punishment be consistent with the characteristics of the offender.\(^71\)

However, “the necessary conditions for effective punishment are virtually impossible to meet for the criminal justice system. Police cannot be everywhere to ensure the certainty of detection, the courts cannot pass sentence quickly without violating due process, and correctional officials have difficulties ensuring adequate supervision and monitoring.”\(^72\)

There is also an argument to be made about the purpose of incarceration. While there might be a minimal general deterrent effect associated with incarceration, it does provide for incapacitation, which can reduce the number of crimes an incarcerated offender can commit. Sentencing someone to prison for several years, or even decades, could also be viewed as a way for society to say that there are certain behaviors that will not be tolerated, and those who commit such transgressions must be severely punished.

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\(^71\) Ibid., pp. 443-447.  
\(^72\) Ibid., p. 451.