

The First Step Act of 2018: Risk and Needs Assessment System - UPDATE

January 2020



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I. Introduction

The efficient and effective implementation of the First Step Act (FSA) continues to be a priority for the Department of Justice (DOJ or the Department) and for this Administration. In July 2019, the Department announced a new Risk and Needs Assessment System (RNAS or the System). In developing the System, the Department worked to make the benefits of the FSA as widely available as possible without compromising predictive reliability. The initial System, which was based on the information available at the time, was robust, and the Department committed to improve it, with more time, consultation, data, and research.

In the months that followed, the Department has worked vigorously to fulfill this commitment. Importantly, we continued to work with the Independent Review Committee (IRC) and our experts, Drs. Grant Duwe and Zachary Hamilton, to identify ways to improve the Department's RNAS, the Prisoner Assessment Tool Targeting Estimated Risk and Need (PATTERN), while maintaining its high level of predictability. Moreover, we continued to engage a range of stakeholders and have listened to their concerns and suggestions. This input has been invaluable as we strive to ensure the equity and effectiveness of PATTERN.

In this follow-up report, the Department is highlighting the changes made to PATTERN as a direct result of the input and suggestions on this crucial issue. The Department has taken the feedback seriously and considered the various and, at times, competing views presented. In all cases, DOJ strove to engage stakeholders and implement the most equitable, effective, and predictive tool possible to ensure that the goals of the FSA are achieved.

II. Summary of DOJ’s Efforts Following Publication of the July 2019 Risk and Needs Assessment Report

a. Independent Review Committee (IRC) Meetings

The IRC’s input has been critical to the Department’s development and review related to PATTERN. On October 7, 2019, staff from the Office of the Deputy Attorney General (ODAG), the National Institute of Justice (NIJ), and the Federal Bureau of Prisons (BOP) met with the IRC to discuss the IRC’s views and recommendations regarding PATTERN and potential improvements and advancements for the subsequent version of the risk tool. Following that meeting, BOP provided NIJ contractors with additional programmatic and disciplinary infraction data to facilitate further analysis of PATTERN. In the weeks that followed, NIJ’s consultants spent more than 100 hours addressing questions and concerns raised by the IRC. While not all of the IRC’s recommendations were accepted by DOJ, many of them, in addition to the additional analyses completed by the consultants, helped confirm DOJ’s confidence in the accuracy of PATTERN.

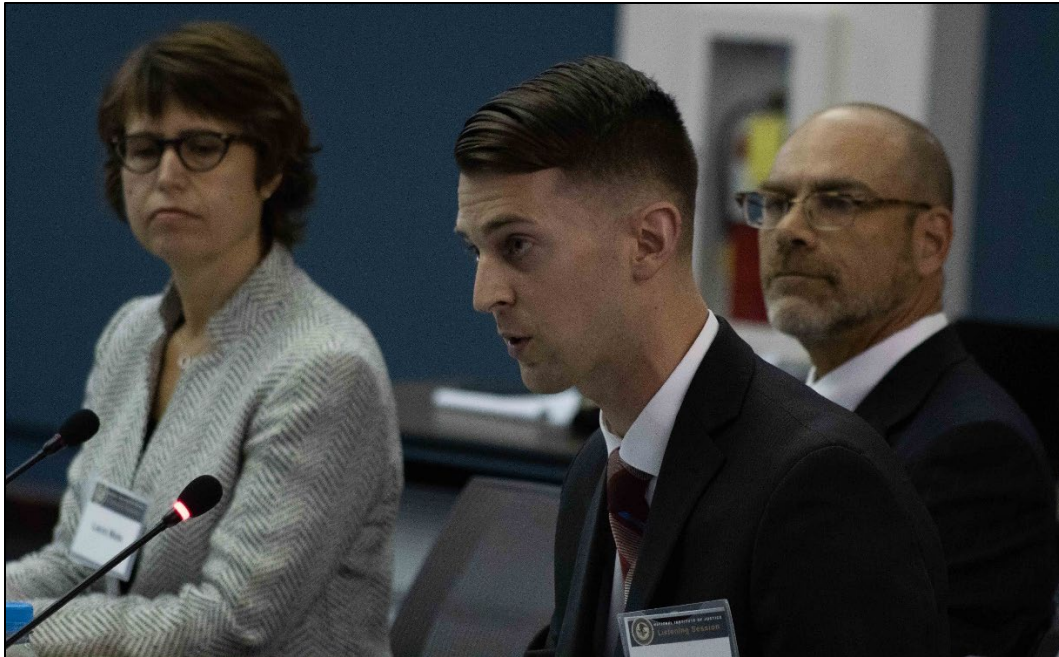
The Attorney General met with the IRC on November 19, 2019, to discuss proposed changes to PATTERN, including several refinements suggested by the IRC. The IRC recommended that the Attorney General implement the changes described herein and agreed to continue providing advice to the Department on the implementation of these changes and other issues identified by the IRC regarding the FSA. BOP and NIJ concurred with this recommendation.



NIJ LISTENING SESSIONS. Antoine Prince Albert of The Leadership Conference on Civil and Human Rights / Education Fund speaks to David Muhlhausen of NIJ, Antoinette Bacon of ODAG, Kathleen Hawk Sawyer of BOP, and Hugh Hurwitz of BOP at the listening session on September 11, 2019.

b. Stakeholder Listening Sessions and 45-Day Public Comment Period on PATTERN

On September 10-11, 2019, NIJ hosted two listening sessions in response to the release of PATTERN. Criminal justice stakeholders, advocates, and interested citizens were invited to Washington, D.C. to provide comments¹ on DOJ's implementation of the FSA and, specifically, the development of PATTERN. Eight stakeholder organizations provided public comment. An additional eight sets of comments were provided to NIJ for consideration.



NIJ LISTENING SESSIONS. Laura Mate (left), Jeremiah Mosteller (center), and James Felman (right) participate in the listening session on September 11, 2019.

Following the release of PATTERN in July, DOJ provided a specific email address (FirstStepAct@usdoj.gov) for interested members of the public to provide comment and feedback on the risk tool and FSA Report. NIJ actively monitored the feedback submitted to the email address—nearly 175 comments and statements were received during the 45-day public comment period. Additionally, twenty statements were submitted by external stakeholders to NIJ as part of an invitation to participate in a third round of listening sessions. Through both written comment and in oral presentations, stakeholders raised a diverse set of issues and offered suggestions and opportunities for improvement.

¹ The full set of comments submitted to NIJ can be found here: <https://www.ncjrs.gov/pdffiles1/nij/grants/254142.pdf>



ENGAGEMENT. The DOJ delegation poses for a photo with CSC staff.

c. Correctional Service of Canada (CSC) National Headquarters Engagement

On September 17-18, 2019, staff from ODAG, NIJ, BOP, Dr. Patti Butterfield, a member of the IRC, and Drs. Zachary Hamilton and Angela Hawken, two of NIJ's external expert consultants, traveled to the national headquarters of the CSC. CSC is the Canadian federal government agency responsible for the incarceration and rehabilitation of convicted criminal offenders sentenced to two years or more. CSC explained that it has taken decades to achieve its current level of sophistication, and it continues to be a leader in the advancement and development of risk and needs assessments. Meeting with CSC provided an important opportunity for DOJ to learn about the successes and challenges of developing and implementing an innovative risk and needs assessment system in a large jurisdiction.

For CSC, treatment begins on day one. Importantly, CSC provides cognitive-behavioral therapy to all offenders in their custody starting at the term of their confinement. CSC delivers such therapy to all offenders regardless of their specific needs. In this way, offenders receive the opportunity to learn about criminal thinking and other aspects of criminal behavior that may have affected their lives. Offenders with specific needs receive appropriate treatment with regard to dosage.

To review CSC operations and discuss risk and needs assessments further, the aforementioned group of staff visited the Joyceville Institution, an intake processing facility located in Kingston, Ontario, where inmates undergo an extensive initial needs assessment. Offenders spend hours completing assessment instruments to more fully understand an individual's complex needs. The group toured the facility, discussed existing program offerings, and were provided briefings on future plans for additional programs being developed and expanded at the facility. They also met with facility management to compare U.S. and Canadian federal systems and spoke with inmates as to their intake progress.

d. Needs Assessment Symposium

On September 23-25, 2019, BOP conducted a Needs Assessment Symposium to gather input and feedback from experts to assist BOP in addressing the needs assessment requirements of the FSA. The group met for three days with the goal of developing recommendations for enhancing BOP's current needs assessment tools. The event included subject-matter experts from state corrections and research organizations and involved facilitated discussions of needs assessment best practices.

The symposium resulted in recommendations regarding which needs should be assessed, how to assess those needs, and ways in which BOP could improve its overall infrastructure and needs assessment processes. These recommendations will be considered by BOP's Executive Staff to determine which recommendations are consistent with BOP's strategic plans and can be implemented.

The following experts participated in the symposium:

- Holly Busby, National Institute of Corrections
- Dr. Patti Butterfield, Independent Review Committee
- Dr. Marie Garcia, National Institute of Justice
- Wendy Goodman, Virginia Department of Corrections
- Dr. Angela Hawken, New York University and NIJ Contractor
- Dr. Matthew Makarios, University of Northern Iowa
- Dr. Jon Mandracchia, Missouri Western State University
- Gary Mohr, Former Director of the Ohio Department of Rehabilitation and Correction
- Dr. Jennifer Pankow, Texas Christian University
- Dr. Emily Salisbury, University of Nevada, Las Vegas
- Dr. Jennifer Skeem, University of California, Berkeley
- Shirley Moore Smeal, Pennsylvania Department of Corrections (retired)
- Dr. Solveig Spjeldnes, Ohio University
- Dr. Jody Sundt, Indiana University—Purdue University Indianapolis
- Donna Tebought, Georgia Department of Corrections
- Dr. Stephen Tripodi, Florida State University
- Dr. Wendy Williams, Alabama Department of Corrections

e. Use of Risk and Needs Assessment in Prisons Workshop

On August 28-29, 2019, NIJ, in collaboration with the RAND Corporation, hosted a workshop on the Use of Risk and Needs Assessment in Prisons. The workshop brought together staff from four state departments of corrections – Minnesota, Ohio, Pennsylvania, and Tennessee – and staff from BOP's Reentry Services Division, as well as scholars with expertise in risk and needs assessments, including Drs. Zachary Hamilton and Faye Taxman, a member of the IRC.

Over the two-day meeting, participants discussed and identified the challenges prisons face when implementing an RNAS. To illustrate the complexity and uses of risk and needs assessment, each department of corrections discussed the risk and needs processes in its department. This discussion was valuable in comparing and contrasting the use of RNAS in the state corrections departments. A full report detailing identified issues and needs, as well as recommendations from the workshop, will be available in Spring of 2020.

III. Changes to PATTERN Based On Suggestions Received After the July 2019 Report

1. In response to feedback that PATTERN should encourage inmates to take advantage of programming and should incentivize change, DOJ considered adding more dynamic factors and removing static factors.

In developing a new risk tool, the Department placed emphasis on a system that accurately measures an inmate's change during incarceration, and provides opportunities for inmates to reduce their risk scores post-intake during periodic reassessments. Accordingly, PATTERN includes a diverse set of factors to determine the risk of recidivism for BOP inmates; many of these factors are dynamic, meaning that an inmate's risk of recidivism could change with appropriate programming and services or could be affected by the inmate's behavior. These factors, in conjunction with an inmate's commitment to reform, are crucial to the assessment process. Importantly, adding dynamic factors to the risk tool and minimizing static factors (those features of an offenders' history that are not amenable to change) provides a greater opportunity for offenders to reduce their risk scores over time during periodic reassessments. The inclusion of dynamic factors in PATTERN will assist BOP in identifying an offenders' needs, determining the services and programming responsive to the needs, and determining more accurately an offender's actual risk of recidivism. The dynamic factors initially included in PATTERN were:

1. Infraction convictions (any)²
2. Infraction convictions (serious and violent)³
3. Number of programs completed (any)
4. Number of Technical or Vocational Courses
5. Federal Prison Industry employment (only for women)
6. Drug treatment while incarcerated
7. Drug education while incarcerated
8. Non-Compliance with financial responsibility (only for women)
9. Education Score (only for women)
10. History of Violence
11. History of Escape

In response to suggestions from the IRC and others, the Department sought to identify other dynamic factors that would be appropriate measures to add to PATTERN. As part of that process, BOP provided additional programmatic data to NIJ's consultants, who performed further analyses to assess whether the addition of new programmatic data and the augmentation and removal of variables from the

² The "Infraction convictions (any)" measure includes a decay function. Any infraction convictions that occurred ten or more years prior are removed from the count.

³ The "Infraction convictions (serious and violent)" measure includes a decay function. Serious or violent infraction convictions that occurred ten or more years prior are removed from the count.

model affected its ability to accurately predict an offender’s risk of recidivism. Based on results from the analyses, and upon the recommendation of the IRC, DOJ intends to augment PATTERN as follows:

- Include an additional dynamic measure of offender’s “infraction free” period during his or her current term of incarceration;⁴ and
- Modify programming measures by adding psychology treatment programs (BRAVE, Challenge, Skills Program, Sex Offender Treatment (both residential and non-residential), STAGES, and Step Down programs), the faith-based Life Connections Program (LCP), and the BOP’s Drug Education program to the “Number of programs completed (any)” measure and combine technical/vocational and UNICOR into a new work programming measure.



WORK PROGRAMS. Inmates participate in a horticulture vocational program at FPC Bryan.

2. The Department removed certain variables in furtherance of its commitment to ensuring that PATTERN is fair and accurate.

The goal of a risk assessment is to create a fair and accurate prediction of risk that an inmate will commit a crime. The Department received correspondence stating that the criminal justice system discriminates against minorities and advocating that PATTERN must avoid perpetuating or exacerbating racial disparities. The Department agrees that inmates and the public are not served by a risk assessment tool that is racially biased or does not accurately reflect inmate risk.

⁴ This measure identifies the duration of time an individual was infraction free prior to their release. As a dynamic measure of behavior, this measure is an indicator of an offender’s readiness for release.

As previously stated, PATTERN used many factors that are scientifically-weighted based on their predictability of reduced recidivism. The Department analyzed hundreds of different iterations and variables in order to find those factors most predictive of the risk of recidivism. The process of weighting the variables was based on scientific research and analysis.

The Department measured PATTERN to ensure that it was predictive across all races and genders. As shown in the chart below, PATTERN is a neutral assessment tool, as evidenced by the nearly equal scores on the Area Under the Curve (AUC) analysis.

Recidivism	Male					Female				
	<i>All</i>	<i>White</i>	<i>AA</i> ⁵	<i>Hispanic</i>	<i>Other</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>
<i>General</i>	<i>All</i>	<i>White</i>	<i>AA</i> ⁵	<i>Hispanic</i>	<i>Other</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>
PATTERN	0.80	0.81	0.78	0.78	0.83	0.79	0.79	0.80	0.76	0.81
<i>Violent</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>
PATTERN	0.77	0.80	0.75	0.78	0.82	0.78	0.75	0.80	0.75	0.81

The risk assessment tool cannot correct for any outside biases that lead to higher recidivism. DOJ agrees, however, that the risk assessment tool should avoid adding or exacerbating any bias that may exist. Critically, it must predict recidivism fairly, accurately, and objectively with the available information.

Although PATTERN uses scientifically-based factors that help predict an inmate’s risk of recidivism, the Department removed or changed certain measures that might be associated with bias, especially racial bias, in order to implement the most fair and predictive tool possible. The following factors were removed from PATTERN:

- Age of first arrest/conviction; and
- Voluntary surrender.

These changes reduce PATTERN’s predictive accuracy by approximately one percent. The IRC and DOJ both viewed this decrease as acceptable, if it prevents the actual or perceived perpetuation of any bias.

One criticism relayed to DOJ was that considering “supervised release violations” as a factor in the risk score would disproportionately affect African Americans and Hispanics because it was alleged they are more likely to have their supervised release revoked due to biases in the criminal justice system. DOJ researched whether this assumption was true. After research and analysis of the issue, the Department found that the opposite was actually true—removal of supervised release violations from the data would actually increase the potential racial disparity and have a negative impact on the predictability of the tool.

There are two categories of supervised release violations: (1) the commission of a new crime, and (2) the violation of a term of supervised release. BOP consulted with the

⁵ African-American is abbreviated here as “AA.”

Administrative Office of the United States Courts (AOUSC) and found that statistics demonstrated that African American and Hispanic offenders were not returned to prison for a supervised release violation more often than white offenders, as many critics assumed. The following tables illustrate this finding.

BOP Inmates Released in FY 2009 – FY 2015

1. Inmates who recidivated only for a Supervised Release Violation, out of all releases in FY 2009 through FY 2015.

Group	White	AA	Hispanic	Other⁶	Total
Number	6,294	6,382	3,213	1,746	17,635
%	7.89%	7.27%	7.51%	13.82%	7.91%
Total Number	79,740	87,838	42,760	12,632	222,970

2. Inmates who recidivated only for a Supervised Release Violation and were Returned to the BOP, out of all inmates who recidivated only for a Supervised Release Violation.

Group	White	AA	Hispanic	Other	Total
Number	3,417	3,336	1,595	1,120	9,468
%	54.29%	52.27%	49.64%	64.15%	53.69%
Total Number	6,294	6,382	3,213	1,746	17,635

As the tables show, there is little difference in the rates of supervised release violations between White, African American, and Hispanic inmates. Thus, there is no evidence that racial disparity or racial bias is increased by including supervised release violations in the recidivism outcome measure for PATTERN.

With the changes set forth in Item 1 above, and this item, the updated version of PATTERN is a more streamlined version of the risk tool previously released. As updated, PATTERN contains fifteen factors, eleven dynamic and four static, as follows:

Dynamic Factors:

1. Infraction convictions (any) current incarceration
2. Infraction convictions (serious and violent) current incarceration
3. Infraction-free (any) current incarceration
4. Infraction-free (serious and violent) current incarceration
5. Number of programs completed (any)
6. Work programming
7. Drug treatment while incarcerated

⁶ The “Other” category represents Asian and Native American inmates.

- 8. Non-compliance with financial responsibility⁷
- 9. History of violence
- 10. History of escapes
- 11. Education score⁸

Static Factors:

- 12. Age at time of assessment
- 13. Instant violent offense
- 14. Sex offender (Walsh)
- 15. Criminal history score

With these changes,⁹ PATTERN still retains a high level of predictability, across races and sexes, as reflected in the chart below.

**AUC Comparisons Across Race and Ethnicity, and Gender
for the Revised Version of PATTERN**

Recidivism	Male					Female				
<i>General</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>
PATTERN	0.79	0.80	0.78	0.78	0.82	0.78	0.78	0.79	0.76	0.80
<i>Violent</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>	<i>All</i>	<i>White</i>	<i>AA</i>	<i>Hispanic</i>	<i>Other</i>
PATTERN	0.77	0.80	0.75	0.78	0.82	0.77	0.75	0.79	0.75	0.80

3. In response to feedback that under a model found on the Internet,¹⁰ PATTERN does not appear to allow inmates to move from higher to lower risk categories over the course of incarceration, the Department considered assigning more weight to dynamic factors and provided illustrative examples of inmates’ abilities to move categories.

A crucial component of the FSA is the ability of inmates to show that they are reformed through the use of training, programming, and other factors to lower their risk score and reduce the time they serve in secure confinement. PATTERN was validated using numerous factors that are scientifically-weighted based on their predictability of reducing recidivism. The Department analyzed more than a hundred different iterations and variables in order to find those factors most predictive of the risk of recidivism. The process of weighting the variables was based on scientific research and analysis. As noted above, the Department will be updating PATTERN

⁷ For females, this factor was included only in the general recidivism model. It was not included in the violent recidivism model because it was not predictive of this outcome. Additionally, this factor was predictive only for females, not males.

⁸ Education score was found to be predictive only for females, not males.

⁹ The appendix to this report contains technical clarifications and corrections to errata in the July 2019 Report. Those changes were non-substantive and do not affect the AUC analysis.

¹⁰ The IRC informed the Department that the IRC had identified some errors in that Internet model.

to include additional programming measures and will take into account behaviors that occur during the current period of incarceration.

The Department tested the updated version of PATTERN to ensure that individuals could successfully move from a higher to a lower risk score. The examples in Attachment A show how different types of inmates can use the dynamic factors in the updated PATTERN to lower their risk score and how a motivated inmate's risk score will improve compared to an unmotivated inmate who does not thoroughly complete evidence-based recidivism reduction programs.



WORK PROGRAMS. Inmates learn how to properly perform a four-wheel vehicle wheel alignment as part of an automotive chassis vocational program at FCI Bennettsville.

4. The Department has clarified the terms “general” and “violent” recidivism to further promote transparency.

The Department received criticism about the lack of clarity regarding “general” and “violent” recidivism and understands this confusion. There are many different definitions of violent and general recidivism. Risk assessment tools and crime statistics are not uniform in the definition employed. In an attempt to clarify this confusion, as well as improve overall transparency regarding the tool and its functions, the Department has tried to be as consistent as possible in the terms it uses across the risk assessment tool and in the crime statistics it has collected.

PATTERN calculates two risk scores: one for general recidivism risk and one specifically for violent recidivism risk. The definitions of general and violent recidivism mirror those used by the Bureau of Justice Statistics (BJS). General recidivism is defined as a return to BOP custody or a re-arrest within three years of release from BOP custody, excluding all traffic offenses except driving under the influence (DUI) and driving while intoxicated (DWI). Violent recidivism is defined as a re-arrest for a

suspected act of violence within three years of release from BOP custody. Examples of the violent offenses captured in this definition include, but are not limited to, firearms violations, homicide, child abuse, robbery, sex trafficking, and sexual assault.¹¹

- 5. In response to suggestions to narrow the definition of “recidivism” to include only convictions, not arrests, the Department considered whether changing from the longstanding definition of “recidivism” would be beneficial and appropriate.**

There is no uniform definition of “recidivism” in criminal justice systems across the United States. As discussed previously, “recidivism” is currently defined in PATTERN to include a return to BOP custody or a re-arrest within three years of release from BOP custody, as well as DUI and DWI offenses. This definition is consistent with the definition used by BJS. Some have suggested that it would be fairer to narrow the definition of recidivism so that it only includes convictions and does not count those who were arrested but either never charged with a crime or were acquitted. We explored the possibility of changing the definition to exclude acquittals and arrests not resulting in charges over a five-year period¹² and found that, unfortunately, the data for such a review is not available.

BOP does not have access to accurate and complete data for case dispositions (i.e., convictions or acquittals). BOP receives state recidivism data as keyed by the states, which each have different reporting processes. Some jurisdictions report only arrests, while others report arrests and convictions. BOP lacks the authority to compel the states to enhance their reporting and to dedicate the resources needed to include disposition. BOP’s review of criminal history data for purposes of Second Chance Act studies indicates that an estimated fifty percent of reconviction data is missing. This missing data, if used to determine recidivism rates, would significantly bias the analysis of PATTERN and have a profound impact on its predictability.

DOJ also considered adopting one of the definitions of recidivism used by different states. Two states define recidivism as returns to custody in only their state, and DOJ considered defining recidivism as only a return to BOP custody. That definition is problematic, because if someone is released from BOP custody and then is convicted in state court of murder, that person would not count as a recidivist, even though that person committed a very serious offense. Another state defines recidivism as the percentage of people who are convicted of a felony, released from incarceration in a

¹¹ A detailed list of violent offense codes can be provided upon request.

¹² The change from a three-year to five-year period is necessary to account for the lengthy period between arrest and judgment. In the federal system, there is a time gap between arrest, trial, verdict, and judgment entry that could run well over one year in many cases. Consider the case of a person arrested for murder two-and-a-half years after his/her release from prison, who was convicted at trial eight months later, and the judgment filed and sentence imposed three months beyond. If recidivism was measured by conviction only, that person would be counted as a “non-recidivist,” despite a conviction for a violent offense. Omissions such as these types of cases would have a profound impact on PATTERN’s predictability and would undermine confidence in the system.

local jail or the state's Department of Correction facility, and are reincarcerated within three years of release. BOP found that definition also lacking, as a defendant charged with RICO two years after release from prison, who was convicted after trial and sentenced to prison 18 months later, would not count as a recidivist, and neither would a repeat con artist sentenced to prison for stealing senior citizens' life savings, sentenced to prison but given bond pending appeal.

Having considered a variety of definitions, the Department sees benefits associated with using the long-standing definition of arrests over a three-year period. For example, keeping the same definition helps the BOP assess and study the effectiveness of its programming. The FSA's goal is to identify programs that reduce recidivism, offer those programs to inmates, and allow inmates to reduce their risk of recidivism. Over forty-four percent of inmates released from BOP custody to U.S. communities during FY 2013 recidivated, as defined previously (44.2%). By keeping the same definition of recidivism, BOP can more accurately measure how well a program is working. No one benefits from continuing programs that do not work. Therefore, accurately measuring changes in recidivism year over year is critical to the success of the FSA. By changing the definition, the ability to conduct this type of accurate comparison is lost.

Additionally, because the definition of recidivism is the most widely used in the federal system, keeping that definition would make comparisons across risk assessment and criminal justice systems easier. The U.S. Sentencing Commission, BJS, and AOUSC all rely on post-release arrest data for more accurate and complete analyses. By using the same definition, BOP and the public have more meaningful data with which to assess progress.

The Department intends to continue exploring other ways to readily obtain complete and accurate disposition data. In the meantime, to avoid any delay associated with deploying PATTERN and the corresponding FSA benefits, the Department intends to continue using the standard definition of recidivism.

6. DOJ has begun the process of identifying a fourth group to independently test and validate PATTERN in response to requests to publish the underlying PATTERN data to allow stakeholders to independently test its validity.

The Department understands the desire for stakeholders and advocates to independently review and validate PATTERN. The Department has encouraged thoughtful criticism and input on how to improve PATTERN. Unfortunately, the distribution of the data underlying PATTERN is restricted because the data includes arrest and conviction information provided directly to DOJ by state and local jurisdictions, who have a significant interest in protecting their data. The retrieval, disclosure, and redistribution of that criminal history data is prohibited by the sharing agreements used to acquire the underlying data.

With that said, and in order to ensure independence and integrity in the development of the risk tool, DOJ arranged for external experts to evaluate and validate PATTERN.

Initially, DOJ contracted with two external experts (Drs. Grant Duwe and Zachary Hamilton) to statistically analyze an anonymized version of the data and use it to develop PATTERN. The IRC also received access to subsequent results from the analysis and reanalysis of PATTERN to help verify the assumptions, analysis, and conclusions incorporated. Researchers were only able to access information about PATTERN after completing required background investigations. Since background checks are expensive and lengthy, in the absence of a contractual relationship, sharing the data widely is thus not a feasible solution to increasing transparency with outside stakeholders.

To demonstrate the Department's commitment to addressing concerns about peer review and transparency, and in order to further promote independence and to enhance transparency of the process, NIJ will release a funding opportunity to solicit proposals for a five-year project to review and revalidate the new version of PATTERN. Upon completion of appropriate background investigations, and permission from relevant justice agencies to access administrative data, these experts will access and analyze data to validate PATTERN's reliability. NIJ expects to fund this research in 2020.

7. To promote further transparency, the Department is reaffirming its commitment to publishing the annual validation data, as well as annual recidivism data.

DOJ intends to publish results from the annual review and validation of the risk assessment system and recidivism data in its annual report required by 18 U.S.C. § 3634, which will include the programs completed by inmates. The FSA specifically requires the Department to submit a report to congressional committees that includes, among other items:

- A summary of the activities and accomplishments in carrying out the FSA.
- A summary and assessment of the types and effectiveness of the evidence-based recidivism reduction programs and productive activities in prisons operated by BOP, including—
 - Evidence about which programs have been shown to reduce recidivism;
 - The capacity of each program and activity at each prison, including the number of prisoners along with the recidivism risk of each prisoner enrolled in each program; and
 - Identification of any gaps or shortages in capacity of such programs and activities.
- Rates of recidivism among individuals who have been released from Federal prison; and
- The status of prison work programs at facilities operated by BOP.

This report is due to Congress on December 18, 2020, two years from the date the FSA was passed into law. DOJ has already begun collecting this information and fully intends to meet the deadline.

The IRC and other interested stakeholders recommended that DOJ publish recidivism data in real-time. DOJ sees benefits in releasing this data as we continue to study and to refine PATTERN and to robustly implement the FSA, however, there is no feasible mechanism to retrieve real-time arrest data for a group of individuals. Instead, DOJ is capable of retrieving criminal history data for groups of individuals on a monthly basis.¹³ The Department notes that publishing monthly recidivism data might lead to confusion, as seasonal trends might skew perceptions or lead to hasty or improper conclusions about the efficacy of the FSA based on a time period that is not traditionally used for recidivism analysis (i.e. monthly vs. three-year).¹⁴ Additionally, random irregularities in the data could cause the recidivism rate to spike or dip, leading to inaccurate conclusions about the risk of the relevant group of releasees in relation to others.

Considering the many concerns and interests, the Department has concluded that it will begin a pilot program to publish recidivism data on a quarterly basis, beginning in or around April 2020, and will publish annual data in its report. The Department will continue to assess the efficacy and practicality of periodic reporting and will be poised to make adjustments as appropriate.

8. In response to a claim that PATTERN's separate modelling for men and women raises constitutional concerns, the Department further considered whether to collapse PATTERN into one model for both men and women.

PATTERN employs separate modeling for men and women to account for their gender-specific pathways to crime and risk factors. Evidence-based research shows that gender shapes the pathways to crime differently for men and women.¹⁵ Moreover,

¹³ Arrest data is retrieved from Nlets, a private non-profit corporation owned by the States, which was created to facilitate the cooperative exchange of criminal justice information among law enforcement agencies. As part of an agreement with the FBI's Criminal Justice Information Service (CJIS) and Nlets, BOP is able to retrieve information on post-prison arrests occurring in all 50 states and by federal agencies in order to fulfill statutorily-authorized (e.g. the Second Chance Act) reporting requirements. For typical recidivism analysis, and consistent with other DOJ reports (e.g. the Bureau of Justice Assistance), recidivism is defined as (a) a new arrest in the U.S. by federal, state, or local authorities within 3-years of release or (b) a return to Federal prison within the 3-years of release. Reporting of criminal history data is not uniform across jurisdictions.

¹⁴ DOJ anticipates that the post-FSA recidivism rate for initial releasees will differ from its traditional reported rate for all releases because not all inmates recidivate in the first month or year. The quarterly rate will steadily rise until a post-FSA 3 year recidivism rate is established and able to be used as a benchmark.

¹⁵ See Salisbury, E. J., & Van Voorhis, P. (2009). Gendered pathways: A qualitative investigation of women probationers' paths to incarceration. *Criminal Justice & Behavior*, 36(6), 541-566; Bloom, B., Owen, B., & Covington, S. (2003). *Gender responsive strategies: Research, practice, and guiding principles for women offenders*. Washington, DC: U.S. Department of Justice, National Institute of Corrections.

some stakeholders echoed this evidence and encouraged DOJ to employ gender-specific models. Because the connection to crime varies for men and women, it was imperative that PATTERN model the risk of recidivism for these groups separately. Furthermore, in PATTERN's dataset, women are outnumbered by men almost 6 to 1. If men and women were scored using a single model, women would be scored according to a model that centered on men. When other risk assessments have scored women's risk using a male model, women are more likely to receive higher risk scores than their relatively-low recidivism rate would merit. This approach has resulted in women being over-classified and over-supervised, which results in unfair treatment of women.

By modeling the risk of men and women separately, BOP will be better positioned to address the specific risks and needs of offenders in their custody. Addressing the needs of offenders with appropriate evidence-based recidivism reduction programs and productive activities will improve the lives of offenders returning to their communities and enhance public safety, key goals of the FSA and the Department.

- 9. The Department is committed to ensuring that victims of crime are treated fairly throughout the criminal justice process. In response to feedback that PATTERN did not meet victims' needs, the Department confirmed that the Victim Notification System will alert victims to changes in release date, should an inmate receive early release due to the FSA. The Department further reinforced that victims' views should be included as part of FSA implementation.**

Every act of recidivism results in victimization of an individual or harm to the community. That is why DOJ is committed to implementing the FSA—to reduce recidivism, which in turn, reduces the number of victims and makes our communities safer.

DOJ and other federal agencies are committed to ensuring that victims of federal crime are treated fairly as their case moves through the criminal justice system. DOJ will continue to engage and communicate with organizations that represent crime victims as it works to fully implement PATTERN, the forthcoming needs assessment, and other provisions of the FSA.

In order to provide victims with information on case events, as required by the Victims' Rights and Restitution Act and the Crime Victims' Rights Act, DOJ has developed the Victim Notification System (VNS), which is funded by the Crime Victims Fund of the Office for Victims of Crime. The Fund was established by the Victims of Crime Act of 1984. The Fund is financed by fines and penalties paid by convicted federal offenders, not from tax dollars. As part of the VNS notification service, BOP provides notifications to the VNS when inmates move to pre-release custody (such as a residential reentry center or home confinement) or release. VNS then provides the information to registered individuals. We encourage all victims who are interested in learning of these and other events to register with VNS. Victims may learn more about the automated system and register by browsing the [VNS website](#).



EDUCATION. BOP inmates participate in a GED program.

- 10. The Department received feedback expressing concerns about BOP's programming capacity, as according to the July 2019 Report, very few inmates appear to participate in programming. In response to that feedback, the Department is clarifying the data in the July Report and is providing an update on some of the efforts to expand programming.**

BOP believes that reentry begins at day one and encourages inmates to participate in its robust program offerings. The vast majority of Bureau programs do not have capacity-related constraints. The term “waitlist” is colloquially used to refer to a staging mechanism that ensures inmates are enrolled in needed courses at the appropriate times in their incarceration. Our case management and programming staff monitor these lists based on inmate need and release date/plans, to ensure relevant programs are completed in appropriate timeframes.

Federal Prison Industries (FPI) does have a waitlist. BOP is grateful to Congress for the expansions to FPI in the FSA, and anticipates these expansions will over time allow it to increase business and re-open factories, thereby increasing capacity and decreasing waitlists. However, this expansion will take time, as growing the businesses, hiring on additional staff to manage the business lines, and re-opening factories is not a quick process.

The Resolve Program, which provides trauma treatment, also has a true capacity-driven waitlist, but BOP has used some of the funding in its FY 2019 base budget to increase staffing and materials, and BOP believes it will improve program availability. Note that prior to the FSA, inmates could volunteer to take programs regardless of need. As part of the FSA implementation, the BOP is assigning codes to approved evidence-based recidivism reduction programs and productive activities to enable tracking and monitoring of their capacity and use. BOP will also begin assigning inmates to specific programs to address identified needs, which will allow it to further

examine inmate interest and program capacity. Based upon these changes, BOP can expand or contract capacity consistent with the inmate needs and interests.

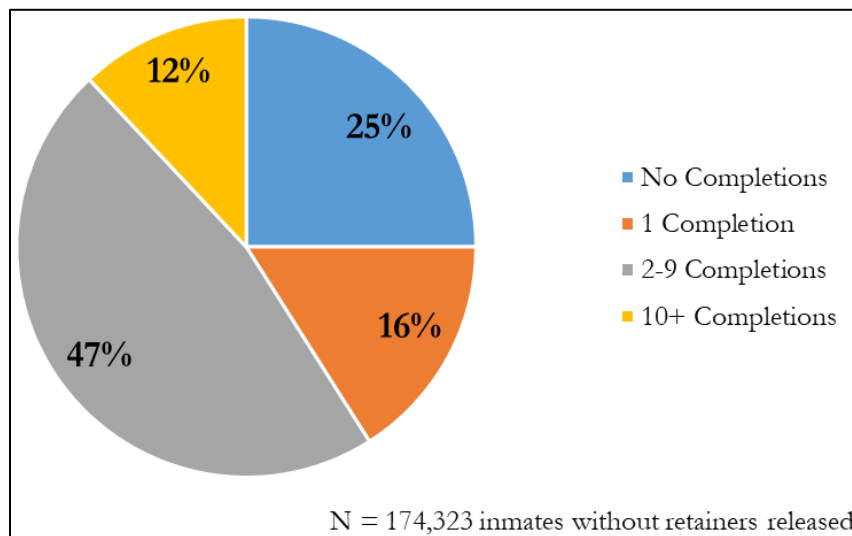
BOP does not compel inmates to complete recidivism-reduction programs and, as such, BOP historically has not tracked all inmate program participation prior to the FSA. Consequently, the data concerning program participation and availability set forth in the July 2019 report might have caused confusion and could benefit from further explanation.

At the outset, the chart on page 47 of the report did not reflect every inmate's participation in every BOP program. It only listed participation in a small subset of programs. BOP has hundreds of programs in operation across the country, many of which were not previously tracked using standardized assignments demonstrating completion. Therefore, the report data was under-inclusive.

Because programming is optional, low participation rates do not necessarily equate with lack of program capacity. BOP has not historically tracked the number of inmates who declined to participate in programs. As part of the FSA implementation, BOP is working diligently to improve tracking of its program participation. Such improved tracking will allow reporting of participation rates for the full complement of BOP programs.

Moreover, the report data included a large number of short-term inmates (less than one year), who, by virtue of their short sentence, would have had relatively little time to complete programs. The chart below has removed those inmates serving sentences of less than one year and provides the corresponding risk reduction rates under PATTERN. It is worth repeating that these charts are limited to the select number of programs that BOP tracked and is not indicative of all programs.

Program Completion Rates for Inmates Confined for One Year or More That Were Released Between FY 2009 and FY 2015



PATTERN Risk Scoring				
Number of Programs Completed (any)	Male	Female	Male	Female
	General		Violent	
No (0) Programs Completed	0	0	0	0
One (1) Program Completed	-2	-1	-1	-1
More than One (> 1), Less than or Equal to Three (<= 3) Programs Completed	-4	-2	-2	-2
More than Three (> 3), Less than or Equal to Ten (<= 10) Programs Completed	-6	-3	-3	-3
More than Ten (> 10) Programs Completed	-8	-4	-4	-4

As the chart above reflects, close to 50 percent of inmates confined for one year or more in BOP custody and released between 2009 and 2015 completed three or more programs. As the second chart shows, when applying the scoring for PATTERN to this population, inmates that participate in programming could earn a reduction of three to twelve points in their risk score depending on the amount of programming taken and type of recidivism predicted. For example, males who completed more than ten programs would earn a twelve-point reduction in General Recidivism. Similarly, females who completed ten programs would receive an eight-point reduction in their General Recidivism score.

BOP shares the stakeholders' concerns about program availability and is preparing to meet an anticipated increased demand as inmates will be eligible to receive incentives for completing programs.



WORK PROGRAMS. A vocational student grinds a test plate that was welded in the Gas Metal Arc Welding (MIG) Process at FCI Morgantown.



WORK PROGRAMS. Students apply the concepts of horticulture through hands-on learning at FCC Coleman in Sumter County, FL.

BOP has already begun expanding programs and hiring staff to deliver the programs. While the FSA did not come with appropriated funds in FY 2019, the Deputy Attorney General announced in July 2019 that BOP had taken the initiative to adjust funding within its budget to cover a variety of targeted FSA activities, including:

- Increasing Volunteers/Partnership Opportunities
- Enhancing Medication Assisted Treatment
- Providing English as a Second Language Workbooks and Textbooks
- Expanding Education Programs and Programs for Women
- Providing Certifications for Vocational Training
- Increasing Vocational Training Opportunities
- Performing Evaluations for Evidence-Based Programs
- Developing a Needs Assessment System

With respect to FY 2020,¹⁶ the Administration requested approximately \$116 million for the following:

- Expansion of Evidence-Based Reentry Programs (\$52.3 million, of which \$30 million is for buildings and facilities): Expands physical space and program capacity for existing mental health, life skills, special needs, and educational and vocational programs; also adds new programs as they are identified and evaluated.
- Expansion of Capacity for Prerelease Custody (\$10.0 million): Expands BOP's capacity to place inmates into halfway houses (also known as Residential

¹⁶ FY2020 runs from October 1, 2019 through September 31, 2020.

Reentry Centers) prior to the expiration of their prison sentence to help them transition back into society.

- Expansion of Medication-Assisted Treatment (MAT) Nationwide (\$42.6 million): Expands the number of inmates who can participate in treatment designed to prevent relapse to opioid use upon reintegration in the community; this treatment may also reduce an inmate's risk for recidivism. Vivitrol will continue to be available at all BOP facilities, and Buprenorphine and Methadone will be available at half of BOP institutions.
- Increase of Information Technology Services for Inmates (\$6.3 million): Increases BOP's capacity to support the I-Connect inmate education network and expand recidivism program offerings, as well as provide inmate video relay services for deaf and hard-of-hearing inmates, and connect inmates with their families potentially through video communication services.
- Evaluation of Programs and Services (\$5.0 million): Supports a multi-year effort to evaluate the programs and services offered by BOP in order to develop recommendations regarding evidence-based recidivism reduction programs and productive activities. The risk tool developed for BOP will also be revalidated and assessed as required by FSA.

The approved FY 2020 budget for DOJ from both the House and the Senate provides seventy-five million dollars (\$75 million) for FSA implementation activities.¹⁷



WORK PROGRAMS. Inmates participate in a cosmetology vocational program at FPC Bryan.

¹⁷ From October 1, 2019 through December 20, 2019, BOP was operating under a continuing resolution and had not received any FSA funding.

11. The Department is continuing to work toward updating and improving its needs assessment tool, as comments rightly noted that the current tool could benefit from improvement and PATTERN, in its current form, does not contain a new needs tool.

The Department agrees that the current needs assessment system could be enhanced and has been implementing the plan set forth in the July 2019 report to identify and to make those enhancements. In the meantime, DOJ staff has been using BOP's current needs assessment system to ensure assessment and programming are not delayed while we endeavor to improve the system.

Since the publication of the July 2019 report, the BOP has begun updating its needs assessment process. For example, BOP identified 13 needs areas¹⁸ and began assessing them for all inmates. Additionally, BOP adopted methods to assess each inmate in every one of these need areas. A list of programs that address each of the needs will be used to ensure inmates enroll in the proper programs to address their individual needs, with the goal of eventually lowering their recidivism risk.

BOP also took several steps toward further developing the needs assessment system. Those efforts include:

- BOP engaged the MITRE Corporation¹⁹ to assist with various FSA-related tasks, specifically, developing a framework to independently evaluate programs submitted by external entities; conducting market research on needs assessment best practices; and developing a design and prototype of the new needs assessment system.
- BOP implemented a new trauma screening tool as part of its intake processing.
- In the July 2019 report, BOP noted inclusion of a dyslexia screening as part of the needs assessment tool. BOP completed negotiation with the National Union and published its Management of Inmates with Disabilities policy. This update will enable the implementation of dyslexia screening, as required by the FSA, for inmates.
- BOP trained all staff on the updated needs assessment process and the use of additional screening tools to identify specific criminogenic needs. This training will enable case management staff to assign relevant programs. This process will be used while DOJ, BOP, and MITRE formalize a final needs assessment tool. When the final needs assessment tool is in place, BOP will be able to

¹⁸ The need areas to be assessed are anger/hostility, antisocial peers, cognitions, dyslexia, education, family/parenting, work, finance/poverty, medical, mental health, recreation/leisure/fitness, substance abuse, and trauma.

¹⁹ The MITRE Corporation (MITRE) is a non-profit organization that operates federally funded research and development centers (FFRDCs). FFRDCs are unique organizations that assist the United States government with scientific research and analysis; development and acquisition; and systems engineering and integration. MITRE also has an independent research program that explores new and expanded uses of technologies to solve customer problems. For more information: <https://www.mitre.org/>.

track the amount of need and the proportion of inmates who receive programming.

- The BOP published a Request for Information to solicit feedback from subject-matter experts and the public to further inform its work to improve needs assessments.²⁰

12. The DOJ received feedback identifying significant barriers to successful implementation, including adequate staffing, appropriate training on the tool, and funding for expanding programs. The Department is providing an update on efforts to overcome those challenges and to successfully implement the FSA.

The Department agrees that appropriate staffing, training, and funding are three keys to successful implementation of the FSA, especially considering the expedited statutory timelines.

In terms of funding, BOP leadership has repeatedly stated that adequate funding is necessary to ensure successful implementation of the FSA. The Department is committed to implementing the FSA at whatever level of funding it is given, but agrees that more funding is crucial to the successful implementation of the Act. As stated above, the BOP took the initiative to redirect \$75 million in July 2019 to begin expanding inmate programming. BOP has used some of that money to increase staffing at female institutions and to enhance male and female trauma treatment and vocational training offerings.²¹ BOP has requested funds in the FY 2020 and FY 2021 budgets to continue program expansion.

Maintaining appropriate staffing levels is a second key to successful implementation. BOP has been actively focused on hiring new employees, especially program staff and case management staff, and as reflected above, has requested FY 2020 funding to enhance resources and staffing for program delivery. As part of this enhancement, the BOP is also seeking to amend the responsibilities and duties of BOP counselors, who are part of the Unit Team, to provide greater support for inmate program participation. Recently, BOP inmate-to-staff ratios were updated and approved by the BOP Executive Staff for Unit Management departments to ensure the successful implementation of the FSA.

²⁰ See https://beta.sam.gov/search?keywords=15BNAS20RFI0005&sort=-relevance&index=opp&is_active=true&page=1.

²¹ BOP is using a variety of strategies to very aggressively address its hiring challenges. These strategies include hiring seven contractors to supplement BOP's staffing unit in an effort to expedite hiring and hiring twenty temporary positions to help staffing and background investigation units to expedite hiring. BOP is also using incentives, including pay setting above the minimum rates, student loan repayment, annual leave credit, recruitment incentives, special salary rates, retention incentives, and relocation incentives to on-board more staff. Since March, BOP hiring has exceeded separations each month and that is tremendous progress. Staffing up fully is an ongoing process, and the timeline will vary at BOP institutions nationwide. Some sites can staff up quickly due to favorable applicant market conditions, but for others it will take more time.



TRAINING. BOP Unit Managers receive training at the FCC Victorville Complex in Victorville, CA.

Training is a third key to successful implementation. BOP has already deployed a comprehensive training program for relevant program areas responsible for portions of the risk assessment process.

Such training has included:

- All Wardens, Associate Wardens, Central Office Administrators, Public Information Officers, and Case Management Coordinators;
- BOP Regional Office and Privatization staff; and
- BOP Case Managers and Unit Managers in all 122 BOP institutions.

All case management staff have been trained and relevant programs staff received initial training in November 2019. Additionally, BOP is developing a National Training Conference for Correctional Counselors.

IV. Conclusion

Thanks to the helpful input from the IRC, NIJ's expert consultants, and stakeholders, the Department has launched an enhanced version of PATTERN. BOP has begun the process of assessing the risk levels and needs for every inmate and anticipates completing all risk assessments by the January 2020 statutory deadline. This tool, while enhanced, is not static. DOJ intends to monitor its use, study the data, and in consultation with the IRC, consider any improvements and adjustments that should be made for future assessments.

We appreciate the feedback and input and look forward to continuing to implement the FSA.

Attachment A

Examples of Scoring Under PATTERN 1.2 (Using General Risk Score)

1. Young Drug Offender Taking Multiple Programs

Male. 25-year-old male with a 5-year sentence for drug trafficking. Previously convicted for a felony aggravated assault at age 16, and a non-violent misdemeanor at age 21. No degree. Has a drug abuse problem.

- **Score at entry = 57 (High risk)**
 - 35 points for age, 16 for criminal history, 6 for history of violence
- **Model inmate score at release = 21 (Low risk)**
 - Completes maximum programs and no infractions.
 - -14 for aging, -2 for staying clean on history of violence, -4 for earning GED, -6 for completing RDAP, -8 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score at release = 32 (Medium risk, almost low)**
 - Completes 3 programs and 1 work program. Completes RDAP. Skipped GED class. Committed two minor infractions, but early in the prison term. Financially compliant.
 - -14 for aging, -2 for staying clean on history of violence, +2 for infractions, -6 for completing RDAP, -4 for programs, -1 for work program.
- **Non-compliant inmate score at release = 63 (High risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape (extremely rare, except minor escapes at a minimum-security camp).
 - -14 for aging, +1 for history of violence, +3 for infractions, +6 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +1 for financial non-compliance.

Hypothetical: Young Male Drug Offender with Good Opportunities in PATTERN			
	Model	Mixed	Non-compliant
Score at Entry	57	57	57
Aging	-14	-14	-14
History of Violence	-2	-2	+1
Earned GED	-4	0	0
Drug Treatment	-6	-6	0
Completed Programs	-8	-4	0
Completed Work Programs	-2	-1	0
Infractions	0	+2	+3
Serious Infractions	0	0	+6
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+1
Score at Release	21	32	63

Female. 25-year-old female with a 5-year sentence for drug trafficking. Previously convicted for a felony aggravated assault at age 16, and a non-violent misdemeanor at age 21. No degree. Has a drug abuse problem.

- **Score at entry = 47 (High risk)**
 - 25 points for age, 16 for criminal history, 6 for history of violence
- **Model inmate score = 15 (Low risk)**
 - Completes maximum programs and no infractions.
 - -10 for aging, -2 for staying clean on history of violence, -6 for earning GED, -8 for completing RDAP, -4 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score = 26 (Low risk)**
 - Completes 3 programs and 1 work program. Completes RDAP. Skipped GED class. Committed two minor infractions, but early in the prison term. Financially compliant.
 - -10 for aging, -2 for staying clean on history of violence, +2 for infractions, -8 for completing RDAP, -2 for programs, -1 for work program.
- **Non-compliant inmate score = 56 (High risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape.
 - -10 for aging, +1 for history of violence, +3 for infractions, +3 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +3 for financial non-compliance.

Hypothetical: Young Female Drug Offender with Good Opportunities in PATTERN			
	Model	Mixed	Non-compliant
Score at Entry	47	47	47
Aging	-10	-10	-10
History of Violence	-2	-2	+1
Earned GED	-6	0	0
Drug Treatment	-8	-8	0
Completed Programs	-4	-2	0
Completed Work Programs	-2	-1	0
Infractions	0	+2	+3
Serious Infractions	0	0	+3
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+3
Score at Release	15	26	56

2. “Average” Released Inmate (based on PATTERN dataset, which is biased toward short-term inmates)

Male. 36-year-old male with a drug charge for 2 years. Has two prior convictions, one of which was for a serious violent offense at least 15 years ago. Has a drug abuse problem and a degree (high school/GED).

- **Score at entry = 35 (Medium risk)**
 - 21 points for age, 16 for criminal history, 2 for history of violence, -4 for degree
- **Model inmate score = 19 (Low risk)**
 - Completes maximum programs (may be tough in 2 years) and no infractions.
 - -6 for completing RDAP, -8 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Average prison record score = 30 (Low risk, almost medium)**
 - Completed 1 program. Completes RDAP. Committed one minor (almost serious) infraction, about 11 months before release. Financially compliant.
 - +1 for infraction, +2 for only 11 months infraction-free time, -6 for completing RDAP, -2 for program.
- **Non-compliant inmate score = 59 (High risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape.
 - +5 for history of violence, +3 for infractions, +6 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +1 for financial non-compliance.

Hypothetical: Male “Average” Released Inmate			
	Model	Mixed	Non-compliant
Score at Entry	35	35	35
Aging	0	0	0
History of Violence	0	0	+5
Earned GED	0	0	0
Drug Treatment	-6	-6	0
Completed Programs	-8	-2	0
Completed Work Programs	-2	0	0
Infractions	0	+1	+3
Serious Infractions	0	0	+6
Clean Infraction History	0	+2	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+1
Score at Release	19	30	59

Female. 36-year-old female with a drug charge for 2 years. Has one prior conviction for a minor violent offense at least 15 years ago. Has a drug abuse problem and a degree (high school/GED).

- **Score at entry = 18 (Low risk)**
 - 15 points for age, 8 for criminal history, 1 for history of violence, -6 for degree
- **Model inmate score = 4 (Minimum risk, almost low)**
 - Completes maximum programs (may be tough in 2 years) and no infractions.
 - -8 for completing RDAP, -4 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Average prison record score = 10 (Low risk)**
 - Completed 1 program. Completes RDAP. Committed one minor infraction early in the prison term. Financially compliant.
 - +1 for infraction, -8 for completing RDAP, -1 for program.
- **Non-compliant inmate score = 42 (Medium risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape.
 - +6 for history of violence, +3 for infractions, +3 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +3 for financial non-compliance.

Hypothetical: Female “Average” Released Inmate			
	Model	Mixed	Non-compliant
Score at Entry	18	18	18
Aging	0	0	0
History of Violence	0	0	+6
Earned GED	0	0	0
Drug Treatment	-8	-8	0
Completed Programs	-4	-1	0
Completed Work Programs	-2	0	0
Infractions	0	+1	+3
Serious Infractions	0	0	+3
Clean Infraction History	0	+2	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+3
Score at Release	4	10	42

3. An Aging Career Criminal

Male. A 42-year-old male with a 20-year sentence for aggravated assault. Has 3 prior felonies and 7 misdemeanors. Earned a GED during a prior prison term. Has a drug abuse problem.

- **Score at entry = 62 (High risk)**
 - 14 points for age, 40 for criminal history, 7 for history of violence, 5 for violent instant offense, -4 for degree
- **Model inmate score = 27 (Low risk)**
 - Completes maximum programs and no infractions. Plenty of time for the programs, but tough to stay clean for 20 years.
 - -14 for aging, -5 for staying clean on history of violence, -6 for completing RDAP, -8 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score = 40 (Medium risk)**
 - Completes 9 programs and 2 work programs. Completes RDAP. Committed four minor infractions and two serious infractions. One infraction was a fight 8 years ago, but no infractions in the past year. Financially compliant.
 - -14 for aging, -4 for staying clean on history of violence, +6 for infractions, +4 for serious infractions, -6 for completing RDAP, -6 for programs, -2 for work program.
- **Non-compliant inmate score = 67 (High risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape.
 - -14 for aging, +3 for infractions, +6 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +1 for financial non-compliance.

Hypothetical: Male Aging Career Criminal			
	Model	Mixed	Non-compliant
Score at Entry	62	62	62
Aging	-14	-14	-14
History of Violence	-5	-4	0
Earned GED	0	0	0
Drug Treatment	-6	-6	0
Completed Programs	-8	-6	0
Completed Work Programs	-2	-2	0
Infractions	0	+6	+3
Serious Infractions	0	+4	+6
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+1
Score at Release	27	40	67

Female. A 42-year-old female with a 20-year sentence for a major drug trafficking offense. Has 3 prior felonies and 7 misdemeanors, but nothing violent. Earned a GED during a prior prison term. Has a drug abuse problem.

- **Score at entry = 44 (Medium risk)**
 - 10 points for age, 40 for criminal history, -6 for degree
- **Model inmate score = 20 (Low risk)**
 - Completes maximum programs and no infractions.
 - -10 for aging, -8 for completing RDAP, -4 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score = 28 (Low risk)**
 - Completes 9 programs and 2 work programs. Completes RDAP. Committed four minor infractions and two serious infractions. One infraction was a fight 8 years ago, but no infractions in the past year. Financially compliant.
 - -10 for aging, +3 for history of violence, +3 for infractions, +2 for serious infractions, -8 for completing RDAP, -4 for programs, -2 for work program.
- **Non-compliant inmate score = 59 (High risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Financially non-compliant. Did everything wrong except try to escape.
 - -10 for aging, +7 for history of violence, +3 for infractions, +3 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +3 for financial non-compliance.

Hypothetical: Female Aging Career Criminal			
	Model	Mixed	Non-compliant
Score at Entry	44	44	44
Aging	-10	-10	-10
History of Violence	0	+3	+7
Earned GED	0	0	0
Drug Treatment	-8	-8	0
Completed Programs	-4	-4	0
Completed Work Programs	-2	-2	0
Infractions	0	+3	+3
Serious Infractions	0	+2	+3
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+3
Score at Release	20	28	59

4. A White Collar Offender

Male. A 45-year-old male with a 3-year sentence for fraud. No prior record. Has a HS degree and no drug problems.

- **Score at entry = 1 (Minimum risk)**
 - 14 points for age, -4 for degree, -9 for no drug need
- **Model inmate score = -9 (Minimum risk)**
 - Completes maximum programs and no infractions.
 - -8 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score = -2 (Minimum risk)**
 - Completes 3 programs and 1 work program. Committed two minor infractions, but early in the prison term. Financially compliant.
 - +2 for infractions, -4 for programs, -1 for work program.
- **Non-compliant inmate score = 36 (Medium risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Another serious infraction was drug use, leading to a diagnosis that the inmate needs drug abuse treatment. Inmate refused treatment. Financially non-compliant. Did everything wrong except try to escape.
 - +7 for history of violence, +9 for untreated drug need, +3 for infractions, +6 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +1 for financial non-compliance.

Hypothetical: Male White Collar Offender			
	Model	Mixed	Non-compliant
Score at Entry	1	1	1
Aging	0	0	0
History of Violence	0	0	+7
Earned GED	0	0	0
Drug Treatment	0	0	+9
Completed Programs	-8	-4	0
Completed Work Programs	-2	-2	0
Infractions	0	+2	+3
Serious Infractions	0	0	+6
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+1
Score at Release	-9	-2	36

Female. A 45-year-old female with a 3-year sentence for fraud. No prior record. Has a HS degree and no drug problems.

- **Score at entry = -8 (Minimum risk)**
 - 10 points for age, -6 for degree, -12 for no drug need
- **Model inmate score = -14 (Minimum risk)**
 - Completes maximum programs and no infractions.
 - -4 for completing 11+ programs, and -2 for completing 2+ work programs.
- **Mixed prison record score = -9 (Minimum risk)**
 - Completes 3 programs and 1 work program. Committed two minor infractions, but early in the prison term. Financially compliant.
 - +2 for infractions, -2 for programs, -1 for work program.
- **Non-compliant inmate score = 29 (Low risk)**
 - Completes no programs. Commits 3 serious infractions in prison, of which one was a serious violent incident within 3 months of release. Another serious infraction was drug use, leading to a diagnosis that the inmate needs drug abuse treatment. Inmate refused treatment. Financially non-compliant. Did everything wrong except try to escape.
 - +7 for history of violence, +12 for untreated drug need, +3 for infractions, +3 for serious infractions, +6 for not being infraction-free, +3 for not being serious-infraction-free, +3 for financial non-compliance.

Hypothetical: Female White Collar Offender			
	Model	Mixed	Non-compliant
Score at Entry	-8	-8	-8
Aging	0	0	0
History of Violence	0	0	+7
Earned GED	0	0	0
Drug Treatment	0	0	+12
Completed Programs	-4	-2	0
Completed Work Programs	-2	-1	0
Infractions	0	+2	+3
Serious Infractions	0	0	+3
Clean Infraction History	0	0	+6
Clean Serious Infraction History	0	0	+3
Financial Compliance	0	0	+3
Score at Release	-14	-9	29

Appendix I: Technical Corrections

The following errata were identified in the July report after publication:

1. On page 45, the report states: “Federal industry employment, also known as UNICOR, was indicated ‘yes’ if the individual worked in UNICOR during *his or her* (emphasis added) current incarceration.” The original version of PATTERN only scored this item for women. For operational reasons, BOP already collects this information for both genders, which also addresses any research needs.
2. On page 45, both infraction items are described as including all guilty findings “that the inmate has incurred during the current incarceration.” In fact, under the original PATTERN, this element should have included all guilty findings from the past 10 years, including past BOP incarcerations. However, this error, has been rendered moot because the revised version of PATTERN will only count misconduct during the current incarceration period.
3. On page 45, the report describes the Number of Programs Completed item as including drug treatment, which was incorrect. Other items already covered drug treatment. The Number of Programs Completed item was modeled with Adult Continuing Education, parenting, technical, and vocational courses, and it was only intended to count those courses. However, this issue is rendered moot in the revised version of PATTERN.
4. The Offense Severity item was not included in the descriptive statistics (page 48) and had its header deleted at the end of the scoring table (page 56). Offense Severity was part of the PATTERN violence scores, so it should have been fully included in the report. However, it has been dropped for the revised version of PATTERN.
5. On page 48, the values of “BRAVO-R Initial: History of Escapes” do not add to 100%. The correction is that the “none” category should have been 87% instead of 74%.
6. Several items in PATTERN derive from BRAVO, but the descriptive statistics table (page 48) describes those items as coming from BRAVO-R; technically, all PATTERN items came from BRAVO, not BRAVO-R. BRAVO-R uses the same items as BRAVO, with different scores for the items. PATTERN was developed using BRAVO’s items and scores, not BRAVO-R’s scores.
7. The scoring for the male general recidivism scores was switched between the two infraction items on page 54. Serious infractions are instead worth 0, 3, 6, or 9 points and all infractions are worth 0, 2, 4, or 6 points.
8. The Education item should be scored as 0, -1, and -2. On page 56, the report indicated it was 1, 0, and -1.
9. The Voluntary Surrender item incorrectly reports the violence scores as -1 and -2 for men and women on page 56. Those are the weights, not the scores. The actual scores should be -3 and -6, respectively.

Two other items related to the discussion of PATTERN in the RNAS report warrant clarification:

1. On page 72 and 73, the report states the Designation, Sentencing and Computation Center (DSCC) completes the first PATTERN assessment for each inmate. The BOP has determined that the inmate's Unit Team, which meets within the inmate's first month of arrival at the institution, will complete the first PATTERN assessment.
2. On page 47, the "Drug treatment while incarcerated" item indicated 57% of the sampled inmates had a drug treatment need but received no treatment. This statistic is misleading and has generated significant confusion. According to a recent evaluation of RDAP, 0.6% of inmates who needed and signed up for RDAP drug treatment did not get a chance to participate in RDAP before release, not 57% of all inmates. PATTERN's drug treatment item measured "drug treatment need" by using the "drug/alcohol abuse" item from the Bureau's Risk and Verification Observation (BRAVO) risk instrument. This BRAVO item was originally intended to be used internally by BOP to measure substance abuse within the past five years. However, in accordance with BOP's classification policy, this item also includes any inmates with "a conviction of a drug or alcohol-related offense." Consequently, this item accidentally counts drug dealers and traffickers as having a drug need, even if they do not use drugs themselves. It would be more accurate to say that 57% of sampled inmates have an untreated "potential drug need," with a very loose definition of potential drug need. It does not indicate a confirmed, untreated drug need. Within BOP, inmates are identified as eligible for RDAP after a Psychology Services evaluation where treatment staff examine conduct for the past year. More importantly, participation in programs is voluntary and inmates may refuse engagement, which also reduces the number of inmates with a drug need that actually receive treatment. In the future, PATTERN will switch to a more appropriate, accurate measure of drug need as soon as it becomes available in a centralized database.

Appendix II: Revised Points Assigned in the PATTERN Risk Assessment Models

(Previously published on pages 53-56 of the July report.)

The table below displays the scores assigned to the items used to develop PATTERN. Each column represents a different gender and outcome-specific prediction model, i.e., general or violent recidivism. Cell values represent response scores, where blank cells indicate items not identified as predictive for a given model. For example, the score for a male over the age of 60 in the general recidivism category for the item 'age at time of assessment' is 0. Larger values indicate greater prediction strength for a given model. Each individual's response scores are summed to compute a total score.

Item	General Male	Violent Male	General Female	Violent Female
Age at time of assessment				
> 60	0	0	0	0
< 50, <= 60	7	4	5	1
> 40, <= 50	14	8	10	2
> 29, <= 40	21	12	15	3
> 25, <= 29	28	16	20	4
>= 18, <= 25	35	20	25	5
Infraction convictions (any) current incarceration				
0	0	0	0	0
> 0, <= 1	1	1	1	1
> 1, <= 2	2	2	2	2
> 2	3	3	3	3
Infraction convictions (serious and violent) current incarceration				
0	0	0	0	0
> 0, <= 1	2	2	1	1
> 1, <= 2	4	4	2	2
> 2	6	6	3	3
Infraction-Free (any)				
None/ 12 months+	0	0	0	0
7-12months	2	1	2	1
3-6months	4	2	4	2
<3 months	6	3	6	3
Infraction-Free (serious and violent)				
None/ 12 months+	0	0	0	0
7-12months	1	2	1	1
3-6months	2	4	2	2
<3 months	3	6	3	3

Item	General Male	Violent Male	General Female	Violent Female
Number of programs completed (any)				
0	0	0	0	0
1	-2	-1	-1	-1
> 1, <= 3	-4	-2	-2	-2
> 3, <= 10	-6	-3	-3	-3
> 10	-8	-4	-4	-4
Work Programming				
0	0	0	0	0
> 0, <= 1	-1	-1	-1	-1
> 1	-2	-2	-2	-2
Drug treatment while incarcerated				
<i>No need indicated</i>	-9	-3	-12	-3
<i>Completed residential drug treatment during incarceration</i>	-6	-2	-8	-2
<i>Completed drug treatment during incarceration</i>	-3	-1	-4	-1
<i>Need indicated but no treatment during incarceration</i>	0	0	0	0
Non-Compliance with financial responsibility				
<i>No</i>	0	0	0	
<i>Yes</i>	1	1	3	
Instant offense violent				
<i>No</i>	0	0		0
<i>Yes</i>	5	5		3
Sex offender (Walsh)				
<i>No</i>	0			
<i>Yes</i>	1			
Criminal History Score				
0-1 points	0	0	0	0
2-3 points	8	4	8	4
4-6 points	16	8	16	8
7-9 points	24	12	24	12
10-12 points	32	16	32	16
13+ points	40	20	40	20
History of Violence				
<i>None</i>	0	0	0	0
>10 years minor	1	1	1	1
>15 years serious	2	2	2	2
5-10 years minor	3	3	3	3
10-15 years serious	4	4	4	4
<5 years minor	5	5	5	5
5-10 years serious	6	6	6	6
<5 years serious	7	7	7	7

Item	General Male	Violent Male	General Female	Violent Female
History of Escapes				
<i>None</i>	0	0	0	0
<i>>10 years minor</i>	2	1	3	2
<i>5-10 years minor</i>	4	2	6	4
<i><5 years minor or any serious</i>	6	3	9	6
Education Score				
<i>HS degree or GED -</i>				
<i>Verified</i>	-4	-2	-6	-2
<i>Enrolled and progressing in</i>				
<i>GED</i>	-2	-1	-3	-1
<i>No verified degree and not</i>				
<i>participating in GED</i>				
<i>program</i>	0	0	0	0