# Revising the Pretrial Risk Assessment (PTRA): Promising Options

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THE SPEEDY TRIAL ACT of 1974 authorized the creation of 10 demonstration pretrial services agencies with duties that included verifying and reporting information to the judicial officer about federal defendants and recommending appropriate release conditions (Cadigan, 2007). In the hearings before Congress regarding the expansion of pretrial services from the 10 demonstration agencies to all federal jurisdictions, policymakers and judges presented the value of pretrial services to judicial officers in assisting with decision-making regarding release decisions. For example, Judge Morris E. Lasker noted, regarding the information gathered by pretrial services and the ability and willingness to supervise defendants, that "the judicial officer feels much easier about releasing a defendant on bail." Senator Ervin explained, "[I]t is common knowledge that many Federal judges are reluctant to release defendants pursuant to the Act... This situation exists because district courts do not have personnel to conduct interviews of...arrested defendants." The sentiment at the time indicated that pretrial services offices were an asset to advancing the preference for pretrial release established by the Bail Reform Act of 1966 and retained in the Bail Reform Act of 1984 (Wanger, 1987). After pretrial services offices were deemed a "good thing" to enhance the federal pretrial system, the Pretrial Services Act of 1982 inserted pretrial services into the federal criminal justice system (Cadigan, 2007).

The decision associated with the release or detention of pretrial defendants has been recognized as one of the most critical components of the criminal justice process (McCoy, 2007; Oleson et al., 2014 & 2017; Cohen et al., 2018; Cohen & Lowenkamp, 2019; & St. Louis, 2023) and the rising federal detention rate has frequently been identified as a concern for the system (Rowland, 2018; Austin, 2017; Austin et al., 2024). Under the statute, pretrial services has a core duty of assisting with judicial decision-making regarding the release of pretrial defendants. Specifically, Section 3154 of Title 18 of the United States Code outlines one duty of pretrial services as, "Collect, verify and report to the judicial officer, prior to the pretrial release hearing, information pertaining to the pretrial release of each individual charged with an offense, including information relating to any danger that the release of such person may pose to any other person or the community" and "...include a recommendation as to whether such individual should be released or detained, and if release is recommended, recommend appropriate conditions of release..." (18 U.S.C. §3154(1)). In engaging in that role, pretrial services officers take into consideration the same factors judicial officers consider in making a release decision, with the exception of three specific factors: the weight of the evidence, the presence of the statutory presumption for detention (Austin, 2017), and the potential penalty for the offense charged.<sup>1</sup> As a result, federal probation and pretrial services officers regularly make recommendations that are documented as influential in pretrial decision-making. In fact, recent research has shown that recommendations for detention by officers strongly correlate with judicial decisions for detention (Skeem et al., 2023).

Based on the duty of pretrial services officers to make influential recommendations on the decision for release or detention of pretrial defendants, the Probation and Pretrial Services Office (PPSO) within the Administrative Office of the U.S. Courts (AO), the office tasked with oversight of the work of probation and pretrial services officers (Lowenkamp et al., 2023), has engaged in several efforts to assist pretrial services officers in fulfilling the mission of pretrial services. Specifically, these efforts have focused on aiding officers in decision-making regarding releasing pretrial defendants. To date, one of the most valuable developments of PPSO has been the creation of the federal pretrial risk assessment tool known as PTRA (Pretrial Risk Assessment). The PTRA is an actuarial risk assessment instrument used to identify a defendant's likelihood of engaging in pretrial misconduct, such as failing to appear for court, committing criminal activity, or engaging in conduct that

<sup>&</sup>lt;sup>1</sup> The Administrative Office of the U.S. Courts: *Guide to Judiciary Policy*, Volume 8, Part A. This document is available internally to employees of the Judiciary only.

results in revocation of pretrial release; it is one of the key tools federal pretrial services officers rely on when engaging in pretrial decision-making (Lowenkamp & Whetzel, 2009; Cadigan & Lowenkamp, 2011; Cadigan, Johnson, & Lowenkamp, 2012; Cohen et al, 2018). Yet, despite the availability and administration of this reliable risk assessment tool in the federal system, the federal pretrial system has continued to see steady increases in the overall detention rate and rates associated with officer recommendations for detention,<sup>2</sup> indicating room for additional improvements.

Since the PTRA is consistently used in the federal pretrial services system, ongoing research must be conducted to ensure its validity (Cohen & Lowenkamp, 2019). This report is intended to achieve two primary goals. First, it provides a synopsis of key findings from a recent study that sought to once again establish the predictive validity of the PTRA on a large sample of released federal defendants to support further officer reliance on the PTRA in pretrial decision-making. Additionally, this article presents possible revisions to the current PTRA to further aid officers and other outside stakeholders, particularly judicial officers, in pretrial decision-making for the federal pretrial system. The goal is to assist all system stakeholders in making risk-informed pretrial decisions.

# **Risk Assessment in Pretrial Work**

The use of actuarial risk assessment in pretrial work predates that done in other areas of criminal justice (Cadigan et al., 2012). Several influential organizations such as the American Bar Association (ABA), the National Institute of Justice (NIJ), and the National Association of Pretrial Services Agencies (NAPSA) have issued recommendations about adopting and using standardized guidelines such as risk assessments in assisting with bail decisions (Lowenkamp et al., 2008). Pretrial risk assessment instruments were designed to overcome limitations associated with human decisionmaking that can lead to biased or unfair decisions in pretrial work by forecasting the likelihood of defendants failing to appear in court or committing a new crime while on pretrial release (Desmarais et al., 2021). Research has shown that, compared to unassisted decision-making, risk assessment instruments can

lead to better decision-making for those operating in the criminal justice system (Kleinberg et al., 2017; Angelova, Dobbie, & Yang, 2022; Montoya, Skeem, & Lowenkamp, 2024).

Pretrial risk assessment tools are used in many jurisdictions to inform the pretrial release decision and the choice of appropriate conditions of release, and they have been regarded as a strategy to advance pretrial reform (Desmarais et al., 2021). In fact, in a survey on pretrial practices across the United States, approximately two-thirds of surveyed counties used a pretrial risk assessment tool (Desmarais et al., 2021). However, recently, concerns have been noted that pretrial risk assessment instruments contribute to racial disparity (Desmarais et al., 2022). Still, research has documented that pretrial risk assessment instruments are a promising tool in helping to reduce pretrial detention (Kleinberg et al., 2017; Montoya et al., 2024), have fair to excellent predictive validity in predicting pretrial outcomes (Zottola et al., 2021), and have predictive validity that is generally comparable across racial and ethnic subgroups (Cohen et al., 2018; Desmarais et al., 2022). Thus, they are designed to "... increase pretrial release rates while limiting pretrial misconduct and maintaining public safety" (Lowder et al., 2023).

### Risk Assessment in the Federal Pretrial Services System

In the federal system, the use of actuarial pretrial risk assessment was initially explored when the Office of Federal Detention Trustee (OFDT), a former agency in the Department of Justice that was responsible for the efficient and fair expenditure of funds associated with federal detention programs, sponsored a study with the support of the AO (VanNostrand & Keebler, 2009; Cohen & Lowenkamp, 2019). The purpose of the study was twofold: To "identify statically and policy-relevant predictors of pretrial outcome to identify federal criminal defendants who are most suited for pretrial release without jeopardizing the integrity of the judicial process or safety of the community ... and to "develop recommendations for the use of OFDT funding that supports the Federal Judiciary's alternatives to detention program" (VanNostrand & Keebler, 2009, p. 1). The most important recommendation of the study was that the results be used to develop a "standardized empirically-based risk assessment instrument to be used by federal pretrial services" (VanNostrand & Keebler, 2009, p. 7). The study noted that the risk

assessment tool would help reduce disparity in risk assessment practices, serve as a foundation for evidence-based practices (EBP) in release and detention recommendations, and allow for developing policies regarding release and detention recommendations.

## The PTRA

Research has documented the development of the PTRA and its implementation (Lowenkamp & Whetzel, 2009; Cadigan & Lowenkamp, 2011; Cadigan, Johnson, & Lowenkamp, 2012; Cohen & Lowenkamp, 2019). In short, the PTRA was initially constructed based on data from the OFDT-funded study conducted in 2009 (Cadigan et al., 2012). The study comprised federal defendants granted pretrial release between the years 2001 and 2007 (the final sample size varied between 185,000 and 215,000 released defendants) and resulted in the identification of nine items that were incorporated into the tool's scoring algorithm, including the current offense, factors related to the defendant's criminal history, employment status, residence status, and substance abuse. Eleven items were ultimately incorporated into the PTRA, including age and educational attainment. A detailed overview of the PTRA development and scores associated with the instrument can be found in several publicly available articles (Lowenkamp & Whetzel, 2009; Cadigan & Lowenkamp, 2011; Cadigan, Johnson, & Lowenkamp, 2012; Cohen & Lowenkamp, 2019). As a result of the study, PPSO constructed and validated the PTRA and ultimately implemented it in 2010 (Lowenkamp & Whetzel, 2009; Cohen et al., 2018; Cohen & Lowenkamp, 2019) to be used in connection with a thorough investigation and the pretrial services officer's professional judgment.

Because the PTRA is used extensively in the federal pretrial system, there is a need for ongoing, comprehensive research that addresses its validity. The PTRA was constructed in 2009 and validated shortly after that in 2011 (Cadigan et al., 2012). In 2018, a large study was conducted to evaluate the predictive efficacy of the tool further (Cohen et al., 2018). That study involved 85,369 released defendants with PTRA assessments completed during their intake between 2009 and 2015. Findings in the study revealed the PTRA continued to perform well in predicting pretrial violations of various categories, including new criminal arrests for violent offenses. As a result, the PTRA continues to be widely used by pretrial services officers in the federal pretrial system. Recent

<sup>&</sup>lt;sup>2</sup> According to Table H-3 of the Federal Pretrial Services Statistical Tables for the Federal Judiciary, for the 12-month period ending December 31, 2023, pretrial services officers recommended detention in 65.5 percent of cases activated.

PPSO records reflect the PTRA is currently completed timely, before the judicial decision (Valdez Hoffer, 2018), in approximately 82 percent of federal pretrial cases.<sup>3</sup>

Despite findings confirming that the PTRA performs well, over the years pretrial services officers have been hesitant to incorporate it into their decision-making process (Cohen et al., 2018). As of 2014, the PTRA was completed in a timely, useful manner in only half of all cases (Cohen et al, 2018). Additionally, through various educational and collaborative efforts to address the rising detention rate, PPSO has learned of concerns associated with PTRA that include a perception it fails to address the danger posed by defendants and its failure to assess all the factors required for consideration under 18 USC §3142(g).

#### **Present Study: The PTRA**

The current study sought first to provide an updated evaluation of the PTRA's predictive efficacy. The sample used for this study is drawn from pretrial activations between fiscal years 2016 and 2022. To be included in the study, the observation had to have a PTRA score completed by an officer, and the case had to be closed by the end of fiscal year 2022. These criteria led to a sample size of 243,454 observations. Of those, 114,827 were released during pretrial. Figure 1 shows the distribution of the total PTRA scores for detained and released populations. There is approximately 60 percent overlap between these two populations (indicated by the light gray shading). In Figure 1, there are three colors of shading. The white shading represents the distribution of scores for the released population. The darkgray shading represents the distribution of scores for the detained population. The lightgray shading represents areas where there is an overlap of the two distributions. So, for example, focusing on a PTRA score of seven, roughly 14 percent of the released sample has a PTRA score of seven (evidenced by the white shaded bar). Roughly 10 percent of the detained sample has a PTRA score of seven (evidenced by the light-gray shaded bar). Focusing now on a PTRA score of eight, it can be seen that roughly 12 percent of the released sample has a PTRA score of eight (lightgray shading) and roughly 16 percent of the detained sample has a PTRA score of eight.

<sup>3</sup> PTRA completion rates solely refer to the date of completion in relation to the date of the judicial decision and do not include a comparison of PTRA score to recommendation to demonstrate officer reliance.

The average risk score for the detained sample is somewhat higher than that for the released sample (8.75 versus 6.13; t(230,597) = 260.44; p < 0.001). While Figure 1 does not contain mean PTRA total scores for each group, it is readily observable that the detained sample is at higher risk (dark grey shading), while the released sample is at lower risk (no shading). The average risk scores and distributions for the detained and released samples contain important information, as previous research has not reported on the risk scores of the detained sample. This information demonstrates that while the two groups differ in average risk scores and the distribution of risk scores, there is substantial overlap between the two groups and released and detained defendants at each PTRA score. While the two groups might, and probably do, differ on other unmeasured factors, the information contained in Figure 1 and this paragraph might assuage, to some degree, concerns that the released and detained populations are too different to use existing pretrial failure rates to estimate likely failure rates if a greater percentage of detainees were released.

Turning to the sample of released defendants used for this validation study, Table 1 contains descriptors of the sample. The sample in this study is standard for a sample of released defendants from the federal courts. Seventy-two percent of the sample is male, and most of the majority is White (62 percent). About one-quarter of the sample is identified as being Hispanic. The overwhelming majority of defendants are charged with a drug, property, or firearms offense (combined roughly 75 percent). The average age of the sample is 38 years, and the average PTRA score is 6.13. The failure rates are also fairly typical for federal pretrial defendants at 1.64 percent for FTA, 8.13 percent for an arrest for any offense, and 1.54 percent for an arrest for a violent offense. Almost 11 percent of the released defendants are subsequently revoked, and almost 17 percent experience one of the outcomes mentioned above.

Table 2 presents the failure rates for each of the five outcomes by risk category and the AUC-ROC values generated for the Total PTRA score and each of the five outcomes. Consistent with earlier research on the PTRA and pretrial risk assessment in general, the AUC-ROC values in Table 2 are all in the good to excellent or moderate to large range. Further, there is an increase in the failure rates as one moves from one category to the next. While some of the differences between risk categories might not be practically meaningful due to low overall base rates (e.g., FTA/ Absconsion and arrest for a violent offense), the failure rates associated with other individual outcomes and combined outcomes are practically meaningful when allocating resources by risk.

Figures 2a through 2e present the varying failure rates by total PTRA score. The average failure rate for each score is represented by a

#### FIGURE 1.

Distribution of PTRA Scores for Released and Detained Defendants



diamond, and the 95 percent confidence interval for each point estimate is represented by

### TABLE 1. Sample Characteristics

Variable	N	%
Sex		
Male	82,295	71.68
Female	32,508	28.32
Missing	24	0.02
Race		
Asian	2,680	2.33
Black	34,141	29.73
Native American	3,984	3.47
Other	875	0.76
Pacific Islander	581	0.51
White	71,693	62.44
Missing	873	0.76
Hispanic Origin		
Yes	29,279	25.50
No	81,888	71.31
Missing	3,660	3.19
Offense Type		
Drug	40,169	34.98
Escape or Obstruction	1,040	0.91
Firearms	13,365	11.64
Immigration	8,658	7.54
Property	33,580	29.24
Public Order	4,416	3.85
Sex Offense	5,471	4.76
Other	2168	1.89
Violence	5,597	4.87
Missing	363	0.32

# TABLE 2.Predictive Validity of the PTRA for Five Outcomes

Outcome	Ν	AUCROC	Lower	Upper
FTA/Absconding	114,827	0.706	0.689	0.723
Arrest for Any Offense	114,827	0.675	0.666	0.684
Arrest for Violent Offense	114,827	0.680	0.661	0.699
Revocation	114,827	0.713	0.705	0.720
Any Adverse Event	114,827	0.707	0.701	0.713

the "whiskers" extending from each diamond. The point estimates do not significantly differ

Variable	Ν	%
Offense Class		
Felony	104,838	91.30
Misdemeanor	9,624	8.38
Missing	365	0.32
PTRA Category		
I	33,144	28.86
II	28,690	24.99
Ш	31,215	27.18
IV	16,538	14.40
V	5,240	4.56
FTA/Abscond	1,888	1.64
Arrest Any Offense	9,340	8.13
Arrest Violent Offense	1,765	1.54
Revoked	12,308	10.72
Any Adverse Event	18,976	16.53
PTRA Score	6.13	2.62
Age	38.00	13.15

when the confidence intervals overlap. For some outcomes, such as FTA/Absconsion and violence (Figures 2a and 2c), it is apparent that the different scores can be grouped into categories from a statistical and practical standpoint. However, for outcomes like arrest for any offense, revocation, and any adverse event, many of the scores are meaningful and statistically differ from the point estimates of the neighboring scores.

For example, Figure 2e presents the failure rates defined as "any adverse event" for each PTRA score (ranging from 0 to 13). With a few exceptions, failure rates for each score significantly differ from those in the scores next to it. More specifically, the failure rates between 1 and 2, 10 and 11, 11 and 12, and 12 and 13 do not differ from one another to a statistically significant degree (p > 0.01). Such a finding is not unusual and usually leads to the creation of risk categories. Even so, the information in Figure 2e indicates that it might be beneficial to use the risk scores when reporting normative information on the PTRA or increase the total number of categories beyond the current number of risk categories on the PTRA.

# Preliminary PTRA Revision Analysis

While the current data indicates that the PTRA is still valid in predicting pretrial outcomes, we conducted additional analyses to explore a revision to the PTRA. The additional analyses had two goals: the first was to improve accuracy, and the second was to address the field's concerns about the content of the PTRA (such as that it lacks complete coverage of the 3142(g) factors).

Currently, the PTRA generates one risk score representing a risk category associated with the likelihood of pretrial failure (Cadigan et al., 2012), which is defined in several ways. Following the work of VanNostrand & Lowenkamp (Laura & John Arnold Foundation, 2014), we conducted additional analyses to explore the potential for three scores to better inform pretrial decisionmaking (we refer to this as a "major revision"). The analyses determined that it is, in fact, possible, based on available data, to create three separate scores to specifically assess the risk of failure to appear, the risk of new criminal arrest for any offense, and the risk of dangerousness (as defined by a new arrest for a violent, weapons, sex, or drug trafficking offense). The FTA scale included 13 factors,4

 $^4\,$  The FTA scale factors included age, criminal justice status, drugs used, class of offense (Class A or B

the dangerousness scale (defined as an arrest for a violent, weapons, sex offense or trafficking in drugs) included 19 factors,<sup>5</sup> and the scale predicting an arrest for a non-dangerous offense included 14 factors.<sup>6</sup> The AUC-ROC values for each scale were 0.68, 0.74, and 0.71 for FTA, arrest for a dangerous offense, and arrest for a non-dangerous offense, respectively. These values are slightly higher than the AUC-ROC values that are generated with the existing PTRA; however, these scales require the scoring of additional factors not currently on the PTRA.

Given the significant increase in the number of factors7 to create the three scales, we also attempted to create a revised PTRA that addresses some of the concerns about the original PTRA (such as that the PTRA was not developed to predict violence or dangerousness specifically), but that maintained its relative brevity (we refer to this as a "minor revision"). Specifically, in addition to eight items included in the current PTRA,8 we added the following: prior felony violent convictions, age at first arrest for a violent offense, criminal justice status at arrest or prior arrest while on supervision, Class A or B felony offense, if the defendant was under supervision at the time of the offense, and total number of felony counts in the current offense. This exercise proved somewhat successful, too, as we were able to generate

felony), offense type, prior non-dangerous offense, residential status, education status, employment status, prior failure to appear, pending charges, substance abuse history, and citizenship.

<sup>5</sup> The dangerousness scale factors included age, age at first arrest, criminal justice status, criminal activity while under supervision, criminal associations, current drug offense, current or past child victim, current dangerous offense, felony charge, history of weapon use, pattern of similar activity, prior dangerous offense, residential status, employment status, pending charges, substance abuse history, safety concerns for a person, time arrest-free, and violent behavior history.

<sup>6</sup> The non-dangerous arrest scale factors included age, age at first arrest, criminal justice status, criminal activity while under supervision, criminal associations, current offense type, prior felony counts, pattern of similar activity, residential status, prior convictions, pending charges, substance abuse history, time arrest-free, and prior failures to appear.

<sup>7</sup> From 11 in the current PTRA to 32 unique factors in the major revision.

<sup>8</sup> The PTRA items included in the minor revision were number of felony convictions, prior failures to appear, pending felonies or misdemeanors, current offense type, age, educational attainment, residential status, and citizenship status. AUC-ROC values in the good to excellent range for each outcome of interest by changing the weighting of the current PTRA factors, eliminating some, and then adding a small number of additional factors related to predicting arrests for new criminal offenses (both dangerous and non-dangerous). Thus, with these items, we were able to predict outcomes (FTA, likelihood of committing a dangerous offense, and likelihood of committing a non-dangerous offense) with the same level of accuracy as in the major revision.

In summary, the analyses we conducted provided some promising results. First, the original PTRA remains a valid predictor of pretrial outcomes of interest. Second, while the difference in failure rates across risk categories might not be large, the differences for some outcomes are statistically significant, and the failure rates at the limits of the scale likely provide some meaningful information for practice. Third, for non-violent offense, revocation, and the combined measure, any adverse event, the failure rates across categories are statistically significant and practically meaningful. Sometimes the failure rates on these outcomes across *individual PTRA scores* are practically and statistically significant. This finding might provide some guidance as we continue to consider how to best present risk assessment results to maximize use by officers and other stakeholders.

The additional analyses related to developing a PTRA revision also provided promising results. First, by creating new scales sensitive to each of the individual outcomes of interest,

#### TABLE 3.

Failure Rates by Risk Category for Five Outcomes

PTRA Category	Ν	FTA/ Abscond	Arrest Any Offense	Arrest Violent Offense	Revoked	Any Adverse Event
I	33,144	0.35	2.95	0.49	2.54	5.01
II	28,690	1.08	6.24	1.09	7.74	12.44
III	31,215	2.23	10.24	1.99	14.38	21.55
IV	16,538	3.31	14.9	2.91	20.84	30.86
V	5,240	4.16	17.44	3.61	24.96	36.55
All	114,827	1.64	8.13	1.54	10.72	16.53
AUC-ROC Full Score	114,827	0.706	0.675	0.680	0.705	0.701

# FIGURE 2a.

FTA/Absconsion Rate by PTRA Score



we increased accuracy in predicting arrest for a dangerous offense and for a non-dangerous offense. Second, we could maintain most of the increase in predictive accuracy even when reducing the number of factors in the "major" revision (i.e., the minor revision). Third, with both the major and minor revisions, we are able to address some of the concerns officers have expressed about the coverage of the 3142(g) factors in the PTRA and the prediction of dangerousness.

#### FIGURE 2b. Arrest Rate for Any Offense by PTRA Score



**Directions Forward** 

This study revalidated the original PTRA,

demonstrating that it remains a valid risk

assessment instrument for pretrial decision-

making. Additionally, an expanded analysis

of the PTRA was conducted to identify addi-

tional factors that can be incorporated into

it to assist not only federal pretrial services

officers but potentially judicial officers in

pretrial decision-making. It should be noted

that the potential revisions contained in this

FIGURE 2c. Arrest Rate for Violent Offense by PTRA Score



manuscript are examples of possible directions to take in revising the PTRA. Ultimately, the decision to revise the PTRA and the exact direction any revisions take will depend, to some degree, on input from the field.

#### Expanding the Use of PTRA for Officers

Over the years, pretrial services officers have hesitated to accept the PTRA as part of their decision-making process (Cohen et al., 2018). Pretrial risk assessments, including the PTRA, have been regarded as a favorable method to address pretrial concerns associated with pretrial decision-making and have been shown to continuously demonstrate good to excellent predictive accuracy (Desmarais et al., 2022; Cohen et al., 2018). Simulation studies relying on actuarial risk assessment to shape pretrial decision-making have demonstrated increased release rates with no impact on public safety (Kleinberg et al., 2017; Montova et al., 2024), benefits that accrue disproportionately to Black defendants, and large reductions in detention costs while maintaining public safety (Montoya et al., 2024). As such, efforts must continue to advance the consistent use of the PTRA. Thus, if incorporating the expanded factors outlined above into the PTRA could increase officers' feelings of ease in recommending release, PPSO should construct an updated PTRA that incorporates those items.

Additionally, while this study has primarily focused on pretrial decision-making as a function of pretrial investigative work, it is also important to address pretrial supervision, another statutory duty of pretrial services officers, as another critical component in the mission of pretrial services to reduce unnecessary detention. As previously noted, when policymakers and other stakeholders were assessing the value of pretrial services to the criminal justice process following the study of the 10 pretrial services demonstration agencies, the stakeholders clearly indicated that the ability of pretrial services to supervise pretrial defendants on pretrial release was also critical to judges feeling confident in releasing defendants on bail (Wanger, 1987). Thus, one primary purpose of the Pretrial Services Act of 1982 was to increase release rates by placing defendants who would be detained into pretrial supervision programs (Cohen & Austin, 2018). As a result, there have been significant increases in the number of defendants on federal pretrial supervision.9

<sup>9</sup> According to Table H-7 of the Federal Pretrial Services Statistical Tables for the Federal Judiciary,

While there are growing numbers of studies of pretrial risk assessments to assist with the initial release decision, there are fewer studies that evaluate the use of risk assessment to inform pretrial supervision, even though nearly half of all local jurisdictions report using pretrial supervision as a component of pretrial reform (Lowder & Foudray, 2021). Research has found issues with decision-making regarding pretrial release and court-ordered conditions (Zettler et al., 2022). Further, pretrial agencies do not always approach work following the risk principle (Lowder & Foudray, 2021). A concern exists regarding the use of pretrial supervision and conditions, because conditions expose defendants to pretrial detention based on revocation of pretrial release for noncompliance (Bechtel et al., 2022; Bechtel et al., this volume), and studies have shown<sup>10</sup> consequences for revocation of pretrial release, including longer imprisonment sentences (Oleson et al., 2014).

Pretrial risk assessment tools may assist with the appropriate level and type of supervision (Lowder & Foudray, 2021). For example, when applying the PTRA, a "category one [can be] associated with release with no conditions, while the remaining four categories propose gradually increasing supervision intensity" (Bechtel et al., 2022). The analysis presented in this report has shown that, at least initially, the PTRA may be a reliable tool to assist federal pretrial officers with pretrial supervision. Thus, future efforts to inform pretrial decision-making should continue to include attention to supervision while on pretrial release.

# Expanding the Use of PTRA: A Tool for Judges?

To date, there is no known actuarial risk assessment tool for federal judges engaging in pretrial decision-making. Instead, judges are directed under Section 3142(g) of Title 18 of the United States Code to consider several factors not necessarily established in the literature correlating with the risk of pretrial failure. Specifically, under the statute, judicial officers are ordered to consider the nature and circumstances of the offense, including whether the offense is a crime of violence, a violation

the 12-month period ending March 31, 2024 reflects 28, 566 defendants were under pretrial supervision.

<sup>10</sup> The federal risk principle outlines that low-risk defendants are most likely to succeed if released pretrial, and alternatives to detention are most appropriate for moderate- to high-risk pretrial defendants (VanNostrand & Keebler, 2009).

of section 1591, a federal crime of terrorism, or involves a minor victim or controlled substance, firearm, explosive, or destructive device; the weight of the evidence against the person; the history and characteristics of the person, including the person's character, physical and mental condition, family ties, employment, financial resources, length of residence in the community, community ties, past conduct, history relating to drug or alcohol abuse, criminal history, and record concerning appearances at court proceedings and whether, at the time of the current offense or arrest, the person was on probation, parole, or other release pending trial, sentencing, appeal, or completion of sentence for an offense under federal, state, or local law; and the nature and seriousness of the danger to any person or the community that would be posed by the person's release. As a result of this statutory obligation, judges have expressed concerns about considering the PTRA in

#### FIGURE 2d. Revocation Rate by PTRA Score



FIGURE 2e. Rate of Any Adverse Event by PTRA Score



judicial decision-making, because it does not address all the required statutory factors. Though recent studies have shown minimal impacts on release rates, others have documented that when judges use risk assessment results in pretrial decision-making, pretrial release rates sometimes increase (Bechtel et al., 2024; Desmarais et al., 2022). While preliminary analyses in this study indicated the possibility of including a larger set of the factors listed in 3142(g), if there is interest in providing judges with the results of an actuarial risk assessment that covers most, if not all, of the factors they are directed to consider in making pretrial release decisions, then additional analysis will be required. Even so, based on the preliminary research conducted here, it appears such an endeavor, from a statistical standpoint, might be fruitful.

# **Conclusion and Implications**

The current study sought to examine the PTRA's continued validity and to identify potential additions that can be made to expand the use of the PTRA in hopes of achieving better outcomes in the federal pretrial services system. Findings from this analysis show that the PTRA continues to perform well in predicting pretrial outcomes. Additional analysis relating to revising the PTRA identified the potential to revise the PTRA, increasing its accuracy in predicting specific outcomes related to new criminal behavior, and expanding the use of the PTRA to assist judges in pretrial decision-making. Finally, the revisions could also address continued concerns expressed by officers relating to the content of the original PTRA and the weighting of factors.

Recent research has emphasized that the recommendations of pretrial services officers are strongly correlated with judicial release decisions (Skeem et al., 2023). Yet, over the past several years, the federal pretrial services system has seen steady increases in the national detention rate and has tried to identify possible explanations for these trends (Cohen et al., 2018; Austin, 2017). The analysis in this report supports the contention that officers can rely on the PTRA in its current version when making pretrial decisions. Such reliance on the PTRA could dramatically improve federal detention outcomes through improved rates of recommendations for release by pretrial services officers without compromising public safety (Montoya et al., 2024). As a result, any immediate action taken should focus on policy revisions that improve

officer reliance on the PTRA.

The analysis also presents several ways that PPSO has begun exploring revisions and expanded uses of the PTRA. The discussion and review of the extant literature on pretrial risk assessment demonstrates that the PTRA not only can assist officers in initial decision-making but may also assist officers in decision-making associated with pretrial supervision, such as the need to modify excessive conditions of supervision placed on low-risk defendants. The analysis contained in this paper indicates that future revisions could expand the tool to include factors that are relevant to judicial officers in the decisionmaking process, which may increase the use of this instrument and the rate at which riskinformed decisions are made.

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