EVIDENCE TO MOVE FORWARD

Validating the Public Safety Assessment (PSA) in Multnomah County to Inform Next Steps

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JSP
JUSTICE SYSTEM PARTNERS

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Introduction

The Need for Pretrial Actuarial Assessments

Every year, over 10 million individuals experience a jail booking and must appear in court, usually within 24 to 36 hours, for a formal arraignment. During this arraignment, the court informs the individual of the charges against them and the individual can enter a plea.

Each jurisdiction maintains their own rules and statutory guidelines about who, how, and under what conditions individuals can secure release from jail prior to their arraignment hearing.

In cases where an individual remains in jail until their arraignment, some jurisdictions arraign the individual and decide about pretrial release in a single hearing while other jurisdictions may host these matters across multiple initial appearances.

Across the country, judicial officers have understood that rising pretrial jail populations often result from holding too many people in pretrial detention or from unaffordable cash bail amounts, effectively working as pretrial detention.

> With greater understanding of the harmful impacts of cash bail & pretrial detention, judicial officers have turned to the *presumption of pretrial release*.
>
> But, they still need reassurance individuals will attend court and avoid rearrest.

With a greater understanding of the impacts of cash bail and pretrial detention,[1,2] judicial officers have begun to make decisions more aligned with state constitutions and legislative requirements and rely on the presumption of pretrial release.

While national momentum and education have encouraged judicial officers to release more individuals more often, judicial officers still want reassurance individuals will attend court as scheduled and avoid rearrest while in the community. As a result,

judicial officers may agree to pretrial release but assign additional conditions to the individual, especially if they suspect the individual may need more support or have concerning charges.

When making decisions about pretrial release and the types of conditions to assign (e.g., pretrial supervision, EM/GPS monitoring, urinalysis testing), judicial officers report weighing factors such as previous court absence history, previous arrest and conviction history, previous incarceration history, how likely they are to harm individuals in the community while on pretrial release, and extralegal factors such as substance use or houselessness.[3]

However, how judicial officers weigh these types of factors for pretrial release ranges significantly across judicial officers based on what they believe is important. As a result, individuals with similarly situated arrest and conviction histories and current offenses/charges experience different types of pretrial release and conditions, even within the same court system.

Given the extensive research on the harmful effects of pretrial detention on individuals and their case outcomes,[4] there is a need for judicial officers to default to pretrial release as often as possible. At the same time, there is a need to create systems allowing judicial officers to make more consistent pretrial release decisions for similarly situated individuals.

In response to these dynamics, scholars have developed pretrial actuarial tools or commonly known as pretrial risk assessment tools.[5]

These tools help judicial officers systematically identify how likely an individual is to miss court as scheduled, experience a rearrest while on pretrial release, or even identify individuals more likely to engage in violence.

The tool provides this important information to judicial officers to allow them to make more consistent decisions related to release and pretrial conditions while accounting for community safety and the presumption of innocence.

Pretrial actuarial tools allow judicial officers to make more consistent decisions related to pretrial release and conditions.

OVERVIEW OF PRETRIAL TOOLS

Pretrial Tools
What They Can and Can't Do

Pretrial risk assessments have become widespread across U.S courts with the intent of providing judicial officers and local policymakers with research-supported data to inform decision-making related to pretrial release and conditions.

These tools include the Modified Virginia Pretrial Risk Assessment Instrument-Revised (VPRAI-Revised), the Public Safety Assessment (PSA), Ohio Risk Assessment Tool (ORAS-PAT), or the Federal Pretrial Risk Assessment (PTRA).

Each risk assessment tool seeks to reduce reliance on jail by deprioritizing pretrial detention for individuals who are (1) likely to appear in court and (2) likely to avoid a rearrest while in the community. Additionally, the PSA is specifically designed to identify individuals who are more likely to engage in violence. Importantly, research shows that these actuarial risk assessments predict pretrial outcomes more reliably and accurately than professional judgment alone.[6]

What Pretrial Risk Assessments Can Do	What Pretrial Risk Assessments Can't Do
Predicts patterns of court absences and rearrest among groups of individuals previously released on pretrial.	Does not provide an actual probability of a single person's likelihood to miss court or experience a new arrest.
Applies these patterns to offer judicial officers a sense of how an individual may behave compared to other individuals who were similarly scored across key factors.	Provide judicial officers a promise of an individual's court attendance or rearrest avoidance.
Applies the same criteria for scoring to everyone and makes the criteria and scoring approach transparent.	Apply some scoring items and not apply others to individuals.

THE PSA & MULTNOMAH COUNTY

The PSA
& Multnomah County

Multnomah County has been at the forefront of understanding the harm of pretrial detention on their residents and community and has long sought to make pretrial release decisions consistent and equitable.

As a result, the county relied on the Modified Virginia Pretrial Risk Assessment Instrument (MVPRAI) which uses eight items to determine both an individual's (1) likelihood to miss court and (2) experience a rearrest while on pretrial release. Importantly, the MVPRAI requires an interview component where Department of Community Justice staff embedded in the jail, known as recognizance officers, asked individuals in custody three questions to complete the scoring.

While research supports the tool's ability to predict pretrial release outcomes, the interview requirement strained local resources and limited the number of assessments DCJ's recognizance officers could produce for arraignment judges.

Multnomah County judges and court partners were eager to have the tool's score for as many individuals as possible who appear at arraignment.

In response, Multnomah County stakeholders chose to adopt a tool developed by Arnold Ventures, the Public Safety Assessment (PSA) and implemented this tool on June 1, 2023.

Recognizance officers rely on historic local and state data to populate the PSA's individual items and produce a score and report. The transition to a non-interview-based tool meant Multnomah County could implement universal screening for *all* adults booked into the jail.

Court partners were eager to have tool results for as many individuals as possible.

The Public Safety Assessement Items and Scoring

The PSA relies on nine items, does not include an interview component and, instead, relies on data found within the existing criminal justice databases.

The tool was created to predict three specific pretrial outcomes:

- Likelihood of missing court, called "failure to appear" (FTA).
- Likelihood of experiencing a rearrest while on pretrial release, called "new criminal activity" (NCA).
- Flags if the individual may commit a violent offense while on pretrial release, called "new violent criminal activity" (NVCA).

Table 1 lists each of the PSA items and their relationship with each of the three pretrial outcomes. Specifically, when an item is included in that outcome's score, marked as "Yes," means the presence of that factor increases the likelihood of that outcome for a given individual.

The pretrial outcome failure to appear includes four items, new criminal activity includes seven items, and new violent criminal activity includes five items.

Table 1, *Relationship between PSA Items and Pretrial Outcomes*[7]

PSA Item	Included in FTA Score	Included in NCA Score	Included in NVCA Score
Age at current arrest	No	Yes	No
Current offense is violent	No	No	Yes
And, the individual is 20 years old or younger	No	No	Yes
Pending charge(s) at the time of the current offense	Yes	Yes	Yes
Prior misdemneaor conviction	No	Yes	No
Prior felony conviction	No	Yes	No
Prior conviction at all (misdemeanor or felony)	Yes	No	Yes
Prior violent conviction	No	Yes	Yes
Prior failure to appear in the past two years	Yes	Yes	No
Prior failure to appear older than two years	Yes	No	No
Prior sentence to incarceration	No	Yes	No

Table 2, *PSA Items' Weights*[8]

PSA Item	Weights
Failure to Appear, maximum weight = 7 points	
Pending charge at time of the offense	No = 0; Yes = 1
Prior conviction	No = 0; Yes = 1
Prior failure to appear pretrial in past two years	No = 0; 1 FTA in past two years = 2; 2+ FTAs in past two years = 4
Prior failure to appear older than two years	No = 0; Yes = 1
New Criminal Activity, maximum weight = 13 points	
Age at current arrest	23 or older = 0; 22 or younger = 2
Pending charge at the time of the offense	No = 0; Yes = 3
Prior misdemeanor conviction	No = 0; Yes = 1
Prior felony conviction	No = 0; Yes = 1
Prior violent conviction	No = 0; 1 or 2 previous violent convictions = 1; 3+ previous violent convictions = 2
Prior failure to appear pretrial in past two years	No = 0; 1 FTA in past two years = 1; 2+ FTAs in past two years = 2
Prior sentence to incarceration	No = 0; Yes = 2
New Violent Criminal Activity, maximum weight = 7 points	
Current offense is violent	No = 0; Yes = 2
Current violence offense and the individual is 20 years old or younger	No = 0; Yes = 1
Pending charge at the time of the offense	No = 0; Yes = 1
Prior conviction	No = 0; Yes = 1
Prior violent conviction	No = 0; 1 or 2 previous violent convictions = 1; 3+ previous violent convictions = 2

The Public Safety Assessement Items and Scoring

Each of the PSA items is assigned points, known as weights, based upon the strength of the relationship between that item and the specific pretrial outcome, as defined by research, as shown above in *Table 2*. For example, missing court more than twice in the past two years is strongly correlated with missing court in the future. Therefore, this item receives a maximum weight of four points. However, court absences more than two years old are not as strongly correlated with this pretrial outcome and, thus, incurs a less scoring weight —one point.

Across the items, when research shows that items are most related to the specific pretrial outcome, they receive more weight than the items with weaker relationships to the pretrial

outcome. *Table 2* shows the weights for each of the PSA items organized by their pretrial outcome.

Converting PSA Item Weights to PSA Six-Point Scale and NVCA Flag

The PSA converts the raw score from the individual items into a six-point scale for both the pretrial outcome *failure to appear* and *new criminal activity*.

For *failure to appear* an individual can score no points or score a maximum of seven points. *Table 3* below shows how individual's PSA raw score for this pretrial outcome translates to their PSA group.

If someone scores zero points on items related to the FTA outcome, then they are assigned to the PSA's FTA Group 1. If the individual scores all seven possible points, then they are assigned to the PSA's FTA Group 6. For individuals who score either 3 or 4 points, the PSA assigns them to the FTA Group 4.

When scholars developed the PSA tool, they found there were no discernable differences in FTA outcomes between people who scored three points compared to people who scored four points and, as a result, they combined these groups. Similarly, individuals who score either 5 or 6 raw points are both assigned to FTA Group 5.

Table 3, *Converting PSA Raw Scores into Groups across Pretrial Outcomes*[9]

PSA Raw Score is..	Assigned to FTA Group...	PSA Raw Score is..	Assigned to NCA Group...	PSA Raw Score is..	Assigned a Flag...
0	Group 1	0	Group 1	0	No
1	Group 2	1	Group 2	1	No
2	Group 3	2	Group 2	2	No
3	Group 4	3	Group 3	3	No
4	Group 4	4	Group 3	4	Yes
5	Group 5	5	Group 4	5	Yes
6	Group 5	6	Group 4	6	Yes
7	Goup 6	7	Group 5	7	Yes
		8	Group 5		
		9 - 13	Group 6		

The *new criminal activity* outcome relies on the approach applied to failure to appear and combines individuals scoring different numbers into one group when there were no discernable differences in their outcomes. As a result, the PSA groups individuals scoring either 1 or 2 points into Group 2, 3 or 4 points into Group 3, groups individuals scoring 5 or 6 points into Group 4, scoring 7 or 8 points into Group 5, and scoring 9 through 13 points into Group 6.

Unlike the *failure to appear* outcome and the *new criminal activity* outcome, the PSA converts the PSA raw scores for the *new violent criminal activity* outcome into a "flag" measured as "No" or "Yes." Effectively, this "flag" determines whether the individual should be flagged as posing an elevated risk of violence.

Multnomah County's Use of the New Violent Criminal Activity Flag

Research consistently shows the base rates or use of violence across communities is rare and concentrated among a small number of individuals. As a result, jurisdictions across the country using the PSA have consistently found the scoring for the NVAA flag unreliable and overclassifies an individual's risk of committing future violence.

When Multnomah County implemented the PSA in June 2023, they chose to score the violence flag based upon a local definition of violent offenses (see Appendix) to test its predictive power in their community. However, court partners chose ***not*** to report this flag in the final PSA Defendant Report to avoid providing arraignment judges with potentially misinformation.

Multnomah County's Use of Final PSA Group and Pretrial Supervision Matrix

The Presiding Judge Order, 23PJO00003, outlines the process for the Department of Community Justice's Recognizance Unit to complete the PSA and finalize a recommendation for the arraignment judge.

Importantly, Multnomah County judges do not use the PSA outcome scores or groups to make decisions to detain or release an individual during the pretrial period. Rather, judges rely on the tool's output to inform the intensity of pretrial monitoring the individual will receive if the judge agrees to order pretrial conditional release.

Specifically, once DCJ's recognizance officers calculate an individual's FTA and NCA group, they identify the individual's recommended monitoring level on a collaboratively developed matrix, as shown in *Table 4* on the next page.

Table 4, *How PSA Groups to Translate to Recommended Pretrial Monitoring Levels and Conditions*

	NCA Group 1	NCA Group 2	NCA Group 3	NCA Group 4	NCA Group 5	NCA Group 6
FTA Group 1	Level 0	Level 0				
FTA Group 2	Level 0	Level 0	Level 0	Level 1	Level 2	
FTA Group 3		Level 0	Level 0	Level 1	Level 2	Level 3
FTA Group 4		Level 1	Level 1	Level 1	Level 2	Level 3
FTA Group 5		Level 1	Level 1	Level 2	Level 3	Level 3
FTA Group 6				Level 3	Level 3	Level 3+

Pretrial Monitoring Matrix Level	Reporting Agency	Reporting Condition
Level 0	None, release on recognizance	None
Level 1	DCJ's Pretrial Services Program	Once per month by phone
Level 2	MCSO's Close Street Program	Once every other week by phone
Level 3	MCSO's Close Street Program	Once per week by phone
Level 3+	MCSO's Close Street Program	Weekly by phone and potentially one in-person report per month

Each level corresponds to a recommended intensity of pretrial monitoring provided by one of two pretrial monitoring agencies in the county—DCJ's Pretrial Services Program (PSP) and Multnomah County Sheriff's Office Close Street (CS) program.

If an individual scores Level 0, then DCJ staff will recommend release on recognizance to the arraignment judge in the PSA Defendant Report. However, if the individual scores in Level 3+, then DCJ staff will recommend the most intensive pretrial monitoring condition possible, as shown in *Table 4* above.

Each level corresponds to a recommended intensity of pretrial monitoring.

PURPOSE OF VALIDATION

The Purpose & Importance of Validating Pretrial Risk Assessments

Pretrial risk assessment validation ensures the local court system is using a tool which *accurately predicts* the desired outcome (failure to appear, new arrest), is *reliable* (different assessors can score the instrument consistently), *fair* (demographics do not affect the scoring), and *appropriate* for individuals in the local community.

These tools are built on historical data and statistical relationships, which do not automatically transfer from one jurisdiction to another. Without validation, a tool may be statistically sound somewhere else—but not valid for a single jurisdiction.

Validation asks:

- Does this tool accurately estimate the likelihood for failure to appear and new criminal activity for our community?
- Does this tool accurately predict the desired outcome for different populations, including men and women, across different races or offense types?

Validation is especially important because pretrial release and conditions directly affect a person's liberty and case outcomes. An unvalidated or outdated tool can create false confidence, leading judicial officers to rely on a score that does not reflect current conditions, policies, or local population changes. Moreover, a tool that is not a valid predictor of the outcome of interest can influence stakeholders to make decisions that are more harmful for the individual and the community.

An unvalidated tool can create confience in outcomes that are not predictive.

Regular validation helps identify potential racial or demographic disparities in group assignment[10] and whether system responses—such as use of preventive detention or pretrial monitoring—are aligned with actual risk rather than extralegal factors.

In this way, validation supports equity and guards against the uncritical use of data in high-stakes pretrial release decisions.

Specifically for Multnomah County, validating the PSA allows court partners to understand if the tool is reliably predicting outcomes and, if so, understand if they are ordering pretrial monitoring commiserate with the tool's predictions and group assignments—supporting fairer, more intentional judicial pretrial release choices.

Validating the Tool, Not Assessing Effectiveness of the System

A validation study is focused on evaluating the tool itself—not the people and not the system's responses to it.

In this validation, the exclusive focus is on the PSA and its predictions: we are asking whether the PSA can estimate the likelihood of outcomes like missing court or a new arrest, overall and for different subgroups of people, controlling for different responses of court and system actors.

The goal is to understand how valid and reliable the tool predicts these outcomes across populations, not determine whether pretrial monitoring decisions were appropriate, whether monitoring levels helped or harmed outcomes, or how policies changed behavior after release. Those system-level questions are important, but they are separate analyses.

This validation is intentionally narrow: it isolates the analyses to the PSA to identify what it does well, where it falls short, and whether its predictive performance is consistent across groups and outcomes.

A validation study is focused on evaluating the tool itself—not system responses to individual behavior.

METHODOLOGY

PSA Validation
Methodology

This validation focused on the period from June 1, 2023 to December 1, 2025 and has multiple goals:

- Understand if the PSA reliably and accurately predicts ***failure to appear*** and ***new criminal activity*** for the full population of people experiencing a jail booking in Multnomah County.
- Understand if the PSA reliably and accurately predicts ***failure to appear*** and ***new criminal activity*** across different populations, including men and women, different races, and for individuals charged with a felony or misdemeanor.
- Understand if the ***NVCA flag*** is a reliable and accurate indicator for future violence.

Data

We received data from multiple sources: Multnomah County Sheriff's Office (MCSO), the Department of Community Justice (DCJ), and Multnomah County Circuit Court (OJD).

The data provided by MCSO included individuals' booking date, booking offense type, jail release date, release type, which pretrial monitoring agency they were ordered to report to (if applicable), and demographic information.

Data from DCJ included individual PSA item scores, their collective outcome score, and their recommended release category.

Data from OJD provided case data covering criminal proceedings, including case demographics, hearing schedules and outcomes, charge dispositions, and warrant information.

Sample

There were 34,920 assessments completed from June 2023 to December 2025.

The assessments were selected for analysis based on the following criteria:

- The case in which the assessment was associated with has been closed.
- A person can only be in the sample once.
- The assessment was the first assessment associated with a case during the validation period.

Unpacking the Inclusion Criteria

Why only closed cases?

There must be a resolution to the case that is of interest. The PSA is designed to predict behavior across the entire court process, not just a specific period. Without a resolution, we would have to assume whatever behavior has occurred (e.g., FTA, new arrest, compliance) would continue in the future increasing the error rate of the prediction.

Why can an individual only be in the sample once?

The PSA is designed to predict an individual's behavior, not designed to measure court cases, judicial decision making, or system responses. Using an individual more than once in the validation of the PSA would skew the results, therefore, we selected each individual's first appearance on a new case during the identified period. This allows us to track the person across the entire life of their pretrial case until disposition.

Why only use the first assessment?

In validation studies, we typically rely on the first pretrial risk assessment because it provides the clearest and most interpretable link between a prediction and an outcome.

The goal of validation is to ask a narrow question: given what we knew at the time of the initial release decision, how well did the tool estimate the likelihood of failure to appear or new criminal activity?

Using the first assessment fixes the prediction point in time and allows us to fairly compare people who were assessed under similar conditions. This approach mirrors how risk tools are intended to be used in practice—informing decisions at the earliest point before system responses begin to shape behavior.

Practitioners understand that what happens after that first assessment—such as the level of pretrial monitoring or services—can influence outcomes and even lead to a new booking and reassessment. However, incorporating second and subsequent PSA assessments into the validation would blur the interpretation of the tool's performance by mixing prediction with system response.

Importantly, if someone is booked again, that event is counted as a new criminal activity or a failure to appear outcome conncected to the first assessment. In practice, subsequent scores rarely differ meaningfully from the initial one.

For validation purposes, anchoring analysis to the first assessment keeps the focus on whether the tool accurately estimated risk at the decision point.

However, court partners and Multnomah County should consider separate analyses examining how pretrial monitoring choices affect outcomes after jail release.

This selction criteria resulted in selection of 7,077 assessments. Across the assessments selected for validation, majority were men (80%) and white (54.2%), as shown in *Table 5.*

7,077 assessments resulted from the three selection criteria.

Table 5, *Demographics for Validation (N=7,077)*

Demographics	n	%
Sex[11]		
Men	5,663	80.0%
Women	1,413	20.0%
Unknown	1	0.0%
Race[12]		
White, non-Hispanic	3,836	54.2%
Black, non-Hispanic	1,461	20.6%
Hispanic	1,362	19.2%
Asian[13]	190	2.7%
Native American/Alaskan[13]	145	0.9%
Native Hawaiian/Pacific Islander[13]	63	0.9%
Unknown[13]	20	0.2%

Table 6, *Multnomah County Validation Outcome Measures, Definitions, and Values*

Outcome	Definition	"0" Value	"1" Value
Failure to Appear (FTA)	Any missed court appearance resulting in a bench warrant.	Did not receive a bench warrant for failing to appear.	Received one or more bench warrants for failing to appear.
New Criminal Activity (NCA)	A jail booking for a new criminal arrest.	Did not have a jail booking for a new criminal arrest.	Had one or more new jail bookings for a new criminal arrest.
New Violent Criminal Activity (NVCA)	One or more jail bookings include a violent offense.	No new jail bookings or new jail booking did not include a violent offense.	One or more new jail bookings included a violent offense.

Outcome Measures

After cleaning and organizing the data, we conducted a series of analyses examining the relationship between each of the three PSA scales: *failure to appear* (FTA), *new criminal arrest* (NCA), and New Violent Criminal Arrest (NVCA) by each demographic subgroup (i.e., sex, race, offense type).

The definition of "violent" crime varies between jurisdictions. In this case, violent crimes were defined through a local workgroup including judges, defense bar, prosecutors, victim's advocates and community representatives (see Appendix for final list of locally defined violent offenses).

For the FTA outcome, the outcome of interest is any failure to appear, where "0" indicates the individual did not fail to appear and "1" indicates the individual had one or more failures to appear.

Similarly, the outcome of interest for the NCA scale is defined as any new criminal arrests while under pretrial release, and this was also coded as "0" indicating the individual had no new arrests while on pretrial release and "1" indicates the individual has one or more new arrests while under pretrial release. If the individual had at least one new arrest, a separate variable indicates how many of those new arrests were considered violent crimes (range: 0-4).

The New Violent Criminal Arrest (NVCA) outcome is defined as one or more new arrests include a violent arrest. To measure this, if any of the new arrests were not for a violent offense, this was coded as "0." If the individual had no new arrests while under pretrial release, this was also coded as "0". If the individual had a new arrest and any of their new arrests included a violent charge, then it was recoded as "1."

Analysis

There are two distinct analyses as part of validation. First, we produce the *observed rate of outcomes* and then we produce the *Area Under the Curve* statistic (defined below). These analyses test different aspects of the tool:

- Observed Rate of Outcome: Do higher scores tend to correspond to higher observed outcome (i.e., failure to appear, new criminal activity, new violent criminal activity) rates? Do the risk groups match real-world outcomes?

- Area Under the Curve: Does the tool distinguish between individuals who do experience an outcome from individuals who do not experience an outcome?

READING THE RESULTS OF A VALIDATION

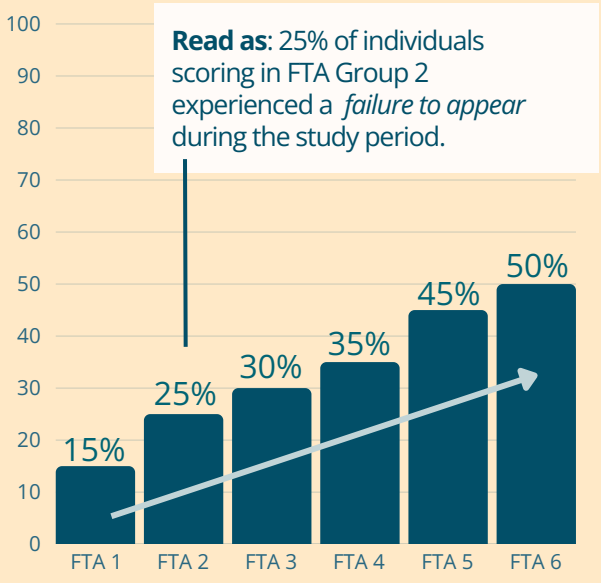
How to Read the Results of a Validation Study

Observed Rate of Outcomes

Goal of Analyses: Do higher groups tend to correspond to higher observed outcome rates?

In the pages below, we present several bar charts showing the observed rate of (1) *failure to appear*, (2) *new criminal activity*, and (3) *new violent criminal activity* across various subgroups (i.e., sex, race, offense type).

Example Observed Rate of Outcomes Chart



When reading these charts, each bar represents the percentage of individuals in a given group who experienced the outcome. Groups are ordered from lower risk (left) to higher risk (right) based upon the tool's scoring.

When the bars generally increase from left to right, as shown in the example chart, this indicates that higher scores are associated with a higher rate of that outcome.

Ideally, the progression appears smooth across the risk groups. However, small dips or uneven steps between neighboring groups are normal and expected, particularly in subgroup analyses where sample sizes are smaller.

Combined, **this analysis helps assess whether the tool's risk groups align with real-world outcomes.**

Table 7, *ROC/AUC Scores and Interpretations*	
ROC/AUC Score	**Interpretation**
0.54 or less	No evidence of reliably predicting the pretrial outcome when it occurs.
0.55 to 0.60	Weak evidence of reliably predicting the pretrial outcome when it occurs.
0.61 to 0.64	Acceptable evidence of reliably predicting the pretrial outcome when it occurs.
0.64 to 0.70	Moderate evidence of reliably predicting the pretrial outcome when it occurs.
0.71 and above	Strong evidence of reliably predicting the pretrial outcome when it occurs.

Receiver Operating Characteristics (ROC)/Area Under the Curve (AUC) Analyses

Goal of Analyses: Does the tool distinguish between individuals who do experience the pretrial outcome from individuals who do not experience the pretrial outcome?

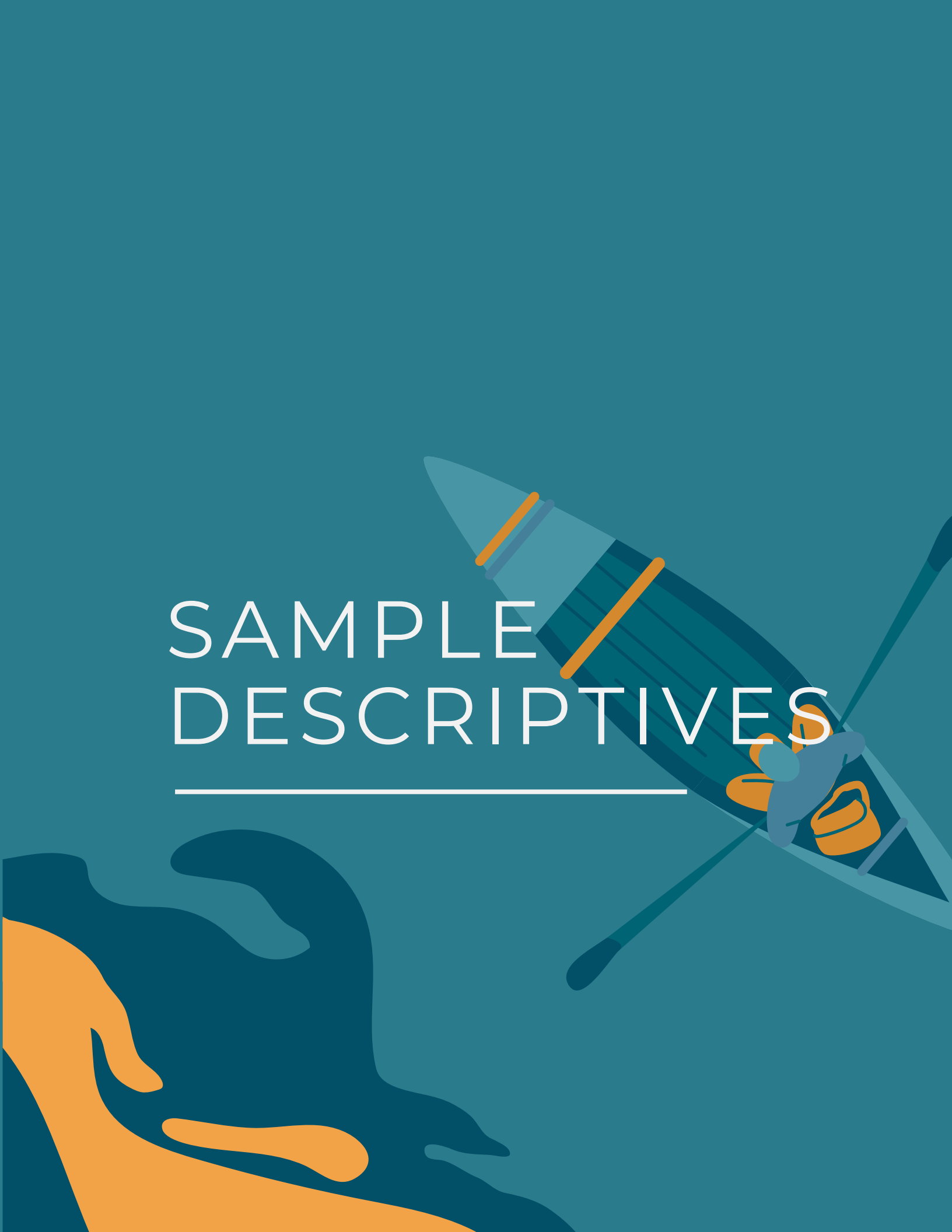
Receiver Operating Characteristics/Area Under the Curve (ROC/AUC) is used to determine the probability that a randomly selected individual from the data who either missed court or experienced a new arrest had a higher PSA score than a randomly selected individual that did not experience these events.

While there is no exact ROC/AUC statistic that suggests that an assessment is valid, *Table 7* above provides a general guide or best practice for interpreting the results of ROC/AUC analyses. Most criminal justice tools score between .60 and .70, with many clustering between 0.63 and 0.68. AUC scores over 0.70 for tools across criminal justice settings, and particularly pretrial, are rare.

The AUC does not require a smooth progression of observed outcomes to score across groups; the PSA can have some uneven bars, even among subgroups, and still demonstrate acceptable predictions because the **AUC evaluates the overall ability of the tool** to distinguish between individuals who do and do not experience the outcome.

An AUC of 0.65 means randomly selecting one person who missed court or failed to appear and randomly selecting one person who did not miss court, the tool will correctly assign the higher value and group to the person with the FTA about 65% of the time, increasing the odds of prediction by 15% over chance alone.

SAMPLE DESCRIPTIVES



Validation Sample Descriptives

As previously described, the PSA is comprised of three outcomes: *failure to appear* (FTA), *new criminal arrest* (NCA), and *new violent criminal arrest* (NVCA).

The following set of tables provide the overall proportion of people, proportion of men and women, proportion of white, Black, and Hispanic individuals, by group score. As noted earlier, the groups range from "1" to" 6" with "1" associated with scoring in the lowest risk group and and "6" associated with scoring in the highest risk group.

The tables and charts below show the distribution of group scores across the sample of 7,077 cases.

Failure to Appear Groups

Overall across the 7,077 cases, as shown in *Figure 1:*

- 32% of cases (n=2,246) scored in FTA Group 1 (0 points).
- 23% (n=1,646) scored in FTA Group 2 (1 point).
- 18% (n=1,282) scored in FTA Group 3 (2 points).
- 16% (n=1,142)scored in FTA Group 4 (3 or 4 points).
- 6% (n=422) scored in FTA Group 5 (5 or 6 points).
- 5% (n=339) scored in FTA Group 6 (7 points).

Figure 1, Number of People Assessed: Failure to Appear Overall

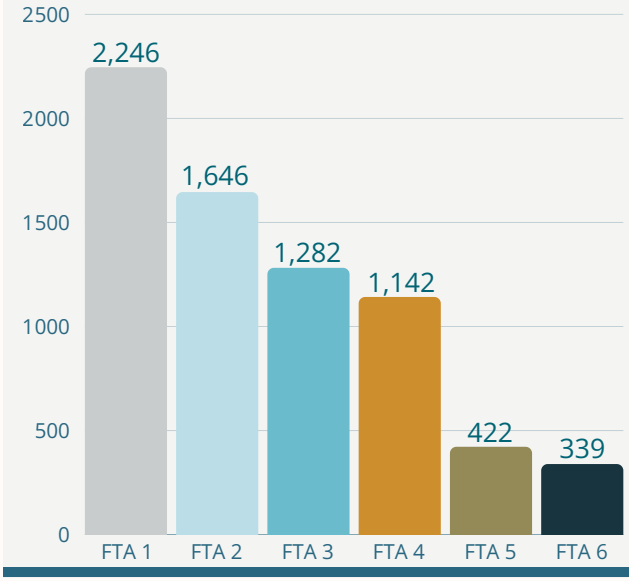
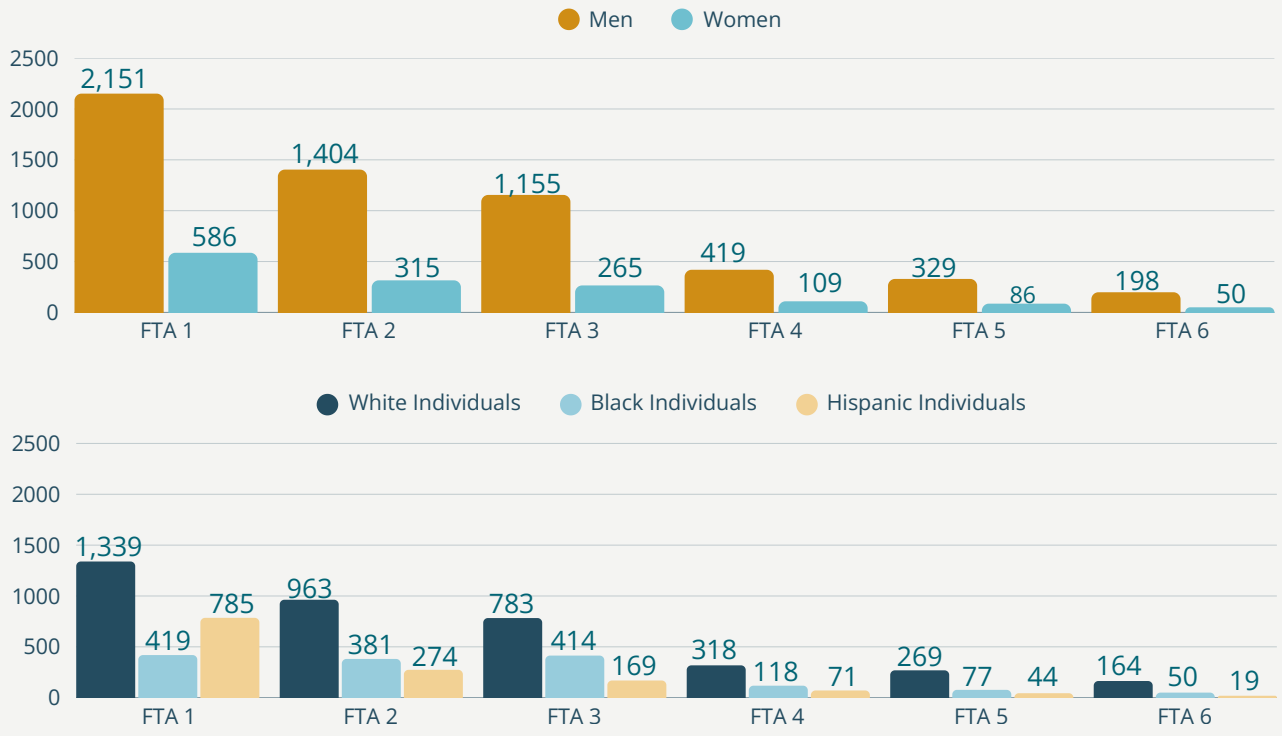


Figure 2, Number of People Assessed: Failure to Appear by Sex and Race



Number of People Assessed: Failure to Appear by Sex

When assessing the descriptive profile of FTA groups by sex, 38% of men (n=2,151) scored in FTA Group 1 compared to 41.5% (n=586) of women.

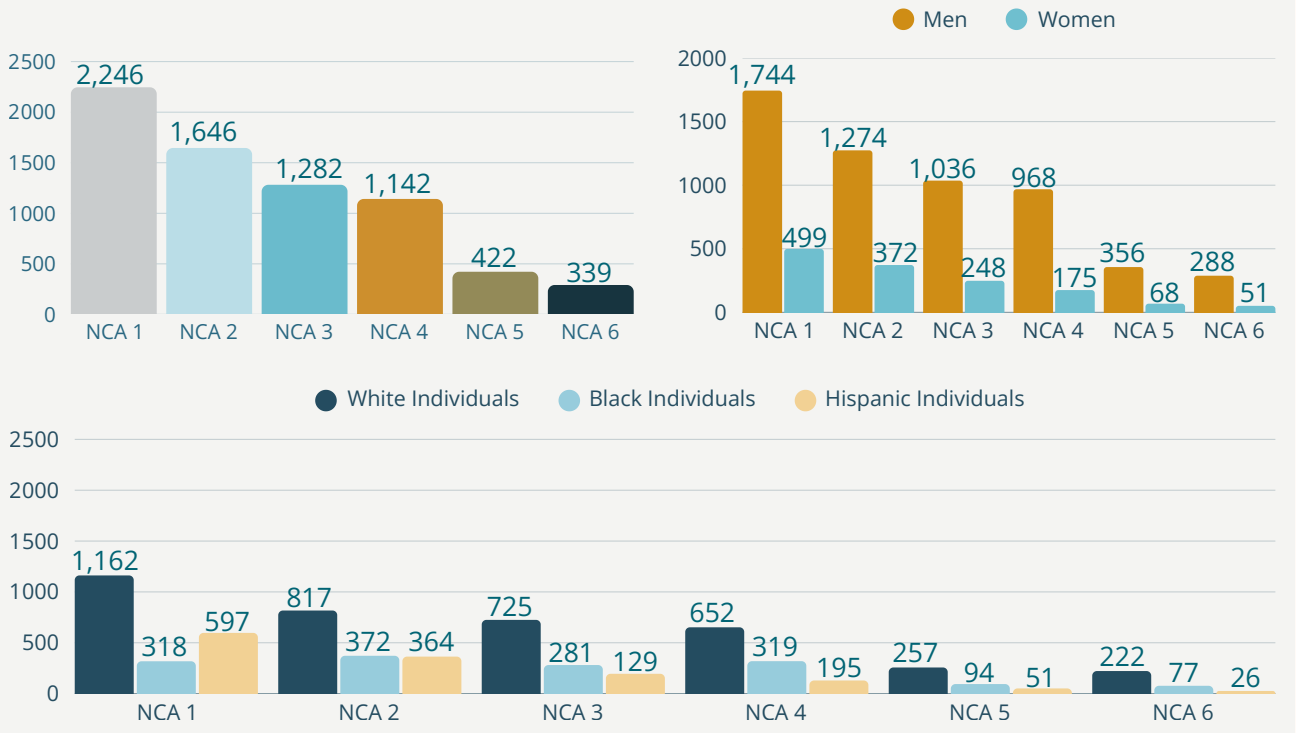
However, men and women scored in FTA Group 6 at similar rates—3.5% (n=198 and n=50, respectively), as shown in *Figure 2* above.

Number of People Assessed: Failure to Appear by Race

When assessing the descriptive profile of FTA groups by race, 34.9% of white individuals (n=1,339) scored in FTA Group 1 compared to 29% of Black individuals (n=419) and 58% of Hispanic individuals (n=785).

All three racial groups had the fewest number of individuals score in FTA Group 6, as shown in *Figure 2* above.

Figure 3, Number of People Assessed: New Criminal Activity Overall, by Sex, and Race



New Criminal Activity Groups

Overall across the 7029 cases,[14] as shown in *Figure 3* above,

- 32% of cases (n=2,246) scored in NCA Group 1 (0 points).
- 23% (n=1,646) scored in NCA Group 2 (1 or 2 points).
- 18% (n=1,282) scored in NCA Group 3 (3 or 4 points).
- 16% (n=1,142) scored in NCA Group 4 (5 or 6 points).
- 6% (n=422) scored in NCA Group 5 (7 or 8 points)
- 4% (n=291) scored in NCA Group 6 (9 – 13 points).

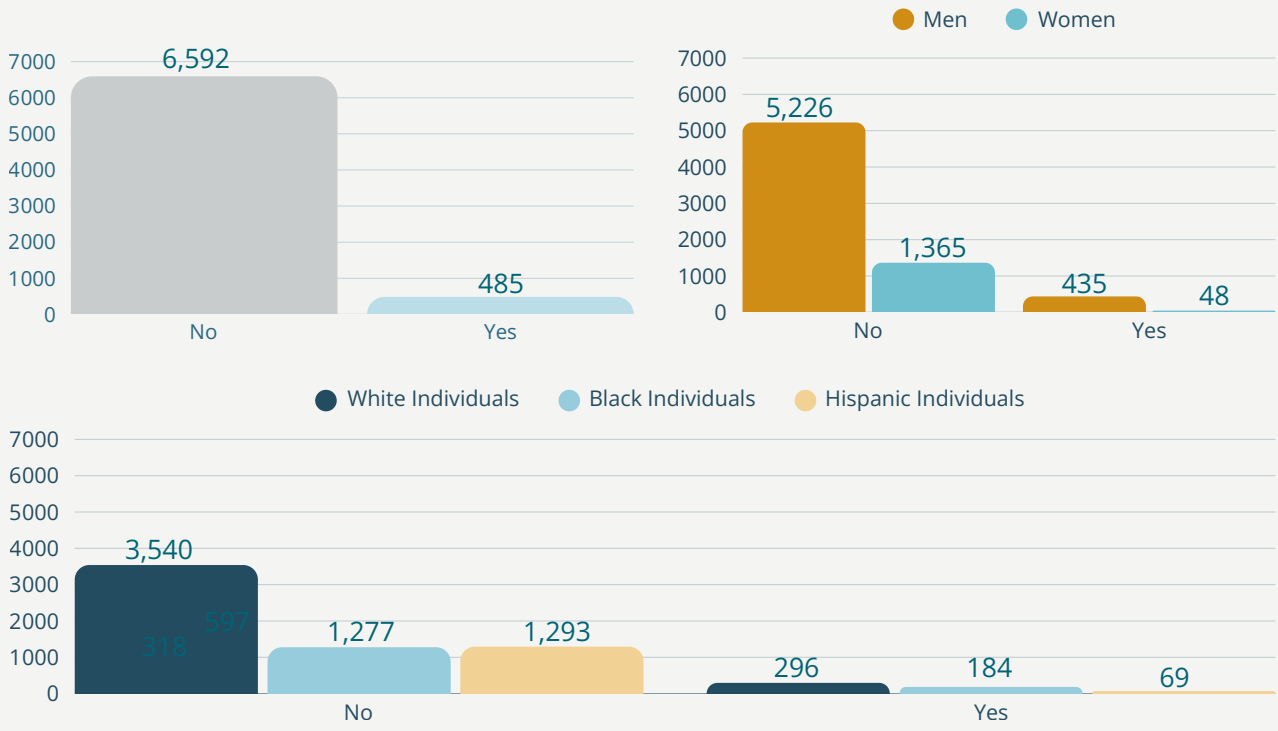
Number of People Assessed: New Criminal Activity by Sex

When assessing the descriptive profile of NCA groups by sex, 31% of men (n=1,744) scored in Group 1 compared to 35% (n=499) of women. However, men and women scored in Group 6 at similar rates – 5% and 4%, respectively (n=288 and n=51, respectively).

Number of People Assessed: New Criminal Activity by Race

When assessing the descriptive profile of NCA groups by race, 30% of white individuals (n=1,162) scored in Group 1 compared to 22% of Black individuals (n=318) and 44% of Hispanic individuals (n=597). All three racial groups had the fewest number of individuals score in Group 6, as shown in *Figure 3* above.

Figure 4, Number of People Assessed: New Violent Criminal Activity Flag Overall, by Sex, and Race



New Violent Criminal Activity Flag Groups

Overall across the 7,077, an overwhelming number of cases, 93% (n=6,592), scored "No" on the new violent criminal activity flag, as shown in *Figure 4* above.

Number of People Assessed: New Criminal Activity by Sex and by Race

These trends continue when assessing the descriptive profile by sex and by race. Overwhelming, men and women and individuals across racial groups score "No" on the NVCA flag as shown in *Figure 4* above.

Overwhelmingly, individuals score "No" on the new violence criminal activity flag.

VALIDATION RESULTS

PSA Validation
Observed Outcomes & AUC Scores

Pretrial risk assessment validation ensures local tools are accurate and reliable for the local jurisdiction.

This validation asks two critical questions for Multnomah County:

- Does the PSA accurately estimate the likelihood for *failure to appear, new criminal activity*, and *new violent criminal activity* for the Multnomah County population?

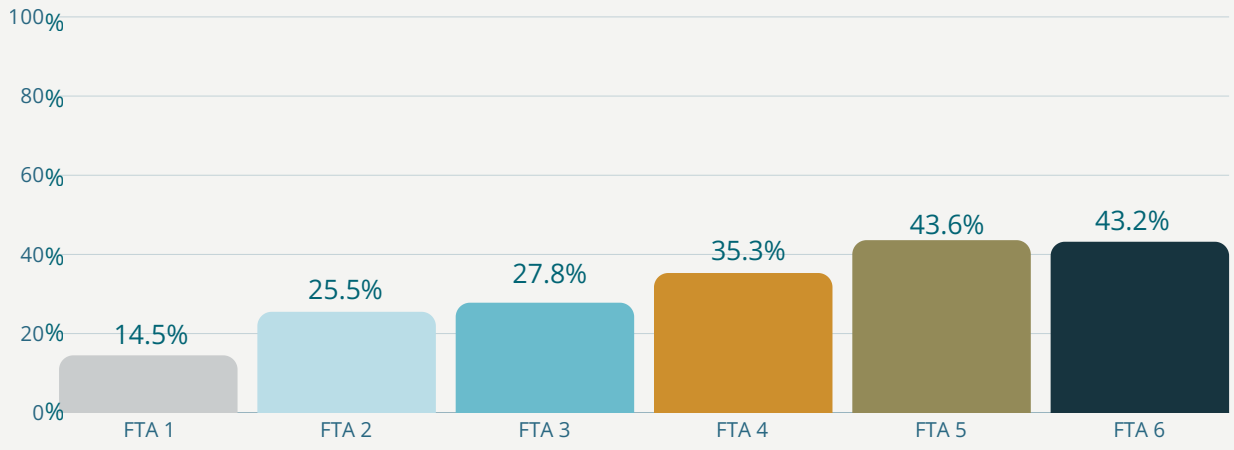
- Does the PSA perform similarly across different populations, including men and women, and across different races and offense types?

Below we provide the validation results by outcome: *failure to appear*, *new criminal activity,* and *new violent criminal activity* flag.

Does the PSA accurately predict the likelihood of the three pretrial outcomes?

Does it accurately predict the likelihood of the outcomes across key subgroups?

Figure 5, Observed Rate of Failure to Appear Overall



AUC: 0.633

Acceptable evidence of reliably predicting *failure to appear* when it occurs.

Predicting Failure to Appear Overall

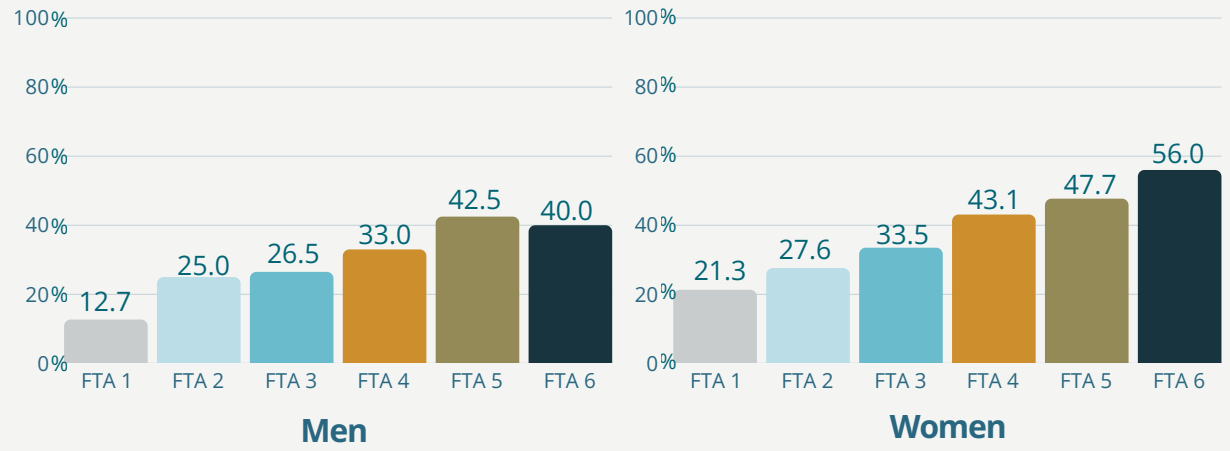
The analysis for *failure to appear* demonstrates statistical predictive validity for the overall sample for this outcome.

The data reveals consistent progression across groups, ranging from 14.5% (FTA Group 1) to 43.2% (FTA Group 6). This progression refers to whether the tool's ordered groups behave as intended: as the group score increases, so too does the observed rate of *failure to appear*.

That is, people classified into the higher FTA groups should, on average, miss court at higher rates than those in lower groups. When we see a mostly steady pattern across groups—as in this *Figure 5* above—this suggests the tool is meaningfully distinguishing between the groups. There is a very minor inconsistency in Group 5 (43.6%); however, this does not indicate the tool is unreliable. Overall, the pattern still shows that higher FTA scores are associated with higher likelihoods of missing court.

The ROC/AUC analysis resulted in an AUC of 0.633, suggesting acceptable evidence of predictive reliability for the full sample.

Figure 6, Observed Rate of Failure to Appear by Sex



AUC: 0.639
Acceptable evidence of reliably predicting *failure to appear* when it occurs.

AUC: 0.619
Acceptable evidence of reliably predicting *failure to appear* when it occurs.

Predicting Failure to Appear by Sex

The subgroup analysis for men (n=5,663) and women (n=1,413) demonstrates some differences from the full sample.

For men, the data reveals consistent progression across groups, apart from FTA Group 5, as shown in *Figure 6* above. However, women show a perfect consistent progression. These patterns indicate that higher FTA scores for men and for women are associated with higher rates of missing court.

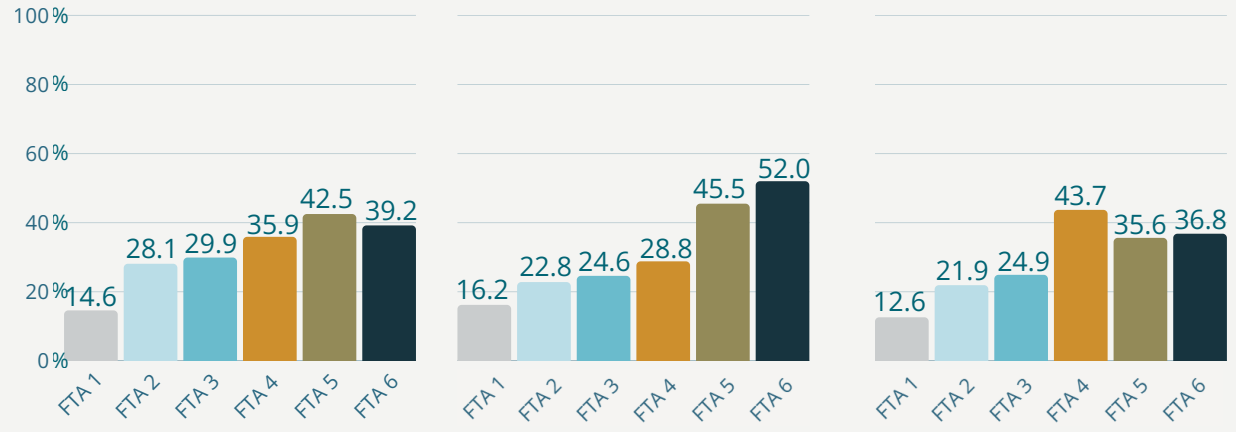
The ROC/AUC analysis for the men only subgroup resulted in an AUC of 0.639, higher than the 0.633 AUC for the full sample and indicates acceptable evidence of validity. This means the FTA scale demonstrates improved predictive performance when applied specifically to men compared to its application across the entire sample.

The ROC/AUC analysis for the women only subgroup resulted in an AUC of 0.619, slightly lower than the full sample but still indicates acceptable evidence of validity.

There were no statistical differences between men and women.

Combined, the analyses reveal that the FTA scale demonstrates predictiveness for women but, overall, is slightly more predictive for men.

Figure 7, Observed Rate of Failure to Appear by Race



White Individuals

AUC: 0.630

Acceptable evidence of reliably predicting *failure to appear* when it occurs.

Black Individuals

AUC: 0.607

Acceptable evidence of reliably predicting *failure to appear* when it occurs.

Hispanic Individuals

AUC: 0.635

Acceptable evidence of reliably predicting *failure to appear* when it occurs.

Predicting Failure to Appear by Race

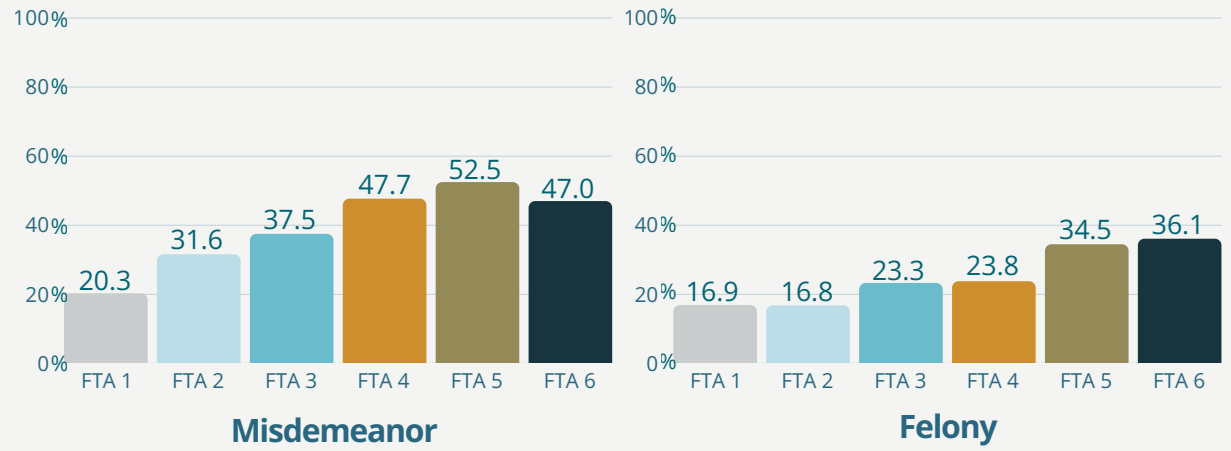
The subgroup analysis for race, including white individuals (n=3,836), Black individuals (n=1,461), and Hispanic individuals (n=1,362) also shows slight differences compared to the full sample.

In *Figure 7* above, the group-by-group observed progression rate for each of the three racial groups is less smooth than in the full sample. This does not indicate that the tool behaves unpredictably or unfairly; rather, the sample size is relatively small and is susceptible to these individual differences. Overall, the observed rate pattern across the three racial groups still shows that higher FTA risk groups are associated with higher failure to appear rates.

The ROC/AUC analysis for the white individual subgroup resulted in an AUC of 0.630, for Black individuals the ROC/AUC analysis resulted in 0.607, and for Hispanic individuals the ROC/AUC analysis resulted in 0.635, indicating the tool is slightly more predictive for Hispanic individuals than the full sample.

These scores indicate acceptable evidence that the tool distinguishes between individuals who do and do not miss court across these three racial groups.

Figure 8, Observed Rate of Failure to Appear by Offense Level



AUC: 0.631
Acceptable evidence of reliably predicting *failure to appear* when it occurs.

AUC: 0.587
Weak evidence of reliably predicting *failure to appear* when it occurs.

Predicting Failure to Appear by Offense Level

When validating the PSA's FTA scale by offense type, the analysis asks whether the PSA can reliably rank the FTA risk groups within misdemeanor and felony cases separately. This is a more nuanced analysis given that offense types capture very different court processes and warranting behaviors related to missed court absences.

In *Figure 8* above, misdemeanors show failure to appear rates in the expected upward progression with some expected unevenness in Group 5. The ROC/AUC analysis for misdemeanors resulted in an AUC of 0.631, showing acceptable evidence that the tool distinguishes between individuals who do and do not experience a failure to appear warrant.

While felony cases show a more even progression, there is still an upward progression overall. However, the AUC analysis resulted in a score of 0.587. This suggests that for felony cases, the PSA has less ability to clearly distinguish individuals who do and do not experience failure to appear warrants.

There may be several explanations for this including felony cases having a longer pretrial period, often with more hearings—creating significantly more opportunities for individuals to miss a court date. However, the data is unable to specifically tease out why the PSA could not discern as well between scores.

Predicting Failure to Appear Summary

Overall, the PSA tool does an acceptable and consistent job of identifying who is more likely and less likely to miss a court date. As FTA risk groups increase, the likelihood of missing court generally increases as well. This pattern holds across the full sample and remains largely consistent when the results are examined separately by sex, race, and offense type.

Looking at performance across groups, the tool works similarly for men and women, with no meaningful difference in predictive accuracy between them.

When the results are disaggregated by race, the tool also shows comparable predictive performance for white, Black, and Hispanic individuals. While the exact percentages in each score group sometimes vary—especially when the data are divided into smaller subgroups—the overall ability of the tool to distinguish lower FTA groups from higher FTA groups remains consistent across racial groups.

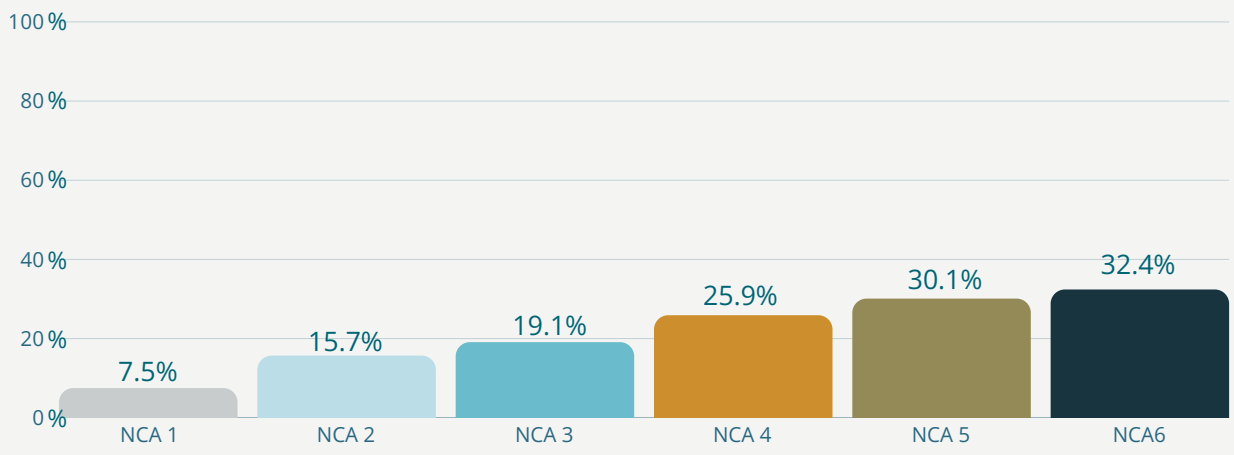
When examined by offense type, the tool performs better for misdemeanor cases than for felony cases. For felony cases, higher FTA groups still correspond to higher average rates of missed court, but the tool has less ability to clearly distinguish between individuals who do and do not experience an FTA. This is expected, as felony court cases are often more strongly influenced by the court's tolerance of missing court for hearings related for felony cases than by individual characteristics.

Taken together, these findings indicate that the tool has acceptable predictive validity for *failure to appear*. Importantly, these results evaluate the predictive performance of the tool itself, not how the Multnomah County court or its pretrial monitoring agency partners supervise individuals after release.

Table 8, *Summary Predicting Failure to Appear Across Groups*

Group	Risk Groups	AUC Score	Interpretation
Overall	6 groups	0.633	Acceptable evidence of prediction.
Men	6 groups	0.639	Acceptable and improved prediction.
Women	6 groups	0.619	Acceptable evidence of prediction.
White Individuals	6 groups	0.630	Acceptable evidence of prediction.
Black Individuals	6 groups	0.607	Acceptable evidence of prediction.
Hispanic Individuals	6 groups	0.635	Acceptable and improved prediction.
Misemeanor Cases	6 groups	0.631	Acceptable evidence of prediction.
Felony Cases	6 groups	0.587	Weak evidence of prediction.

Figure 9, Observed Rate of New Criminal Activity Overall



AUC: 0.658

Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

Predicting New Criminal Activity Overall

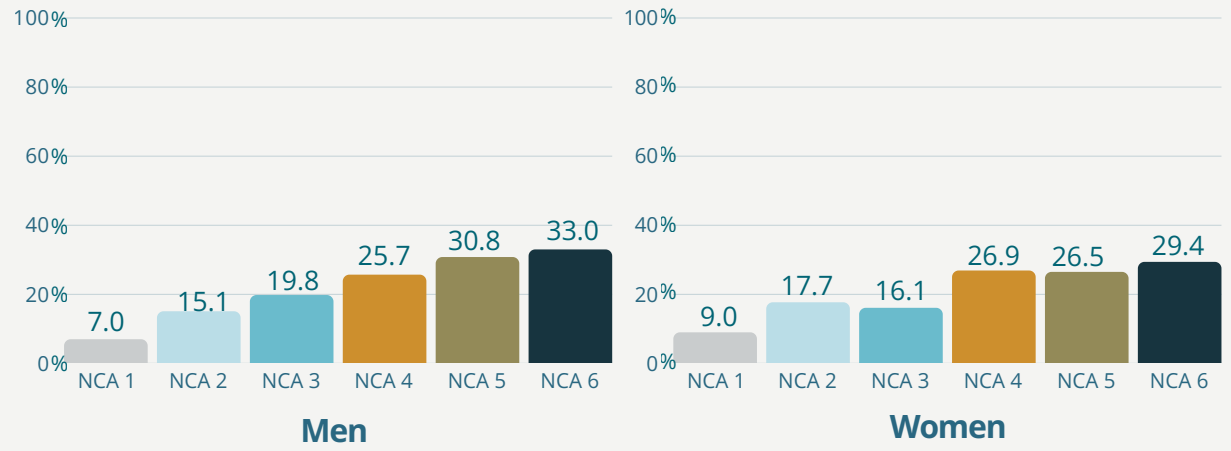
The analysis for the outcome *new criminal activity* demonstrates statistically acceptable predictive validity for the overall sample.

The data reveals consistent progression across groups, ranging from 7.5% (NCA Group 1) to 32.4% (NCA Group 6), indicating that as individuals score in the higher NCA risk groups they experience rearrest on pretrial release at higher rates than individuals scoring in the lower NCA risk groups.

The ROC/AUC analysis resulted in an AUC of 0.658, suggesting acceptable evidence of predictive reliability for each of the groups for the full sample, as shown in *Figure 9* above.

The analysis suggests the PSA reliably predicts new criminal activity.

Figure 10, Observed Rate of New Criminal Activity by Sex



AUC: 0.666
Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

AUC: 0.626
Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

Predicting New Criminal Activity by Sex

The subgroup analysis for men (n=5,663) and women (n=1,413) demonstrates some differences from the full sample.

For men, the data reveals a consistent progression across groups—again, indicating that men who score in the higher NCA risk groups experience higher rates of rearrest while on pretrial release, as shown in *Figure 10* above.

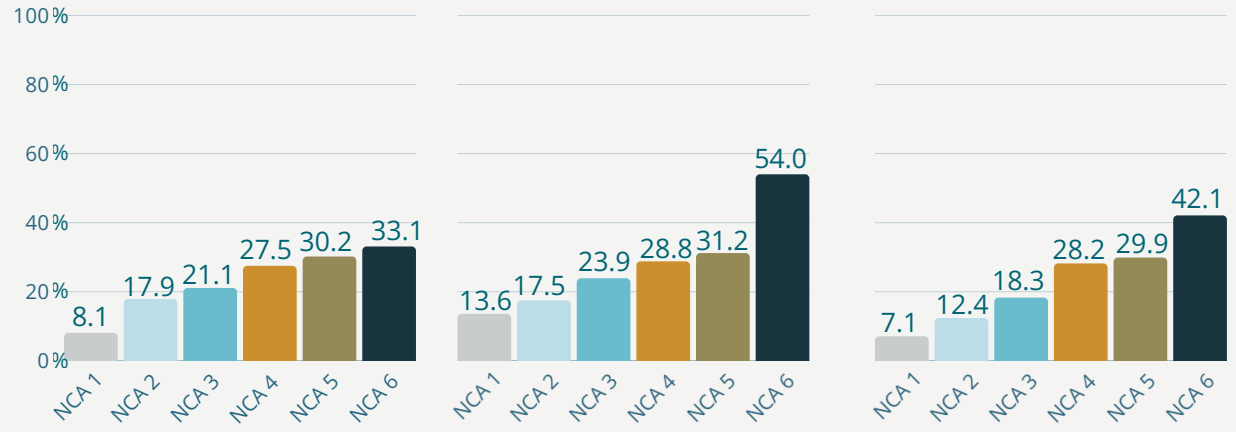
For women, there is an inconsistent pattern; however, overall, women who score in the higher NCA risk groups (Groups 4, 5, and 6) do experience higher rearrest rates than women scoring in the lower NCA groups (Groups 1, 2, and 3).

The ROC/AUC analysis does not require perfect progression to distinguish differences between individuals who do and do not experience a rearrest while on pretrial release. For women, the ROC/AUC analysis resulted in an AUC of 0.626, indicating that the PSA shows acceptable evidence of predicting new criminal activity for women. The ROC/AUC analysis for the men only subgroup resulted in an AUC of 0.666, an increase from the overall sample, suggesting the tool is slightly more predictive for men.

There were no statistical differences between men and women.

Combined, the analyses reveal that the NCA scale demonstrates predictiveness for women but, overall, is slightly more predictive for men.

Figure 11, Observed Rate of New Criminal Activity by Race



White Individuals

AUC: 0.646

Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

Black Individuals

AUC: 0.627

Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

Hispanic Individuals

AUC: 0.677

Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

Predicting New Criminal Activity by Race

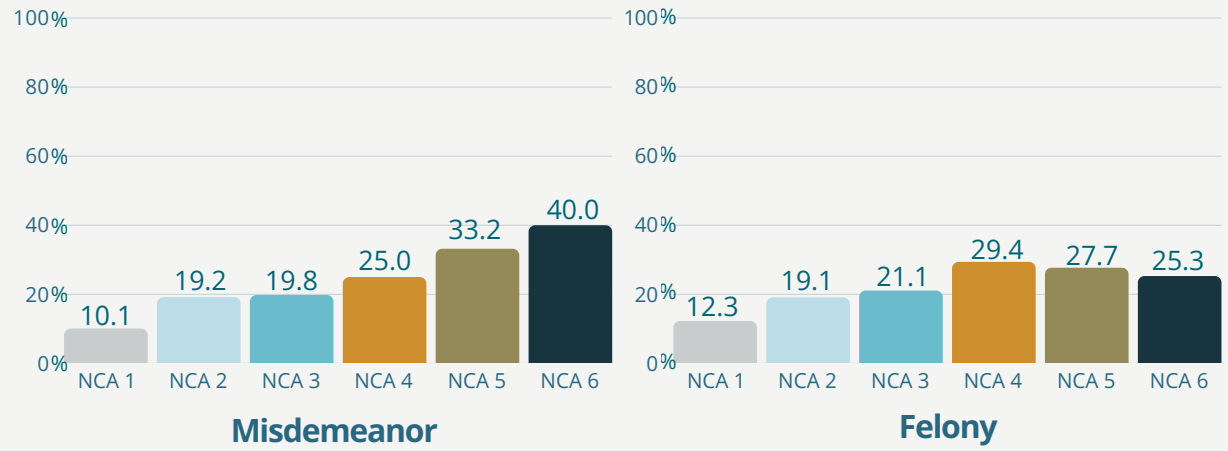
The subgroup analysis for race, including white individuals (n=3,836), Black individuals (n=1,461), and Hispanic individuals (n=1,362) also shows mostly improved differences compared to the full sample.

The progression across all three racial groups is consistent, as shown in *Figure 11* above, suggesting individuals who score in higher NCA risk groups are more likely to experience a rearrest while on pretrial release.

The ROC/AUC analysis for the white individual subgroup resulted in an AUC of 0.646, for Black individuals the ROC/AUC analysis resulted in 0.627, and for Hispanic individuals the ROC/AUC analysis resulted in 0.677. These scores indicate acceptable evidence that the tool distinguishes between individuals who do and do not experience a rearrest while on pretrial release across these three racial groups. Specifically for white and Hispanic individuals, the PSA is more predictive than the overall sample.

These scores indicate acceptable evidence that the tool distinguishes between individuals who do and do not experience a rearrest while on pretrial release across these three racial groups.

Figure 12, Observed Rate of New Criminal Activity by Offense Level



AUC: 0.634
Acceptable evidence of reliably predicting *new criminal activity* when it occurs.

AUC: 0.592
Weak evidence of reliably predicting *new criminal activity* when it occurs.

Predicting New Criminal Activity by Offense Level

The subgroup analysis for misdemeanor offenses shows a mostly consistent progression. For felony offenses, there is a less consistent progression, but results still indicate that individuals with felony offenses in NCA Groups 4, 5, and 6, are still more likely to experience a rearrest while on pretrial release than individuals with felony offenses scoring in NCA Groups 1, 2, and 3.

The ROC/AUC analysis for individuals with misdemeanor offenses resulted in an AUC of 0.634, indicating acceptable evidence that the tool distinguishes between individuals who do and do not experience a rearrest.

The ROC/AUC analysis for individuals with felony offenses resulted in an AUC of 0.592. This suggests the PSA shows weak evidence of distinguishing individuals with felony cases who do and do not experience a rearrest while on pretrial release.

Predicting New Criminal Activity Summary

Overall, the PSA does a moderate and consistent job of identifying who is more likely and less likely to experience a rearrest while on pretrial release. As NCA risk groups increase, the likelihood of being arrested for a new criminal offense generally increases as well. This pattern holds across the full sample and remains largely consistent when the results are examined separately by sex and race, specifically.

Looking at performance across groups, the tool works similarly for men and women, with no meaningful difference in predictive accuracy between them.

When the results are disaggregated by race, the tool also shows comparable predictive performance for white, Black, and Hispanic individuals.

When examined by offense type, the tool performs better for misdemeanor cases than for felony cases. For felony cases, higher NCA groups still correspond to higher average rates of experiencing a rearrest, but the tool has less ability to clearly distinguish between individuals who do and do not experience a rearrest.

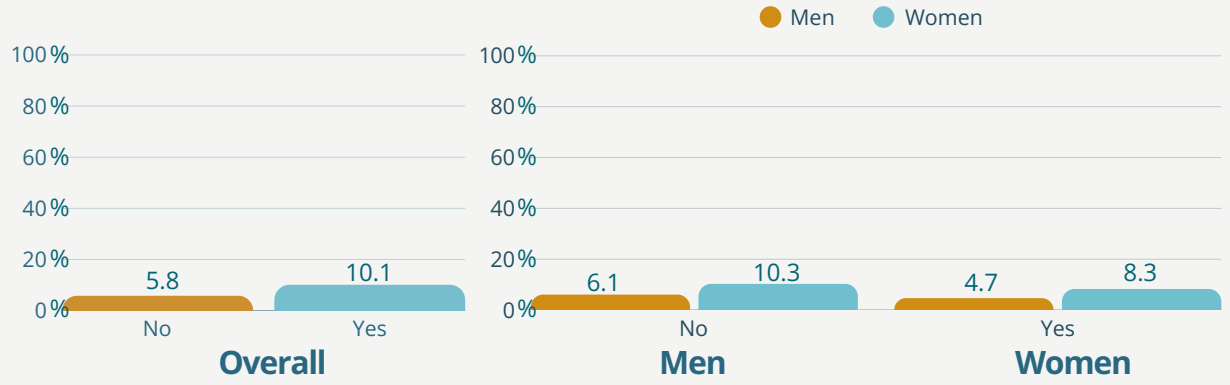
Taken together, these findings indicate that the PSA has reasonable predictive validity for the outcome *new criminal activity*. Importantly, these results evaluate the predictive performance of the tool itself, not the causes of rearrest.

Table 9, *Summary Predicting New Criminal Activity Across Groups*

Group	Risk Groups	AUC Score	Interpretation
Overall	6 groups	0.658	Acceptable evidence of prediction.
Men	6 groups	0.666	Acceptable and improved prediction.
Women	6 groups	0.626	Acceptable evidence of prediction.
White Individuals	6 groups	0.646	Acceptable evidence of prediction.
Black Individuals	6 groups	0.627	Acceptable evidence of prediction.
Hispanic Individuals	6 groups	0.677	Acceptable and improved prediction.
Misemeanor Cases	6 groups	0.634	Acceptable evidence of prediction.
Felony Cases	6 groups	0.592	Weak evidence of prediction.

7.5% 15.7% 19.1% 25.9% 30.1% 32.4%

Figure 13, Observed Rate of New Violent Criminal Activity Flag Overall and by Sex



AUC: 0.524
No evidence of reliably predicting *new violent criminal activity* when it occurs.

AUC: 0.525
No evidence of reliably predicting *new violent criminal activity* when it occurs.

AUC: 0.513
No evidence of reliably predicting *new violent criminal activity* when it occurs.

Predicting New Violent Criminal Activity Flag Groups

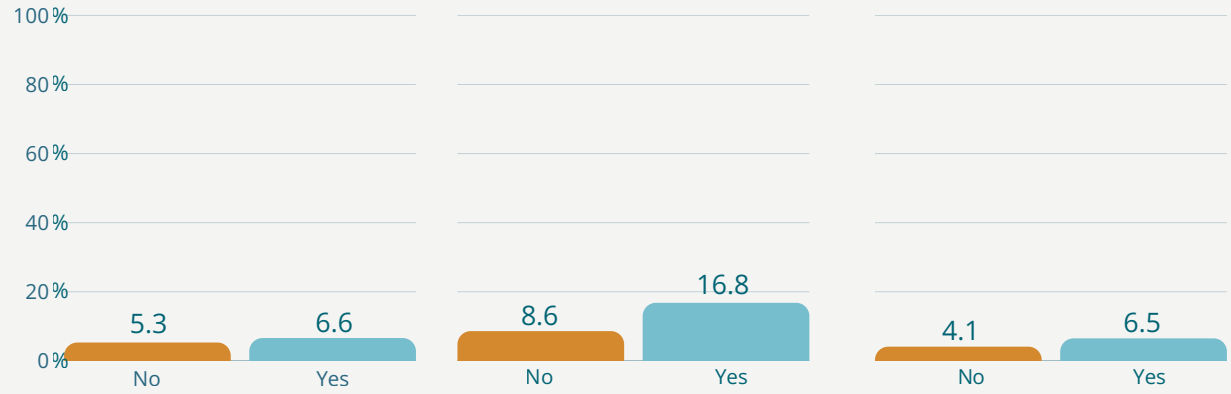
The *new violent criminal activity* (NVCA) flag shows a clear difference in average outcomes but very limited predictive discrimination. Individuals flagged as "Yes" experienced a rearrest for a new violent offense at a higher rate than those flagged "No" (approximately 10.1% compared to 5.8%), indicating that the flag is associated with an elevated rate of violence.

However, the overall ROC/AUC of 0.524 indicates that the flag performs only slightly better than chance at distinguishing between individuals who will and will not experience a new violent rearrest. This means that while the flagged group has a higher overall rate, the PSA provides very limited ability to correctly predict the occurrence of a new violent crime while on pretrial release.

Across the subgroup analyses the *new violent criminal activity* (NVCA) flag shows limited predictive validity. While subgroups flagged as "Yes" consistently experience higher rates of new violent criminal activity than those flagged "No," the tool's ability to distinguish between individuals who will and will not experience a new violent rearrest is very weak, with AUC values near 0.50 across all subgroups—similar to chance.

These findings indicate that the NCVA flag functions as a broad group-level indicator, identifying populations with higher average rates of violent rearrest, but it does not provide reliable individual-level prediction. This result is expected given low base rates of violence, generally.

Figure 14, Observed Rate of New Violent Criminal Activity Flag by Race and by Offense Level



White Individuals

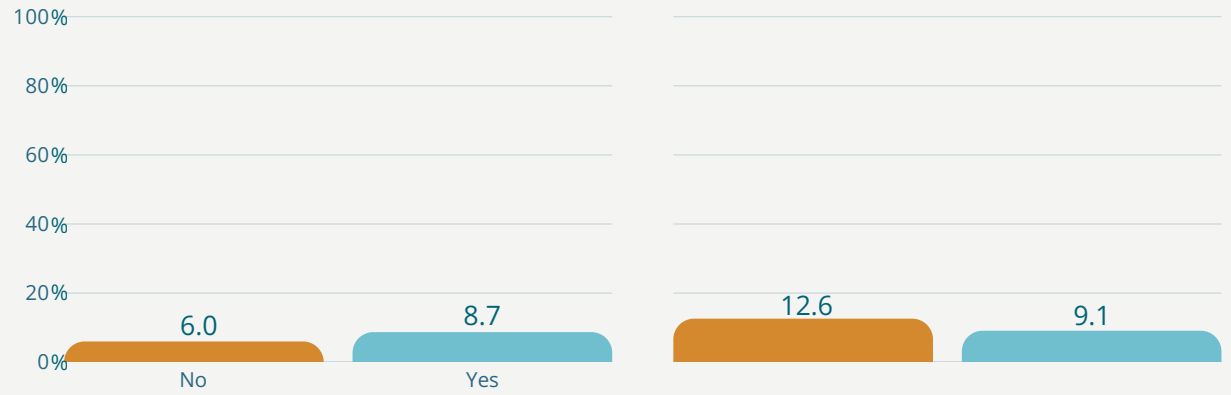
AUC: 0.507
No evidence of reliably predicting *new criminal activity* when it occurs.

Black Individuals

AUC: 0.546
Weak evidence of reliably predicting *new criminal activity* when it occurs.

Hispanic Individuals

AUC: 0.513
No evidence of reliably predicting *new criminal activity* when it occurs.



Misdemeanor

AUC: 0.527
No evidence of reliably predicting *new criminal activity* when it occurs.

Felony

AUC: 0.503
No evidence of reliably predicting *new criminal activity* when it occurs.

The results underscore and reaffirm Multnomah County's decision to not provide these results as part of the PSA Defendant Report to avoid providing inaccurate information to judges during arraignment proceedings.

The results reaffirm the County's decision to not use the NVCA flag.

EVIDENCE TO MOVE FORWARD

Evidence to Move Forward
Recommendations

Validating the Public Safety Assessment ensures the tool is accurate and reliable for Multnomah County. Specifically, the validation asked two questions:

- Does the PSA accurately estimate the likelihood for *failure to appear*, *new criminal activity*, and the *new violent criminal activity flag* for the Multnomah County population?

- Does the PSA perform similarly across different populations, including men and women, across different races, and offense types?

Does the PSA accurately estimate the likelihood for failure to appear, new criminal activity, and the new violent criminal activity flag for the Multomah County population?

The PSA shows acceptable evidence of predicting the pretrial outcomes *failure to appear* and *new criminal activity* for the Multnomah County community. However, there is limited evidence of the PSA's ability to predict for the new violent criminal activity.

Recommendation

We recommend Multnomah County continue to use the PSA as they current use it. Furthermore, we support the decision to ***not*** report information related to the violence flag as it did not demonstrate sufficient validity.

Does the PSA perform similarly across different populations?

The PSA demonstrates valid results across subgroups for both FTA and NCA outcomes.

While there is slight variation across subgroups, the instrument remains valid for men, women, white individuals, Black individuals, Hispanic individuals, and individuals charged with a misdemeanor.

For those individuals charged with a felony, the instrument demonstrated weak evidence of prediction. While we were not able to tease out why the tool did not perform as well for individuals

charged with felonies, it appears that length of pretrial status (how long it takes to process the person's case) may be correlated with higher rates of pretrial outcomes, regardless of PSA level—suggesting that the longer an individual is on pretrial release the more likely they are to miss court or experience a rearrest.

Below in *Table 10* we provide a summary of the predictive validity results for *failure to appear* and *new criminal activity*.

Recommendation

We recommended Multnomah County continue to use the PSA in its current form as it was acceptable across subgroups. Furthermore, we recommend Multnomah County explore ways to support individuals with felony cases on longer pretrial stays (12 months or more) to increase successful completion.

Table 10, *Summary Predicting Failure to Appear & New Criminal Activity Across Groups*

FTA Group	Risk Groups	AUC Score	Interpretation
Overall	6 groups	0.633	Acceptable evidence of prediction.
Men	6 groups	0.639	Acceptable and improved prediction.
Women	6 groups	0.619	Acceptable evidence of prediction.
White Individuals	6 groups	0.630	Acceptable evidence of prediction.
Black Individuals	6 groups	0.607	Acceptable evidence of prediction.
Hispanic Individuals	6 groups	0.635	Acceptable and improved prediction.
Misemeanor Cases	6 groups	0.631	Acceptable evidence of prediction.
Felony Cases	6 groups	0.587	Weak evidence of prediction.
NCA Group	**Risk Groups**	**AUC Score**	**Interpretation**
Overall	6 groups	0.658	Acceptable evidence of prediction.
Men	6 groups	0.666	Acceptable and improved prediction.
Women	6 groups	0.626	Acceptable evidence of prediction.
White Individuals	6 groups	0.646	Acceptable evidence of prediction.
Black Individuals	6 groups	0.627	Acceptable evidence of prediction.
Hispanic Individuals	6 groups	0.677	Acceptable and improved prediction.
Misemeanor Cases	6 groups	0.634	Acceptable evidence of prediction.
Felony Cases	6 groups	0.592	Weak evidence of prediction.

Endnotes

1 Lowenkamp, C. T., VanNostrand, M., & Holsinger, A. M. (2013). The hidden costs of pretrial detention. Laura and John Arnold Foundation. Retrieved here.

2 Scheadler, T.R., Radney, A., Smith, B.L. et al. (2025). A Scoping Review of the Relationships Between Cash Bail, Failure to Appear, Re-Arrest, Health and Well-Being, Race, and Gender. *American Journal of Criminal Justice*.

3 Nagel, I.H. (1983). The Legal/Extra-Legal Controversy: Judicial Decisions in Pretrial Release. *Law & Society Review.* 17(3), 481-515.

4 Lowenkamp, C. T., VanNostrand, M., & Holsinger, A. M. (2013). The hidden costs of pretrial detention. Laura and John Arnold Foundation. Retrieved here.

5 Desmarais, S. L., Monahan, J., & Austin, J. (2021). The Empirical Case for Pretrial Risk Assessment Instruments. Criminal Justice and Behavior, 49(6), 807.

6 Viljoen, J. L., Goossens, I., Monjazeb, S., Cochrane, D. M., Vargen, L. M., Jonnson, M. R., Blanchard, A. J. E., Li, S. M. Y., & Jackson, J. R. (2025). Are risk assessment tools more accurate than unstructured judgments in predicting violent, any, and sexual offending? A meta-analysis of direct comparison studies. Behavioral Sciences and the Law, 43, 75–113.

7 Table adapted from Public Safety Assessment: Risk Factors and Formula report by Arnold Ventures.

8 Table adapted from Public Safety Assessment: Risk Factors and Formula report by Arnold Ventures.

9 Table adapted from Public Safety Assessment: Risk Factors and Formula report by Arnold Ventures.

10 Demuth, D. & Steffensmeier, D. (2004). The Impact of Gender and Race-Ethnicity in the Pretrial Release Process. *Social Problems.* 51(2), 222-242.

endnotes continued

11 We use the term 'sex' to present the sex binary categorization as captured by Multnomah County Sheriff's Office data and not self-reported gender identity. The Multnomah County data used for this analysis currently does not include gender identity. We recognize the demographic representation of our sample may be different when considering gender identity and could include representation from individuals who identify as non-binary, gender non-conforming, and/or transgender. We believe it is important for administrative data to consider the full spectrum of identity to understand the individual experience and disparate outcomes more adequately. Given Multnomah County's inclusive approach to housing transgender individual at MCDC and other inclusive policies, we encourage the Multnomah County's Sheriff's office to consider collecting demographic information to include: 'transgender men' and 'transgender women.'

12 We report race as the mutually exclusive categories captured by Multnomah County Sheriff's Office data. Importantly, we separate "Hispanic" Indiivudals into their own racial category, rather by ethnicity, to reflect the administrative categorization. We cannot determine individuals in the sample who identify as bi- or multiracial, including ethnicially Hispanic, or who identify in other ways than what is captured by the agency. We recognize self-reported racial and ethnic identity is critical for accurately reporting the true demographic profile of the sample, the individual's experience, and disparities, if any. In this document, we refer to "Black" as anyone belonging to the African diaspora. Additionally, in line with Crenshaw (1988:1332), we capitalize "Black" and "Hispanic" as these individuals constitute specific cultural groups and, as such, require denotation as a proper noun. We do not capitalize white, as white people are not a single cultural group. Crenshaw, Kimberlé (1988). Race, Reform and Retrenchment: Transformation and Legitimation in Anti-Discrimination Law. Harvard Law Review.

13 Individuals identified as Asian, Native American or Alaska Native, Native Hawaiian or Pacific Islander, as well as individuals with unknown racial identity, were excluded from the predictive validity analyses. The number of cases within these groups was too small to support reliable predictive modeling or ROC/AUC analyses across the PSA's six risk levels. Including these groups would not yield statistically meaningful or interpretable results. As a result, this validation cannot assess how well the PSA predicts pretrial outcomes for these populations, and no conclusions or recommendations should be drawn regarding predictive performance for these groups based on this study. Importantly, the exclusion of these groups from predictive analyses does not suggest they are unimportant or should be overlooked. Rather, it reflects a limitation of the available data. We strongly encourage Multnomah County to conduct descriptive analyses, such as cross-tabulations of outcomes by race/ethnicity, to better understand pretrial experiences for these individuals. While such analyses cannot evaluate predictive accuracy, they can still provide valuable insight into patterns, outcomes, and potential areas for further inquiry or data improvement.

14 This is a departure from the full sample of 7,077 because 48 individuals were missing items associated with the NCA scale and not included in the analyses.

Appendix

Multnomah County PSA Violent Offense List

Statute	Name of Statute
163.535	Abandon Child
166.07	Aggravated Harassment
163.095	Aggravated Murder
163.149	Aggravated Vehicular Homicde
164.635	Arson in the First Degree
163.185	Assault in the First Degree
163.160	Assault in the Fourth Degree (M, DV)
163.175	Assault in the Second Degree
163.165	Assault in the Third Degree
163.208	Assaulting a Public Safety Officer
161.405	Attempt
166.165	Bias Crime in the First Dgree
164.225	Burglary in the First Degree
475.908	Causing Another to Ingest a Controlled Substance
161.455	Co-Conspirator Conspiracy with Third Party
167.017	Compelling Prostitution
161.450	Conspiracy

Statute	Name of Statute
163.435	Contributing to the Sexual Delinquency of a Minor
163.005	Criminal Homicide
163.205	Criminal Mistreatment in the First Degree
163.145	Criminally Negligent Homicde
163.684	Encouraging Child Sexual Abuse in the First Degree
163.686	Encouraging Child Sexual Abuse in the Second Degree
163.687	Encouraging Child Sexual Abuse in the Third Degree
163.575	Endanger Welfare of Minor
163.160	Felony Assault in the Fourth Degree
163.207	Female Genital Mutilation
163.118	First Degree Manslaught
163.054	Furnishing Sexually Explict Material to a Child
163.197	Hazing

EVIDENCE TO MOVE FORWARD

Validating the Public Safety Assessment (PSA)

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