



**Virginia Criminal  
Sentencing Commission**

**November 6, 2025**

# **Virginia Pretrial Data Project:**

**2023**

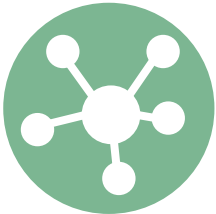
**Cohort Analysis**



# Virginia Pretrial Data Project Overview



The **PRETRIAL DATA PROJECT** was established in 2018 to address the *significant lack of data available* to answer questions regarding various pre-trial release mechanisms, conditions of pretrial release, appearance at court proceedings, and public safety.



The Project was an *unprecedented, collaborative effort* between numerous state and local agencies representing all three branches of government.



The 2021 General Assembly passed legislation directing the *Sentencing Commission to continue this work*.

The Commission's first report was submitted December 1, 2022.



# Virginia Pretrial Data Project Overview



## E-Magistrate System

- Defendants brought before magistrates



## Pretrial and Community Corrections (PTCC) Case Management System

- Defendants on pretrial services agency supervision
- Defendants on active local probation



## Court Case Management Systems

- Case dispositions and FTA
- Defendants released on summons or charged by direct indictment



## Central Criminal Records Exchange

- New in-state arrests
- FTA



Alexandria circuit court system completed switching back to CMS/CIS in Sep 2024.



## Corrections Information System (CORIS)

- Defendants on active state probation



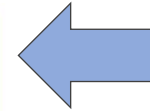
## Circuit Court Case Management System

- Case dispositions and FTA
- Defendants released on summons or charged by direct indictment



## Compensation Board- Local Inmate Data System (LIDS)

- Jail committals and releases
- Lengths of stay



Data for the Project is obtained from numerous agencies.

Compiling the data requires numerous iterations of data cleaning, merging, and matching to ensure accuracy when linking information from each data system to each defendant in the cohort.



More than 500 data elements are captured for each defendant.



# Virginia Pretrial Data Project

## Collection of Out-Of-State Criminal History Records



### Data Exchanges with Federal Bureau of Investigation (FBI)

**The Commission finally received the approval. The Commission worked with FBI to standardize data exchange procedure and nearly completed normalizing the process. Regarding this, data for CY2022 Cohort (last year) was used.\***

**However, after finalizing the FBI application for this year's study cohort (CY2023), an unforeseeable external event (e.g., government shutdown) made it impossible to obtain out-of-state criminal history data for this year's data**

**\* the Commission reviewed all returned data from FBI and found out that about 30% of the defendants in the main CY2022 cohort data have out-of-state history.**



# Virginia Pretrial Data Project

## Study Cohorts



### NEWEST COHORTS

Commission staff selected individuals with pretrial contact events during CY2023.

For individuals with more than one contact event during the period, only the first event was selected.

### FOLLOW-UP PERIOD

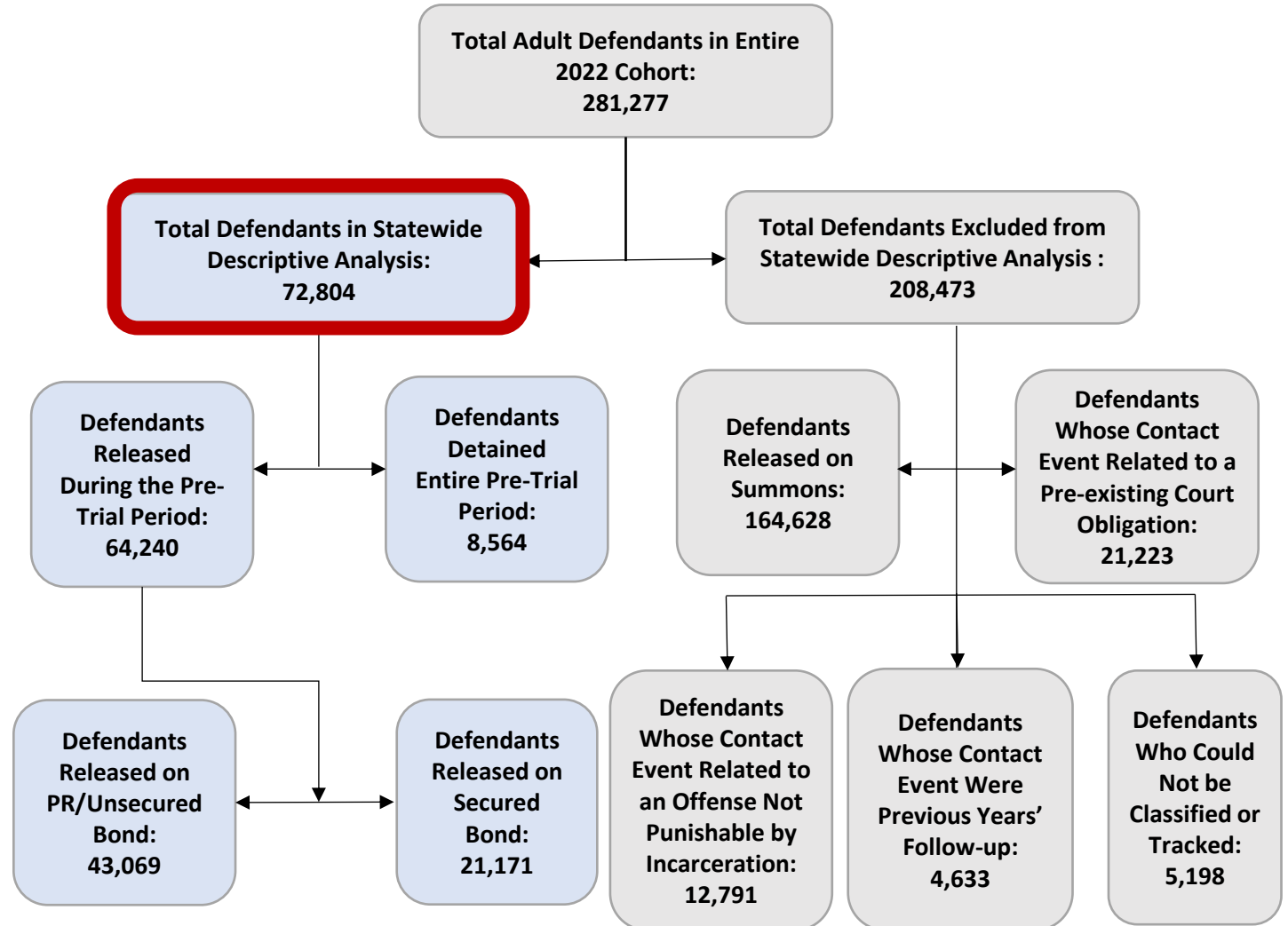
Individuals are tracked for a minimum of 15 months or until disposition of the case, whichever occurs first.

- For the CY2023 cohort, follow-up ended March 2025



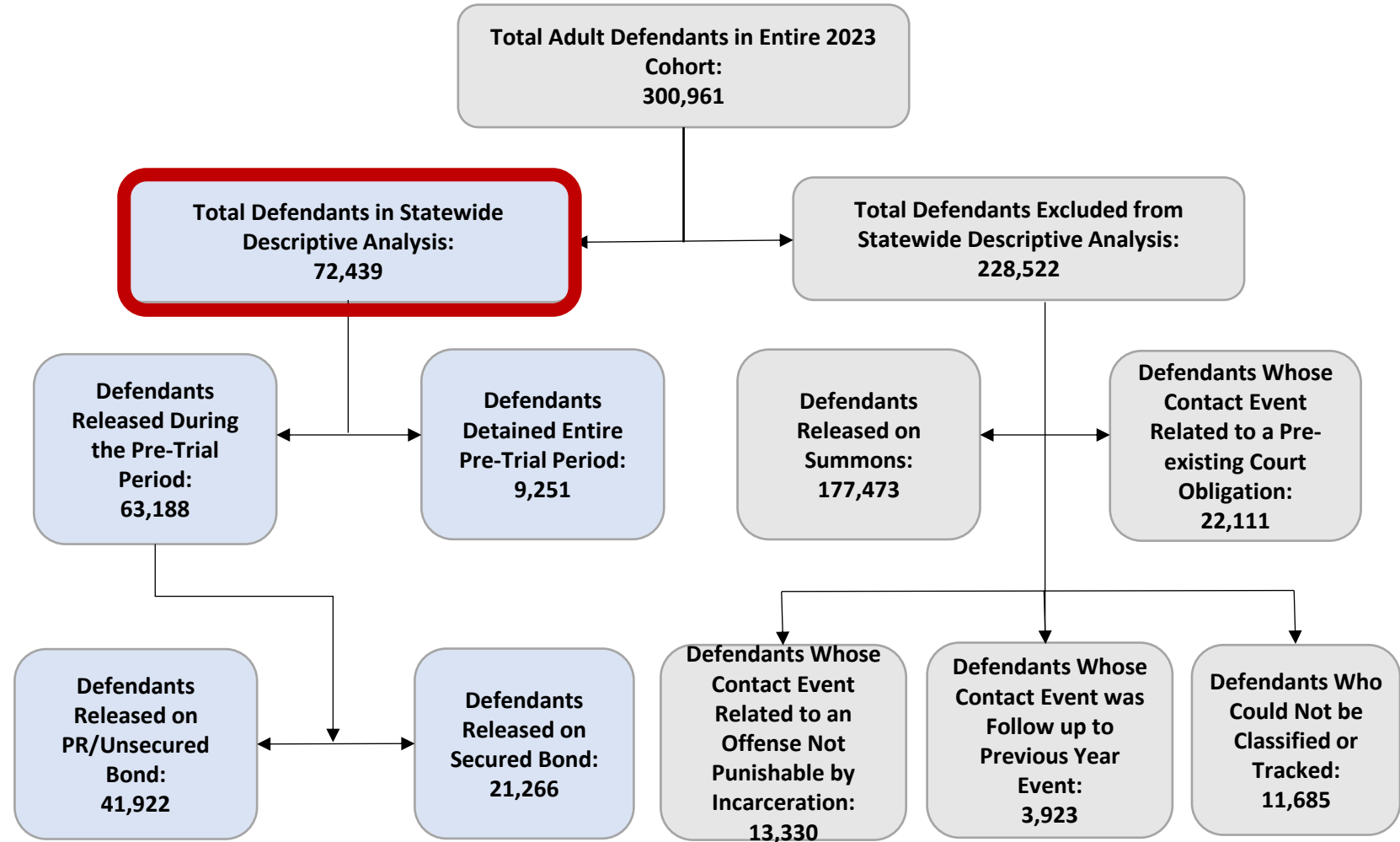
# Pretrial Data Project CY2022 Cohort

The analysis focuses on adult defendants whose contact event included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.

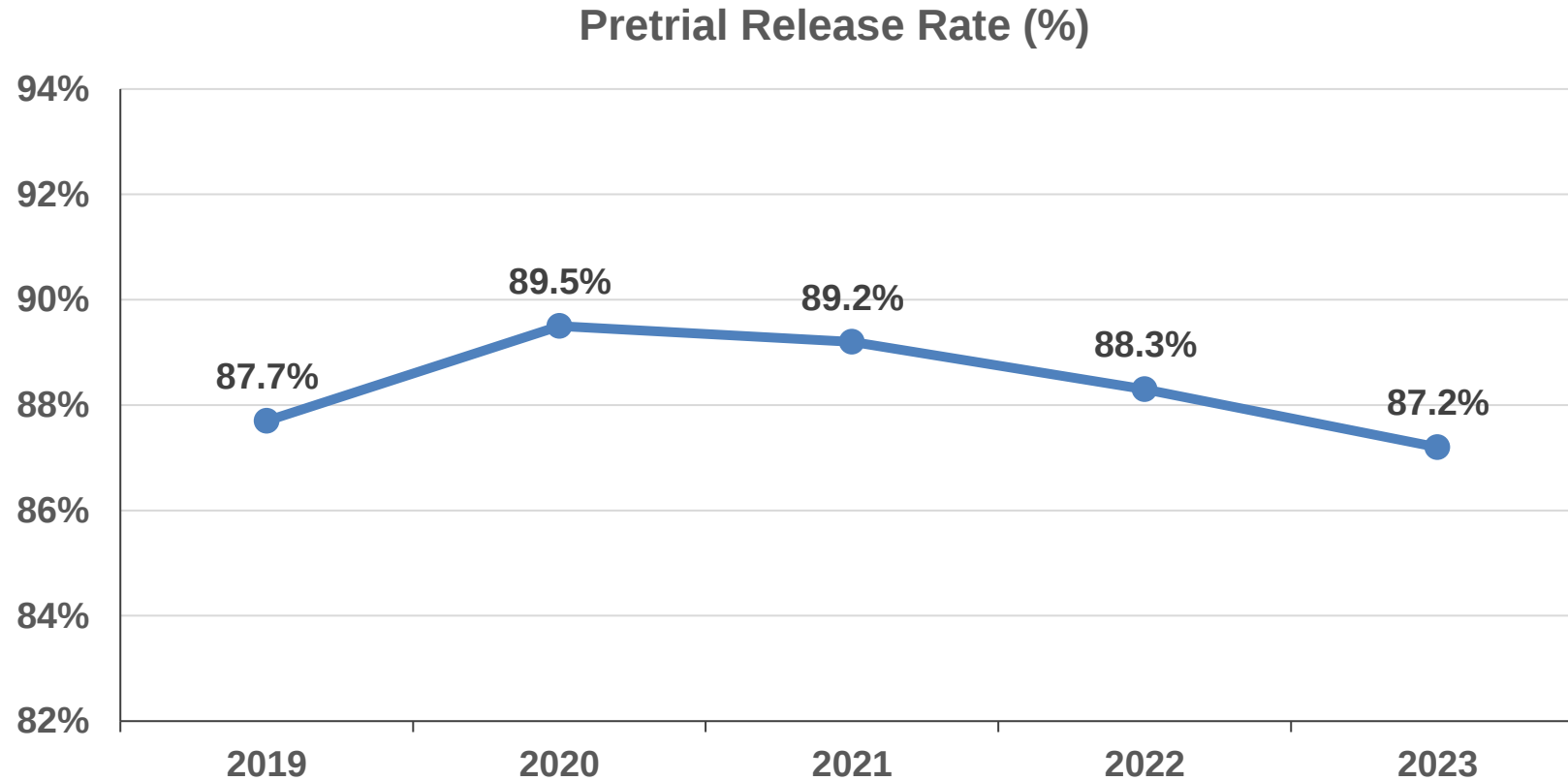


# Pretrial Data Project CY2023 Cohort

The analysis focuses on adult defendants whose contact event included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.



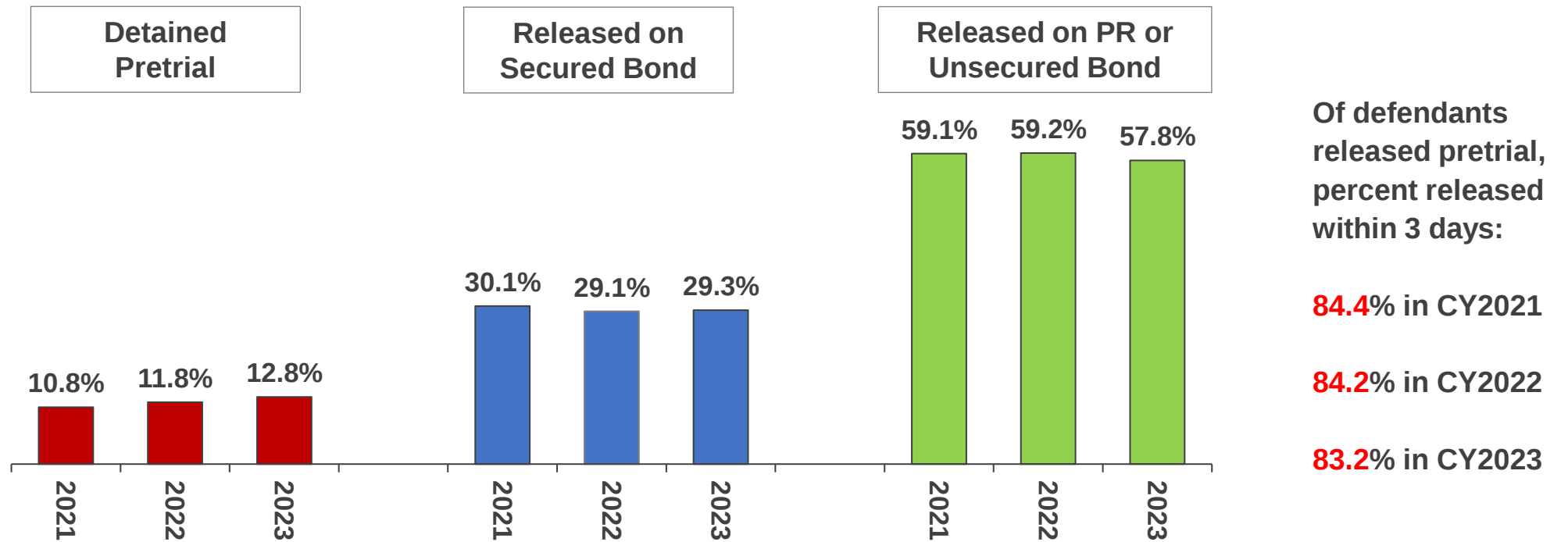
# Pretrial Release of Defendants (CY2019 – CY2023)



This analysis is based on pretrial contact events that included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.



# Pretrial Release Status of Defendants in CY2021, CY2022 & CY2023 Cohorts



This analysis is based on pretrial contact events that included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.



# CY2021, CY2022 & CY2023 Cohorts

## Charges

Percentage of individuals charged with felony stays around 45-46%

The most common felony charge continues to be a drug offense but the percentage has declined since CY2021.

Assault remained the most common misdemeanor offense.

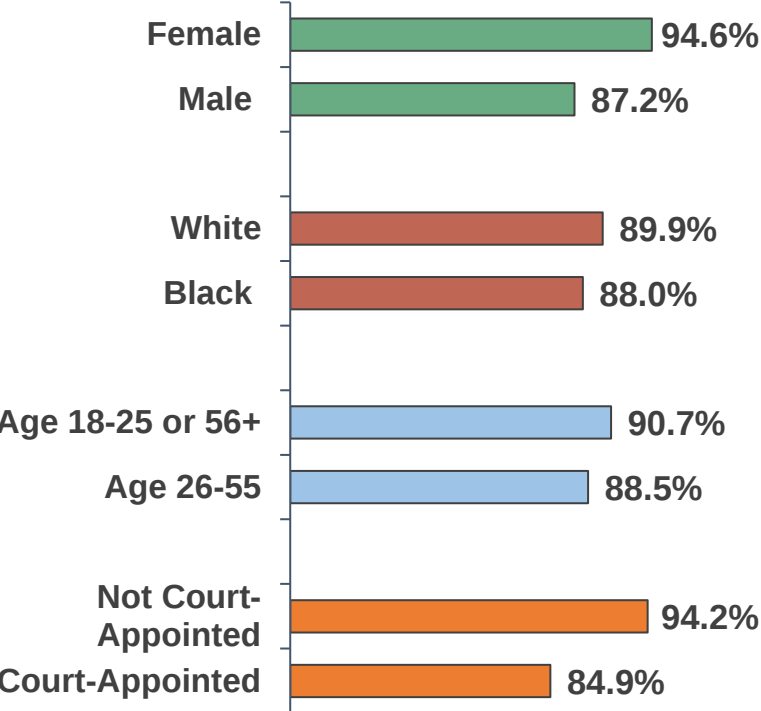
|                            | CY2021        | CY2022        | CY2023        |
|----------------------------|---------------|---------------|---------------|
| <b>Most Serious Charge</b> |               |               |               |
| Felony                     | 46.1%         | 45.1%         | 46.0%         |
| Misdemeanor                | 53.9%         | 54.9%         | 54.0%         |
| Special/Undetermined       | 0.0%          | 0.1%          | 0.0%          |
| <b>Felonies</b>            |               |               |               |
| Drug                       | 29.3%         | 28.4%         | 28.5%         |
| Larceny                    | 13.5%         | 12.8%         | 12.5%         |
| Assault                    | 13.9%         | 14.3%         | 14.4%         |
| Fraud                      | 5.1%          | 5.5%          | 6.0%          |
| Weapon/Firearm             | 7.8%          | 7.9%          | 7.7%          |
| Other Felonies             | 30.3%         | 31.2%         | 30.9%         |
| <b>Misdemeanors</b>        |               |               |               |
| Assault                    | 37.2%         | 35.9%         | 34.7%         |
| DUI                        | 33.1%         | 32.3%         | 32.9%         |
| Larceny                    | 3.7%          | 4.8%          | 5.1%          |
| Obstruction of Justice     | 2.9%          | 3.2%          | 3.3%          |
| Drug                       | 0.7%          | 0.5%          | 0.4%          |
| Other Misdemeanors         | 22.4%         | 23.3%         | 23.4%         |
| <b>Total Defendants</b>    | <b>70,311</b> | <b>72,769</b> | <b>72,439</b> |

This analysis is based on pretrial contact events that included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.

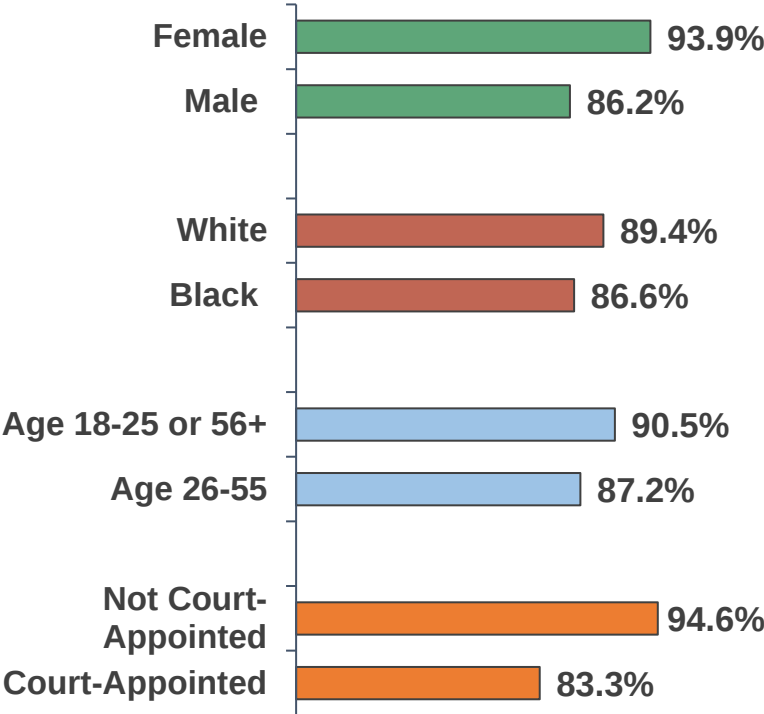


# Pretrial Release Rates and Defendant Characteristics

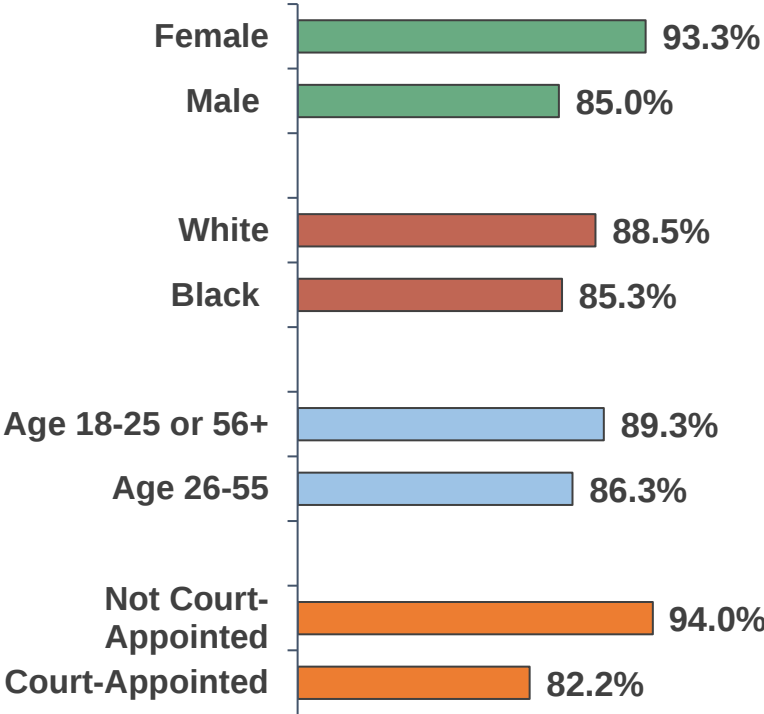
Percent Released Pretrial  
CY2021



Percent Released Pretrial  
CY2022



Percent Released Pretrial  
CY2023

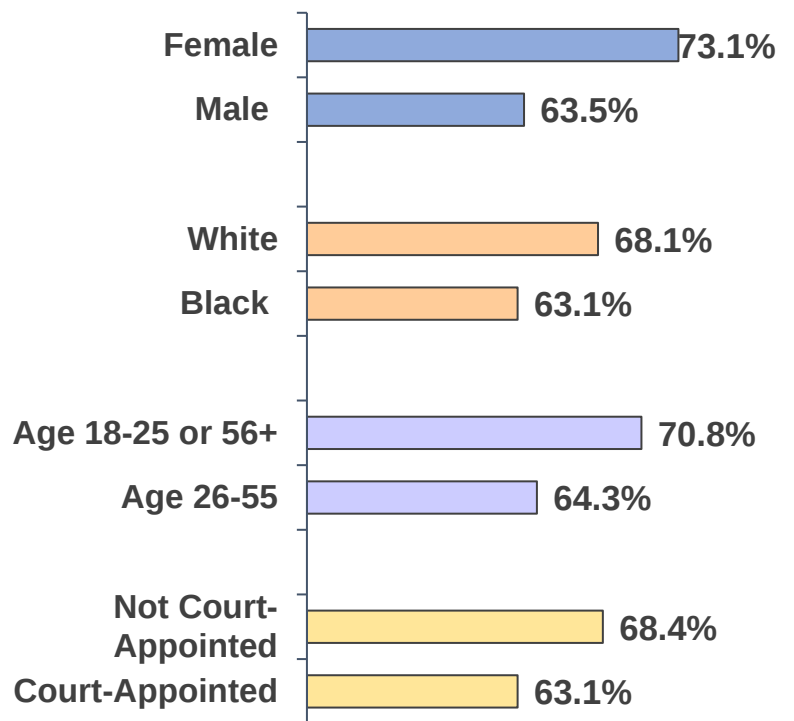


Analysis is based on defendants whose pretrial contact event included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer; however, defendants in other categories or who have missing information are excluded from the chart.

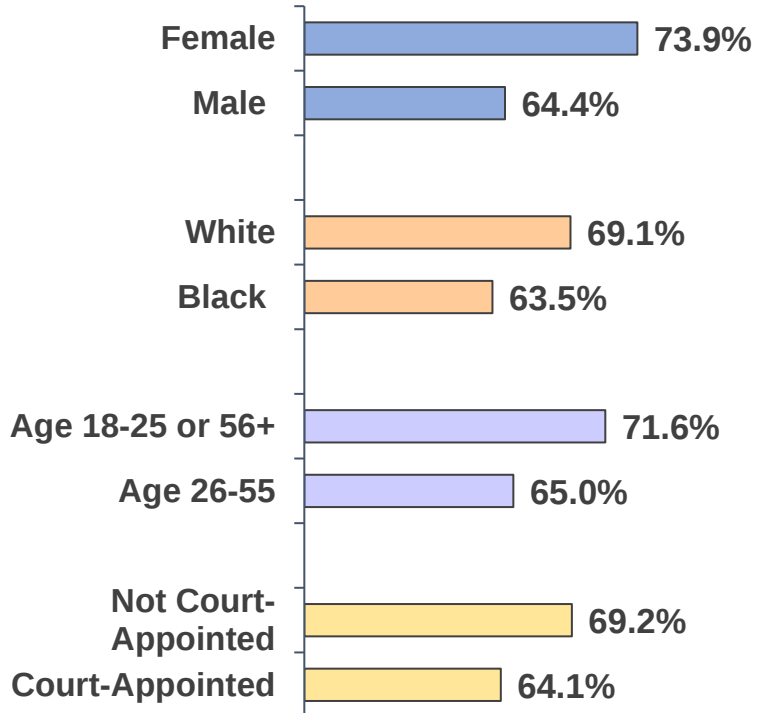
Court-Appointed Indicates whether the attorney type at case closure in the Court Case Management System (CMS) was noted as a public defender or court-appointed attorney.

# Bond Type at Release and Defendant Characteristics

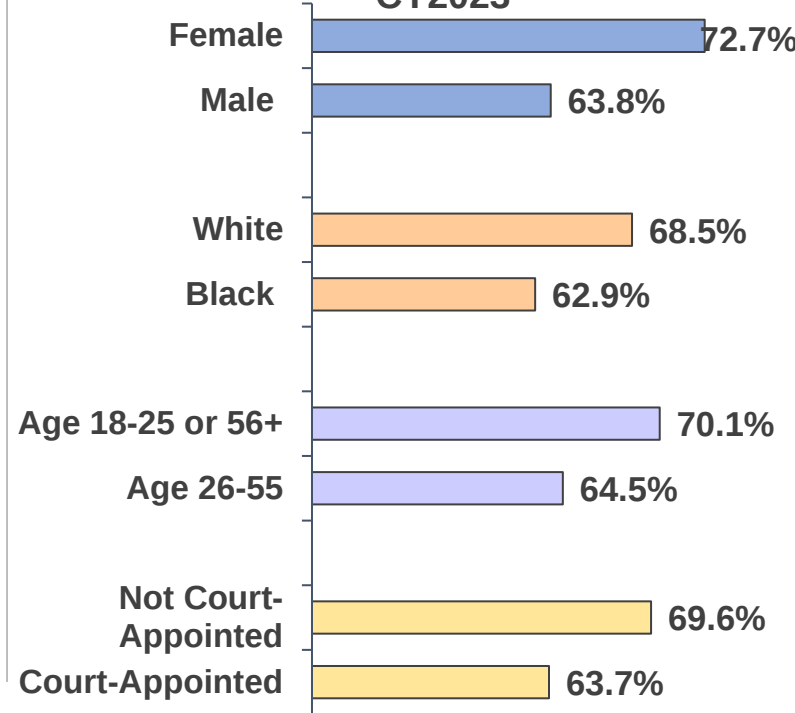
Percent Released on  
PR or Unsecured Bond  
CY2021



Percent Released on  
PR or Unsecured Bond  
CY2022



Percent Released on  
PR or Unsecured Bond  
CY2023



Analysis is based on defendants who were charged with a criminal offense punishable by incarceration and, following a bail determination made by a judicial officer, were released during the pretrial period.

Court-Appointed Indicates whether the attorney type at case closure in the Court Case Management System (CMS) was noted as a public defender or court-appointed attorney.

# Pretrial Risk Assessment

Risk assessment tools are commonly used at various stages within the criminal justice system.

Studies have consistently found that validated actuarial risk assessment tools combined with professional judgment produce better outcomes than subjective professional judgement alone.

The Public Safety Assessment (PSA) is a pretrial risk assessment tool developed by Arnold Ventures that has been validated in a number of states/ localities outside of Virginia.

Unlike other tools, the PSA does not require an interview with the defendant.



## RELATIONSHIP BETWEEN RISK FACTORS AND PRETRIAL OUTCOMES

| Risk Factor                                       | FTA: Failure to Appear<br>NCA: New Criminal Arrest(Jailable)<br>NVCA: New Violent Criminal Arrest | FTA | NCA | NVCA |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------|-----|-----|------|
| 1. Age at current arrest                          |                                                                                                   |     | X   |      |
| 2. Current violent offense                        |                                                                                                   |     |     | X    |
| Current violent offense & 20 years old or younger |                                                                                                   |     |     | X    |
| 3. Pending charge at the time of the offense      |                                                                                                   | X   | X   | X    |
| 4. Prior misdemeanor conviction                   |                                                                                                   |     | X   |      |
| 5. Prior felony conviction                        |                                                                                                   |     | X   |      |
| Prior conviction (misdemeanor or felony)          |                                                                                                   | X   |     | X    |
| 6. Prior violent conviction                       |                                                                                                   |     | X   | X    |
| 7. Prior failure to appear in the past two years  |                                                                                                   | X   | X   |      |
| 8. Prior failure to appear older than two years   |                                                                                                   | X   |     |      |
| 9. Prior sentence to incarceration                |                                                                                                   |     | X   |      |

*Note: Boxes where an "X" occurs indicate that the presence of a risk factor increases the likelihood of that outcome for a given defendant.*

<https://www.arnoldventures.org/stories/public-safety-assessment-risk-tool-promotes-safety-equity-justice>

# CY2021, CY2022 & CY2023 Cohorts Release Rate by Assigned PSA FTA and NCA Scores

As PSA Scores increase, the percentage of defendants released pretrial decreases for both FTA (Failure to Appear) or NCA (New Criminal Arrest) measures.

Since CY2020 (Covid 19), proportionally fewer defendants assigned with higher PSA Scores (5 or 6) have continued to be released.

## Pretrial Release Rate by PSA FTA Score

|                 | Pretrial Release Rate |        |        |
|-----------------|-----------------------|--------|--------|
|                 | 2021                  | 2022   | 2023   |
| PSA FTA Score 1 | 94.1%                 | 93.7%  | 92.8%  |
| PSA FTA Score 2 | 89.6%                 | 88.4%  | 88.7%  |
| PSA FTA Score 3 | 83.9%                 | 81.7%  | 80.8%  |
| PSA FTA Score 4 | 77.5%                 | 76.8%  | 75.3%  |
| PSA FTA Score 5 | 70.4%                 | 65.9%  | 67.2%  |
| PSA FTA Score 6 | 66.2%                 | 60.1%  | 59.3%  |
| Total           | 70,311                | 72,769 | 72,439 |

## Pretrial Release Rate by PSA NCA Score

|                 | Pretrial Release Rate |        |        |
|-----------------|-----------------------|--------|--------|
|                 | 2021                  | 2022   | 2023   |
| PSA NCA Score 1 | 94.2%                 | 93.7%  | 92.7%  |
| PSA NCA Score 2 | 94.3%                 | 93.7%  | 93.4%  |
| PSA NCA Score 3 | 87.1%                 | 85.4%  | 85.3%  |
| PSA NCA Score 4 | 77.2%                 | 75.9%  | 76.4%  |
| PSA NCA Score 5 | 75.4%                 | 74.2%  | 73.8%  |
| PSA NCA Score 6 | 67.6%                 | 63.6%  | 63.3%  |
| Total           | 70,311                | 72,769 | 72,439 |

This analysis is based on pretrial contact events that included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.

Defendants whose contact event was a follow-up to a contact event during the previous year were excluded for CY2021 - CY2023.



# Pretrial Data Project

## Outcome Measures

### COURT APPEARANCE OUTCOME

Whether the released defendant was charged with failure to appear (FTA) or contempt of court for failure to appear during the pretrial period

### PUBLIC SAFETY OUTCOME

Whether the released defendant had a new in-state arrest for an offense punishable by incarceration during the pretrial period (excluding FTA and probation violations, etc.)

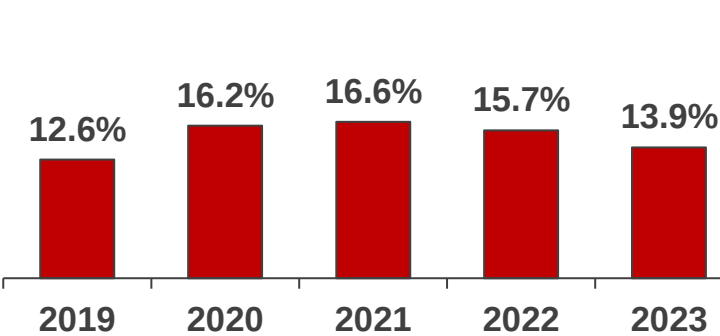
Both offense date and arrest date must be between the first contact event date and final disposition date.



# Pretrial Outcome Measures

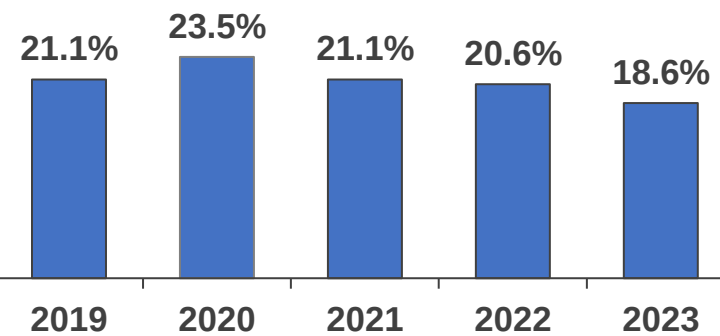
## COURT APPEARANCE Outcomes for Released Defendants

Percent Charged with  
Failure to Appear



## PUBLIC SAFETY Outcomes for Released Defendants

Percent with New In-State Arrest  
for Offense Punishable by  
Incarceration



This analysis is based on the defendants who were charged with a criminal offense punishable by incarceration and, following a bail determination made by a judicial officer, were released during the pretrial period.



# CY2020, CY2021 & CY2022 Cohorts Pretrial Outcomes by Assigned PSA Scores for new FTA & NCA.

In general, the rate for new FTA or NCA increases along with the level of PSA Scores, showing upward stair-step patterns.

In CY2023, proportionally fewer defendants assigned with higher PSA Scores (5 or 6) have been re-arrested (NCA).

Note: Defendants whose contact event was a follow-up to a contact event during the previous year were excluded for CY2021,CY2022, & CY2023.

New FTA Rate by PSA FTA Score

|                 | Failure to Appear Rate |        |        |
|-----------------|------------------------|--------|--------|
|                 | 2021                   | 2022   | 2023   |
| PSA FTA Score 1 | 12.4%                  | 11.8%  | 10.7%  |
| PSA FTA Score 2 | 16.2%                  | 15.0%  | 12.6%  |
| PSA FTA Score 3 | 22.1%                  | 21.3%  | 17.6%  |
| PSA FTA Score 4 | 28.2%                  | 27.5%  | 23.7%  |
| PSA FTA Score 5 | 35.0%                  | 38.1%  | 32.9%  |
| PSA FTA Score 6 | 43.9%                  | 47.1%  | 40.4%  |
| Total Released  | 62,709                 | 64,219 | 63,188 |

New Criminal Arrest by PSA NCA Score

|                 | New Criminal Arrest Rate |        |        |
|-----------------|--------------------------|--------|--------|
|                 | 2021                     | 2022   | 2023   |
| PSA NCA Score 1 | 13.0%                    | 12.8%  | 11.3%  |
| PSA NCA Score 2 | 20.2%                    | 20.0%  | 17.4%  |
| PSA NCA Score 3 | 26.4%                    | 25.5%  | 23.4%  |
| PSA NCA Score 4 | 33.5%                    | 32.4%  | 29.1%  |
| PSA NCA Score 5 | 36.0%                    | 36.4%  | 30.2%  |
| PSA NCA Score 6 | 41.9%                    | 41.2%  | 37.5%  |
| Total Released  | 62,709                   | 64,219 | 63,188 |

This analysis is based on the defendants who were charged with a criminal offense punishable by incarceration and, following a bail determination made by a judicial officer, were released during the pretrial period.





**Virginia Criminal  
Sentencing Commission**

**November 6, 2025**

# **Virginia Pretrial Data Project:**

## **2023 Cohort Analysis**





**Virginia Criminal  
Sentencing Commission**

**November 6, 2025**

**Virginia Pretrial  
Data Project:**

**The Study of  
Pretrial Services  
Supervision in  
Virginia**



# New Research based on the updated Pretrial Data

## **The Research Objective: Examine the Association between VA Pretrial Service Supervisions and Pretrial Outcomes (Failure to Appear and New In-State Arrest Punishable by Incarceration).**

- The Accumulation of Pretrial Data enables the researchers to conduct the accurate and reliable statistical analyses
- The findings and data presented here do not establish any absolute inferences or truth
  - Analyses are still based on subset of population in VA pretrial system (e.g. 1<sup>st</sup> contact event in a given calendar year –not based on the preexisting conditions)
  - The direct causal relationship is an always a difficult task.



# Existing Studies on Pretrial Services Supervision

## Mixed Findings

- Pretrial supervision: linked with a better outcome if it is placed on a defendant with: serious felony charges, longer case processing time, a number of available sanctions to be imposed against noncompliance.
- Generally, these studies indicate that pretrial supervision has a positive effect on defendant's court appearance or Failure to Appear (Both Nationwide and Selected US cities).
- Other studies provide the findings: insignificant or only minimal impact on defendant's behaviors and outcomes. Sometimes, more frequent pretrial monitoring is associated with the higher rates of pretrial misconducts (Both Nationwide and Selected US cities).

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### References

- Austin, J., Krisberg, B., & Litsky, P. (1985). The Effectiveness of Supervised Pretrial Release. *Crime & Delinquency*, 31(4), 519–537.
- David Levin. (2016). *Examining the Efficacy of Pretrial Release Conditions, Sanctions and Screening with the State Court Processing Statistics Dataseries*. Annual Meeting of the American Society of Criminology, Atlanta, GA.
- Goldkamp, J. S., & White, M. D. (2006). Restoring accountability in pretrial release: The Philadelphia pretrial release supervision experiments. *Journal of Experimental Criminology*, 2(2), 143–181.
- Lowder, E. M., & Foudray, C. M. A. (2021). Use of Risk Assessments in Pretrial Supervision Decision-Making and Associated Outcomes. *Crime & Delinquency*, 67(11), 1765–1791.
- Lowenkamp, C. T., & VanNostrand, M. (2013). *Exploring the Impact of Supervision on Pretrial Outcomes* (pp. 1–22). Arnold Foundation.
- Zottola, S. A., Crozier, W. E., Ariturk, D., & Desmarais, S. L. (2023). Court date reminders reduce court nonappearance: A meta-analysis. *Criminology & Public Policy*, 22(1), 97–123



# Pretrial Services Agencies in Virginia

## The Virginia Pretrial Services Act in 1995

- VA General Assembly Enacted pretrial services agencies with the use of pretrial risk assessment tool (currently, Virginia Pretrial Risk Assessment Instrument (VPRAI)).
- The Act intended to make most informed decisions in bail decisions, safely reduces overcrowded jail population, direct nonviolent defendants to the community supervision (as an alternative to jail confinement).
- Under § 19.2-152.4:3, the duties and responsibilities of pretrial services officers are also specified.
- As of FY2024, 35 pretrial service agencies were serving 116 of Virginia's 133 cities and counties.

**Source:** DCJS (2024). *Report on Pretrial Service Agencies: FY2024*. Virginia Department of Criminal Justice Services.



# The Data and Summary of Study Group

## PRIMARY DATA

Virginia Pretrial Data Project Data (CY2021 - CY2023).

## STUDY GROUP

Released defendants from main cohort (CY2021 - CY2023).

|                             | Number of Defendants (Percentage) |                      |                      |
|-----------------------------|-----------------------------------|----------------------|----------------------|
|                             | 2021                              | 2022                 | 2023                 |
| Received Supervision        | 10,527 (16.8%)                    | 11,366 (17.7%)       | 11,739 (18.6%)       |
| Did Not Receive Supervision | 52,182 (83.2%)                    | 52,853 (82.3%)       | 51,449 (81.4%)       |
| <b>Total Released</b>       | <b>62,709 (100%)</b>              | <b>64,219 (100%)</b> | <b>63,188 (100%)</b> |

|                             | 2021              |               | 2022              |               | 2023              |               |
|-----------------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
|                             | PR/Unsecured Bond | Secured Bond  | PR/Unsecured Bond | Secured Bond  | PR/Unsecured Bond | Secured Bond  |
| Received Supervision        | 52.6%             | 47.4%         | 53.2%             | 46.8%         | 52.9%             | 47.1%         |
| Did Not Receive Supervision | 69.0%             | 31.0%         | 70.0%             | 30.0%         | 69.4%             | 30.6%         |
| <b>Total Released</b>       | <b>41,560</b>     | <b>21,149</b> | <b>43,060</b>     | <b>21,159</b> | <b>41,922</b>     | <b>21,266</b> |



# Empirical Strategy: Logistic Regression with Inverse Probability of Treatment Weighting (IPTW)

## Logistic Regression augmented with Inverse Probability of Treatment Weighting (IPTW)

A popular statistical method when the dependent variable is binary (fail or not ).

The logistic model utilizes non-linear function (having non-linear relationship with probability), but it provides intuitive interpretation between independent and dependent variables by transforming a linear combination of the input/independent variables into a non-linear outputs.

The model is also utilized with Inverse Probability of Treatment Weighting (IPTW) to account for underlying differences between the defendants under pretrial service supervision and the ones without it.

Variables used to compute the propensity score for IPTW: Gender (gender of a defendant), Race, Age (defendant's age), Secured Bond (when released), Court-Appointed (public defender/court appointed rep.), and PSA score (unitary indicator of risk based on defendant's underlying legal characteristics).



# Regression Results

## Regression Results (with IPTW) for Failure to Appear and New Criminal Arrest (CY2021 – CY2023)

### MODELS

| Variable                                      | Failure to Appear |            | New Criminal Arrest |            |
|-----------------------------------------------|-------------------|------------|---------------------|------------|
|                                               | Log-Odds          | Odds Ratio | Log-Odds            | Odds Ratio |
| Pretrial Supervision                          | -0.334***         | 0.716***   | -0.011              | 0.989      |
| Days Between Release and<br>Final Disposition | 0.003***          | 1.003***   | 0.003***            | 1.003***   |
| Constant                                      | -2.533***         | 0.079***   | -2.357***           | 0.095***   |
| N                                             | 181,227           |            | 181,227             |            |
| Pseudo R <sup>2</sup>                         | 0.061             |            | 0.067               |            |

Note: Significance Level: \*10%, \*\*5%, \*\*\*1%

Calendar Year and Circuit Court dummies were included in the model, but they were omitted from the result table to avoid complexity.

The Results: Defendants under pretrial supervision has a lower likelihood of being arrested for new FTA (than those without it) –the finding is highly significant.

# Regression Results

**Regression Results (after IPTW) for Failure to Appear and New Criminal Arrest (CY2021 – CY2023): Only defendants with PSA scores 3 or higher**

## MODELS

| Variable                                   | Failure to Appear |            | New Criminal Arrest |            |
|--------------------------------------------|-------------------|------------|---------------------|------------|
|                                            | Log-Odds          | Odds Ratio | Log-Odds            | Odds Ratio |
| Pretrial Supervision                       | -0.400***         | 0.670***   | -0.261***           | 0.770***   |
| Days Between Release and Final Disposition | 0.003***          | 1.003***   | 0.003***            | 1.003***   |
| Constant                                   | -2.130***         | 0.119***   | -1.825***           | 0.161***   |
| N                                          | 42,178            |            | 59,687              |            |
| Pseudo R <sup>2</sup>                      | 0.084             |            | 0.073               |            |

Note: Significance Level: \*10%, \*\*5%, \*\*\*1%

Calendar Year and Circuit Court dummies were included in the model, but they were omitted from the result table to avoid complexity.

**The Results:** Defendants, with moderate to high PSA scores, under pretrial supervision have lower likelihood of being arrested for both FTA & NCA (than those without it) –the finding is highly significant.

# Summary of Findings & Directions for Future Research

## Summary of Findings

1. Based on regression analyses, when all released defendants were considered, the results indicate that the defendants receiving pretrial service supervision have lower likelihood of being arrested for new FTA (than those not under the supervision). This finding has a high level of statistical significance.
2. However, there is no statistically significant finding for the association between a pretrial service supervision and NCA (punishable by incarceration).
3. When the analyses focus on the group of defendants **with PSA scores of 3 or higher (moderate/ high risk level)**: Defendants under pretrial service supervision have lower likelihood of both FTA and NCA than those without the supervision. These findings have a high level of statistical significance.



# Summary of Findings & Directions for Future Research

## Direction of Future Research

As this study is only based on the subset of the population in VA pretrial system, more in-depth analyses are needed. The findings here would supplement such a larger scale research, reflecting an entire pretrial system in Virginia.

Future research also needs to examine further other external or jurisdiction-specific factors/context closely moderate the association between pretrial service supervision and outcomes. The use of surveys and qualitative interviews would be more beneficial for these purposes.





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**Virginia Pretrial  
Data Project:**

**The Study on  
Pretrial Services  
Supervision in  
Virginia**



# Pretrial Data Project

## Reporting and Deliverables (§ 19.2-134.1)

The Commission's next report is due to the General Assembly on **December 1, 2025**.

The **final data set** (with personal/case identifiers removed) must be made available on the Commission's website.

An **electronic interactive data dashboard tool** on the website must display aggregated data based on characteristics or indicators selected by the user.

