Virginia Criminal Sentencing Commission

June 12, 2023

**Virginia Pretrial Data Project:**

Preliminary Findings from Recent Research

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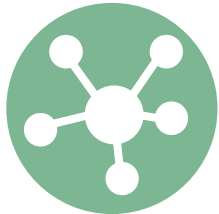
The Project was an *unprecedented, collaborative effort* between numerous state and local agencies representing all three branches of government.

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

Virginia Pretrial Data Project Overview

E-Magistrate System
- Defendants brought before magistrates

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

Circuit Court Case Management System
- Case dispositions and FTA
- Defendants released on summons or charged by direct indictment

Circuit Court Case Management System
- Case dispositions and FTA
- Defendants released on summons or charged by direct indictment

Pretrial and Community Corrections (PTCC) Case Management System
- Defendants on pretrial services agency supervision
- Defendants on active local probation

Central Criminal Records Exchange
- New in-state arrests
- FTA

Corrections Information System (CORIS)
- Defendants on active state probation

Compensation Board- Local Inmate Data System (LIDS)
- Jail committals and releases
- Lengths of stay
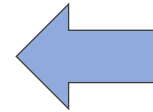
Data for the Project is obtained from numerous agencies.

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.

This process is intensive and requires meticulous attention to detail.

COHORT

Commission staff selected individuals with pretrial contact events during CY2018.

This provided a pre-COVID baseline.

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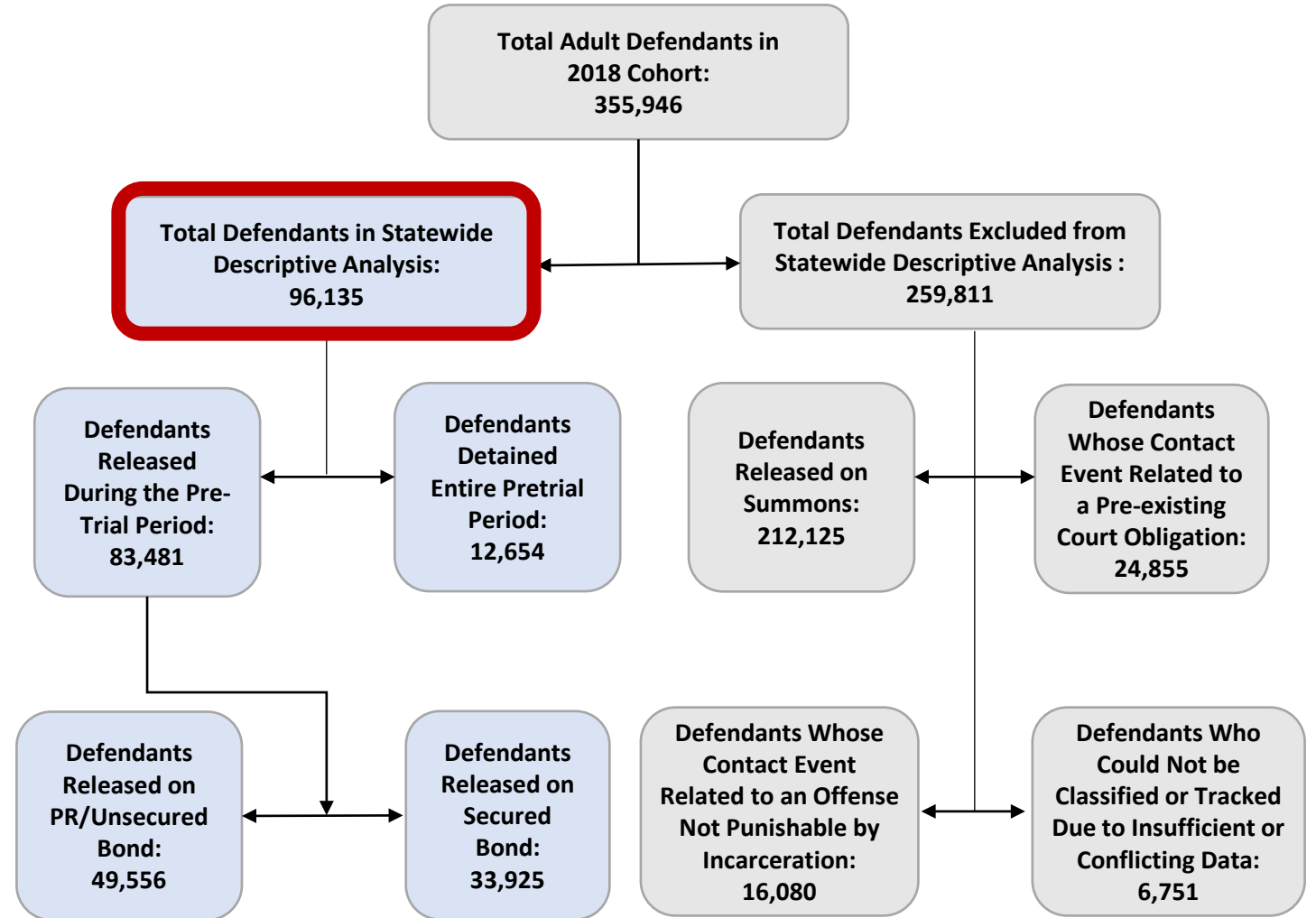
FOLLOW-UP PERIOD

Individuals were tracked for a minimum of 15 months (same as a previous study).

Follow-up period ran through March 2020.

Pretrial Data Project
CY2018 Cohort

The study focuses on the 96,135 adult defendants whose contact event included a criminal offense punishable by incarceration where a bail determination was made by a judicial officer.

Total Adult Defendants in 2018 Cohort: 355,946

Total Defendants in Statewide Descriptive Analysis: 96,135

Total Defendants Excluded from Statewide Descriptive Analysis : 259,811

Defendants Released During the Pre-Trial Period: 83,481

Defendants Detained Entire Pretrial Period: 12,654

Defendants Released on Summons: 212,125

Defendants Whose Contact Event Related to a Pre-existing Court Obligation: 24,855

Defendants Released on PR/Unsecured Bond: 49,556

Defendants Released on Secured Bond: 33,925

Defendants Whose Contact Event Related to an Offense Not Punishable by Incarceration: 16,080

Defendants Who Could Not be Classified or Tracked Due to Insufficient or Conflicting Data: 6,751

Pretrial Release Status

Pretrial Release Status of Defendants in Cohort

Released on Secured Bond 35.3%

Detained 13.2%

Released on PR or Unsecured Bond 51.5%
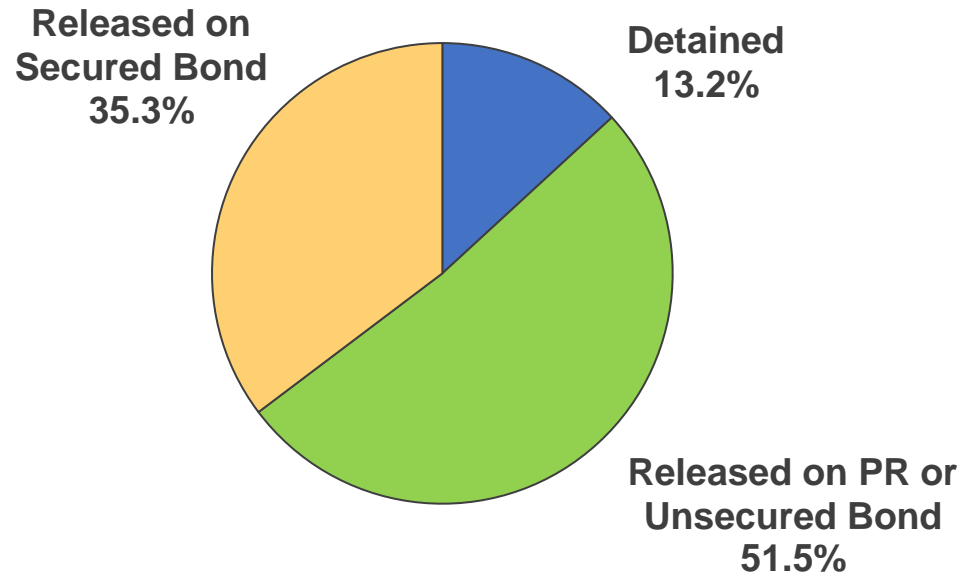
N=96,135

Number of Days from Contact Event to Pretrial Release (for Released Defendants)

68.5%

17.0%

11.4%

3.1%

| 0 | 1-3 | 4-30 | 30+ |

Days until Release
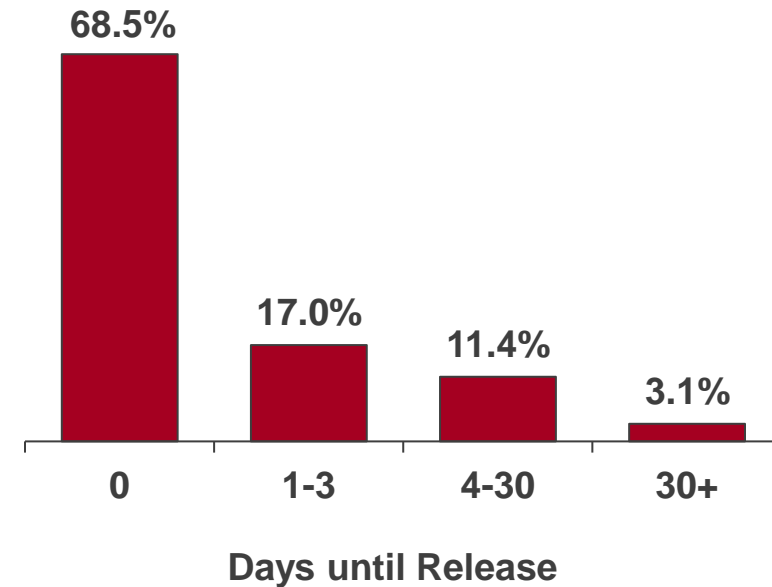
N=83,481

Descriptive Analysis

The Commission's Dec. 2022 report provides a snapshot of defendants at key points in the pretrial process.

Descriptive analysis cannot explain why differences may exist across groups of defendants, nor can it suggest any causal relationships.

Additional research is necessary in order to better understand the relationships among factors and the impact each factor may have on pretrial decision making and outcomes.

Examples of Potential Research Questions

- **What factors are correlated with FTA or New Criminal Arrest?**

- **What factors impact how quickly New Criminal Arrest occurs?**

- **What effect does Secured Bond or Bond Amount have on Appearance Rate?**

- **What effect does Attorney Type have on pretrial release, conviction, confinement, and sentence length?**

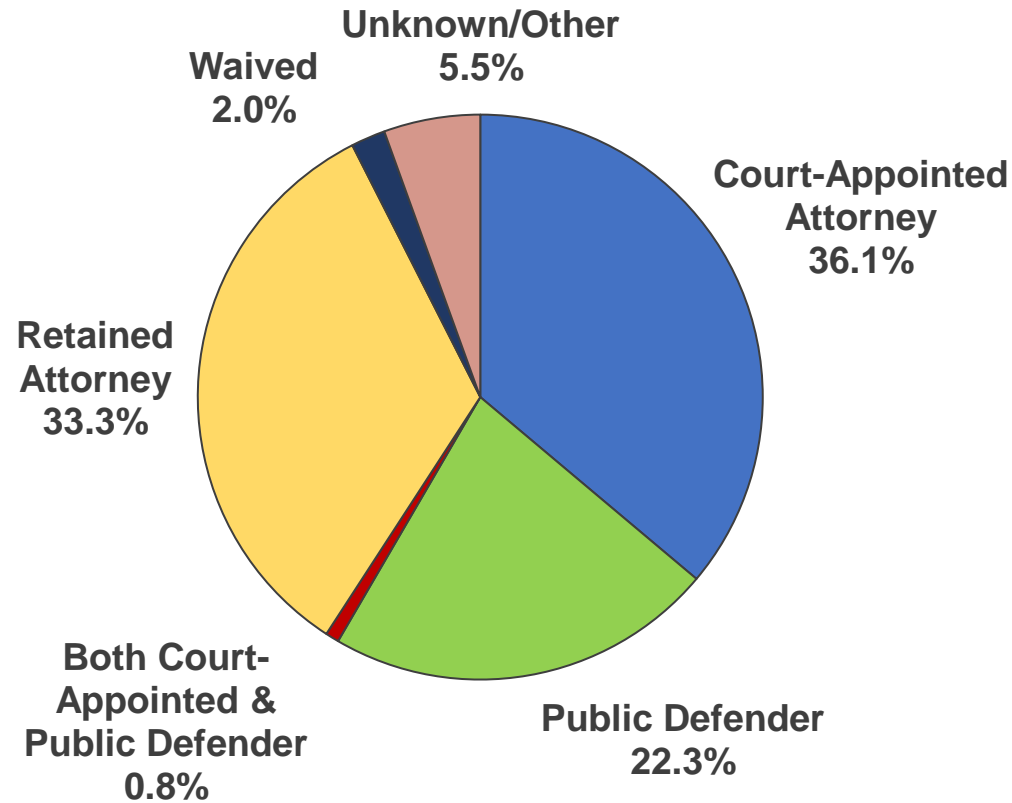**Virginia Criminal Sentencing Commission**

June 12, 2023

Effect of Attorney Type on Outcomes

Attorney Type

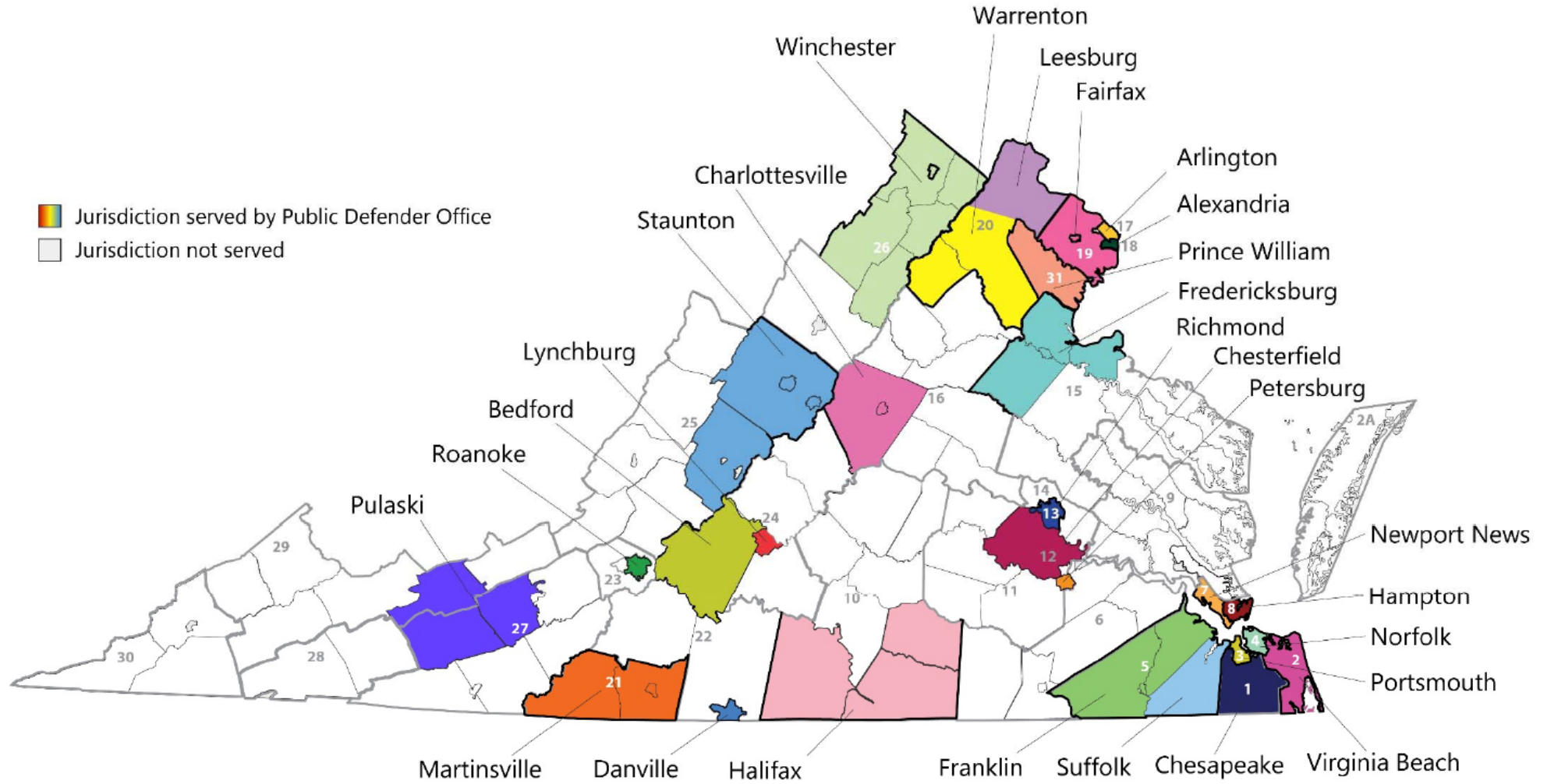## Attorney Type at Case Closure
(N=96,135)

Note:

Attorney type is captured in the Court Case Management Systems (CMS) at case closure, which may not accurately reflect the type of attorney when the pretrial release decision was made.

Public Defender Offices in Virginia

Factors Analyzed in Statistical Models

Demographic

Race

Age

Gender

Current offense

Charge counts

Offense type

Felony person

Felony property

Felony drug

Felony other

Misd person

Misd DUI

Misd other

Presumptive denial of bail § 19.2-120

Applicable

Applicable if certain conditions are met

Prior conviction

Prior violent felonies § 17.1-805

Prior nonviolent felonies

Prior FTAs

Prior misdemeanors

Legal status at time of contact

On state supervision

On local supervision

Attorney type

Public defender

Court-appointed

Privately retained

Locality level factors

Population density

Crime rates

# of sworn officers/pop

Pretrial Services Agency

Other

Pretrial supervision

Received secured bond

Judicial circuit

Notes Regarding Analysis

Multiple stages analyzed

- Pretrial detention

- If released pretrial, days until release

- Conviction for any offense

- Convicted of original (not reduced) charge

- If convicted, incarceration sentence (yes/no)

- If incarcerated, effective sentence length

Techniques utilized

- Academically-accepted multivariate statistical techniques known as regression modeling

- Academically-preferred significance level tests ($p < .05$) to determine statistical significance

13

Notes Regarding Analysis

Models

- **Analyzed defendants charged with felonies as the most serious offense separately from defendants charged with misdemeanors only**

- **Compared effect of:**

  1) **Public defenders and court-appointed attorneys versus private attorneys***

  2) **Public defenders versus court-appointed attorneys**

Limitations

- **Cannot separate effects of socio-economic status from qualification for public defender (no other detail regarding socio-economic status)**

- **Imprecise way in which race is captured in criminal justice data (e.g., ethnicity not captured)**

- **Attorney type is measured at case closure**

* Analysis excludes 774 cases in which both a court-appointed attorney and public defender were indicated for the same case.

STAGE:

PRETRIAL DETENTION

DEFENDANTS:

Charged with Felonies

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

Compared to private attorneys, both court-appointed attorneys and public defenders are relatively more likely to have clients detained pretrial.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to be detained ← → *More likely to be detained*

Factor	
Court-Appointed Attorney	
Public Defender	
African-American	
Age Group 36-55	
Age Group 56+	
Male	
Felony Charge Counts	
Current Felony Person	
Current Felony Property	
Current Felony Drug	
Prior Violent Felony (Counts)	
Prior Nonviolent Felony (Counts)	
Prior FTA Conviction (Counts)	
Prior Misdemeanor (Counts)	
On State Supersion at Contact	
On Local Supervision at Contact	
Sworn Police Officers/Pop	
Presumptive Denial of Bail - Conditions	
Presumptive Denial of Bail Applies	

Note: Factors controlling for judicial circuit are not shown to avoid complexity.

15

STAGE:

PRETRIAL DETENTION

DEFENDANTS:

Charged with Felonies

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

Compared to court-appointed attorneys, public defenders are relatively less likely to have clients detained pretrial.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to be detained ← → *More likely to be detained*

- Public Defender
- African American
- Age Group 56+
- Male
- Felony Charge Counts
- Current Felony Person
- Current Felony Property
- Current Felony Drug
- Prior Violent Felony (Counts)
- Prior Nonviolent Felony (Counts)
- Prior FTA Conviction (Counts)
- On State Supervision at Contact
- On Local Supervision at Contact
- Locality Population Density
- Locality Crime Rate
- Sworn Police Officers/Pop
- Presumptive Denial of Bail - Conditions
- Presumptive Denial of Bail Applies

Note: Factors controlling for judicial circuit are not shown due to complexity.

STAGE:

DAYS UNTIL PRETRIAL RELEASE

DEFENDANTS:
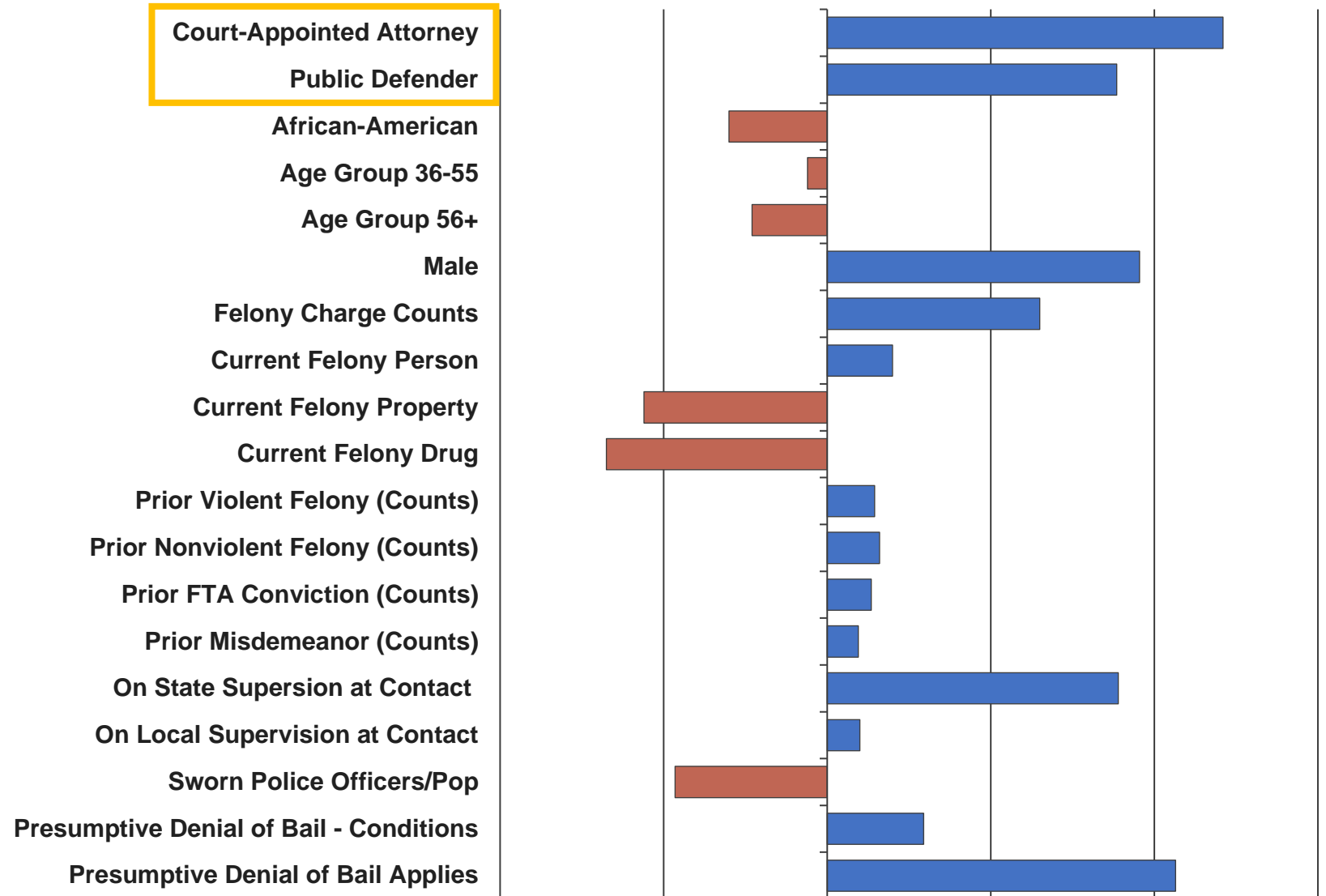
Charged with Felonies

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

Compared to private attorneys, both court-appointed attorneys and public defenders are relatively more likely to have clients detained longer before pretrial release.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Fewer days until release ⬅️   ➡️ *More days until release*

Factor	
Court-Appointed Attorney	
Public Defender	
Age Group 36-55	
Age Group 56+	
Male	
Felony Charge Counts	
Current Felony Person	
Current Felony Property	
Current Felony Drug	
Prior FTA Conviction (Counts)	
Prior Misdemeanor (Counts)	
On State Supervision at Contact	
On Local Supervision at Contact	
Sworn Police Officers/Pop	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

STAGE:

DAYS UNTIL PRETRIAL RELEASE

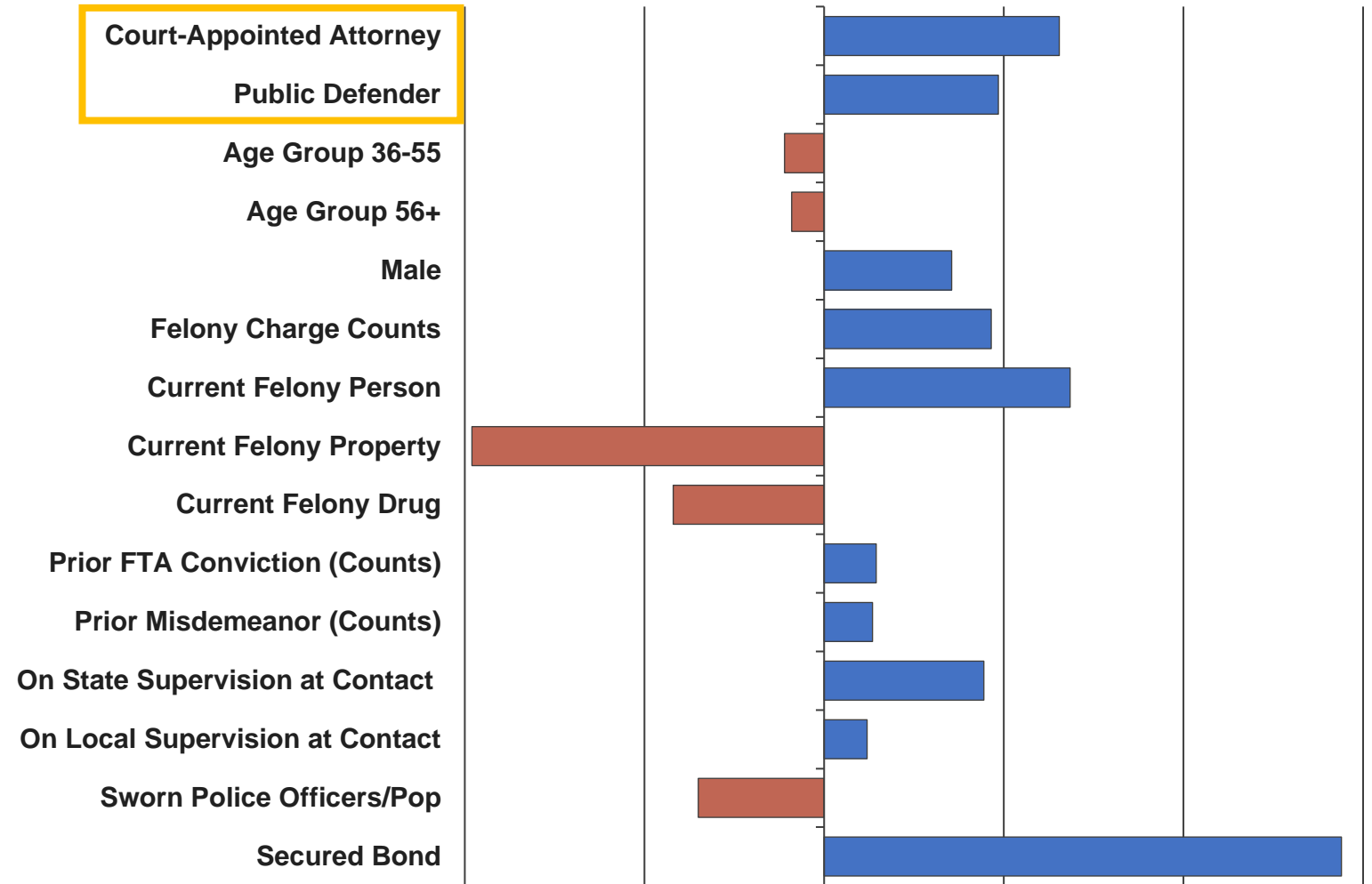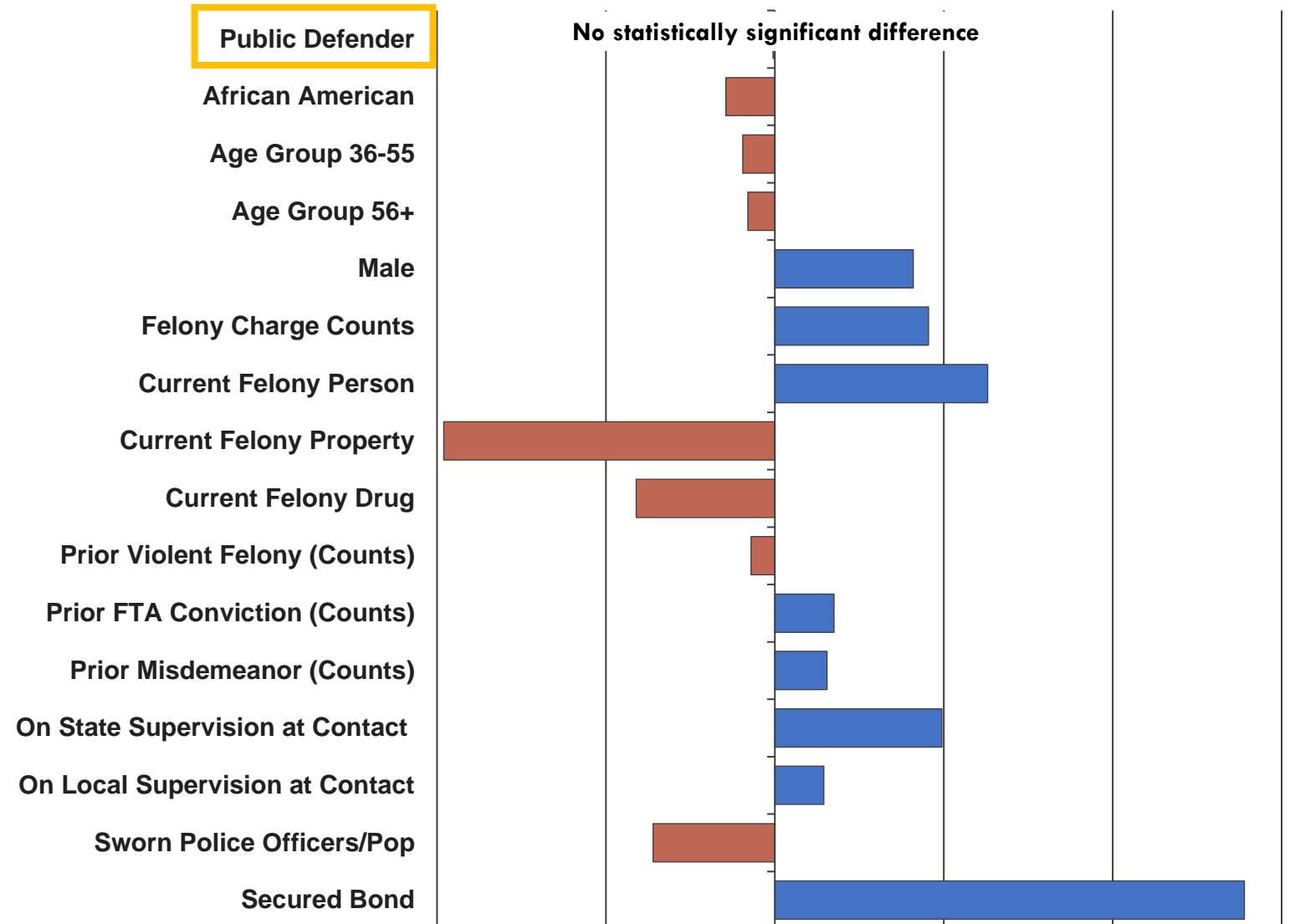## DEFENDANTS:

Charged with Felonies

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

There is no statistically significant difference between public defenders and court-appointed attorneys in terms of how long clients are detained prior to pretrial release.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Fewer days until release ← → *More days until release*

Factor	
Public Defender	No statistically significant difference
African American	
Age Group 36-55	
Age Group 56+	
Male	
Felony Charge Counts	
Current Felony Person	
Current Felony Property	
Current Felony Drug	
Prior Violent Felony (Counts)	
Prior FTA Conviction (Counts)	
Prior Misdemeanor (Counts)	
On State Supervision at Contact	
On Local Supervision at Contact	
Sworn Police Officers/Pop	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

18

STAGE:

CONVICTION

DEFENDANTS:

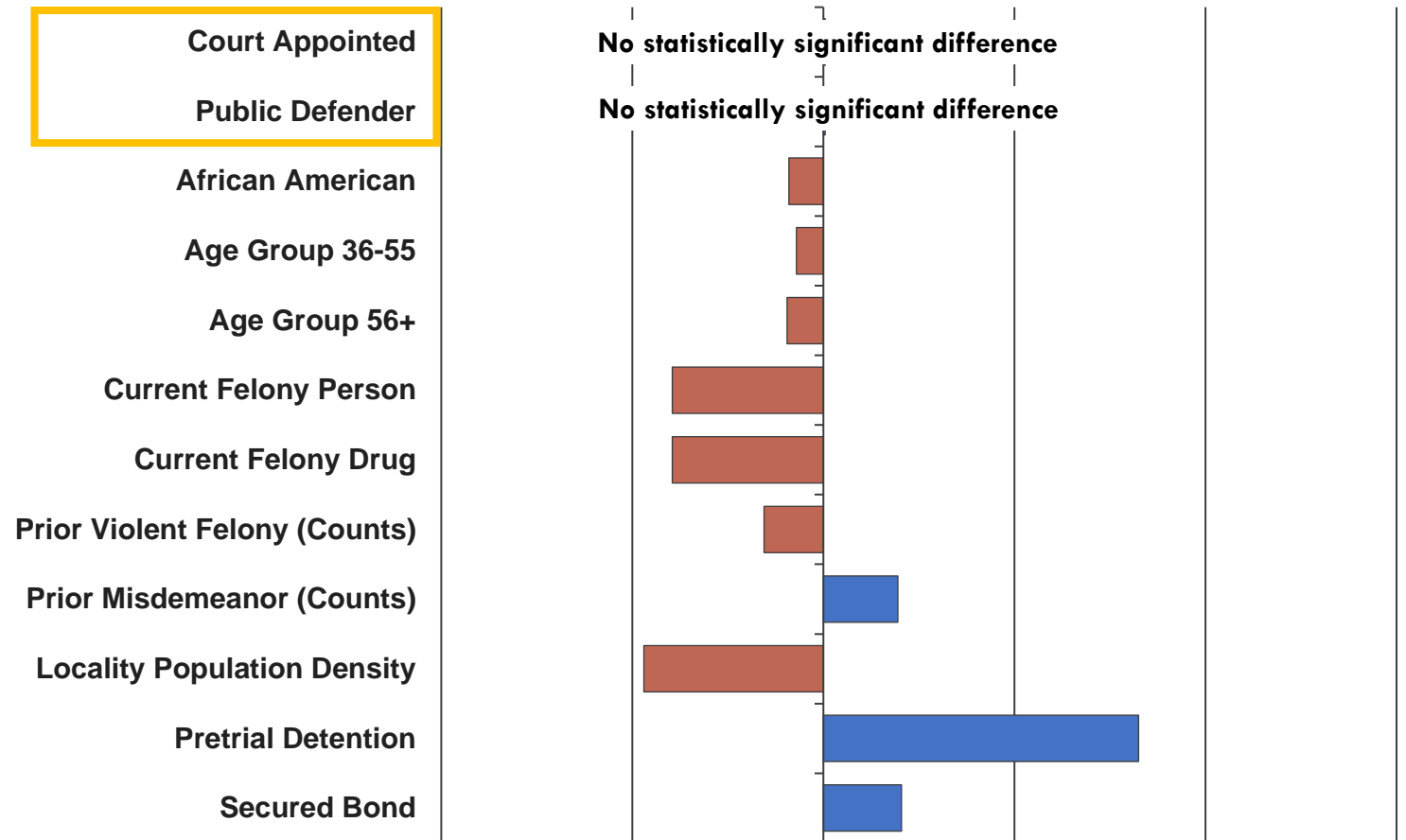**Charged with Felonies**

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

There is no statistically significant difference across private attorneys, court-appointed attorneys and public defenders regarding conviction of clients.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to be convicted ← → *More likely to be convicted*

Factor	Effect
Court Appointed	No statistically significant difference
Public Defender	No statistically significant difference
African American	(less likely)
Age Group 36-55	(less likely)
Age Group 56+	(less likely)
Current Felony Person	(less likely)
Current Felony Drug	(less likely)
Prior Violent Felony (Counts)	(less likely)
Prior Misdemeanor (Counts)	(more likely)
Locality Population Density	(less likely)
Pretrial Detention	(more likely)
Secured Bond	(more likely)

Note: Factors controlling for judicial circuit are not shown due to complexity.

19

STAGE:

CONVICTION

DEFENDANTS:

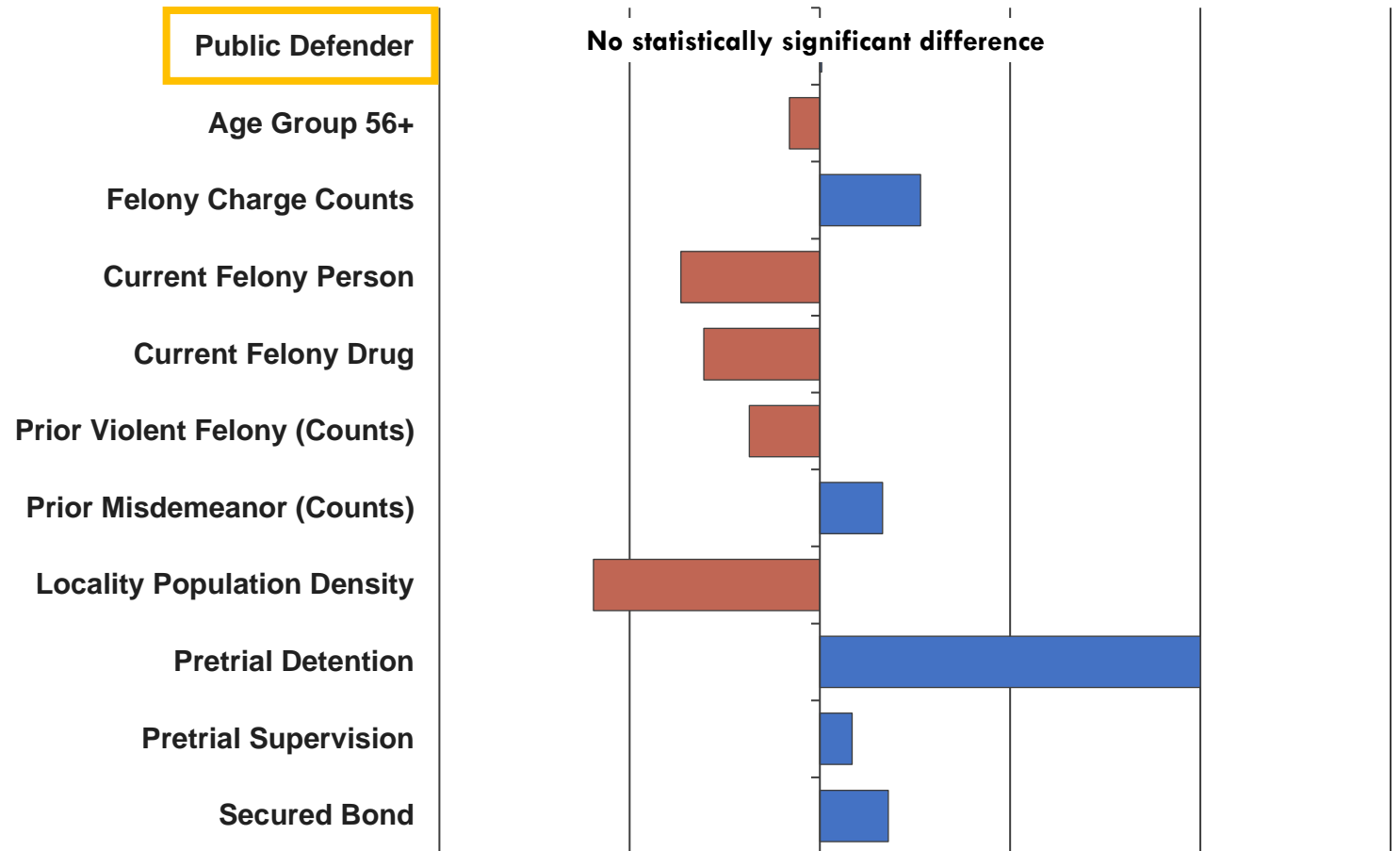**Charged with Felonies**

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

There is no statistically significant difference between public defenders and court-appointed attorneys in terms of conviction of clients.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to be convicted ← → *More likely to be convicted*

Factor	
Public Defender	No statistically significant difference
Age Group 56+	
Felony Charge Counts	
Current Felony Person	
Current Felony Drug	
Prior Violent Felony (Counts)	
Prior Misdemeanor (Counts)	
Locality Population Density	
Pretrial Detention	
Pretrial Supervision	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

STAGE:

IF CONVICTED, GIVEN INCARCERATION TERM

DEFENDANTS:

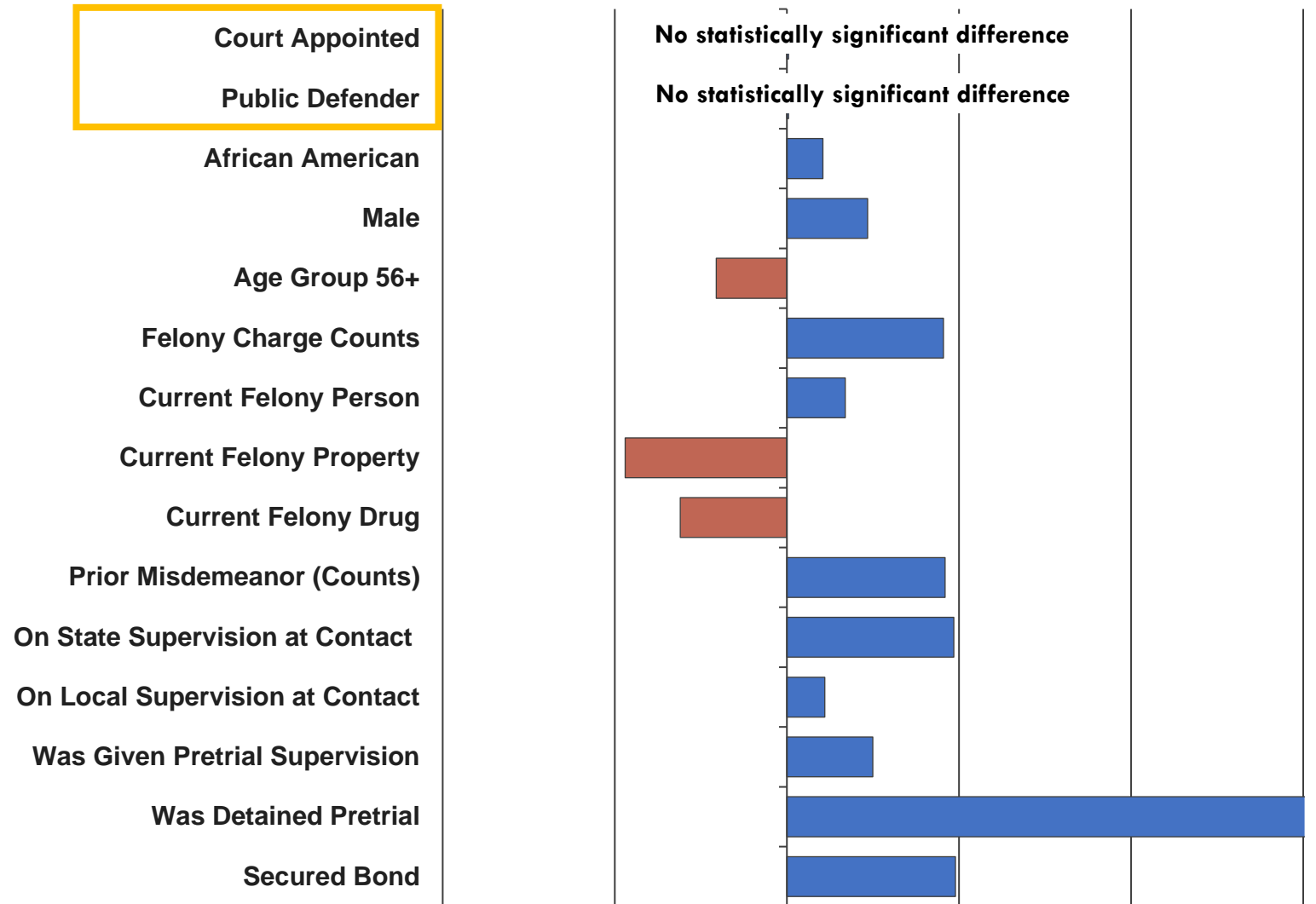**Charged with Felonies**

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

There is no statistically significant difference across private attorneys, court-appointed attorneys and public defenders regarding clients receiving an incarceration term.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to receive incarceration   *More likely to receive incarceration*

Court Appointed	No statistically significant difference
Public Defender	No statistically significant difference
African American	
Male	
Age Group 56+	
Felony Charge Counts	
Current Felony Person	
Current Felony Property	
Current Felony Drug	
Prior Misdemeanor (Counts)	
On State Supervision at Contact	
On Local Supervision at Contact	
Was Given Pretrial Supervision	
Was Detained Pretrial	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

21

STAGE:

IF CONVICTED, GIVEN INCARCERATION TERM

DEFENDANTS:

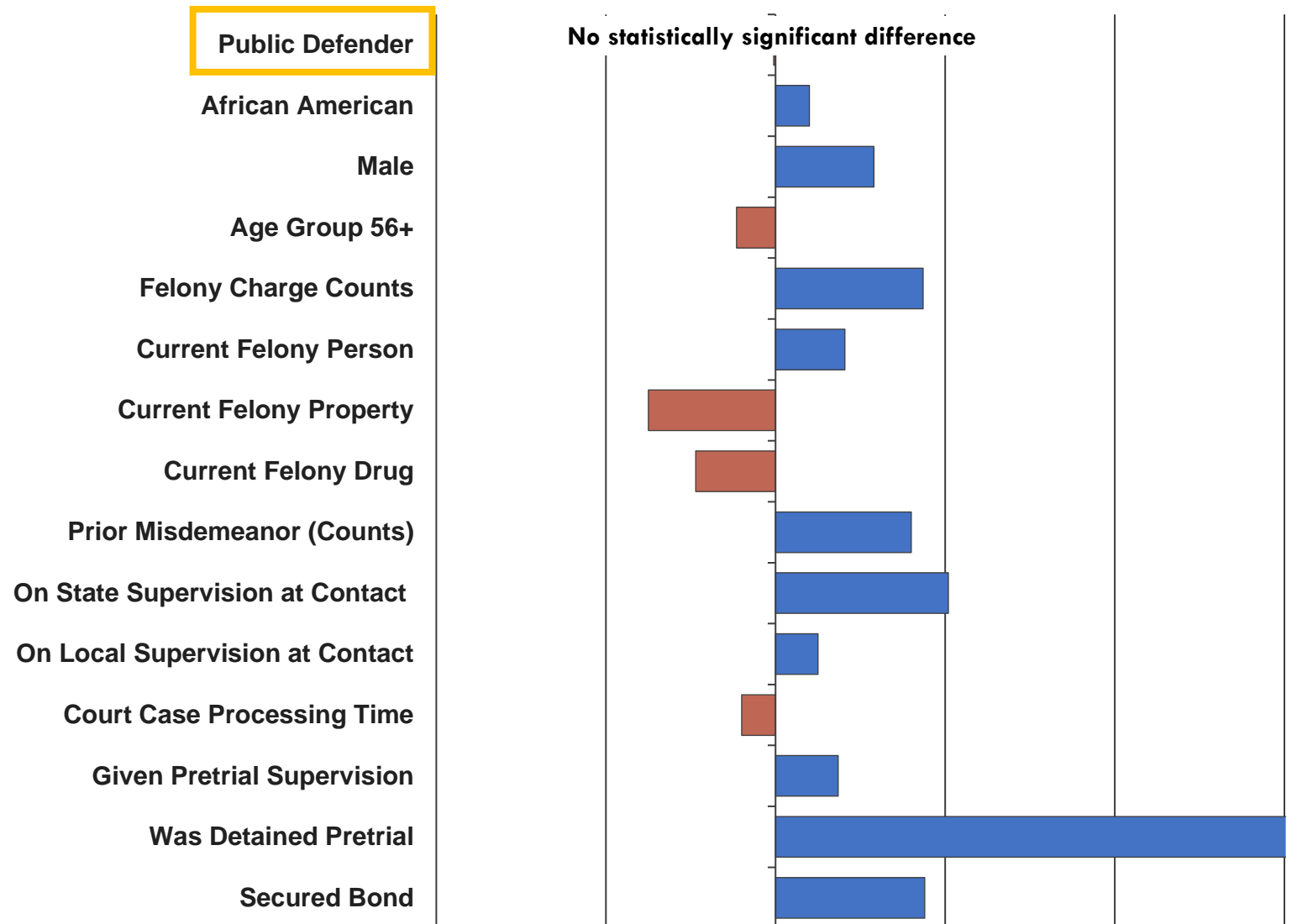**Charged with Felonies**

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

There is no statistically significant difference between public defenders and court-appointed attorneys in terms of clients receiving an incarceration term.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Less likely to receive incarceration ⬅️   ➡️ *More likely to receive incarceration*

Factor	
Public Defender	No statistically significant difference
African American	
Male	
Age Group 56+	
Felony Charge Counts	
Current Felony Person	
Current Felony Property	
Current Felony Drug	
Prior Misdemeanor (Counts)	
On State Supervision at Contact	
On Local Supervision at Contact	
Court Case Processing Time	
Given Pretrial Supervision	
Was Detained Pretrial	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

22

STAGE:

CONVICTED OF ORIGINAL CHARGE (Charge not reduced)

DEFENDANTS:

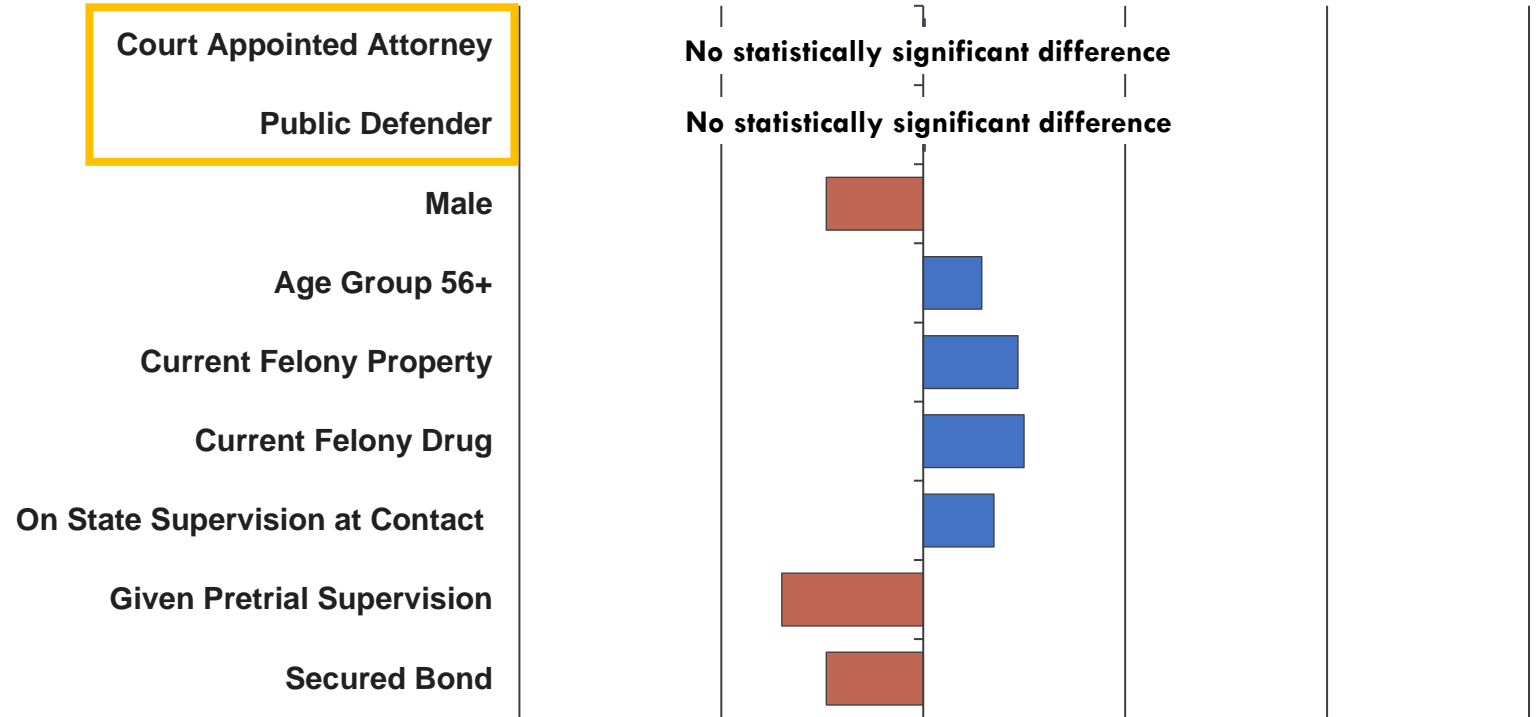**Charged with Felonies**

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

There is no statistically significant difference across private attorneys, court-appointed attorneys and public defenders regarding clients being convicted of the original charge (rather than a reduced charge).

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Convicted of reduced charge ← → *Convicted of original charge (charge not reduced)*

Factor	
Court Appointed Attorney	No statistically significant difference
Public Defender	No statistically significant difference
Male	
Age Group 56+	
Current Felony Property	
Current Felony Drug	
On State Supervision at Contact	
Given Pretrial Supervision	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

STAGE:

CONVICTED OF ORIGINAL CHARGE (Charge not reduced)

DEFENDANTS:

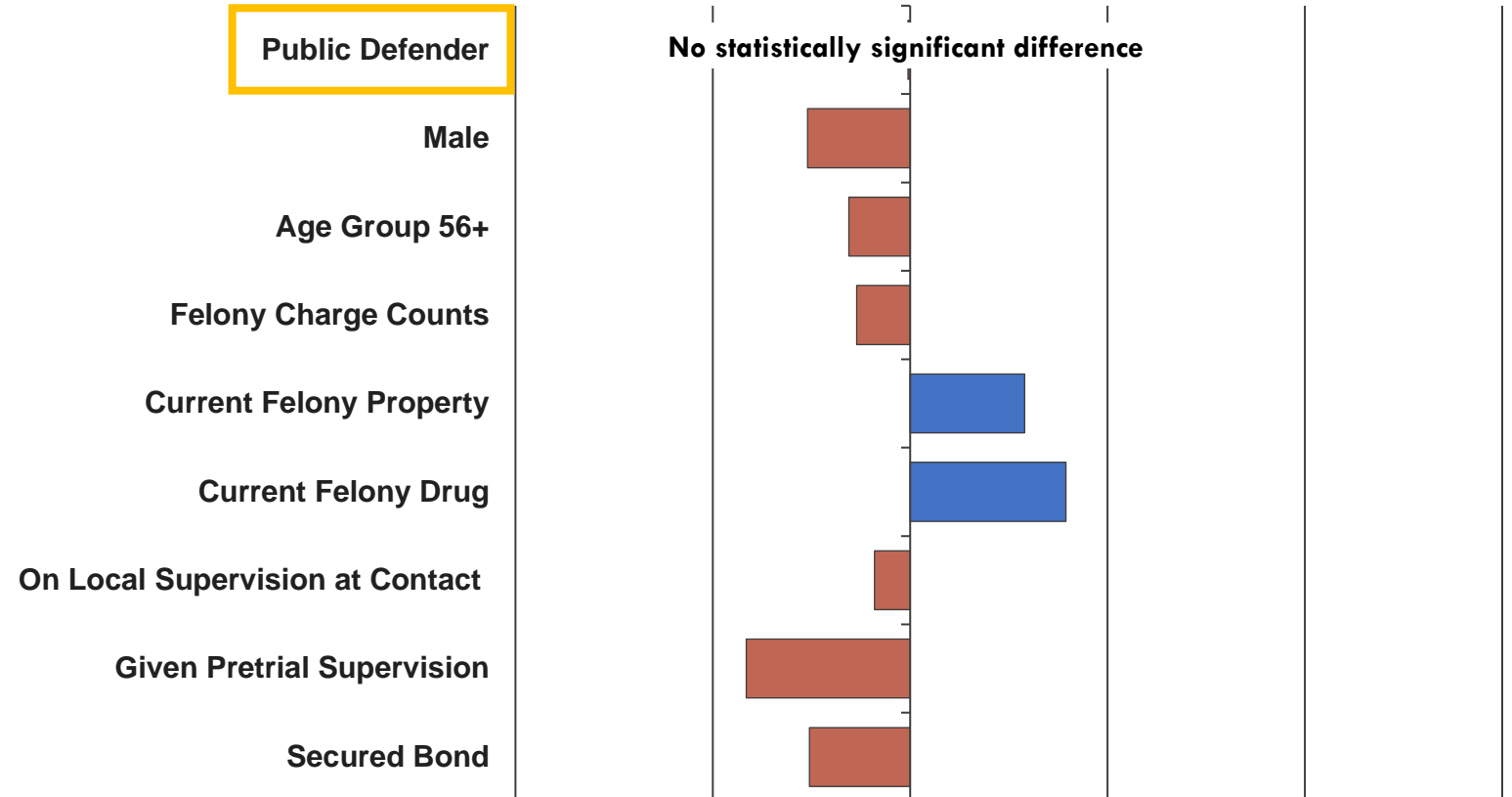**Charged with Felonies**

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

There is no statistically significant difference between public defenders and court-appointed attorneys in terms of clients being convicted of the original charge (rather than a reduced charge).

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Convicted of reduced charge ← → *Convicted of original charge (charge not reduced)*

Factor	
Public Defender	No statistically significant difference
Male	
Age Group 56+	
Felony Charge Counts	
Current Felony Property	
Current Felony Drug	
On Local Supervision at Contact	
Given Pretrial Supervision	
Secured Bond	

Note: Factors controlling for judicial circuit are not shown due to complexity.

24

STAGE:

EFFECTIVE SENTENCE LENGTH

DEFENDANTS:

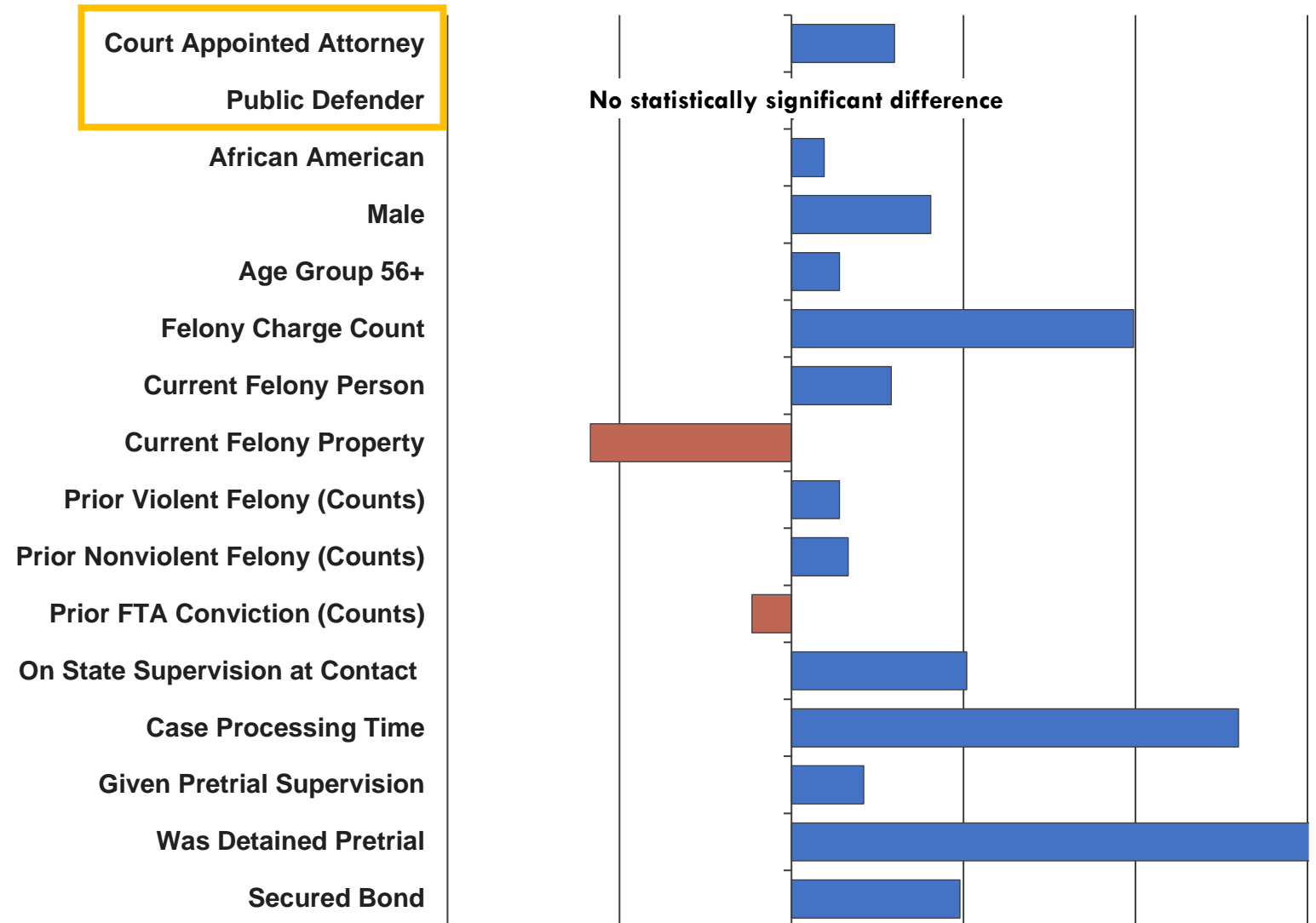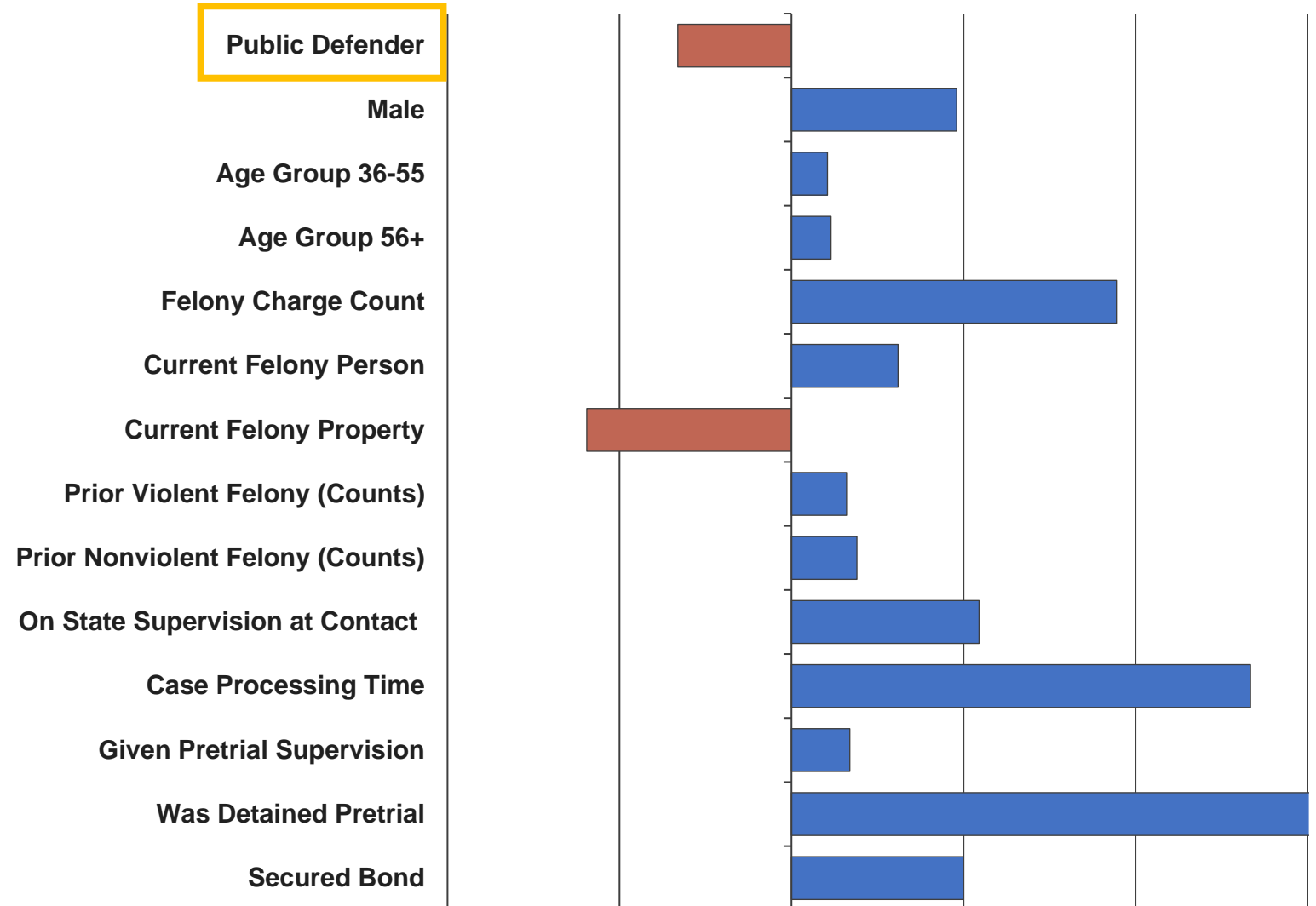**Charged with Felonies**

COMPARISON:

Effect of public defenders and court-appointed attorneys versus private attorneys

PRELIMINARY FINDING:

Compared to court-appointed attorneys, court-appointed attorneys are relatively more likely to have clients receive a longer effective sentence. There is no statistically significant difference between private attorneys and public defenders as to sentence length.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Shorter effective sentence ← → *Longer effective sentence*

- Court Appointed Attorney
- Public Defender
- African American
- Male
- Age Group 56+
- Felony Charge Count
- Current Felony Person
- Current Felony Property
- Prior Violent Felony (Counts)
- Prior Nonviolent Felony (Counts)
- Prior FTA Conviction (Counts)
- On State Supervision at Contact
- Case Processing Time
- Given Pretrial Supervision
- Was Detained Pretrial
- Secured Bond

No statistically significant difference

Note: Factors controlling for judicial circuit are not shown due to complexity.

25

STAGE:

EFFECTIVE SENTENCE LENGTH

DEFENDANTS:

Charged with Felonies

COMPARISON:

Effect of public defenders versus court-appointed attorneys

PRELIMINARY FINDING:

Compared to private attorneys, public defenders are relatively more likely to have clients receive a shorter effective sentence.

RELATIVE IMPORTANCE OF STATISTICALLY SIGNIFICANT FACTORS

Shorter effective sentence ← → *Longer effective sentence*

- Public Defender
- Male
- Age Group 36-55
- Age Group 56+
- Felony Charge Count
- Current Felony Person
- Current Felony Property
- Prior Violent Felony (Counts)
- Prior Nonviolent Felony (Counts)
- On State Supervision at Contact
- Case Processing Time
- Given Pretrial Supervision
- Was Detained Pretrial
- Secured Bond

Note: Factors controlling for judicial circuit are not shown due to complexity.

26

Plans for Additional Analysis
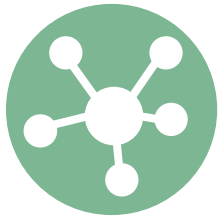
Additional analysis is planned using an alternative method known as propensity score matching.

- **Each defendant is matched with another defendant who is similar on all relevant characteristics except for attorney type (i.e., matched pairs are identified).**

- **The effect of attorney type on outcomes can be estimated.**

- **Results can be compared to previous findings.**

Virginia Criminal Sentencing Commission

June 12, 2023

Predicting Pretrial Outcomes with PSA Scores

Pretrial Risk Assessment (PSA)

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 judgement 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	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

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29

Pretrial Risk Assessment (PSA)

The Sentencing Commission is examining the PSA Risk Assessment instrument in greater detail.

The Department of Criminal Justice Services (DCJS), which oversees Pretrial Services Agencies, is planning to pilot test the PSA Risk Assessment instrument in select sites around the Commonwealth.

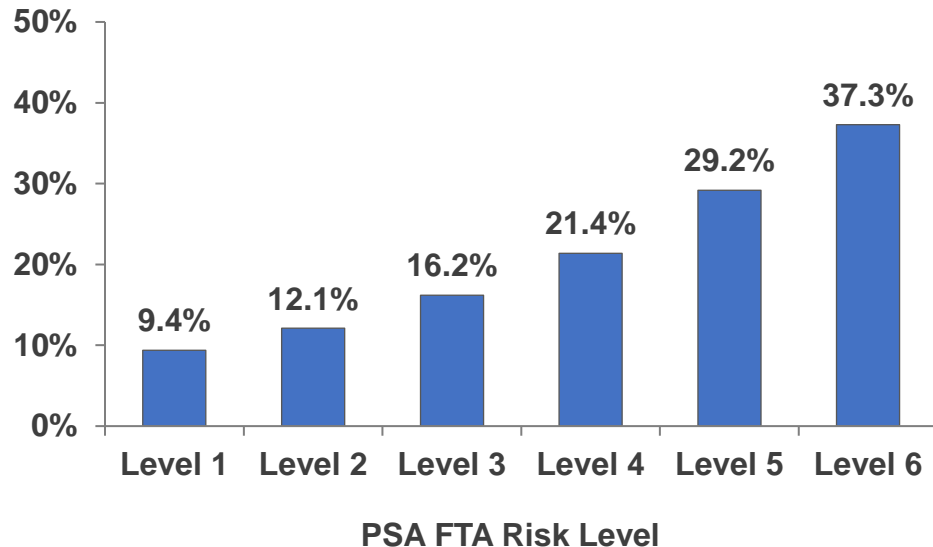The Sentencing Commission's Director serves on two of the committees providing input to DCJS regarding implementation.

The Commission's research provides additional information for DCJS as it considers switching from the current pretrial risk assessment instrument to the PSA across the Commonwealth.

CY2018 Cohort Outcomes
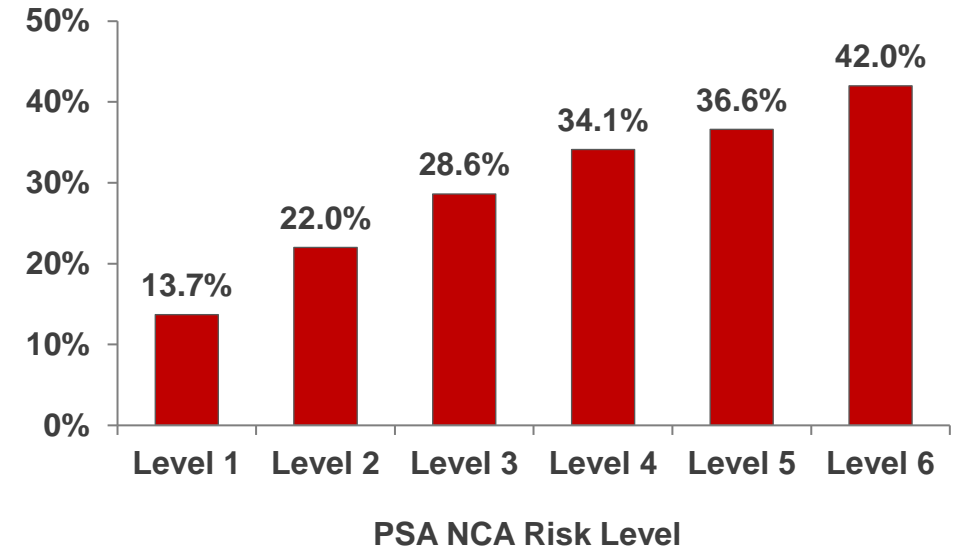# (2022 VCSC Pretrial Data Report)

**COURT APPEARANCE Outcomes by
Assigned Public Safety Assessment (PSA) Risk Level**

Failure to Appear Rates by Risk Level

Level	Rate
Level 1	9.4%
Level 2	12.1%
Level 3	16.2%
Level 4	21.4%
Level 5	29.2%
Level 6	37.3%

PSA FTA Risk Level

**PUBLIC SAFETY Outcomes by
Assigned Public Safety Assessment (PSA) Risk Level**

New Criminal Activity Rates by Risk Level

Level	Rate
Level 1	13.7%
Level 2	22.0%
Level 3	28.6%
Level 4	34.1%
Level 5	36.6%
Level 6	42.0%

PSA NCA Risk Level

This analysis is based on the 83,461 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.

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Research Questions

1) Are PSA scores the valid predictors of pretrial outcomes, such as FTA (Failure to Appear) or NCA (New Criminal Arrest)?

2) If PSA score is found to be a valid predictor, what is the level of its predictive power (whether PSA score alone can substantially predict the pretrial outcome)?

Notes on the Models

- **Data : Virginia Pretrial Data for CY2018 (only for the released defendants)**

- **Dependent Variables: FTA (No=0, Yes=1), New Criminal Arrest (No=0, Yes=1)**

- **Explanatory Variables: FTA Scores (1-6), NCA Scores (1-6)**

- **Other Control Variables: demographic factors (race, gender, age*), indigency status (derived from attorney types), pretrial supervision status, current charge (drug), days between contact/release, days between release/disposition, secured bond, release conditions (GPS monitoring, etc.), locality-level factors, and judicial circuits.**

  - **Logistic multivariate regression is used to measure the probabilities of the likelihood of the success or failure. Additional statistical techniques were employed to obtain a reliable and valid estimation.**

VIRGINIA CRIMINAL SENTENCING COMMISSION

* Age is used only for the model for FTA. PSA-NCA includes age as one of the factors scored on the instrument.

Results (Bivariate Regression)

- Logistic Regression with only PSA score as independent variable

Response: FTA	β	Odds Ratio ($e^β$)	p
PSA FTA	0.33	1.39	0.00
Classification: 88%			
ROC-AUC: 0.59			

Response: NCA	β	Odds Ratio ($e^β$)	p
PSA NCA	0.33	1.39	0.00
			Classification 77%
			ROC-AUC: 0.63

FINDINGS:

- **P-value of 0.00 indicates the strong statistical significance of PSA score to predict both FTA and NCA.**

- **Classification Statistics generally indicates the percent of the observations correctly classified in the model (True-Positives, True-Negatives).**

- **ROC-AUC: Standard measure of overall predictive power and accuracy of the model. Any AUC statistics with value >0.714 considered very good.**

Results (Extended Models)

- Predicting Failure to Appear (No=0, Yes=1)

Variable	Extended Model
PSA_FTA_Score	0.380***
N	83242
aic	57769.496
bic	57946.757
Classification	87.56%
ROC-AUC	0.71

- Predicting New Criminal Arrest (No=0, Yes=1)

Variable	Extended Model
PSA_NCA_Score	0.339***
N	83260
aic	78937.050
bic	79095.655
Classification	78.36%
ROC-AUC	0.73

FINDINGS:

- **The results are based on the fully extended multivariate model that includes all relevant variables in the model. The estimations are beta (log odds).**

- **P-value of 0.00 indicates the strong statistical significance of PSA score to predict both FTA and NCA.**

- **ROC-AUC statistics has higher values than the previous, bivariate models.**

Results (Alternative Specifications)

- Predicting Failure to Appear (No=0, Yes=1)

Variable	Model1	Model2
PSA_FTA_Score		
2	0.386***	
3	0.796***	
4	1.130***	
5	1.500***	
6	1.939***	
FTA_Moderate (3-4)		0.737***
FTA_High (5-6)		1.377***
N	83242	83242
Aic	57773.678	58036.165
Bic	57978.927	58213.425
Classification	87.55%	78.60%
ROC-AUC	0.71	0.74

Approach:

The fully extended model but using different versions of PSA scores. Model 1 includes all PSA score dummies (e.g., PSA score 2: No-0, Yes-1, etc.) with PSA score of 1 as a refence group. Model 2 includes two dummies (FTA-Moderate: score 3 or 4, FTA-High: score 5 or 6) with the group of PSA score of 1 or 2 as a reference group.

FINDINGS:

- **Further breakdown of FTA scores into each individual PSA score/scales in model 1 & 2 indicates that the probability of new FTA occurring increases with higher points –consistent with the previous results. All estimations are highly statistically significant.**

Results (Alternative Specifications)

- Predicting New Criminal Arrest (No=0, Yes=1)

Variable	model3	model4
PSA_NCA_Score		
2	0.589***	
3	0.933***	
4	1.203***	
5	1.320***	
6	1.615***	
NCA_Moderate (3-4)		0.713***
NCA_High (5-6)		1.070***
N	83260	83260
Aic	78754.532	79459.250
Bic	78950.456	79627.185
Classification	78.44%	78.21%
ROC-AUC	0.73	0.73

Approach:

The fully extended model but using different variables of PSA scores. Model 1 includes PSA score dummies (e.g., PSA score 2: No-0, Yes-1, etc.) with PSA score of 1 as a refence group. Model 2 includes two dummies (NCA-Moderate: score 3 or 4, NCA-High: score 5 or 6) with the group of PSA score of 1 or 2 as a reference group.

FINDINGS:

- **Further breakdown of NCA scores into each individual PSA score/scales in model 1 & 2 indicates that the probability of new FTA occurring increases with higher points –consistent with the previous results. All estimations are highly statistically significant.**

Take Aways

- The findings from several statistical analyses suggest that PSA score is a valid predictor of new FTA or NCA. Its statistical estimation is highly significant (at the 1% level). It is useful tool to make an informed pretrial decision.

- The overall predictive power of the PSA itself for both FTA and NCA is at the medium level, suggesting that PSA scores do not account for all of the factors that have important effects on pretrial outcomes.

- The results are only based on the limited dataset (only CY2018). Thus, it is important to continue to examine PSA scores once the more extensive pretrial data is available.