

PSA RCT



FINAL REPORT DANE COUNTY CJC MEETING

July 23, 2026

Renee Danser
Jim Greiner
Ryan Halen
Access to Justice Lab
Harvard Law School

Matthew Stubenberg
Morrison Foerster

Chris Griffin
University of Arizona
College of Law

A Partnership



This study: a partnership among the Dane County CJC, Arnold Ventures, and the A2J Lab

- Dane County, especially the CJC & the judiciary
 - Implementation of PSA (guidance from Marie VanNostrand, Luminosity team)
 - Development, adherence to study protocol
 - Compilation of data
- Arnold Ventures
 - Development of PSA
 - Funding of study
- A2J Lab
 - Development of study protocol

The Setting: Pretrial Decision

Commissioner in-custody decision after arrest to assign “signature bond” or “cash bail,” conditions of release

- For person arrested, decision likely affects
 - Socioeconomic and personal wellbeing
 - Case disposition
- For Dane County, decision likely affects
 - Community safety

The Setting: Pretrial Decision

Risk in any pretrial release system

- High costs to incarcerating all persons
- High costs to incarcerating no persons
- Release some but not all → difficult decisions, requires balancing
 - Risk of new (violent) criminal activity
 - Racial disparities
 - Failure to appear
 - Social, economic, personal, health, fiscal costs of incarceration

Public Safety Assessment (“PSA”)

Information for Commissioner (not binding)

- 1-6 scale for failure to appear (“FTA”)
- 1-6 scale for new criminal activity (“NCA”)
- Flag, elevated risk of new violent criminal activity

PSA Factors

1. Age at current arrest
2. Current offense violent
3. Pending charge at time of offense
4. Prior misdemeanor conviction
5. Prior felony conviction
6. Prior violent conviction
7. Prior FTA in past two years
8. Prior FTA older than two years
9. Prior sentence to incarceration

Decision Making Framework A2x Lab



Not binding

- Combines
 - PSA scores
 - Dane County values and policies
 - Wisconsin law
 - Dane County resources
- Recommendation regarding
 - Cash versus signature bond, level if cash
 - Level of conditions

DMF Matrix

	NCA 1	NCA 2	NCA 3	NCA 4	NCA 5	NCA 6
FTA 1	Signature Bond with No Conditions	Signature Bond with No Conditions				
FTA 2	Signature Bond with No Conditions	Signature Bond with No Conditions	Signature Bond with Conditions if Appropriate	Signature Bond with PSL I - Conditions if Appropriate	Modest Cash Bail with PSL II - Conditions if Appropriate	
FTA 3		Signature Bond with Conditions if Appropriate	Signature Bond with Conditions if Appropriate	Signature Bond with PSL I - Conditions if Appropriate	Modest Cash Bail with PSL II - Conditions if Appropriate	Cash Bail, PSL III and Maximum Conditions
FTA 4		Signature Bond with Conditions if Appropriate	Signature Bond with Conditions if Appropriate	Signature Bond with PSL I - Conditions if Appropriate	Modest Cash Bail with PSL II - Conditions if Appropriate	Cash Bail, PSL III and Maximum Conditions
FTA 5		Modest Cash Bail with PSL I - Conditions if Appropriate	Modest Cash Bail with PSL I - Conditions if Appropriate	Modest Cash Bail with PSL II - Conditions if Appropriate	Moderate Cash Bail with PSL III and GPS	Cash Bail, PSL III and Maximum Conditions
FTA 6				Cash Bail, PSL III and Maximum Conditions	Cash Bail, PSL III and Maximum Conditions	Cash Bail, PSL III and Maximum Conditions

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FOR USE ONLY BY AUTHORIZED PSA SITES

PSA-DMF



DANE COUNTY CLERK OF COURTS Public Safety Assessment – Report

215 S Hamilton St #1000
Madison, WI 53703
Phone: (608) 266-4311

Name: [REDACTED]

Spillman Name Number: [REDACTED]

DOB: [REDACTED]

Gender: Male

Arrest Date: 03/25/2017

PSA Completion Date: 03/27/2017

New Violent Criminal Activity Flag

No

New Criminal Activity Scale

1	2	3	4	5	6
---	---	---	---	---	---

Failure to Appear Scale

1	2	3	4	5	6
---	---	---	---	---	---

Charge(s):

961.41(1)(D)(1) MFC DELIVER HEROIN <3 GMS F 3

Risk Factors:

1. Age at Current Arrest
2. Current Violent Offense
 - a. Current Violent Offense & 20 Years Old or Younger
3. Pending Charge at the Time of the Offense
4. Prior Misdemeanor Conviction
5. Prior Felony Conviction
 - a. Prior Conviction
6. Prior Violent Conviction
7. Prior Failure to Appear Pretrial in Past 2 Years
8. Prior Failure to Appear Pretrial Older than 2 Years
9. Prior Sentence to Incarceration

Responses:

23 or Older
No
No
No
Yes
Yes
Yes
2
0
Yes
Yes

Recommendations:

Release Recommendation - Signature bond

Conditions - Report to and comply with pretrial supervision

PSA-DMF



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Hopes for PSA-DMF



Reduce some or all of

- Failure to appear (“FTA”)
- New criminal activity (“NCA”), especially violent (“NVCA”)
- Racial disparities
- Number of pretrial incarceration days

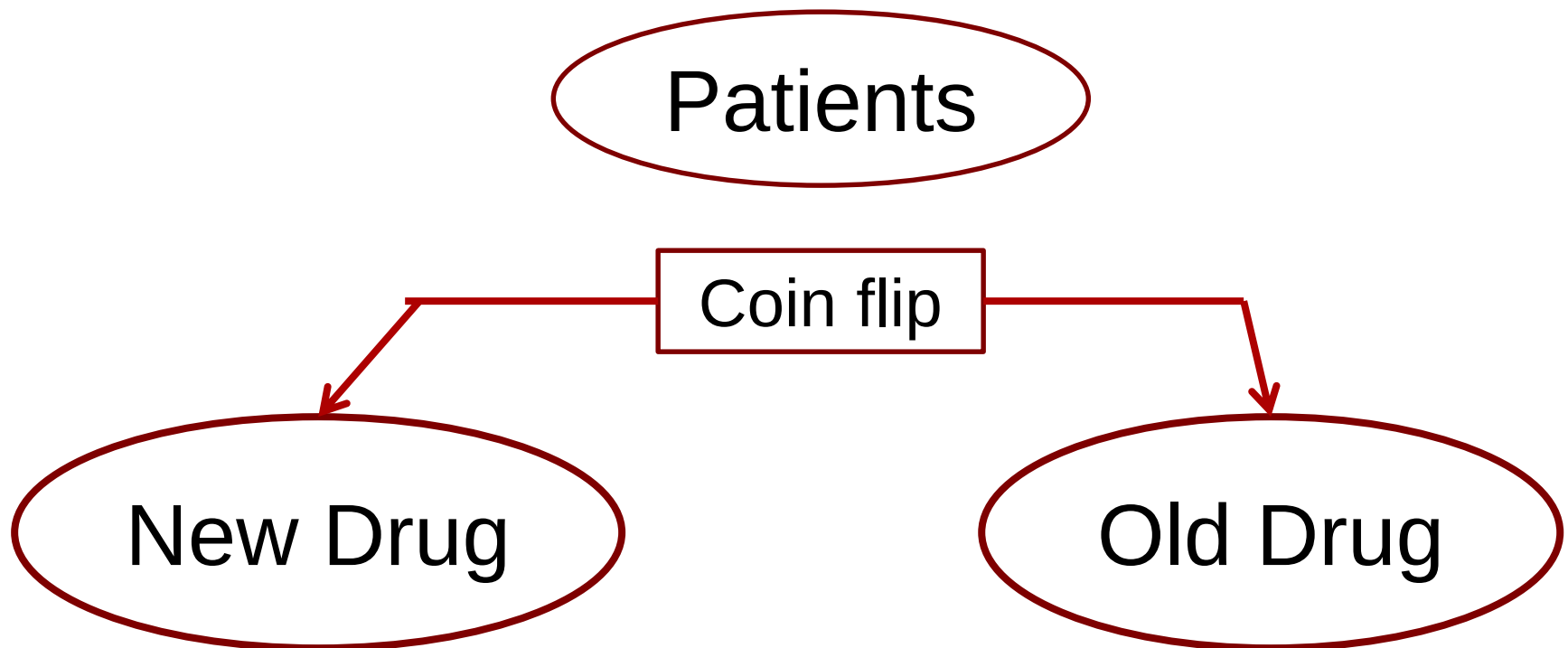
Did It Work?



How would we
know?

Did It Work?

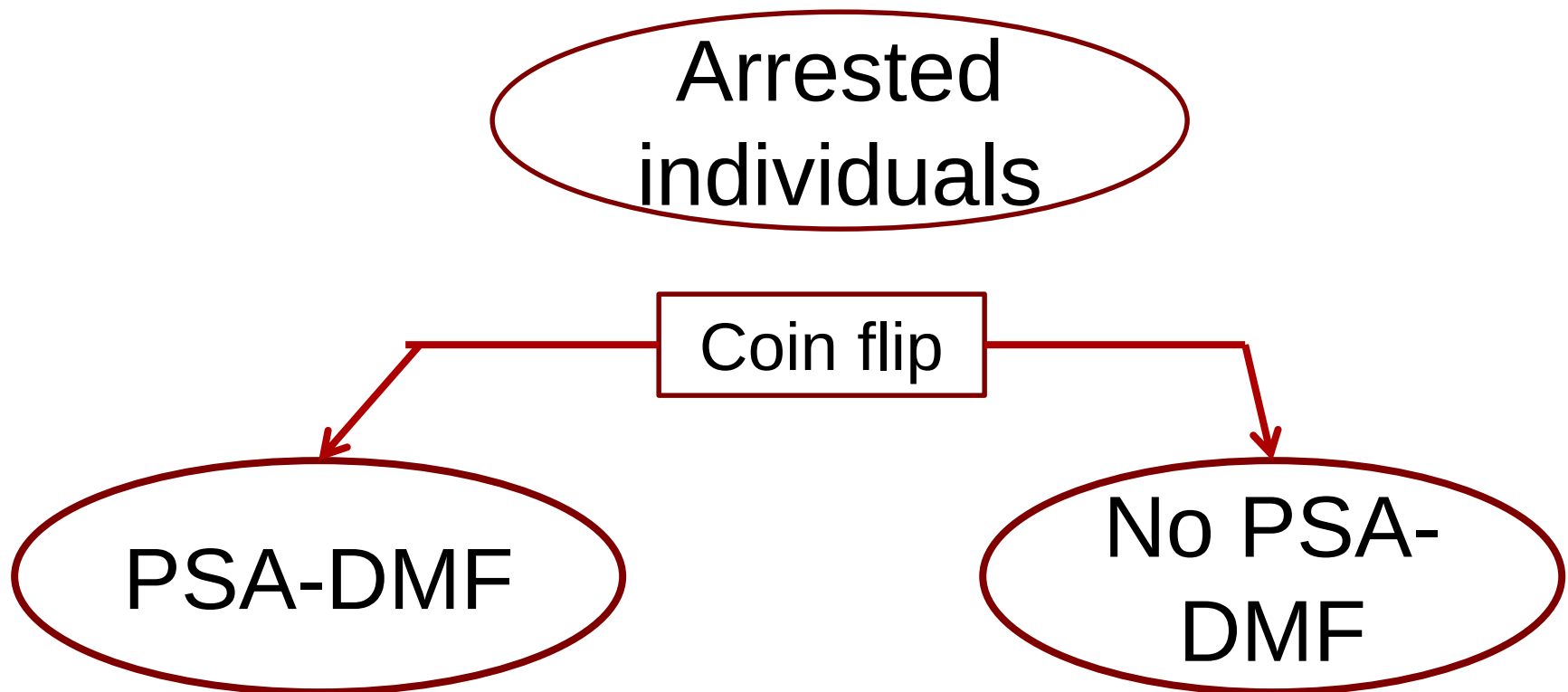
Borrow an idea from medicine (RCT)



Did It Work?



What we did in Dane County (RCT)



Timeline

A sustained effort

- 2015-2017: Discussions, training on PSA/DMF system
- April-May, 2017: PSA-DMF implemented
- June 1, 2017: Start of study
- Early 2019: Agreement to extend RCT to end of 2019
- December 31, 2019: Close of study period
- September 24, 2020: A2J Lab's Interim Report → inconclusive
- December 31, 2021: Close of follow-up data period
- January 1, 2022-present: Data provision, analysis, writing
- January 25, 2024: A2J Lab first presentation of results to CJC
- July 23, 2026: This presentation

Outcomes Studied



Compare PSA-DMF vs. Not PSA-DMF

- Commissioners' decisions
- FTA
- NCA
- NVCA
- Number of predisposition incarceration days

What Changed?

A sustained effort

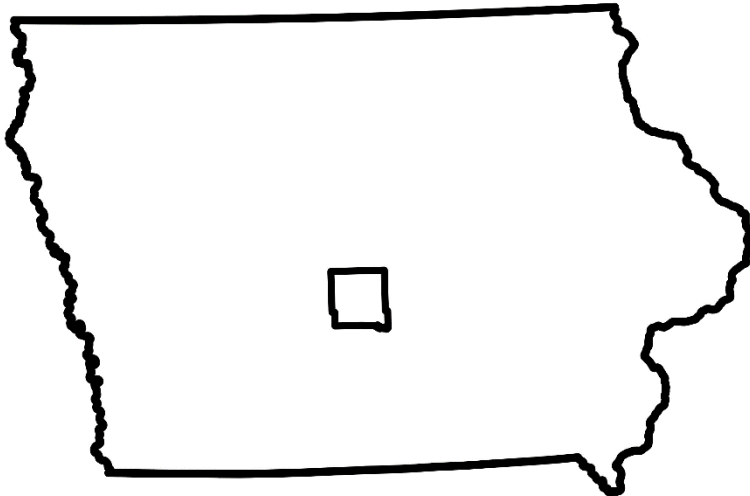
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What Changed?

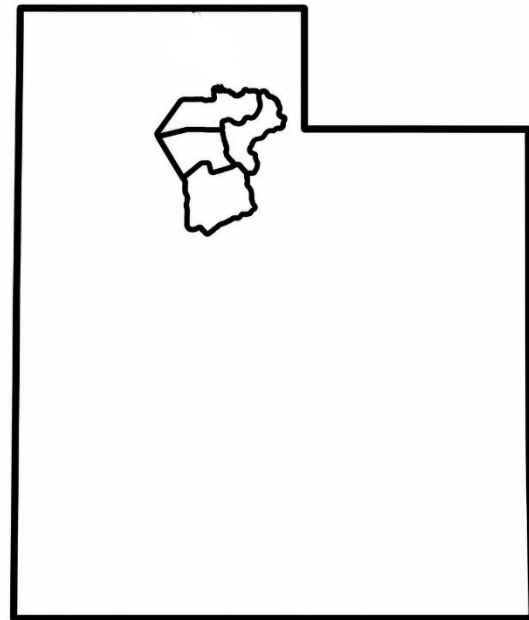


Counterpart RCTs Finished, Analyzed

Polk County, IA



Davis, Morgan, Utah,
and Weber Counties, UT



What Changed?



New Statistical Methods



Kosuke Imai

DOI: 10.1093/jrsssa/qnad010 • Corpus ID: 227346843

Experimental Evaluation of Algorithm-Assisted Human Decision-Making: Application to Pretrial Public Safety Assessment

K. Imai, Zhichao Jiang, +2 authors, Sooahn Shin • Published in *Journal of the Royal Society A: Mathematical Sciences*, 4 December 2020 • Computer Science

TLDR This work develops a general statistical methodology for experimentally evaluating the causal impacts of algorithmic recommendations on human decisions and applies the proposed methodology to preliminary data from the first-ever randomized controlled trial that evaluates the pretrial Public Safety Assessment (PSA) in the criminal justice system. [Expand](#)

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PNAS



RESEARCH ARTICLE | SOCIAL SCIENCES |



Does AI help humans make better decisions? A statistical evaluation framework for experimental and observational studies

Elie Ben-Michael , D. James Greiner , Melody Huang , +2, and Sooahn Shin [Authors Info & Affiliations](#)

Edited by Bin Yu, University of California, Berkeley, CA; received March 5, 2025; accepted August 13, 2025

September 17, 2025 | 122 (38) e2505106122 | <https://doi.org/10.1073/pnas.2505106122>

What Changed?



New Statistical Methods



[Submitted on 19 Jun 2026]

Triage Score: A Counterfactual Risk Assessment Instrument

Kosuke Imai, Sooahn Shin, D. James Greiner, Ryan Halen

Risk assessment instruments, also known as "risk scores," are widely used in high-stakes decision-making settings such as medicine and the criminal justice system. A risk score predicts the likelihood of an undesired outcome if no intervention is made. Thus, a sufficiently high score is often interpreted as a recommendation to intervene. However, risk scores fail to account for what would happen if a decision-maker does intervene. This failure is problematic because effective decision making requires consideration of both or multiple potential outcomes. We propose "triage scores," which are based on additive counterfactual utilities and include risk scores as a special case. Unlike risk scores, triage scores can incorporate counterfactual outcomes under alternative decisions, enabling decision makers to incorporate a wide range of ethical and practical factors. We illustrate the use of triage scores with an application to our own randomized controlled trial evaluating a pretrial risk score. Our analysis demonstrates that triage scores are able to capture rich utility structures and yield substantively distinct results regarding policy evaluation and learning.

Subjects: **Applications (stat.AP)**; Methodology (stat.ME)

Cite as: [arXiv:2606.21050](https://arxiv.org/abs/2606.21050) [stat.AP]

(or [arXiv:2606.21050v1](https://arxiv.org/abs/2606.21050v1) [stat.AP] for this version)

<https://doi.org/10.48550/arXiv.2606.21050> 

Kosuke Imai

Results

Compare PSA-DMF vs. Not PSA-DMF

- Commissioners' decisions
- FTA
- NCA
- NVCA
- Number of predisposition incarceration days

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Compare PSA-DMF vs. Not PSA-DMF

- **Commissioners' decisions**
- FTA
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Results

Compare PSA-DMF vs. Not PSA-DMF

- **Commissioners' decisions → Moderate effect**
- FTA
- NCA
- NVCA
- Number of predisposition incarceration days

M... f... i... f... i...

Results

Compare PSA-DMF vs. Not PSA-DMF

- Commissioners' decisions → Moderate effect

No effect

- FTA
- NCA
- NVCA
- Number of predisposition incarceration days

Hopes for PSA-DMF



Reduce some or all of

- Failure to appear (“FTA”)
- New criminal activity (“NCA”), especially violent (“NVCA”)
- Racial disparities
- Number of pretrial incarceration days

Neither hopes (nor fears) realized

Results

Compare PSA-DMF vs. Not PSA-DMF

- **Commissioners' decisions**
- FTA
- NCA
- NVCA
- Number of predisposition incarceration days

Commissioners'



NCA = 5, Fraction of Cases	Signature Bond	Low Cash Bail	High Cash Bail
PSA-DMF Available	.45	.30	.25
PSA-DMF Not Available	.58	.19	.23
Difference	-.13	.11	.02
Statistically Significant?	Yes	Yes	No

FTA = 1, Fraction of Cases	Signature Bond	Low Cash Bail	High Cash Bail
PSA-DMF Available	.91	.03	.06
PSA-DMF Not Available	.88	.02	.10
Difference	.03	.01	-.04
Statistically Significant?	No	No	No

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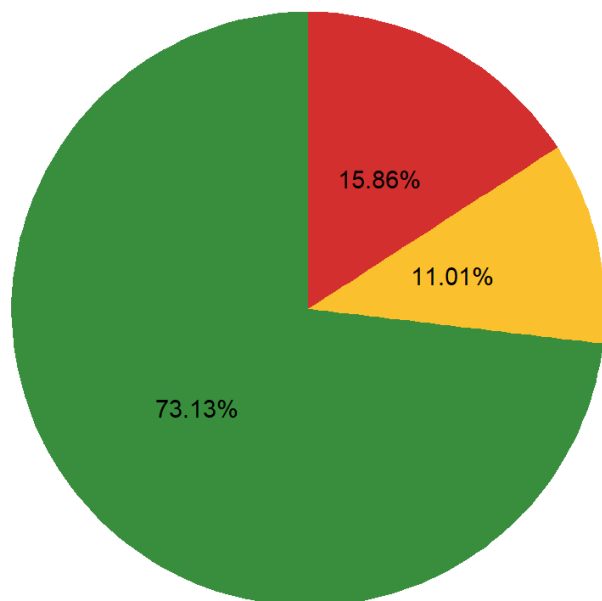
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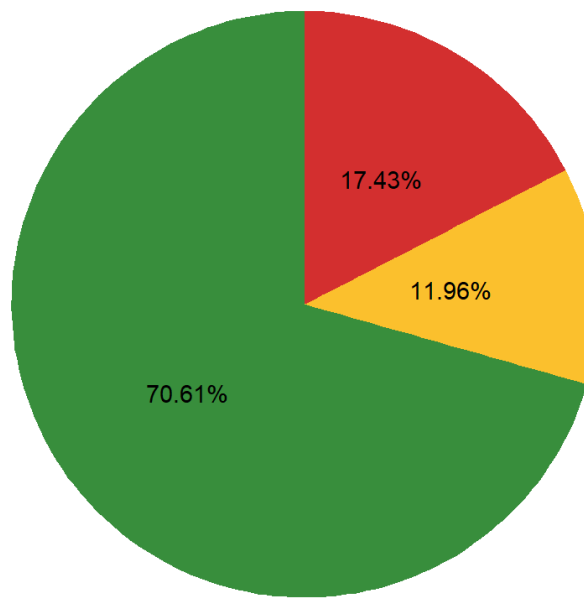
Commissioners' Decisions



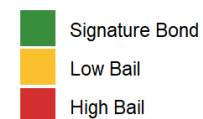
Distribution of Judicial Decisions
When PSA-DMF Not Present



Distribution of Judicial Decisions
When PSA-DMF Present



Judicial Decision

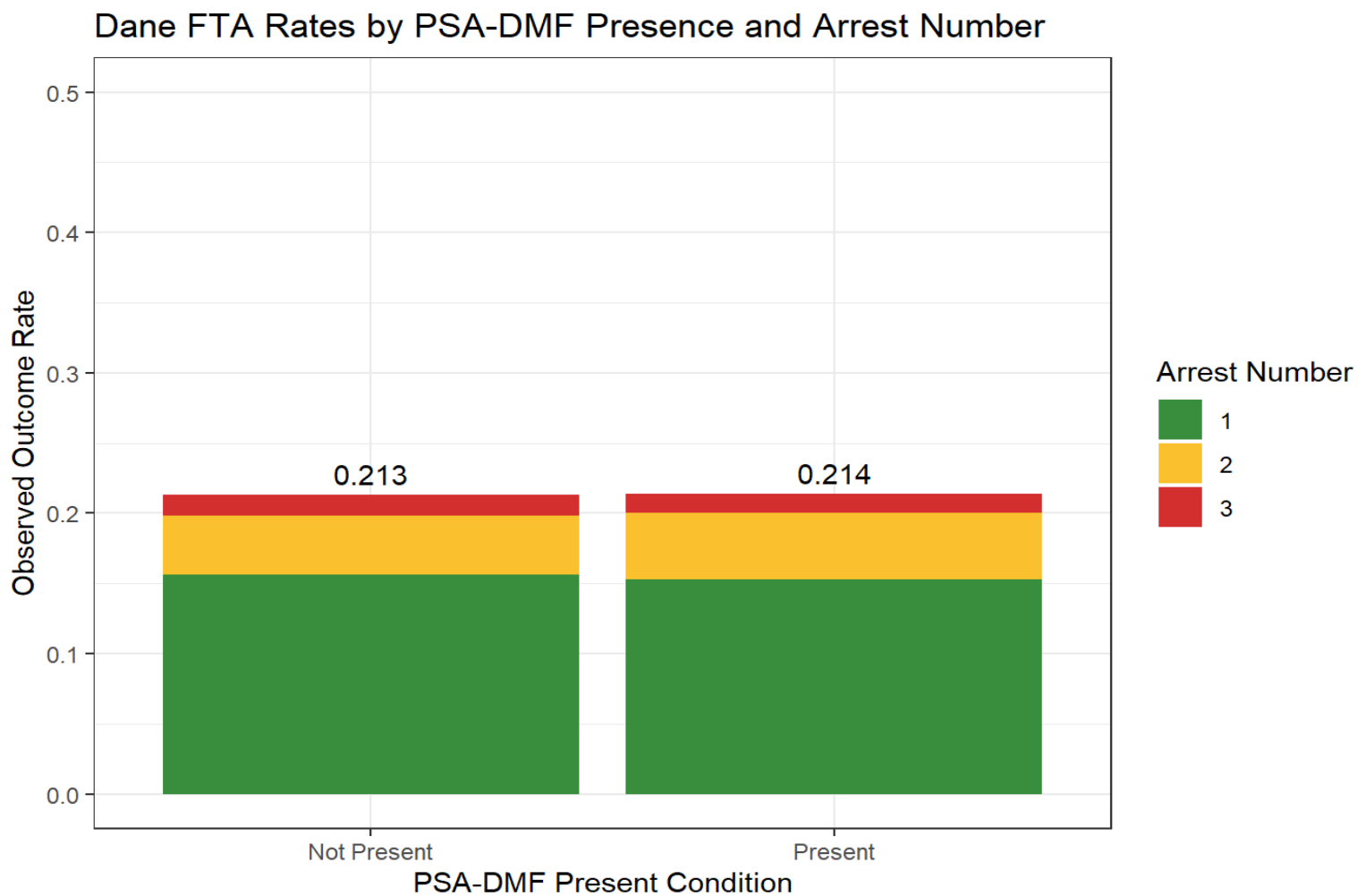


Results

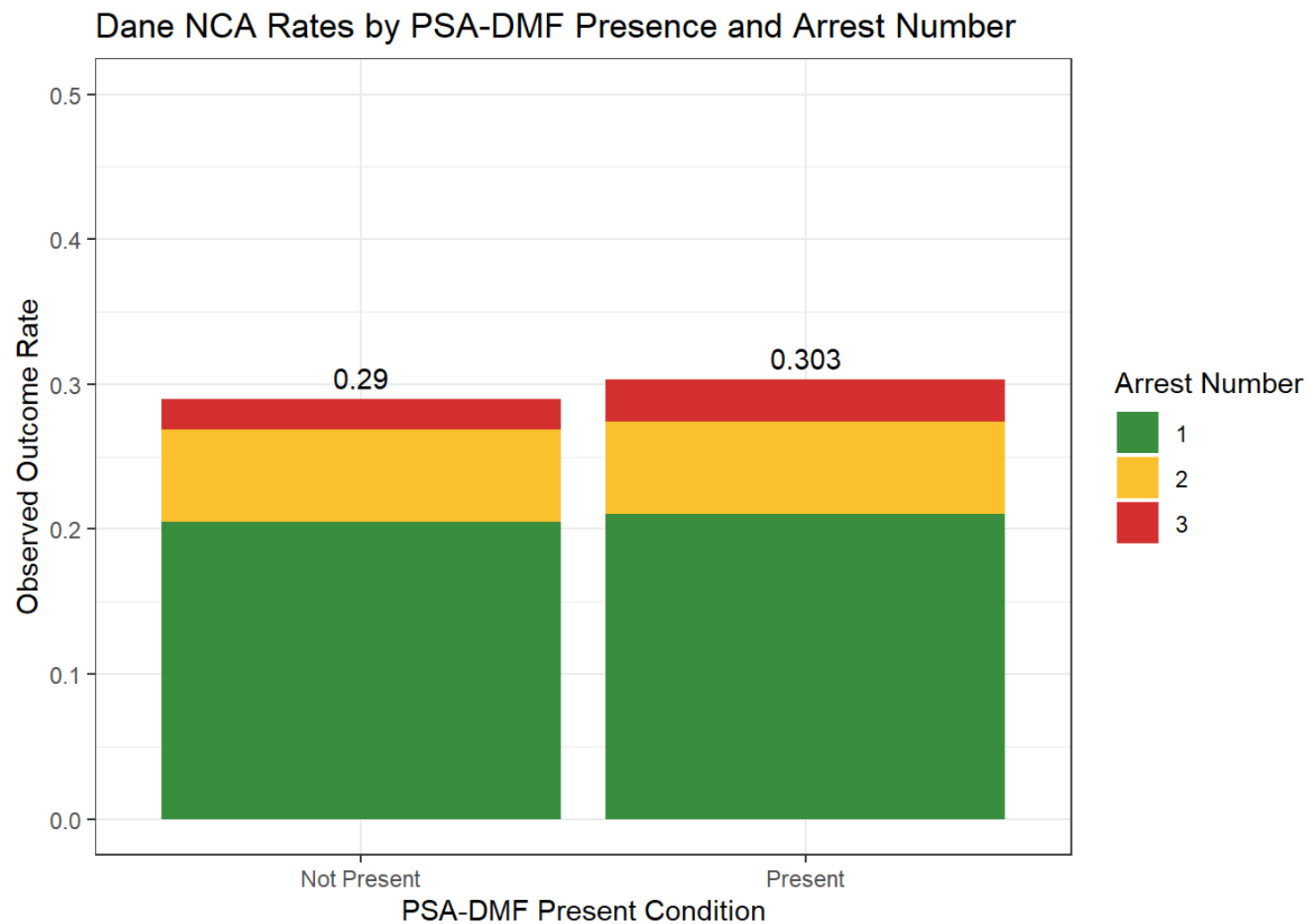
Compare PSA-DMF vs. Not PSA-DMF

- Commissioners' decisions
- **FTA**
- **NCA**
- **NVCA**
- Number of predisposition incarceration days

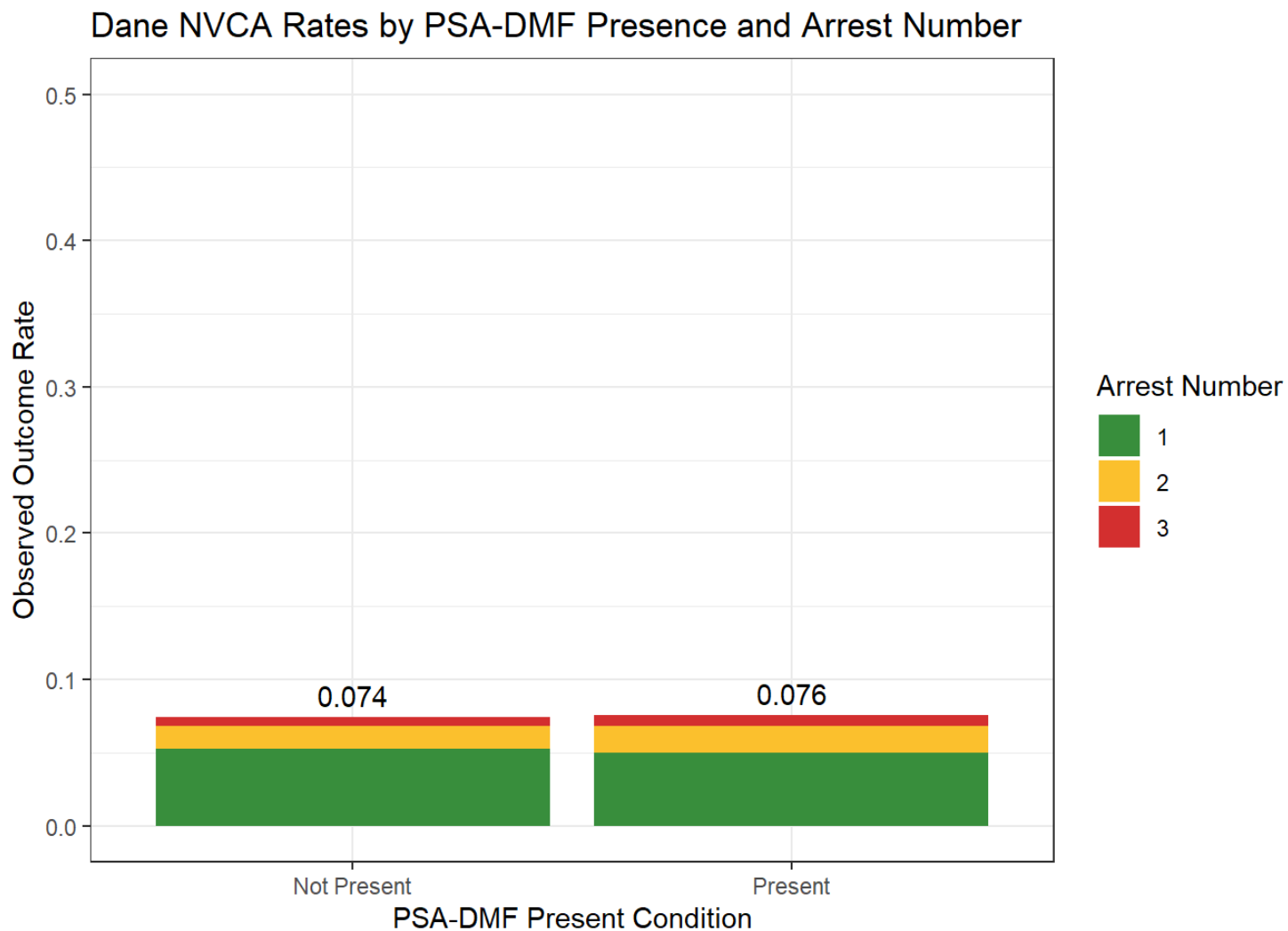
FTA



NCA



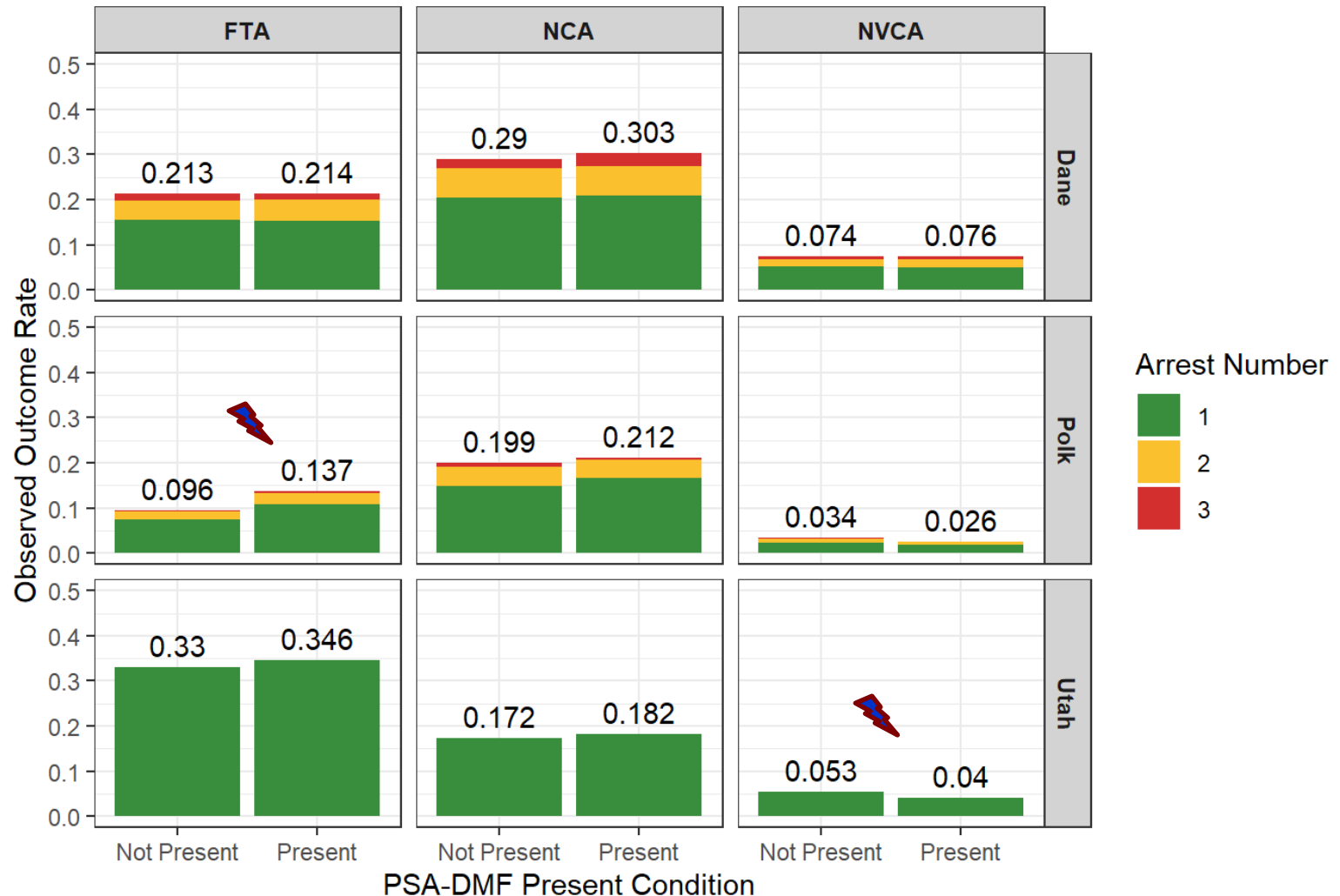
NVCA



FTA, NCA, & NVCA



Outcome Rates by PSA-DMF Presence and Arrest Number

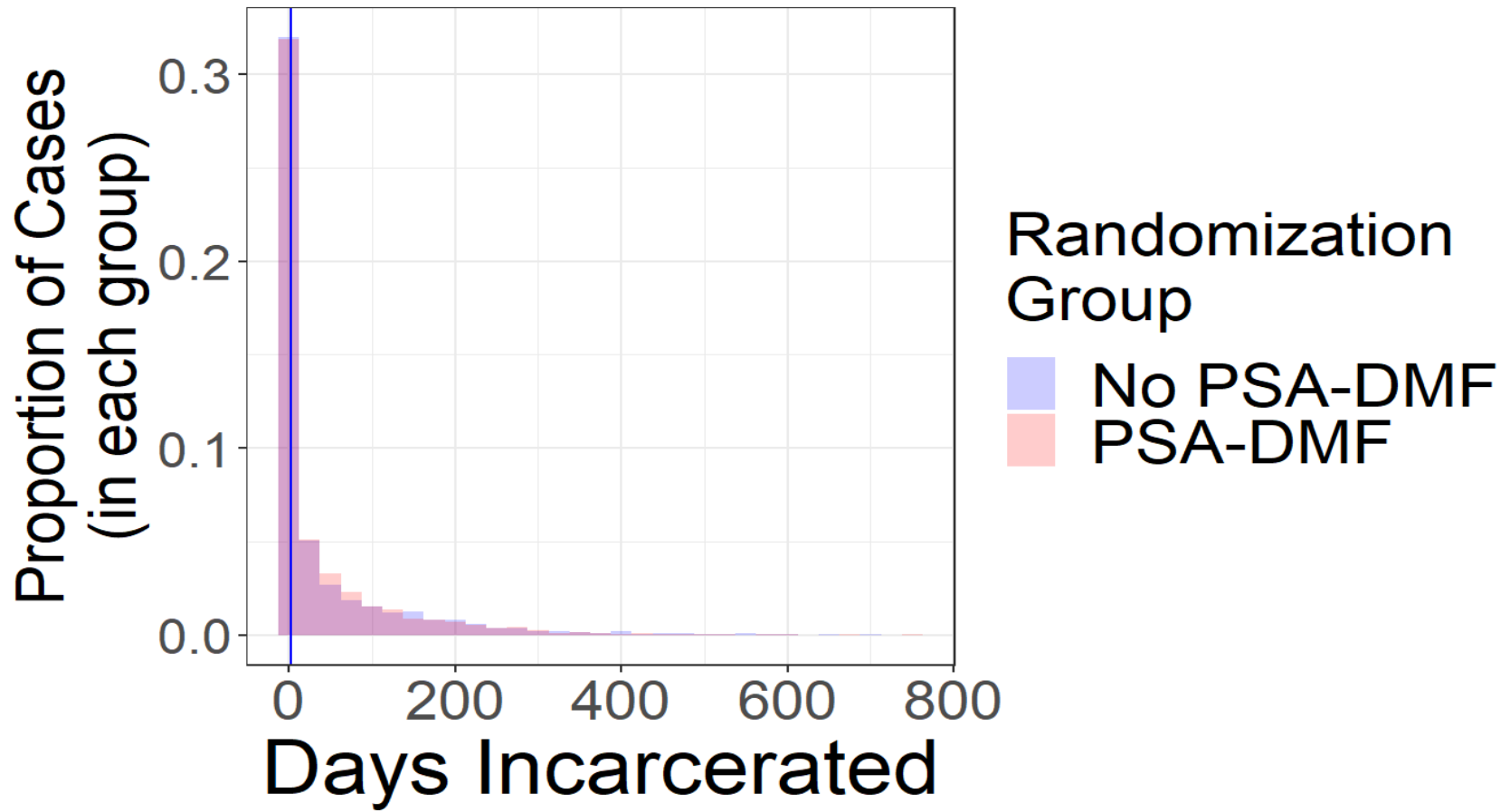


Results

Compare PSA-DMF vs. Not PSA-DMF

- Commissioners' decisions
- FTA
- NCA
- NVCA
- **Number of predisposition incarceration days**
- Measures of racial fairness

Incarceration Days



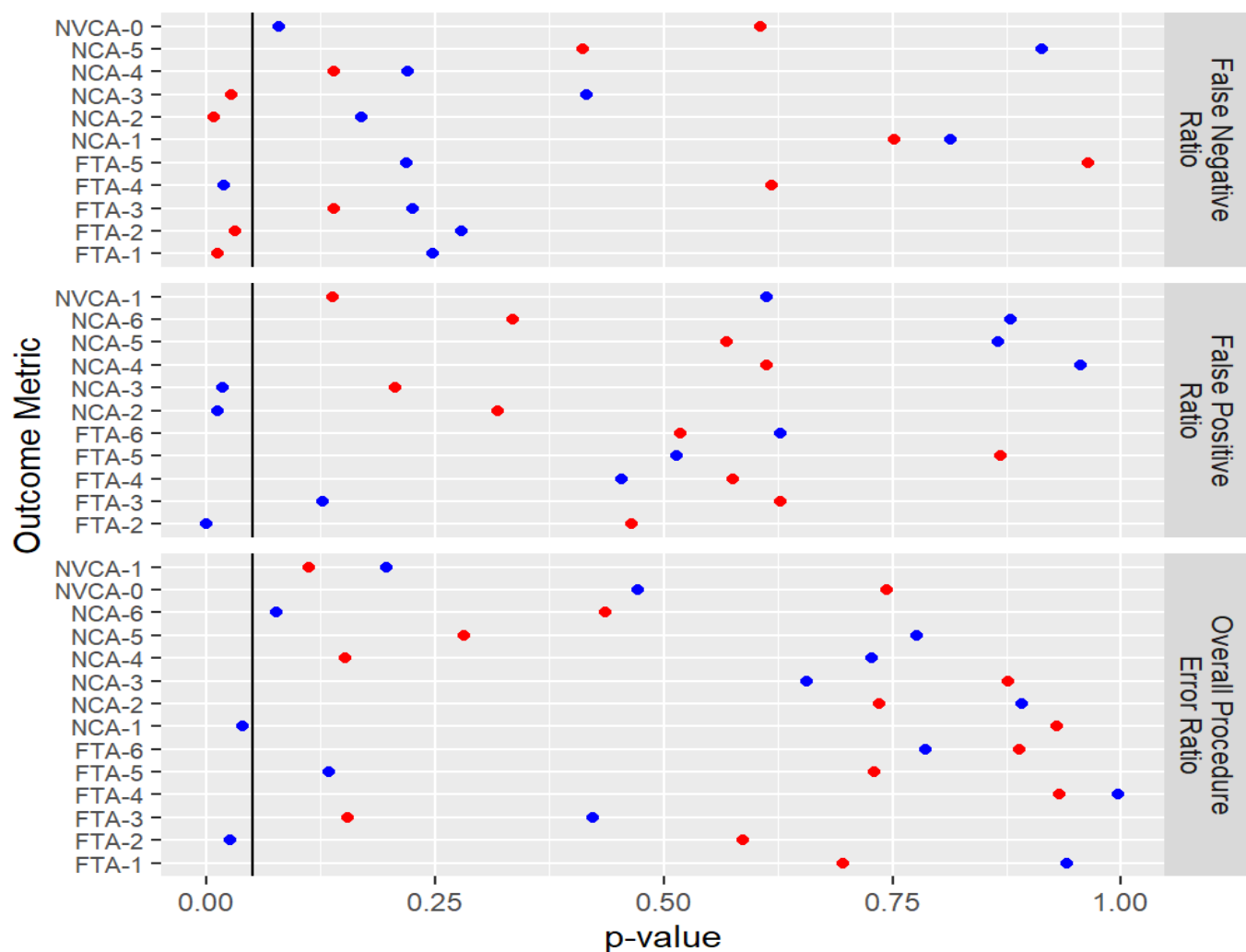
PSA-DMF Mean Length: 39.8
No PSA-DMF Mean Length: 41.9
p-value: 0.341

Results

Compare PSA-DMF vs. Not PSA-DMF

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Racial Fairness



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No effect

Hopes for PSA-DMF A2J Lab

Reduce some or all of

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- Number of pretrial incarceration days

Neither hopes (nor fears) realized

Hopes for PSA-DMF



Why?

Neither hopes (nor fears) realized

Why?



Best guesses

- No: Changes in Commissioners' decisions not large enough
- More likely: Bail does not prevent FTA or N(V)CA
- More likely: PSA classification not strong enough

Why?

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Changes in Decisions

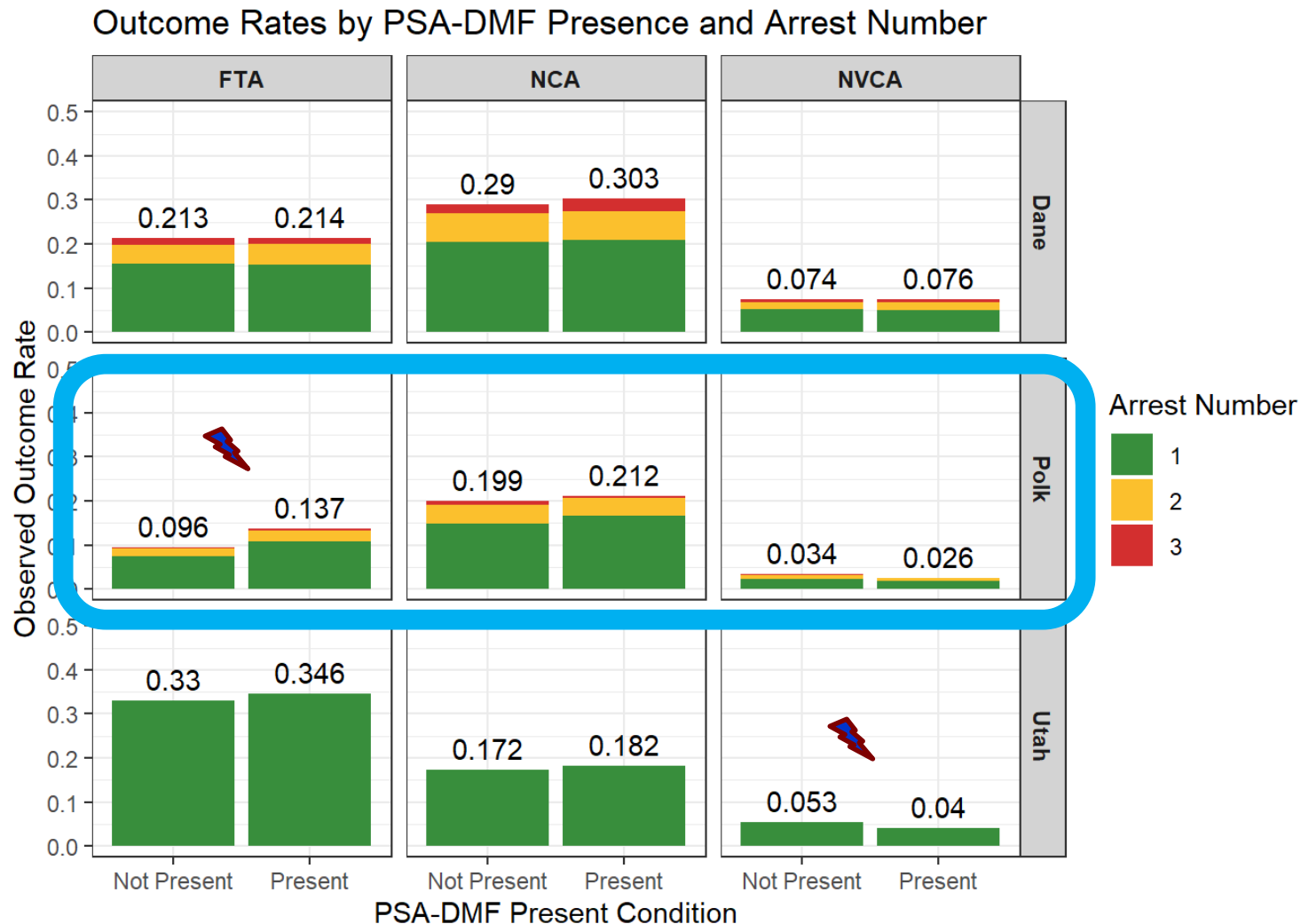
Polk County Magistrates

NCA = 1

Fraction of Cases

	OR Release	Low Bond	High Bond	Remand
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Difference	.35	-.23	-.12	.00
Statistically Significant?	Yes	Yes	Yes	No

Changes in Decisions



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Bail does not prevent



Individual Type	Misbehave if Signature	Misbehave if Cash
Safe	No	No
Preventable	No	Yes
Hopeless	Yes	Yes
Backlash	Yes	No

Bail does not prevent



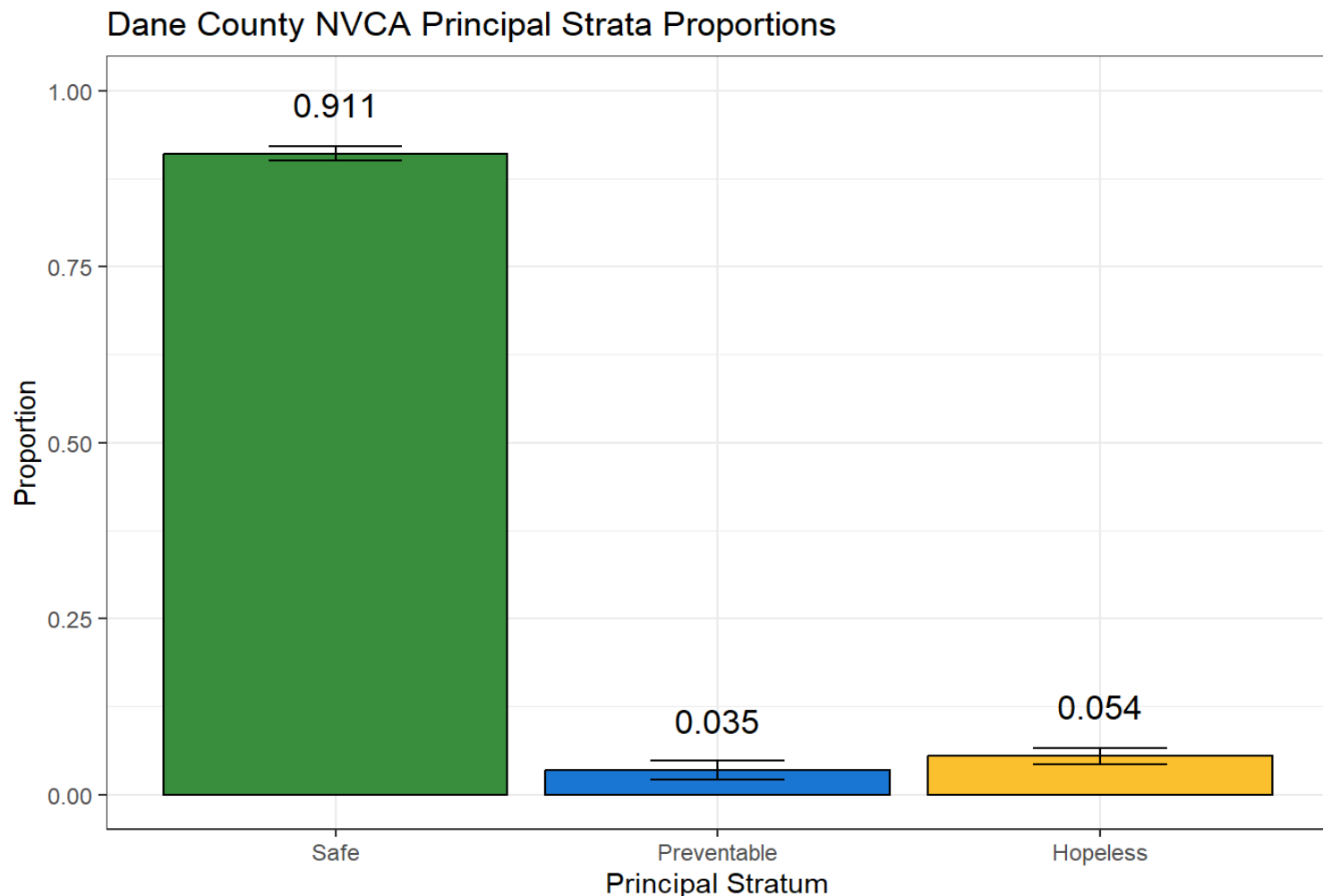
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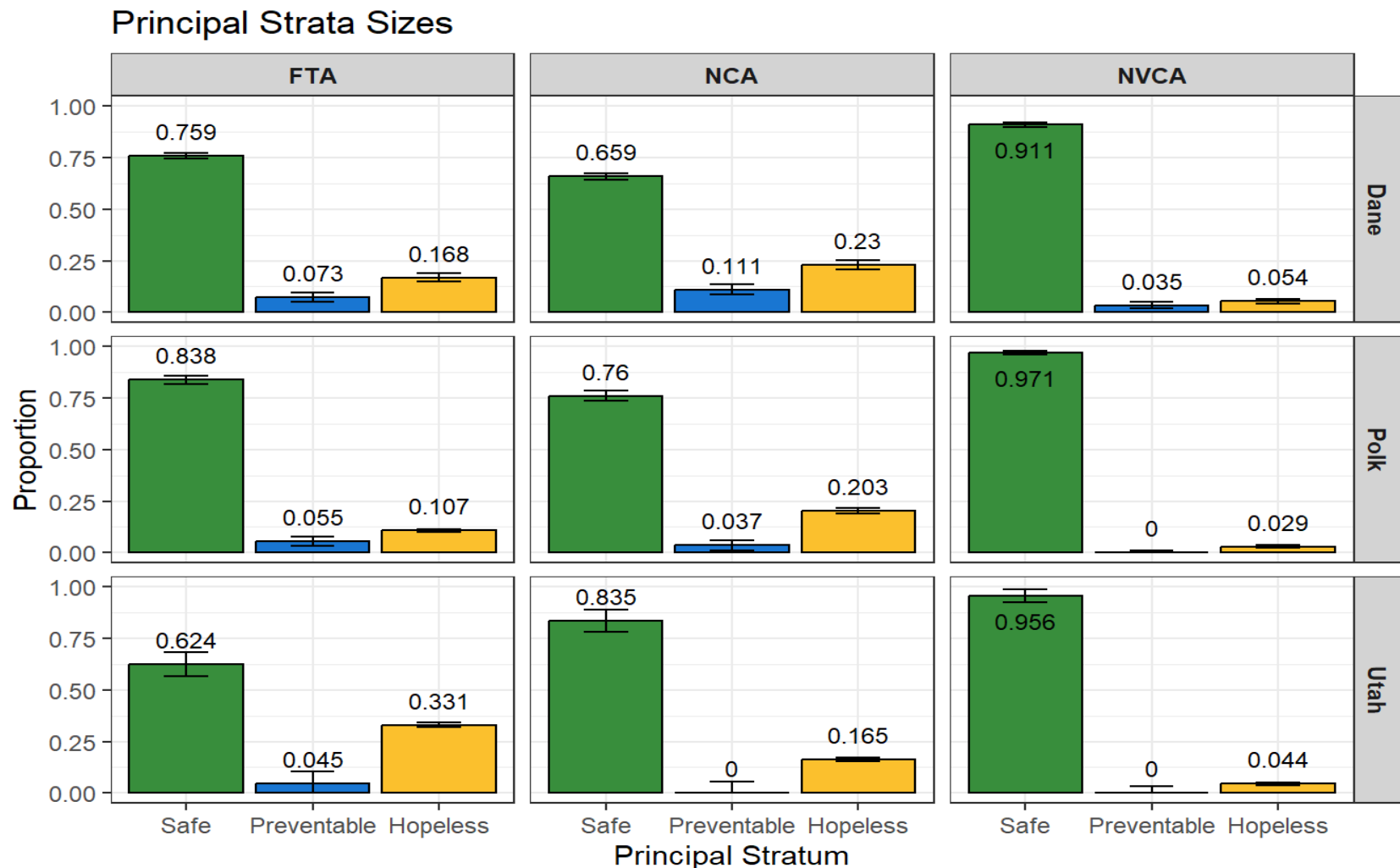


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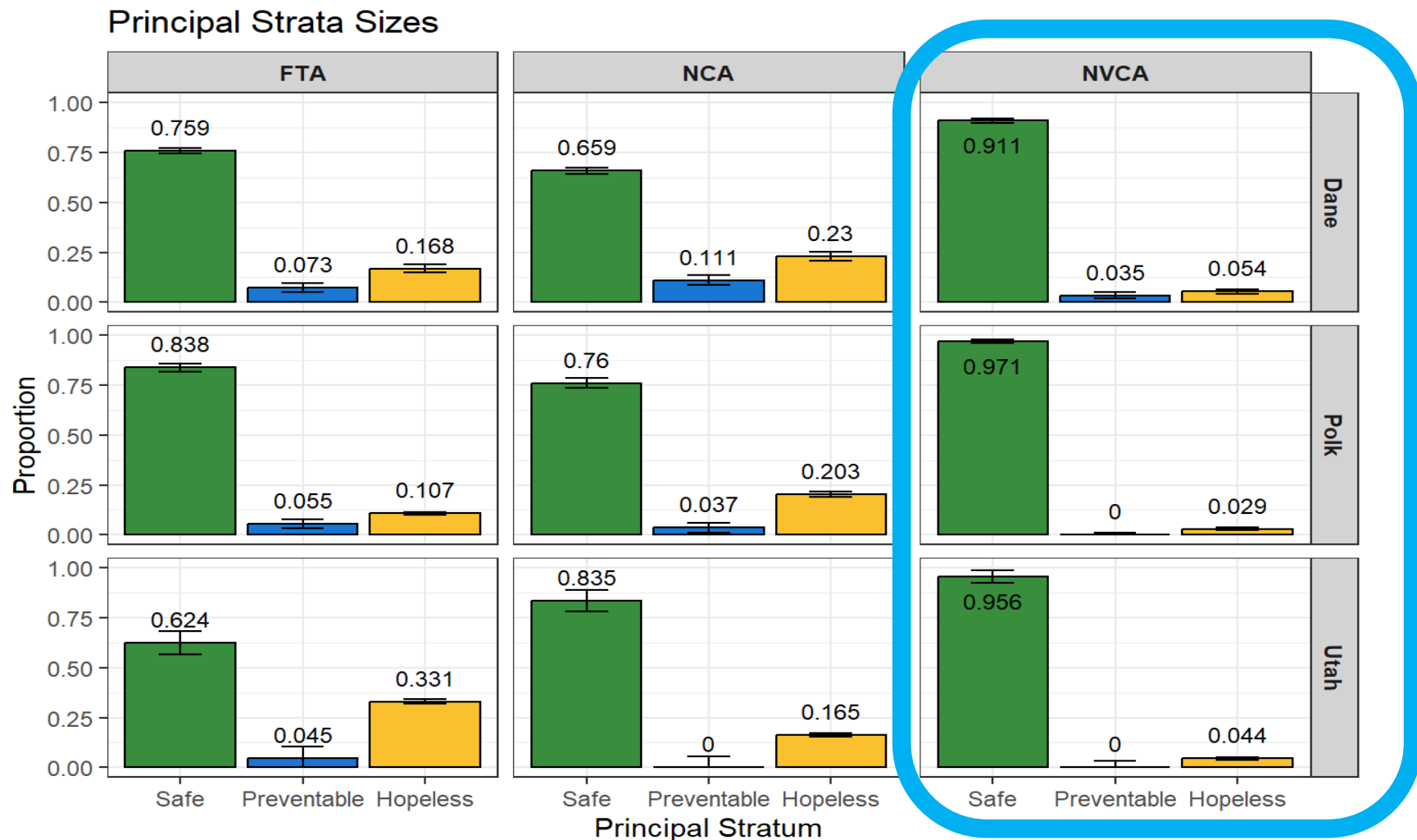
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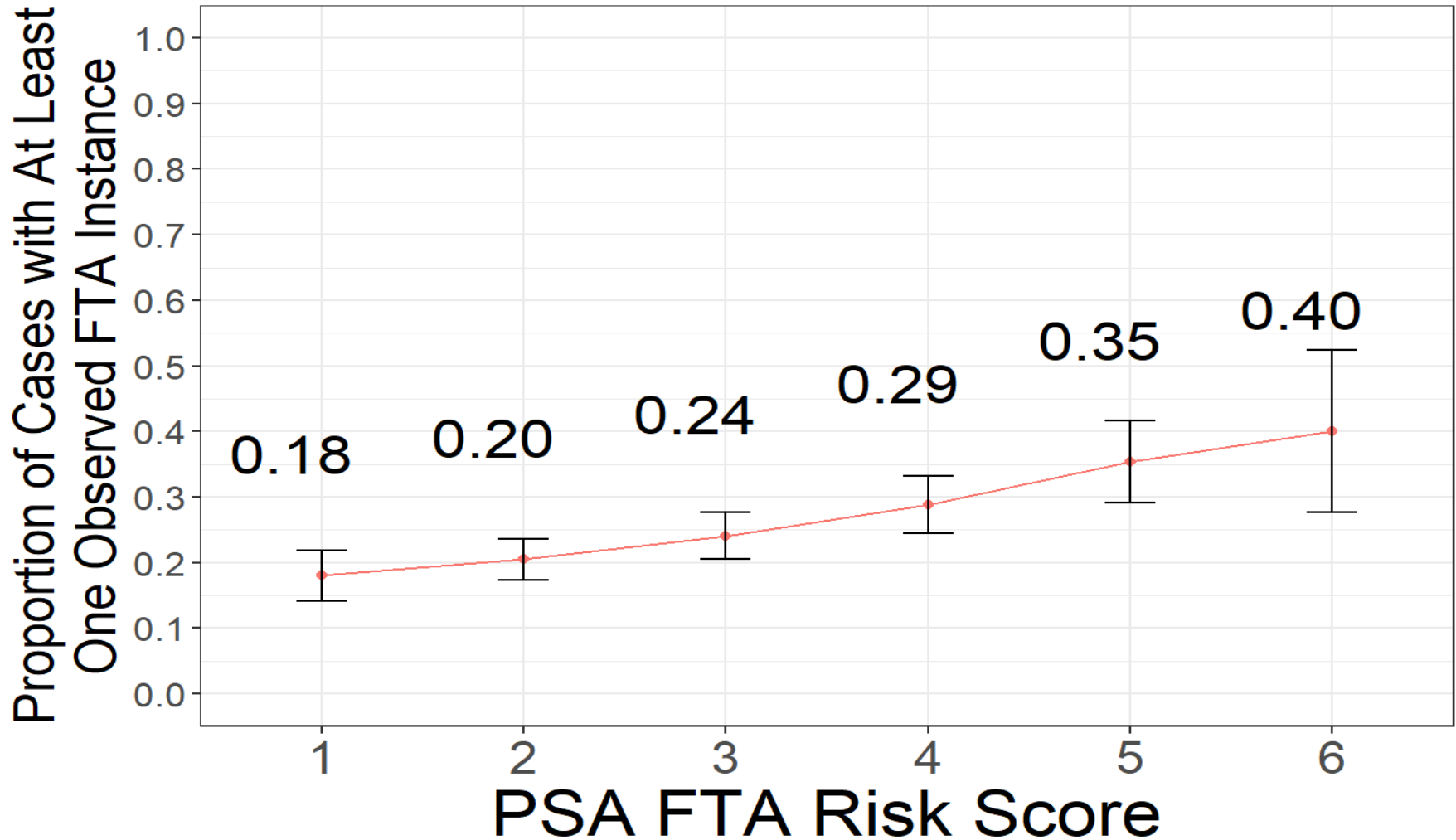
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PSA Classification

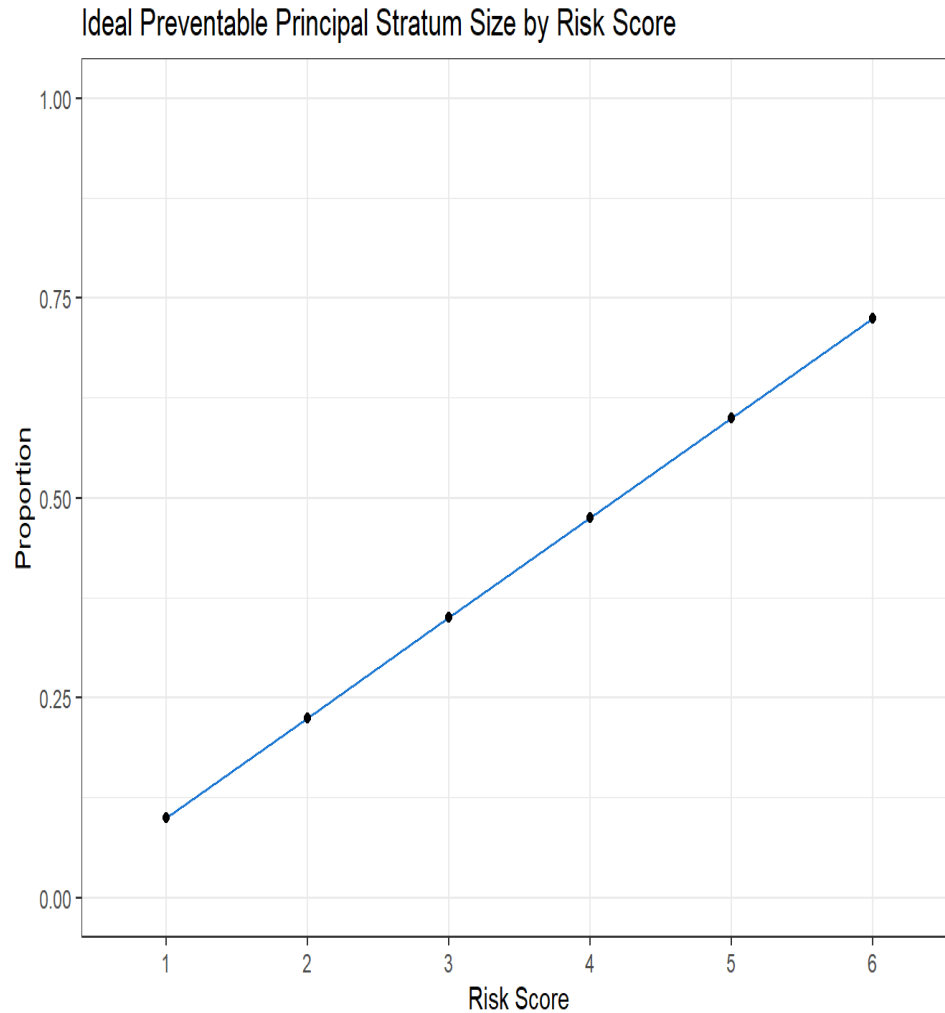


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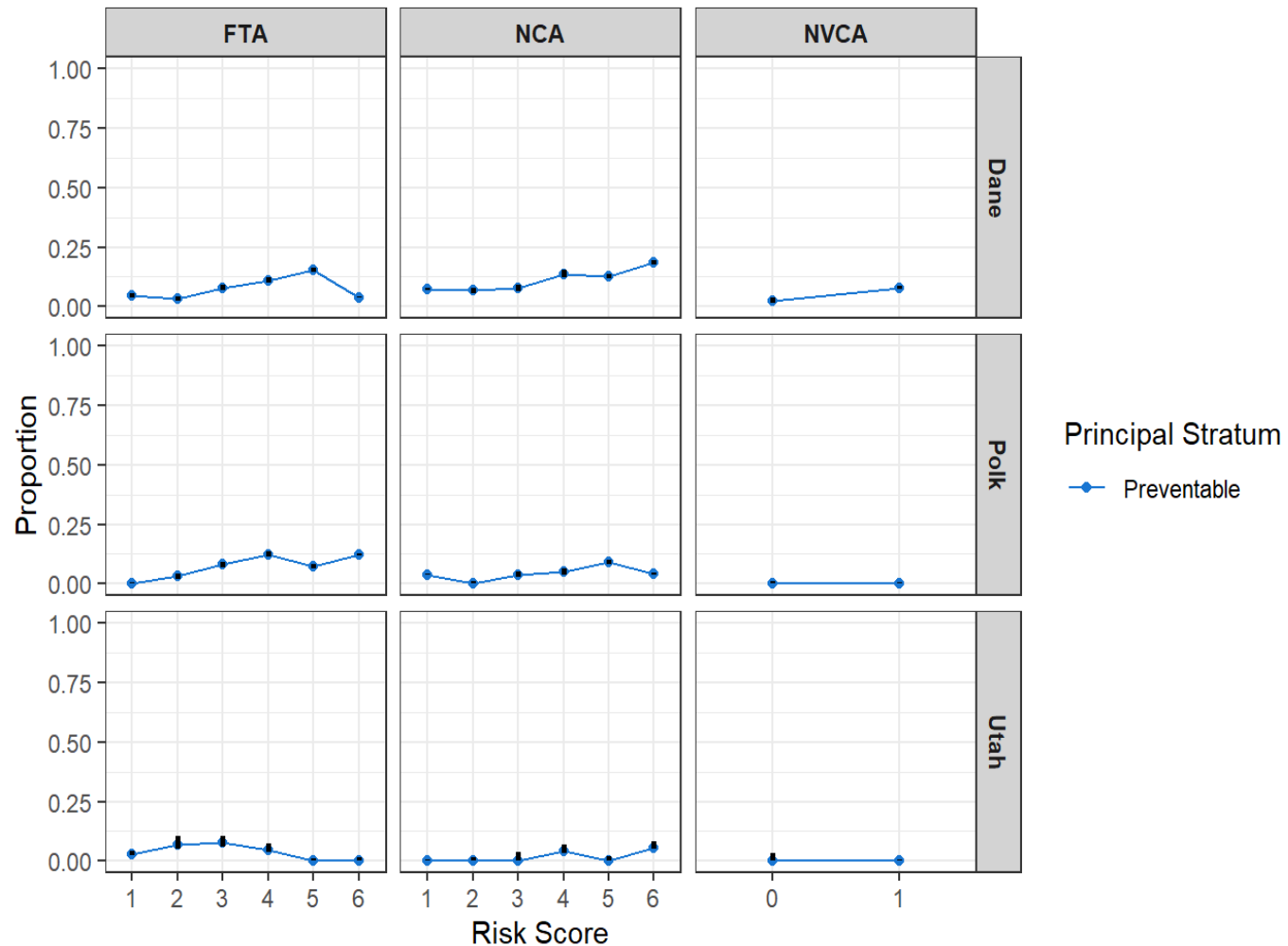
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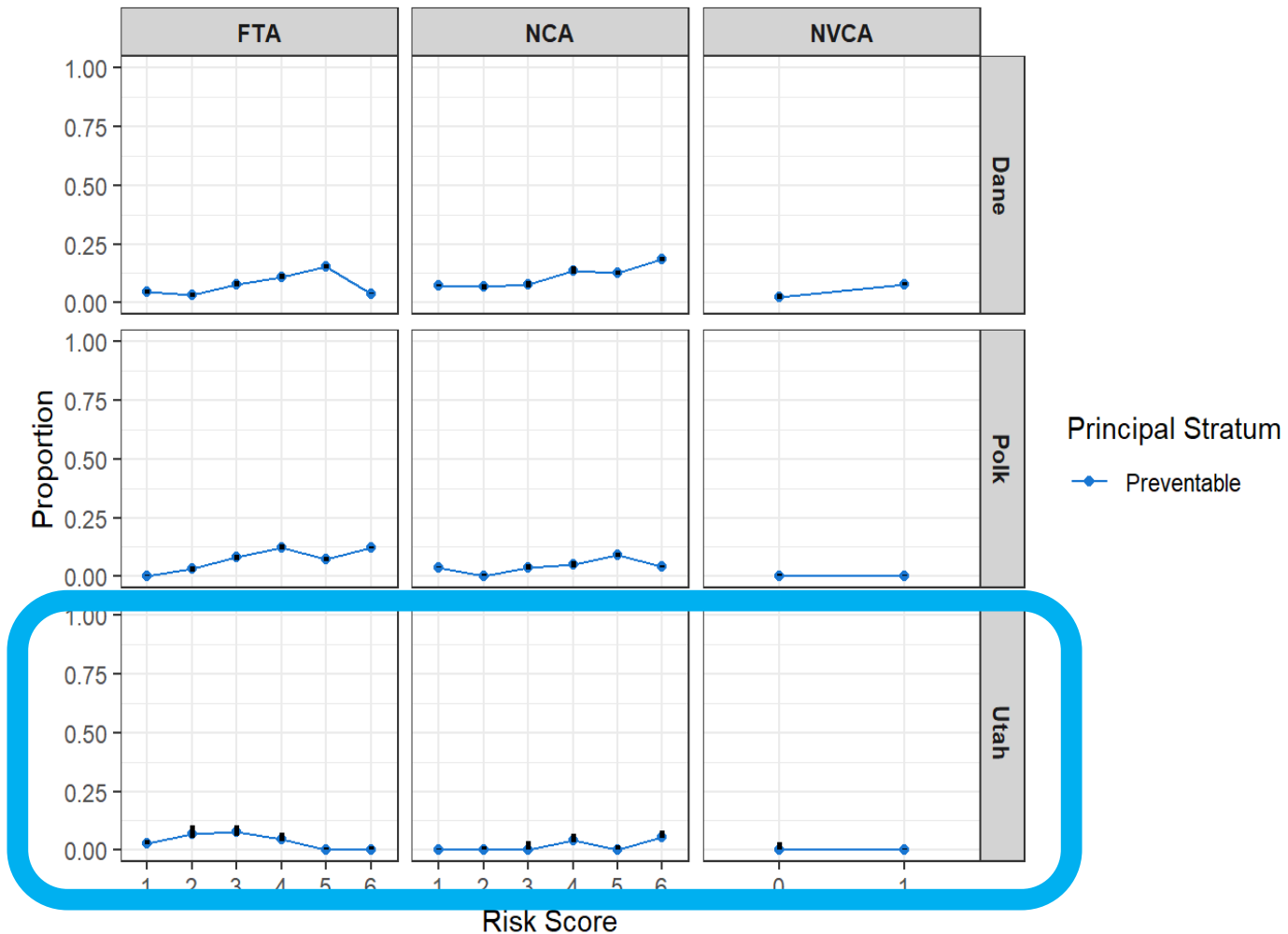
Principal Strata Proportion within Score by Risk Score



PSA Classification



Principal Strata Proportion within Score by Risk Score



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Now What?



A2J Lab: Scientists, not policy makers

Now What?



A2J Lab: Scientists, not policy makers

Consider

- 1) Redeployment of resources from PSA-DMF

Now What?



A2J Lab: Scientists, not policy makers

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- 1) Redeployment of resources from PSA-DMF
- 2) Reduced reliance on cash bail

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- 3) Credible/rigorous investigation into effectiveness of levels of supervision (MDRC report)

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A2J Lab: Scientists, not policy makers

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Hopes for PSA-DMF A2J Lab

Reduce some or all of

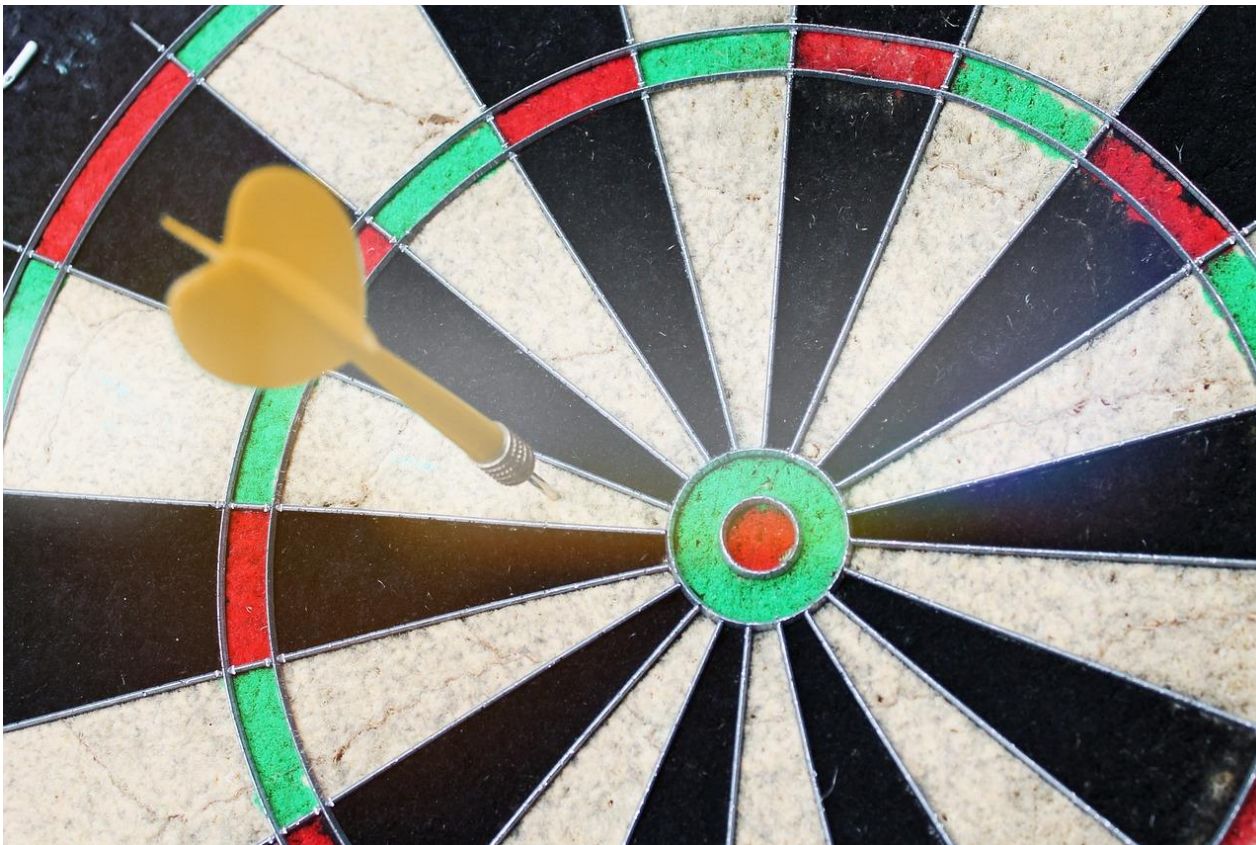
- Failure to appear (“FTA”)
- New criminal activity (“NCA”), especially violent (“NVCA”)
- Racial disparities
- Number of pretrial incarceration days

Neither hopes (nor fears) realized

Must Try New Things



Most Don't Work



But That's True of Current Practices



Now What?

Consider

- 1) Redeployment of resources from PSA-DMF
- 2) Reduced reliance on cash bail
- 3) Credible/rigorous investigation into effectiveness of levels of supervision (MDRC report)**

**Thank You for
This
Opportunity**