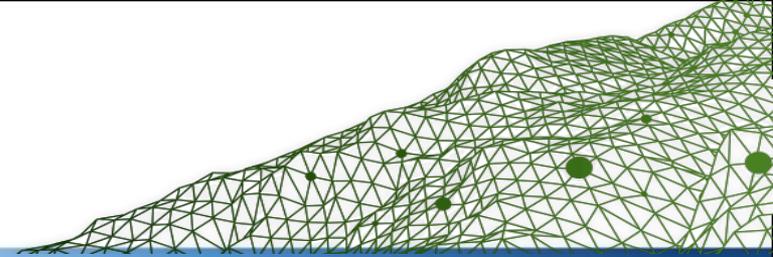


Modified Virginia Pre-Trial Risk Assessments: Initial Results

Dr. Kimberly Bernard
David Schwager, MS
Dr. Meagan Zurn



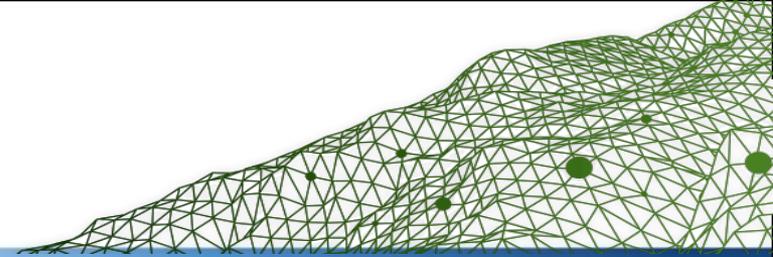
Research Questions



- What has been the early performance of the MVPRAI in the Recog Unit?
 - Recidivism rate
 - FTA rate
 - Failure Rate
 - Racial & ethnic disparities - NEW!
- How does the performance of MVPRAI compare to the prior tool?
- What is the rate of agreement of the MVPRAI recommendations with the Policy holds?



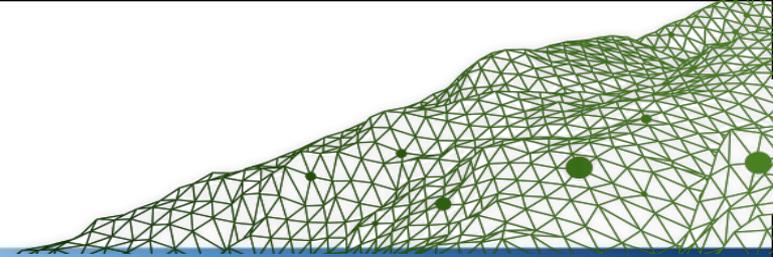
Methodology



- Focus on booking events – not defendants
- Study begins after CANS issue resolved in July 2014
- Tool transition month dropped from study window – June 2015
- Active dates:
 - Prior Recog Tool: 7/1/2014 to 5/31/2015
 - MVPRAI: 7/1/15 to 12/31/15

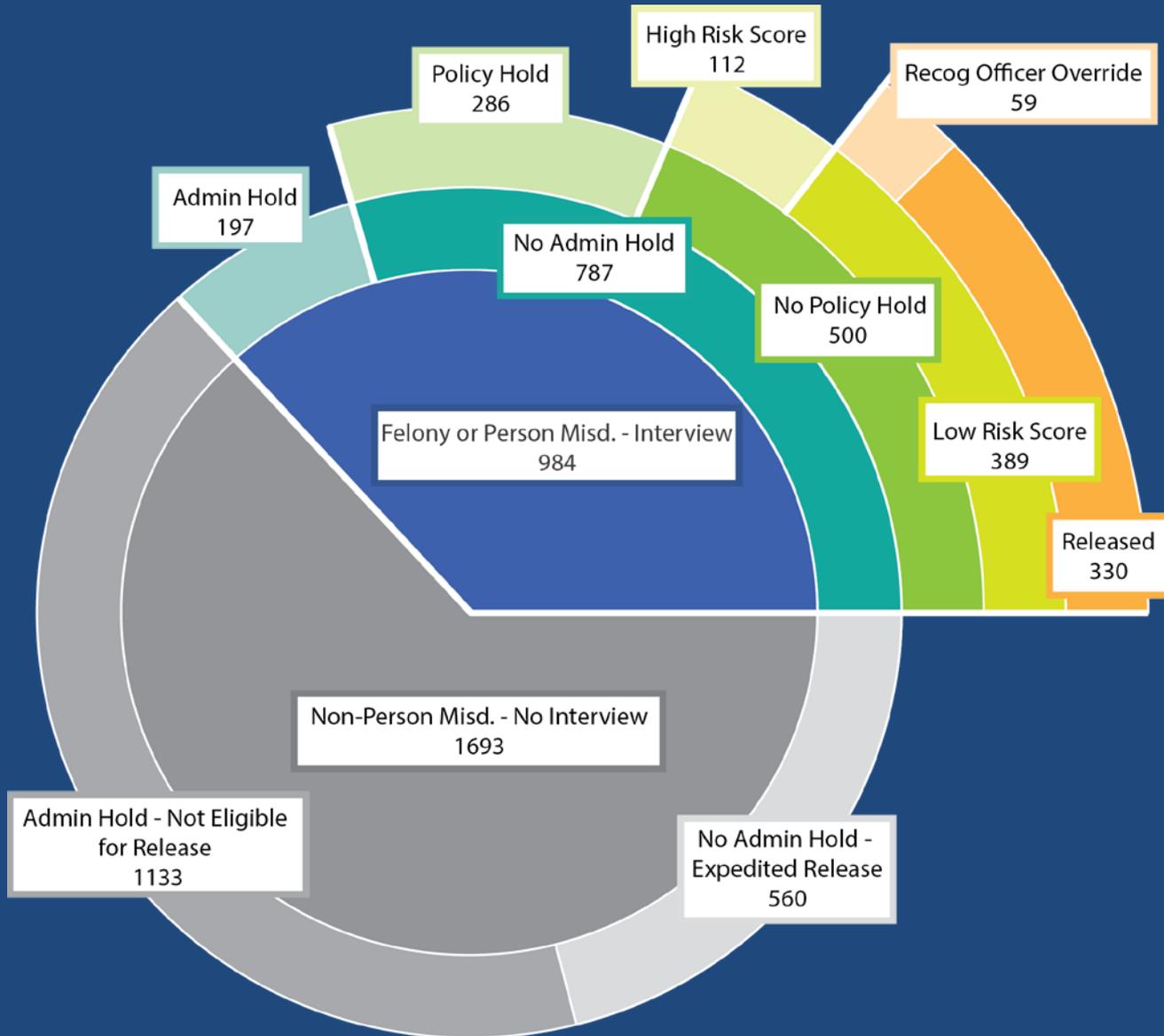


Key Definitions



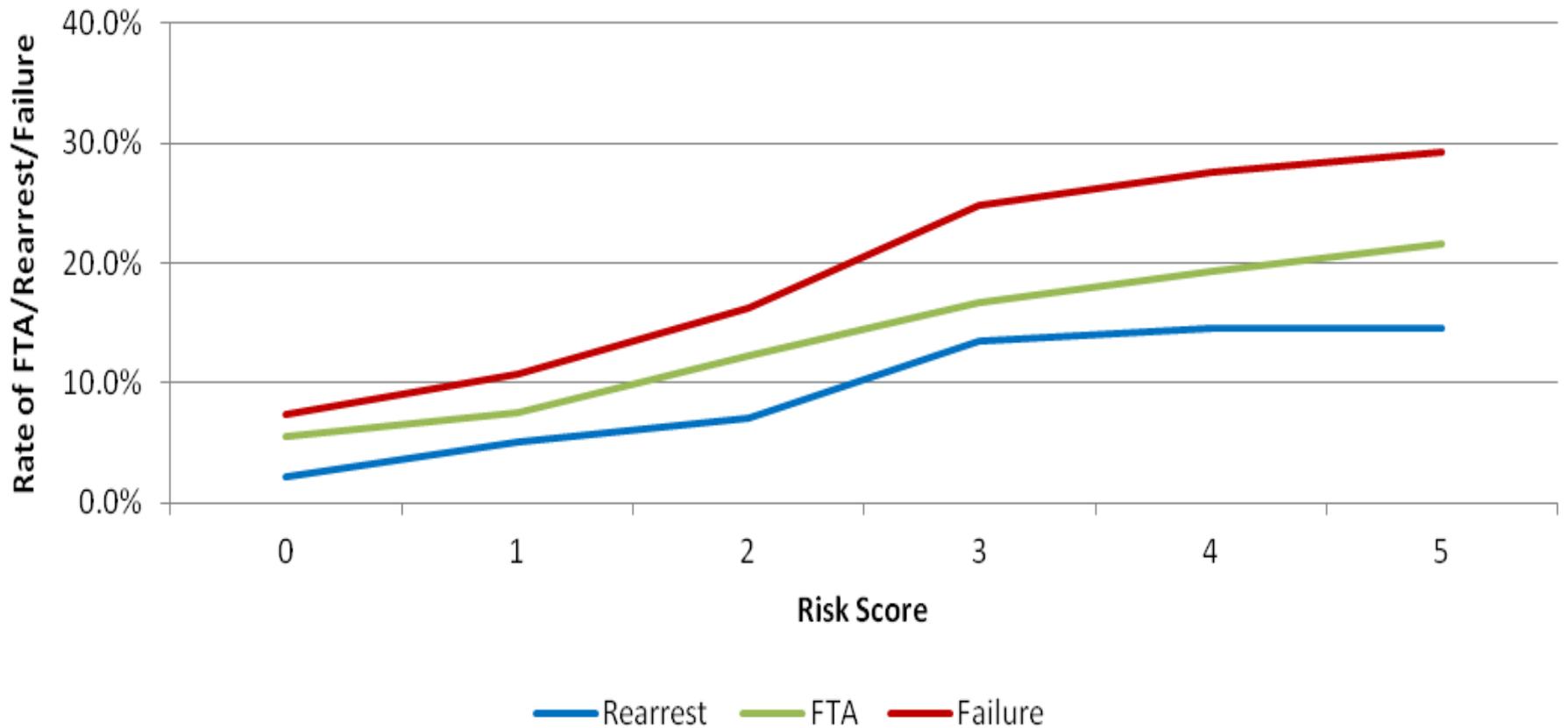
- FTA – Failure to appear at any court event between booking and trial end date
- Recidivism – New LEDS arrest between booking and trial end date
- Failure Rate – Either an FTA or new arrest
- Policy holds – Defendants held in custody due to a negotiated list of policy reasons
- Override – Defendants who would be released, but are held solely because the Recog interviewer exercises professional judgment

One Average Month at Recog...



MVPRAI Performance

MVPRAI Outcomes by Score

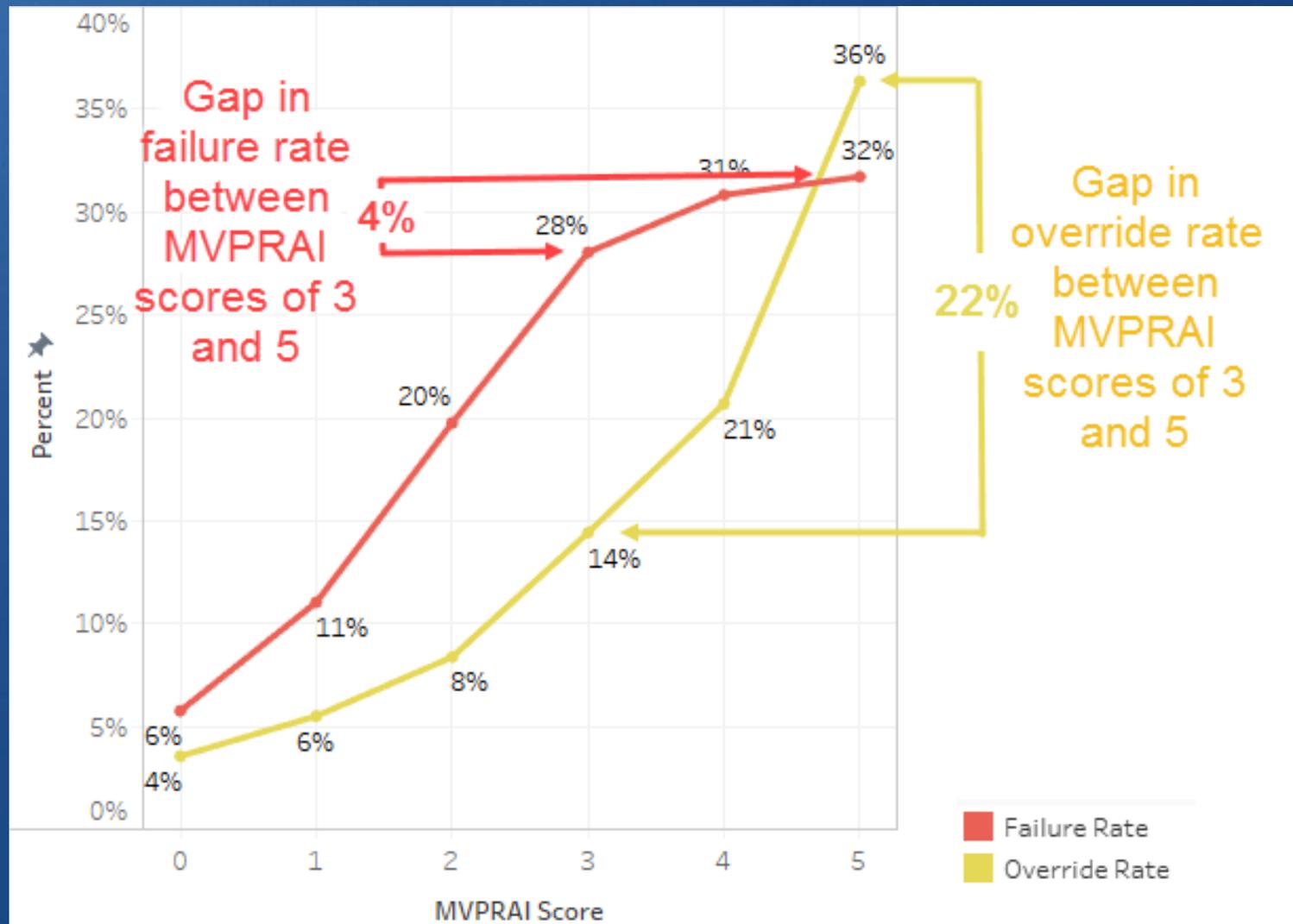


MVPRAI Performance

- Overall, the re-arrest and FTA steadily increase as the risk assessment score increases

MVPRAI Score	Total per month	Re-arrest	FTA	Failure Rate	Success Rate
0	47.8	2%	6%	7%	93%
1	68.3	5%	8%	11%	89%
2	57.3	7%	12%	16%	84%
3	51.7	14%	17%	25%	75%
4	44.8	14%	19%	28%	72%
5	28.5	15%	22%	29%	71%

MVPRAI Score and Overrides



Comparing Tools

- MVPRAI releases about the same percentage of offenders as the previous tool
- Slightly more defendants are being held due to a high score and slightly fewer defendants are being overridden, resulting in little overall change

	Ave. # Assessments per month	% Held due to High Score*	% Held Due to Override*	% Released
Old Tool	525	21.5%	12.3%	66.2%
MVPRAI	456	24.0%	10.4%	65.6%

* = statistically significant

Comparing Tools

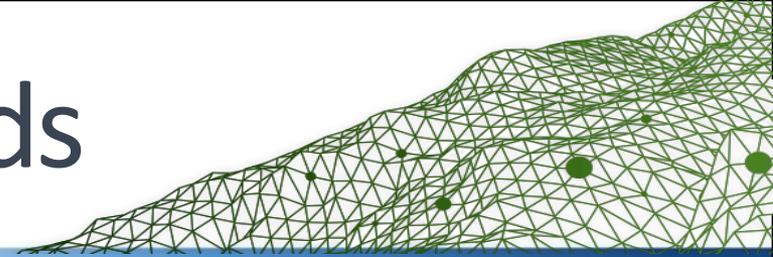
- Overall outcomes rates for released defendants are about the same
- Observed differences are within the margin of error

	Ave. # Releases per month	Re-arrest rate	FTA Rate	Failure Rate
Old Tool	347	9.1%	11.8%	17.2%
MVPRAI	299	8.8%	12.9%	18.0%

* = statistically significant



MVPRAI vs. Policy Holds



MVPRAI score recommendations are:

0 – 5 Release

6 – 9 Hold

When the risk score recommends a defendant be held (score 6-9) and that defendant has a policy hold, the risk score and policy hold are considered to be in *agreement*. *Disagreement* occurs when the risk assessment would recommend release (score 0-5) but the policy hold demands they be held.



Policy Hold	Ave per month	Risk Score Agreement	Risk Score Disagreement
DUII	4.2	0%	100%
Convicted and Serving Sanction	0.2	0%	100%
Domestic Violence	152.7	6%	94%
Unlawful Weapon or Gun	16.2	11%	89%
ORS 137.700/707	19.5	15%	85%
Violation of Restraining Order or Similar	7.5	16%	84%
Person Felony + Outstanding Person Felony	15.7	24%	76%
Burglary I	9.3	25%	75%
Murder	1.3	25%	75%
Methamphetamines	11	27%	73%
Failure to Report as Sex Offender	7.8	28%	72%

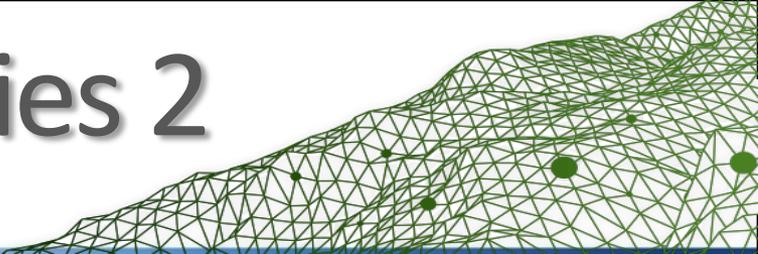
Racial & Ethnic Disparities 1

Predicting Override Rates: Regression Results

Variable	Effect	P-value
[MVPRAI Score=.00]	-2.806	0.000
[MVPRAI Score=1.00]	-2.302	0.000
[MVPRAI Score=2.00]	-1.834	0.000
[MVPRAI Score=3.00]	-1.221	0.000
[MVPRAI Score=4.00]	-0.770	0.000
[MVPRAI Score=5.00]	--	
Age	-0.004	0.229
[Race=B] * [Gender=F]	-0.386	0.091
[Race=B] * [Gender=M]	0.061	0.639
[Race=H] * [Gender=F]	0.410	0.276
[Race=H] * [Gender=M]	0.070	0.649
[Race=W] * [Gender=F]	-0.335	0.007
[Race=W] * [Gender=M]	--	

- After controlling for age and MVPRAI score, when compared to the baseline of white males the only statistically significant difference is that white females are held by override less often.

Racial & Ethnic Disparities 2



- This analysis is predicated on the assumption that the MVPRAI score is fair to all racial groups. Recog officers are clearly relying on the MVPRAI score for their override decision, but if the MVPRAI is unfairly giving blacks higher risk scores then this cannot be considered a fair decision point.
- We now perform a similar logistic regression analysis on the failure rate to determine if the MVPRAI predicts equally well for all racial groups. We would consider the MVPRAI to be unfair to a disadvantaged racial group if that group has a lower failure rate than whites at the same risk score.
- This would indicate that the MVPRAI is unfairly classifying that racial group as higher risk than they actually are, leading to them being held more often both by an MVPRAI score over the hold threshold of 6 as well as by overrides when below that threshold.

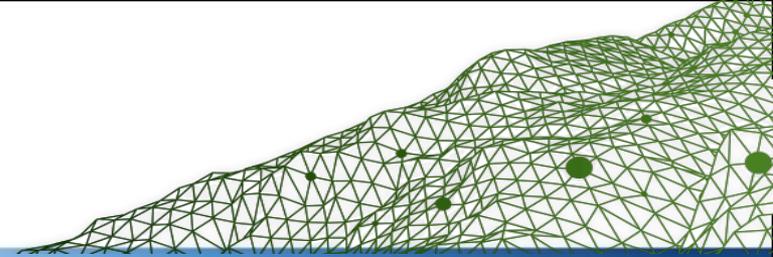
Racial & Ethnic Disparities 3

Predicting Failure Rates: Regression Results

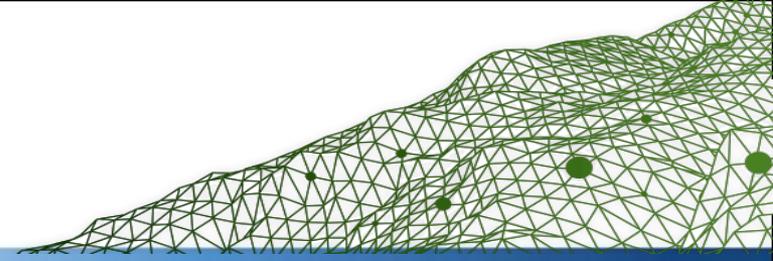
Variable	Effect	P-value
[MVPRAI Score=.00]	-2.043	0.000
[MVPRAI Score=1.00]	-1.293	0.000
[MVPRAI Score=2.00]	-0.605	0.000
[MVPRAI Score=3.00]	-0.170	0.198
[MVPRAI Score=4.00]	-0.070	0.605
[MVPRAI Score=5.00]	--	
[Race=B] * [Gender=F]	0.190	0.324
[Race=B] * [Gender=M]	0.166	0.192
[Race=H] * [Gender=F]	0.203	0.599
[Race=H] * [Gender=M]	0.337	0.012
[Race=W] * [Gender=F]	-0.071	0.510
[Race=W] * [Gender=M]	--	

- After controlling for MVPRAI score, when compared to the baseline of white males the only significant difference is that Hispanic males are more likely to fail.
- This indicates that Hispanic males are actually getting better treatment from the MVPRAI, as it classifies higher risk individuals at a lower risk score than they actually deserve.

RED Summary



- There is no evidence of racial and ethnic disparities in override decisions by Recog staff .
- There is no evidence of racial and ethnic disparities in MVPRAI scores in FTA, recidivism, or overall failure rates.
- There is some evidence that the MVPRAI is less predictive for Hispanic males.
- There is evidence that Recog staff are less likely to override white females.



Questions?