



JUDICIAL COUNCIL of CALIFORNIA

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January 20, 2023

HON. PATRICIA GUERRERO
*Chief Justice of California
Chair of the Judicial Council*

Hon. Nancy Skinner
Chair, Senate Committee on Budget and Fiscal Review
Chair, Joint Legislative Budget Committee
Legislative Office Building
1020 N Street, Room 502
Sacramento, California 95814

HON. MARSHA G. SLOUGH
Chair, Executive and Planning Committee

HON. DAVID M. RUBIN
*Chair, Judicial Branch Budget Committee
Chair, Litigation Management Committee*

Hon. Philip Y. Ting
Chair, Assembly Committee on Budget
Vice-Chair, Joint Legislative Budget Committee
1021 O Street, Suite 8230
Sacramento, California 95814

HON. MARLA O. ANDERSON
Chair, Legislation Committee

HON. CARIN T. FUJISAKI
Chair, Rules Committee

Re: *Bias Mitigation in Pretrial Processing*, as required under Penal Code section 1320.35

HON. KYLE S. BRODIE
Chair, Technology Committee

Dear Senator Skinner and Assembly Member Ting:

*Hon. Maria Lucy Armendariz
Hon. C. Todd Bottke
Hon. Kevin C. Brazile
Hon. Jonathan B. Conklin
Hon. Carol A. Corrigan
Hon. Samuel K. Feng
Mr. David D. Fu
Hon. Brad R. Hill
Ms. Rachel W. Hill
Hon. Harold W. Hopp
Hon. Ann C. Moorman
Ms. Gretchen Nelson
Mr. Maxwell V. Pritt
Hon. Thomas J. Umberg*

Pursuant to Penal Code section 1320.35, the Judicial Council is submitting *Bias Mitigation in Pretrial Processing*.

If you have any questions related to this report, please contact Francine Byrne, Director, Criminal Justice Services, at 415-865-8069 or francine.byrne@jud.ca.gov.

ADVISORY MEMBERS

*Hon. Judith K. Dulcich
Ms. Rebecca J. Fleming
Mr. Shawn C. Landry
Hon. Kimberly Merrifield
Hon. Glenn Mondo
Hon. David Rosenberg
Mr. David H. Yamasaki*

Sincerely,

Millicent Tidwell
Acting Administrative Director
Judicial Council

MS. MILLICENT TIDWELL
*Acting Administrative Director
Judicial Council*

January 20, 2023

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MT/FB/st/sl

Enclosures

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Erika Contreras, Secretary of the Senate
Sue Parker, Chief Clerk of the Assembly
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MS. MILLICENT TIDWELL
*Acting Administrative Director
Judicial Council*

Report title: *Bias Mitigation in Pretrial Processing*

Statutory citation: Penal Code section 1320.35

Date of report: January 3, 2023

The Judicial Council has submitted a report to the Legislature in accordance with Penal Code section 1320.35.

The following summary of the report is provided under the requirements of Government Code section 9795.

Under Penal Code section 1320.35, the Judicial Council is required to provide recommendations to mitigate bias and disparate effect in pretrial decisionmaking. Although this report lays out four general recommendations, no two pilot counties face the same challenges with respect to bias mitigation in the pretrial context. Based on their criminal justice context, budgetary constraints, partnerships with justice partners, and the results of their validation studies, each pilot will need to develop and implement the most productive strategies for mitigating bias.

The report includes four recommendations for consideration: (1) consider the potential bias at each point in the pretrial system and work with appropriate justice system partners to take suitable action; (2) support collaboration among justice system partners to make informed policy decisions to promote fair and efficient pretrial release; (3) ensure ongoing resources are available for the collection, integration, and improvement of data from all justice system partners to study pretrial decisionmaking; and (4) ensure adequate resources are available for jurisdictions seeking consultation for research on appropriate tool adjustments and/or further analyses aimed at identifying and mitigating potential bias.

The full report can be accessed at <http://www.courts.ca.gov/7466.htm>. A printed copy of the report may be obtained by calling 415-865-8994.



Bias Mitigation in Pretrial Processing

REPORT TO THE LEGISLATURE

JANUARY 2023



JUDICIAL COUNCIL
OF CALIFORNIA

OPERATIONS AND PROGRAMS DIVISION
CRIMINAL JUSTICE SERVICES

JUDICIAL COUNCIL OF CALIFORNIA

Hon. Patricia Guerrero

*Chief Justice of California and
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Executive Summary

As part of the Budget Act of 2019, the Legislature awarded \$75 million to the Judicial Council to fund the implementation, operation, and evaluation of 16 pretrial pilot projects. As directed by the Legislature, local courts in collaboration with their justice partners launched these programs with the goals of increasing the safe and efficient release of arrestees before trial; using the least restrictive monitoring practices possible while protecting public safety and ensuring court appearances; validating and expanding the use of risk assessment tools; and assessing any disparate impact resulting from the implementation of these programs.

Based on data and information from the pilot sites, Penal Code section 1320.35 requires the Judicial Council to provide recommendations to mitigate bias and disparate effect in pretrial decisionmaking. Although this report lays out four general recommendations, no two pilot counties face the same challenges with respect to bias mitigation in the pretrial context. Based on their criminal justice context, budgetary constraints, partnerships with justice partners and the results of their validation studies, each pilot will need to develop and implement the most productive strategies for mitigating bias.

The Judicial Council of California recommends the following:

- Consider the potential bias at each point in the pretrial system and work with appropriate justice system partners to take suitable action.
- Support collaboration among justice system partners to make informed policy decisions to promote fair and efficient pretrial release.
- Ensure ongoing resources are available for the collection, integration, and improvement of data from all justice system partners to study pretrial decisionmaking.
- Ensure adequate resources are available for jurisdictions seeking consultation for research on appropriate tool adjustments and/or further analyses aimed at identifying and mitigating potential bias.

The timing of the COVID pandemic coinciding with the start of the Pretrial Pilot Program prevents clear analysis of whether the program overall increased or reduced bias. Ongoing data collection and further research is needed to answer remaining questions related to mitigating bias and disparate effect in pretrial decisionmaking.

The analyses performed on the Pretrial Pilot data investigate predictive bias in the tools, but cannot assess potential bias in other parts of the pretrial system. Although some calibration issues were found in some risk assessment tools, given the potential for unmeasured bias in other pretrial practices more policy and research guidance is needed to weigh options to mitigate bias overall. Risk assessments can be a useful tool in pretrial decisionmaking under certain conditions, but are not a panacea. Policymakers need to make comprehensive and values-based

pretrial systems of which risk assessments may be a part as needed for estimation of risk, but, when used, tools should be designed and maintained in alignment with policy goals.

Introduction

“California’s current pretrial release and detention system unnecessarily compromises victim and public safety because it bases a person’s liberty on financial resources rather than the likelihood of future criminal behavior and exacerbates socioeconomic disparities and racial bias.”

– Finding of the Pretrial Detention Reform Workgroup (Oct. 2017)

When Chief Justice Tani G. Cantil Sakauye established the Pretrial Detention Reform Workgroup (PDR) in 2016 she charged the group with making recommendations on how courts may better identify ways to make release decisions that “will treat people fairly, protect the public, and ensure court appearances.”¹ Although much of the PDR’s work addressed the deleterious effect of money bail on those with fewer financial resources, their report also noted that “research indicates that African American and Latinx² defendants are more likely to be detained pretrial than are white defendants and less likely to be able to post money bail as a condition of release.”³

These concerns set the foundation for a slate of recommendations made by the PDR and laid out a new direction for pretrial reform in California, a direction that would eventually be funded by the Legislature and guided by the work of the Pretrial Reform and Operations Workgroup (PROW).⁴ First among the recommendations was to “implement a robust risk-based pretrial assessment and supervision system to replace the current monetary bail schedule.”⁵ While judicial officers were permitted to use the results of a risk assessment instrument to inform pretrial decisionmaking in the past, and many counties already had agencies that provided risk assessments, this recommendation would result in the implementation of risk assessment instruments on a new, larger scale.

Established by the Chief Justice in January 2019, PROW was tasked both with investigating the use of pretrial risk assessment instruments (PRAIs) in the pretrial context as well as developing recommendations for the application process, selection criteria, and funding allocations for the implementation of these ideas in 16 pilot sites.

Originating with the desire of the Chief Justice to find a more equitable and effective system for pretrial release decisionmaking, and under the guidance of PROW, in 2019 the Judicial Council

¹ Pretrial Detention Reform Workgroup, *Pretrial Detention Reform: Recommendations to the Chief Justice* (Oct. 2017), p. 1, <https://www.courts.ca.gov/documents/PDRReport-20171023.pdf>.

² Data acquired from jails and the California Department of Justice more typically use the term “Hispanic,” but this report will use the term “Latinx,” as a term denoting geographic rather than linguistic roots. “Latinx” was chosen instead of “Latino” to explicitly encompass all genders.

³ *Id.* at p. 14.

⁴ Judicial Council of Cal., Pretrial Reform and Operations Workgroup Rep., *Pretrial Reform: Pretrial Reform and Operations Group Update and Recommendations on Use of Pretrial Risk Assessment Instruments* (Nov. 13, 2020). See Attachment A for full report.

⁵ Pretrial Detention Reform Workgroup, p. 2.

approved the allocation of approximately \$68.06 million to 16 pilot courts to launch or significantly enhance pretrial projects in their counties. The goals of these pretrial programs were increasing the safe and efficient release of arrestees before trial, using the least restrictive monitoring practices possible while protecting public safety and ensuring court appearances, validating and expanding the use of risk assessment tools, and assessing any disparate impact resulting from the implementation of these programs.

From the outset PROW recognized that ongoing research would be part of a drive to mitigate bias in the pretrial decisionmaking process. In their November 2020 report, PROW delivered a slate of recommendations, including some on the implied need for data and the role of research in mitigating racial bias:

Conduct further research on how PRAIs can be used to identify and mitigate racial bias in pretrial decisionmaking, including identifying alternate proxies for new crime, developing potential improvements in PRAIs, and cultivating best practices in implementation of PRAIs.⁶

Moreover, PROW oversaw an application process that included an assessment of each pilot site's ability to collect and willingness to share data from multiple agencies for the pilot. The prescience of PROW with respect to data collection and research has yielded not only the data that form the foundation of this report but also the data infrastructure to continue exploring and making advances toward more equitable and efficient pretrial treatment of defendants.

This report builds on the work of the PDR and PROW and fulfills the legislative mandate to provide recommendations to the courts and the Legislature on how to mitigate bias and disparate effect in pretrial decisionmaking. As with the recommendations made by the PDR and PROW, this report recognizes that the release of any person before trial involves risk—as does every pretrial detention. It also recognizes the strengths and weaknesses of the use of pretrial risk assessment tools in assessing these risks. The report also acknowledges that the challenge of minimizing these risks while achieving the goals of maximizing public safety, court appearance, and release of individuals is made at the local level. At this juncture, no two pilot sites are facing the same challenges. Each pilot is made up of an interlocking set of justice partners, each with their own goals, priorities, and local practices. What all pilot sites share are significant advances, made during the pilot program, in data collection and integration. This report is premised on the idea that while some recommendations will be universal, each pilot site will use the data infrastructure developed over the last four years to look more broadly at the specific issues of bias mitigation in their own county.

The Judicial Council's Pretrial Pilot Program

As part of the Budget Act of 2019, the Legislature awarded \$75 million to the Judicial Council to fund the implementation, operation, and evaluation of 16 pretrial pilot projects. As directed by

⁶ Pretrial Reform and Operations Workgroup Rep., *supra* note 3, at p. 21 of Attachment A to the report.

the Legislature, local courts in collaboration with their justice partners launched these programs with the goals of increasing the safe and efficient release of arrestees before trial, using the least restrictive monitoring practices possible while protecting public safety and ensuring court appearances, validating and expanding the use of risk assessment tools, and assessing any disparate impact resulting from the implementation of these programs.⁷

To achieve these goals a key feature of the pilots was to incorporate prearrestment judicial officer release decisions informed by a risk assessment tool. This programmatic feature aimed to provide an efficient and evidence-based non-financial release option before arraignment.

The Budget Act of 2019 also required Pretrial Pilot Program courts to collaborate with local justice system partners to make data available to the Judicial Council as required to measure the outcomes of the pilots. Senate Bill 36 (Hertzberg; Stats. 2019, ch. 589) added section 1320.35 to the Penal Code, which established mandatory tool validation and reporting requirements for pretrial services agencies using a pretrial risk assessment tool. The legislation defines “validate” as scientifically measuring not only the accuracy of the risk assessment tool, but also any disparate effect or bias based on gender, race, or ethnicity.⁸

Impact of COVID-19 Pandemic

Throughout much of the period coinciding with the Pretrial Pilot Program, California experienced the COVID-19 global pandemic. Therefore, the population of program participants is very likely different than would be seen in the absence of the pandemic, both in terms of reduced numbers and composition. Further, because pretrial pilots were being implemented around the same time that the pandemic started, it is difficult to separate the impacts of the programs from the impacts of the pandemic.

On March 27, 2020, the Governor issued an order that gave the Judicial Council of California and the Chief Justice authority to adopt emergency rules and take other necessary actions to respond to the COVID-19 health and safety crisis. The Judicial Council adopted various emergency measures to support courts in providing essential services while helping to safely reduce jail populations. These measures, together with policies adopted by individual courts in response to the crisis, have impacted the population eligible for participation in the Pretrial Pilot Program.

On April 6, 2020, the Judicial Council adopted a statewide emergency bail schedule that set presumptive bail at \$0 for most misdemeanors and lower-level felonies, with specified

⁷ In 2020, to address the impact of the COVID-19 pandemic, the program expenditure and reporting requirements of the Pretrial Pilot Program were extended by Senate Bill 115 (Stats. 2020, ch. 40, § 1, provisions 8–17). Recognizing the impact of the pandemic on the pilots’ ability to produce the anticipated number of assessments and release decisions, and to expend the appropriated funding, SB 115 provided the pilot courts with an additional year, until June 30, 2022, to encumber or expend funds allocated to the program. The law did not appropriate additional funding for the program. All 16 pilot courts elected to extend their pretrial projects using the funding from their original approved awards.

⁸ Sen. Bill 36, § 2.

exceptions, but retained court discretion in setting bail. The emergency rule was intended to safely reduce jail populations and protect justice system personnel and public health while promoting consistency in pretrial release and detention throughout the state. The Judicial Council repealed the emergency bail schedule rule effective June 20, 2020, but encouraged courts to adopt local emergency bail schedules with \$0 bail or significantly reduced bail levels to meet their county’s public health and safety conditions.

As a result of local criminal justice system policies and the emergency bail schedule, pilot courts observed significant reductions in booking rates and jail populations during this time (see figure 1). Under these temporary emergency policies, many individuals who would otherwise have been eligible for program participation were cited and released in the field or released on \$0 bail upon booking without undergoing a risk assessment. Crime and arrest patterns were also likely affected by COVID-19 and shelter-in-place orders. Criminal case dispositions also slowed during this period.

Figure 1. Decline in booking rates coinciding with COVID-19



Data source: Pretrial Pilot Data shared by Pilot Sites for 7/1/2018-12/31/2021, view date 11/29/2022

Because the COVID-19 pandemic impacted arrests, charging, and detention decisions throughout the state, it is not possible to determine whether use of the tools increased or reduced overall bias in the system. The data collected during the pretrial pilot can, however, provide insight on the accuracy and fairness of risk assessment tools.

Any evaluation of the efficacy and fairness of pretrial decisionmaking with the assistance of tools must be considered in the context of the efficacy and fairness of pretrial decisionmaking prior to the implementation of these tools. However, bias cannot be measured in the pre-pilot system due to lack of data. This report discusses how data advances from the pilots can broaden the lens on bias mitigation in the pretrial arena. The next section summarizes findings from earlier stages of pretrial processing, after which findings are presented from the validation studies on the risk assessment tools.

Data Advances Can Broaden the Lens on Bias Mitigation

The Pretrial Pilot Program resulted in the creation of a valuable data infrastructure. If further developed and maintained, this data infrastructure can continue to provide critical insights into pretrial justice and bias mitigation in local jurisdictions and in California as a whole. These data can be used not only for continuing to measure and improve the use of risk assessment tools, but also for taking a broader view of bias and disparate impact in the pretrial justice system. Ongoing data collection is fundamental for improving decisionmaking; due to the impact of COVID-19 policy and response, a longer time frame is needed to evaluate the pretrial landscape.

For many pilot jurisdictions, the pretrial pilot was the first time they were able to collect and join data across all involved agencies. The program required pilot courts to collaborate with the county sheriff's department and the probation department to collect all the required data elements necessary for the analyses, and through sharing agreements allowed the Judicial Council of California to fulfill legislative mandates for aggregate data reporting and validation studies. The agency also provided the pilots with licensing and training for a data visualization and analysis tool. If the potential of this data and analytics infrastructure is fully realized, it will enable judges to draw analytical insights from data to assist in making more objective release decisions, and enable courts to access analytical insights into their county's trends to inform pretrial policies and decisionmaking.

In looking at bias and disparate effect in pretrial decisionmaking, it is important to understand the interrelated decisions made at each stage of the criminal justice system beginning with arrest. Examples of these intersections are illustrated in the next section of this report. The data infrastructure developed by the pilot program has information on multiple decision points from booking onward. The ability to aggregate and analyze data from multiple justice system partners is an essential advance in efforts to understand and mitigate bias. Ultimately the mitigation of bias will necessitate policy decisions that strategically utilize evidence-based findings from points throughout the criminal justice system to move toward policy and values goals.

These data can be used not only for ongoing measurement and improvement of risk assessment tools as envisioned in the reporting and validations requirements mandated in Penal Code section 1320.35, but also for assessing the impact of reforms that resulted from the *Humphrey* decision⁹, a California Supreme Court case requiring that bail be set at an "affordable" amount, and policies

⁹ *In re Humphrey* (2021) 11 Cal.5th 135.

implemented in response to the COVID-19 pandemic. Moreover, these data allow policymakers to take a broader view of bias and disparate impact in the pretrial justice system, enabling them to formulate policy responses that mitigate bias and build confidence in the system.

Decision Points for Mitigating Pretrial Bias and Disparate Effect

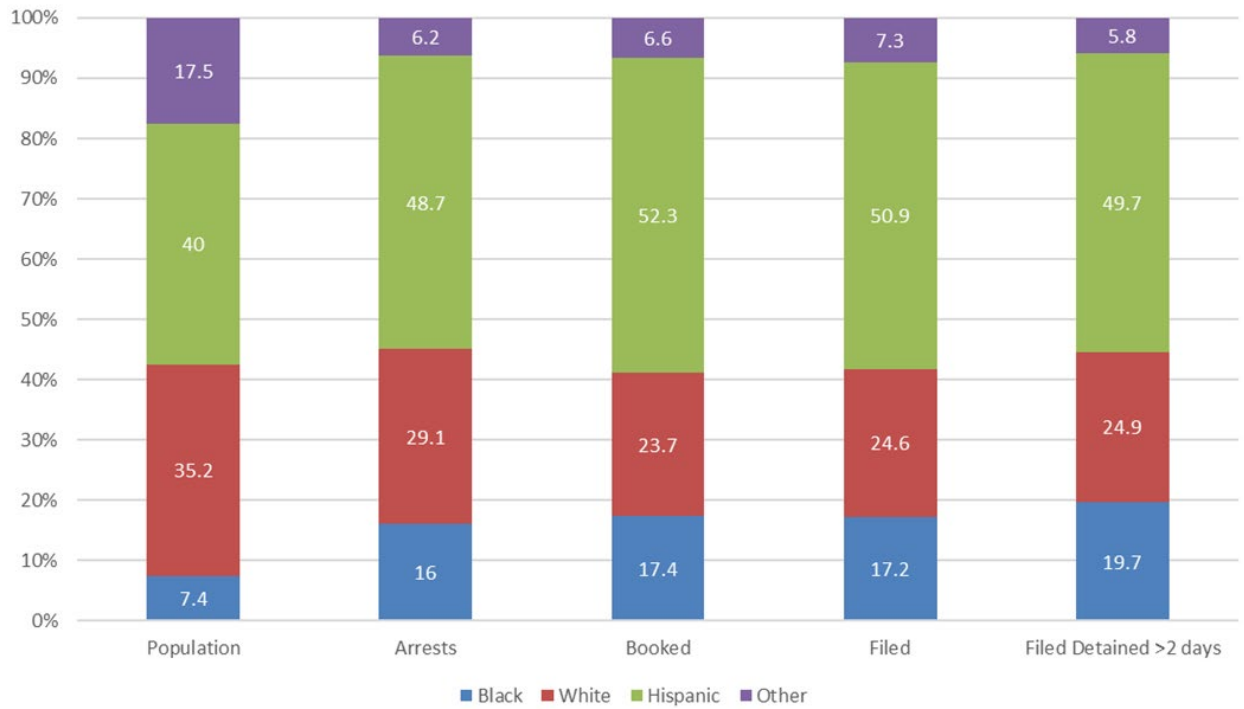
This section presents the chain of justice system decision points preceding court consideration of pretrial release. At each point along the path to the pretrial decision, the racial/ethnic distribution is illustrated. It is evident from figures 2 and 3¹⁰ that even if every decision following arrest were made in a neutral way with respect to race and ethnicity, Black and Latinx arrestees would be disproportionately represented in the population of pretrial detainees because they are arrested at disproportional rates. These data are presented to illustrate that the strategies that may have the greatest impact on mitigating disproportionate outcomes at the pretrial release stage may come well before court involvement.

Figures 2 and 3 show the racial composition at each stage of the pretrial process, starting with the adult population, arrested individuals, individuals booked into jail, individuals who have a court case filed following their booking, and finally, those who remain detained after two days following booking and case filing. The most dramatic disproportionalities, for both felonies and misdemeanors, appear in the first stage, as the proportion of Black and Latinx individuals among those arrested is notably higher than the proportion of Black and Latinx individuals in the adult population. Among the population of misdemeanor and felony arrestees, the Black population is also booked into jail at disproportionate rates.

Due to overrepresentation in arrested and booked populations, Black and Latinx individuals are disproportionately impacted by high rates of pretrial detention. In addition to investigating and addressing any bias in pretrial release decisions, it is therefore important to also investigate and address any disparate impact resulting from pretrial detention even when bias is not present.

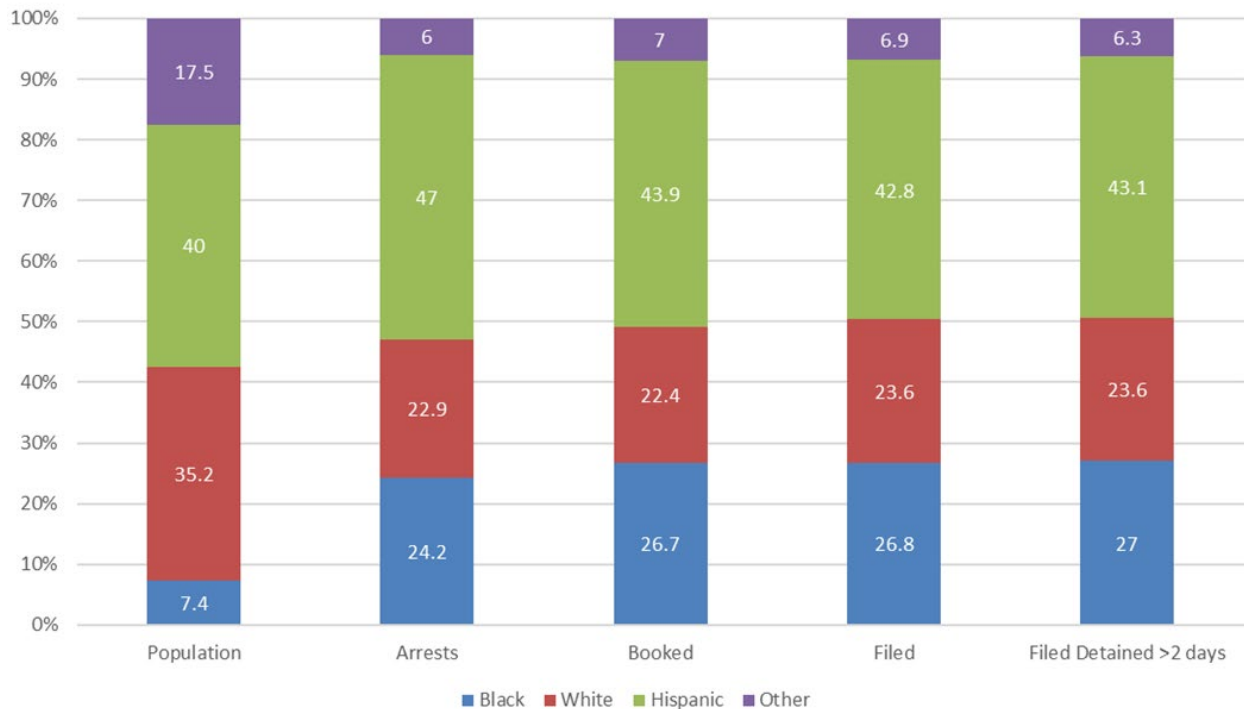
¹⁰ Data for figures 2 and 3 can be accessed at <https://www.dof.ca.gov/Forecasting/Demographics/Projections/> and <https://openjustice.doj.ca.gov/data>.

Figure 2. Race and ethnic distribution at decision points from misdemeanor arrest to jail detention episodes of at least 2 days



Data sources: California Department of Finance population projections table P3 for 2021; California Department of Justice online arrest data for 2021; Pretrial Pilot Data shared by Pilot Sites for 7/1/2020-12/31/2021, view date 11/29/2022

Figure 3. Race and ethnic distribution at decision points from felony arrest to jail detention episodes of at least 2 days



Data sources: California Department of Finance population projections table P3 for 2021; California Department of Justice online arrest data for 2021; Pretrial Pilot Data shared by Pilot Sites for 7/1/2020-12/31/2021, view date 11/29/2022

Arrests

Although racial disparities in overall arrest rates have decreased in California since the 1980s, disparities in arrest rates are still significant. Recent arrest rates in California for Black individuals were 7,104 per 100,000 persons, for Latinx individuals 2,881 per 100,000, and for white individuals 2,534 per 100,000.¹¹

Causes of disparities in arrests can be difficult to trace due to unknown base levels of crime, however a growing area of research examines disparities in arrests by analyzing traffic stops and arrests in large-scale data while another area of research examines disparities in drug arrests. Data from the pretrial pilots indicate that Vehicle code offenses account for approximately a quarter of the bookings in the data collected through the pretrial program while drug related offense account for approximately another quarter. Four of the ten most common booking offenses are vehicle code violations and two out of ten are drug offenses, counting only the most

¹¹ Magnus Lofstrom, Brandon Martin & Joseph Hayes, *Fact Sheet: Arrests in California* (Public Policy Institute of Cal., Feb. 2021).

severe offense for each booking.¹² These offenses include DUI, driving on a suspended license, and driving without a license, possession of drug paraphernalia, and possession of drugs.¹³

A national study on racial disparities in police stop-and-search activities found that Black drivers were less likely to be stopped after sunset, when the driver's race is not visible, suggesting racial bias in stop decisions. By also measuring the rate at which stopped drivers were searched and the likelihood that contraband was discovered, the authors found evidence that the bar for searching Black and Latinx drivers was lower than that for searching white drivers. Finally, using a subset of the data, they found that legalization of recreational marijuana reduced the number of searches of drivers of all races, but also that the bar for searching Black and Latinx drivers was still lower than that for white drivers following legalization. Based on these findings, they concluded that the stop-and-search strategies studied “suffer from persistent racial bias” and “point to the value of policy interventions to mitigate these disparities.”¹⁴ Similar results were found in a study performed in California.¹⁵ These studies show how the availability of large-scale data on traffic stops-and-searches and advanced analytical techniques¹⁶ can be used to tease out the effects of race and point to more fair, safe, and efficient policing strategies.¹⁷ Research in the drug arena has showed that racial disparities in arrest rates for drug offenses could not be explained by disparate rates of drug offending.¹⁸

Booking and Jail Release

Not every arrest in California results in a jail booking. For example, under Penal Code section 853.6, arresting officers have some discretion when determining whether an arrest for a misdemeanor or infraction requires booking into jail. Thus, the decision of an arresting officer to book an individual with a felony or a misdemeanor has important consequences. Among

¹² Severity as determined by the DOJ offense hierarchy.

¹³ VC 23152(a) was the most common booking offense, with nearly twice as many bookings (109,689) as the next most common offense (58,227). VC 14601.1(a) was the fifth most common booking offense (48,092), VC 23152(b) was the eighth most common booking offense (33,747), VC 12500(a) was the ninth most common booking offense (31,049). HS 11364(a) was the third most common booking offense (56,491), HS 11377(a) was the sixth most common booking offense (36,284)

¹⁴ Pierson, E., et al., “A large-scale analysis of racial disparities in police stops across the United States” (2020) *Nature Human Behaviour* 4, 736–745.

¹⁵ Lofstrom, M., Hayes, J., Martin, B., & Premkumar, D., *Racial Disparities in Law Enforcement Stops* (Public Policy Institute of Cal., Oct. 2021), www.ppic.org/publication/racial-disparities-in-law-enforcement-stops/.

¹⁶ Grogger, J. & Ridgeway, G., “Testing for racial profiling in traffic stops from behind a veil of darkness” (2006) *J. Am. Statistical Assoc.* 101, 878–887.

¹⁷ Based on an analysis of traffic stop-and-search data, the Board of Police Commissioners in Los Angeles approved a new set of limitations on the use of pretextual stops on March 1, 2022. Pretextual stops are legal stops in which officers stop individuals for perceived minor violations to investigate other crimes. The new rules state that “absent intelligence or information connecting an individual to a crime or public safety concern, less attention should be given to observations of vehicle equipment violations where no strong causal connection to collisions—and hence public safety—exists.” Office of the Chief of Police, Special Order No. 3 (Mar. 9, 2022), https://lapdonlinestrgeacc.blob.core.usgovcloudapi.net/lapdonlinemedia/2022/03/3_9_22_SO_No._3_Policy_Limitation_on_Use_of_Pretexual_Stops_Established.pdf.

¹⁸ Mitchell, O., & Caudy, M. S. (2015). Examining racial disparities in drug arrests. *Justice Quarterly*, 32(2), 288–313.

bookings in the pilot counties, 46.8 percent of bookings of Black individuals had felony-level charges compared to 36 percent of booked white individuals and 34.3 percent of Latinx booked individuals. Following booking, with certain exceptions, Penal Code section 853.6 permits a person who is booked into jail on a misdemeanor offense or an infraction to be released at the discretion of the sheriff with a written notice to appear in court. Prior to appearing at arraignment, and with certain exceptions, a person who is booked into jail may also secure release pursuant to the bail schedule.¹⁹

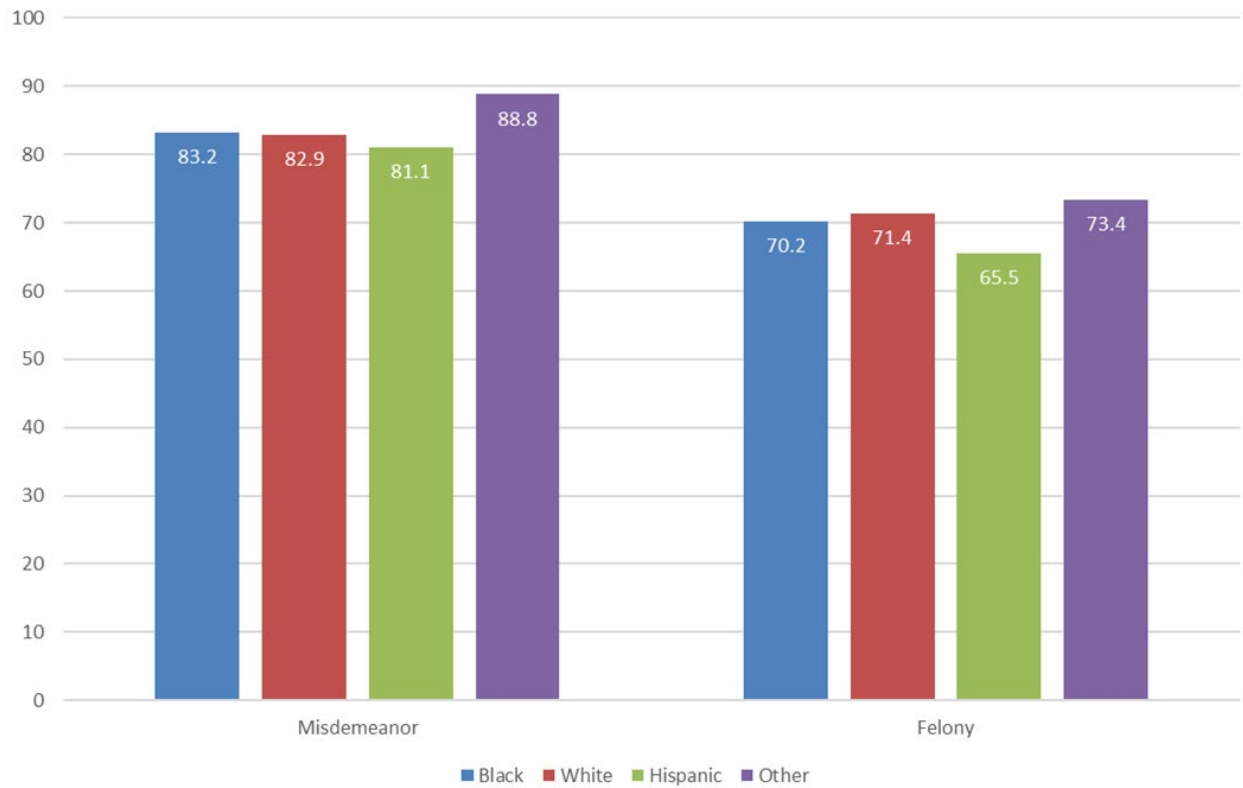
The California Constitution guarantees the right to pretrial release on bail except under certain limited exceptions. In addition to the constitutional exceptions, a defendant subject to a “parole hold” is not entitled to release on bail (*In re Law* (1973) 10 Cal.3d 21, 26), nor are defendants who are subject to an immigration hold or arrested on an extradition warrant (Pen. Code, § 1550.1; *People v. Superior Court (Ruiz)* (1986) 187 Cal.App.3d 686, 692).

Figure 4 shows that under the pilot programs, pretrial release rates for bookings with court filings were relatively similar across racial groups, but the types of release were not always distributed the same across races. Figure 5 shows the breakdown of release types for individuals released pretrial. A smaller share of Black defendants were cited and released or released on zero bail compared to white and Latinx defendants, while a larger share of Black defendants got out on bail bond or received own recognizance or pretrial monitoring release compared to white and Latinx defendants.²⁰

¹⁹ There have been legal challenges to the use of bail schedules for jail release, see e.g. *Buffin v. City & County of San Francisco* (N.D. Cal., Oct. 28, 2015, No. 4:15-cv-04959) and *Urquidi et al. v. City of Los Angeles et al.* (Superior Ct. Los Angeles County) 2022 No. 22STCP04044.

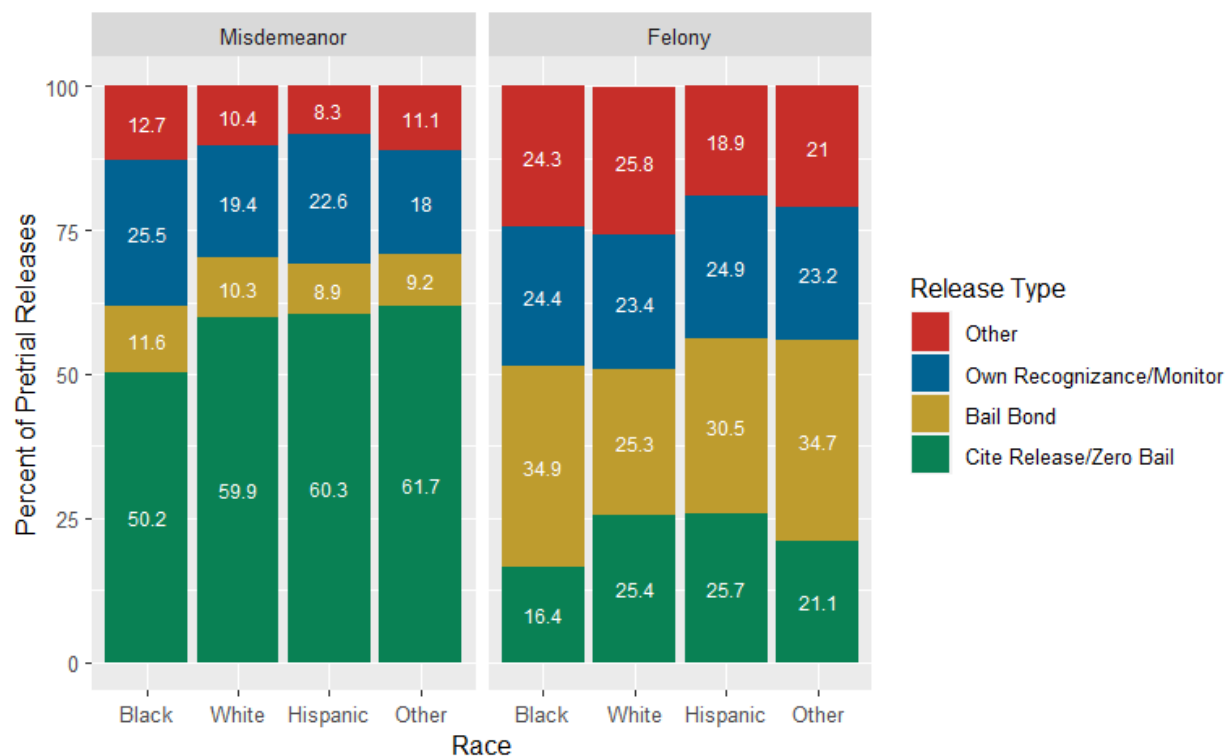
²⁰ The “Cite and Release” category includes zero bail, which in many county jail systems did not have a separate release code. The “Own Recognizance” category includes release to pretrial monitoring.

Figure 4. Pretrial release rates for bookings with court filings



Data source: Pretrial Pilot Data shared by Pilot Sites for 7/1/2020-12/31/2021, view date 11/29/2022

Figure 5. Pretrial release types for bookings with court filings



Data source: Pretrial Pilot Data shared by Pilot Sites for 7/1/2020-12/31/2021, view date 11/29/2022

Court Pretrial Release

Prior to the Pretrial Pilot Program, judicial officers in most counties first considered a defendant for own recognizance release or bail adjustments at arraignment. In cases where a judicial officer sets or adjusts bail, the judicial officer can choose the amount of bail set. Evidence suggests that bail amounts are frequently unaffordable and bail amounts and affordability may have disparities by race and ethnicity.²¹

The Pretrial Pilot Program required pilot counties to adopt prearraignment review by judicial officers so that defendants could be considered for non-financial release prior to arraignment. This process was facilitated by the pilots’ use of risk assessment tools that allowed for efficient evidence-based review by judicial officers, typically done remotely.

Judicial officers are constitutionally obligated to consider “the protection of the public, the safety of the victim, the seriousness of the offense charged, the previous criminal record of the defendant, and the probability of his or her appearing at the trial or hearing of the case” when

²¹ See, e.g., Meghan Sacks, Vincenzo A. Sainato & Alissa R. Ackerman, “Sentenced to Pretrial Detention: A Study of Bail Decisions and Outcomes” (2014) 40 *Am. J. Crim. Justice* 661; Traci Schlesinger, “Racial and Ethnic Disparity in Pretrial Criminal Processing” (2005) 22 *Justice Quarterly* 170, 187–188; Stephen Demuth, “Racial and Ethnic Differences in Pretrial Release Decisions and Outcomes: A Comparison of Hispanic, Black, and White Felony Arrestees” (2003) 41 *Criminology* 873, 895, 897; Ian Ayres & Joel Waldfogel, “A Market Test for Race Discrimination in Bail Setting” (1994) 46 *Stanford L.Rev.* 987.

setting bail or deciding whether to release the defendant on their own recognizance.²² Risk assessment tools provide consistent and evidence-based information to a judge to help meet this statutory obligation, but are just one factor judges use in making pretrial decisions while retaining full judicial discretion. Existing research suggests that risk assessment tools can be more accurate than unaided human judgment,²³ but they are not a panacea. Concerns have been raised that risk assessment tools may exacerbate racial bias due to reliance on criminal history records; however, the Constitution already requires the criminal record be considered whether or not a risk tool is used.

The next section explores the findings from the pretrial pilot data on accuracy and bias in pretrial assessment tools.

Summary of Validation Studies

Pursuant to Penal Code section 1320.35, pilot counties funded as part of the Budget Act of 2019 coordinated with the Judicial Council of California to conduct validation studies of their pretrial risk assessment tools. These studies evaluate the accuracy of the tools in predicting new criminal activity or failure to appear during the pretrial period and measure whether the tools are calibrated across gender, race, and ethnicity groups.

The validation studies conducted by the Judicial Council of California solely analyze risk scores and associated outcomes for individuals who were released from custody pretrial (see Link A for more detail on study methodology). Individuals may have been released in a variety of ways by the sheriff or judge, including on bail. The validation studies do not look at judicial decisionmaking or judges' use of the risk assessment tool. The outcomes studied include failure to appear, new arrest, new filing, new conviction, and new violent arrest.

Findings show that the risk assessment tools used—the VPRAI, VPRAI-R, ORAS and PSA—accurately predict outcomes of interest for all race groups. Across the board these tools have predictive validity measures that fall within the “generally acceptable” range within the field of criminology, and in many instances the measures are not only acceptable, but rank in the range of good to excellent scores.²⁴ These results indicate that the tools are useful in distinguishing

²² Cal. Const., art. I, § 28(f)(3); see Cal. Const., art. I, § 12(c).

²³ See, e.g., Desmarais, S., & Lowder, E., *Pretrial Risk Assessment Tools: A Primer for Judges, Prosecutors, and Defense Attorneys* (MacArthur Foundation Safety and Justice Challenge, 2019); Goel, S., Shroff, R., Skeem, J. L., & Slobogin, C., “The Accuracy, Equity, and Jurisprudence of Criminal Risk Assessment” (Dec. 26, 2018) Social Science Research Network, <http://dx.doi.org/10.2139/ssrn.3306723>.

²⁴ Desmarais, S. L., & Singh, J. P., “Risk assessment instruments validated and implemented in correctional settings in the United States” (Mar. 27, 2013) The Council of State Governments Justice Center.

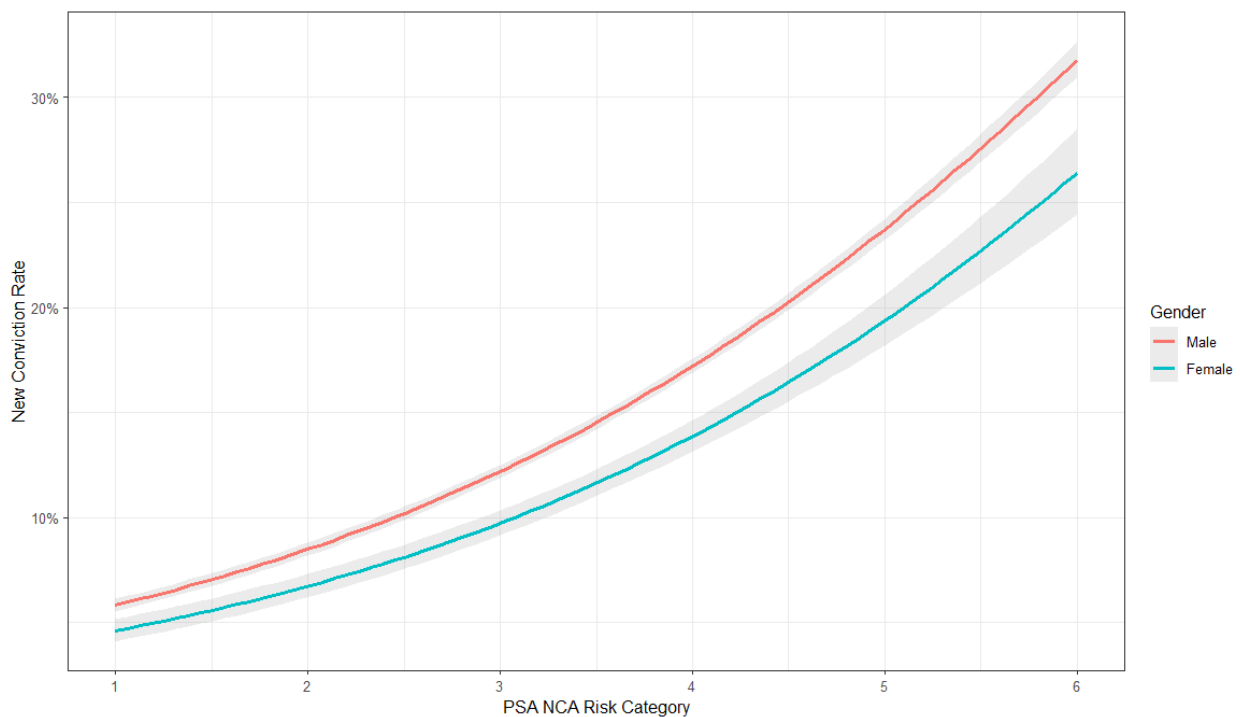
See findings from the tool validation study at www.courts.ca.gov/documents/Pretrial-Pilot-Program-Risk-Assesment-Tool-Validation-2022.pdf.

higher-risk defendants from lower-risk defendants—individuals with lower risk scores on average were less likely to experience adverse outcomes than individuals with higher risk scores.

While a risk assessment tool may be accurate in distinguishing higher-risk defendants from lower-risk defendants, the tool may not be perfectly calibrated for men and women or for different race and ethnic groups. Even if the tool accurately distinguishes higher-risk from lower-risk individuals within each group, the actual amount of risk at a given score may not be the same across groups.

For example, the chart below illustrates that for both men and women the risk assessment tool is accurate, meaning that an increasing score (x-axis) is associated with an increase in the adverse outcome. However, the tool is not calibrated across gender groups. The net result is that the tool predicts that a female with a risk score of 5 will have about a 19 percent chance of a new conviction, while for a male with the same score, the tool predicts about a 24 percent chance of a new conviction. For a tool to be calibrated across gender, a score of 5, for example, would have to be associated with roughly the same likelihood of the adverse outcome for both men and women.

Figure 6. Comparison of Gender Differences in Logistic Regression Curves for New Conviction



Data source: Pretrial Pilot data shared by pilot sites.

When the tools were studied for calibration, results showed that in many instances the tools showed differential predictions by race/ethnicity and gender. While the size and direction of these effects varied across counties and outcomes, often the direction of these differential predictions disfavored women and Black individuals such that the amount of risk for these groups was less at a given score than for individuals of other groups. For a tool to be calibrated,

the same score would be associated with the same probability of an adverse outcome for all demographic groups. (See Attachment B summarizing the 2022 validation study results.)

Addressing Calibration Issues

Calibration issues with risk assessment tools are not uncommon because the risk factors included in these tools are often correlated with race and gender. Common risk factors include aspects of an individual's criminal history, current criminal offense, and history of failures to appear in court. The risk assessment tools used in the pilot counties in California do not use gender or race as factors to predict adverse outcomes.

Counterintuitively, including race or gender in the risk assessment tool can often lead to better calibrated and more accurate predictions of the adverse outcome in question for all groups. However, these factors are protected characteristics and their use for predicting risk may raise constitutional concerns.

In *State v. Loomis*,²⁵ the Wisconsin Supreme Court held that the use of an algorithmic risk assessment tool that included gender at the sentencing phase was permissible. The court reasoned that the use of gender as a factor in the risk assessment served a nondiscriminatory purpose of promoting accuracy. The court also issued rules regarding how these assessments must be presented to trial courts and the way they can be used by judges. The court held that these algorithmic tools should only be used in those jurisdictions with the capacity for monitoring their continued accuracy.

As can be seen from Wisconsin, California jurisdictions may need legal and policy guidance in navigating options for addressing calibration issues and other strategies for mitigating bias. While research and analytics can provide critical insight into issues and possible solutions, research alone cannot provide answers without the guidance of justice partners and policymakers. Pretrial issues contain many decision points that involve weighing of values; data can help decisionmakers understand what the trade-offs are but cannot tell decisionmakers how to balance these trade-offs.

Recommendations

Penal Code section 1320.35 requires the Judicial Council to provide recommendations to mitigate bias and disparate effect in pretrial decisionmaking. While this report lays out four general recommendations, no two pilot counties face the same challenges with respect to bias mitigation in the pretrial context. Based on their criminal justice context, budgetary constraints, partnerships with justice partners and the results of their validation studies, each pilot will need to develop and implement the most productive strategies for mitigating bias.

²⁵ 2016 WI 68, 371 Wis.2d 235, 881 N.W.2d 749.

The Judicial Council recommends the following:

1. Consider the potential bias at each point in the pretrial system and work with appropriate justice system partners to take suitable action.

At the point when individuals are being considered by a judicial officer for pretrial release, they have already passed through several decision points: a law enforcement officer chose to arrest the person and which charges to arrest them on, the officer decided to book the person into jail rather than cite them out in the field, and the sheriff chose not to cite them out after booking. Bias may have affected one or more of these prior decisions. Each decision point cannot be understood in isolation—the share of individuals to whom a judicial officer grants own recognizance release will vary depending on who law enforcement chose to arrest, who and what the district attorney decided to charge, who the sheriff chose to release, and who was able to make bail at the scheduled amount.

Efforts to mitigate bias in pretrial decisionmaking need to examine all steps of the process to understand and contextualize data patterns.

2. Support collaboration among justice system partners to make informed policy decisions to promote fair and efficient pretrial release.

Currently most research on bias in pretrial decisionmaking focuses on risk assessment tools because the implementation of these tools often goes hand in hand with data collection. This has led to an imbalance in the research landscape such that the bias in risk assessment tools is known and measured while the bias in alternative practices is often unknown or unmeasured. It is crucial that policymakers and justice system partners receive appropriate training to understand the nuances in the research on risk assessment tools and other pretrial practices, and on how various practices can be used to achieve their policy goals. While risk assessment can be an effective tool for pretrial decisionmakers, it is important that informed policy decisions drive the use of tools or other practices rather than letting the default of the available technology drive policy.

Risk assessment tools are not and cannot be panaceas—these tools can provide more objective estimates of an individual’s risk for given outcomes than unaided human judgment, but it is up to policymakers and decisionmakers to determine (1) in which contexts risk estimates have utility; (2) what types of risk are important to estimate; and (3) how much risk to tolerate.

For example, one study²⁶ demonstrated that while sole reliance on a risk assessment tool they developed would generate disparate impact by race, they could eliminate this disparate impact by establishing a hybrid charge- and risk-based approach whereby individuals booked on less serious charges would be released based on the charges, and only individuals booked

²⁶ Picard, S., Watkins, M., Rempel, M., & Kerodal, A., *Beyond the Algorithm: Pretrial Reform, Risk Assessment, and Racial Fairness* (Center for Court Innovation, 2019).

on more serious charges would be considered by judicial officers on the basis of risk. There is precedent for charge-based release of individuals booked on less serious charges in California: a zero bail emergency order was temporarily in place statewide early in the COVID-19 pandemic, and some counties chose to continue locally tailored versions of zero bail policies after the emergency order was rescinded. Hybrid charge- and risk-based policies could be statewide or could be driven by local priorities.

Educational programming and resources should be developed to model pretrial decision points and trade-offs in policy decisions that can impact race at different points in the system, and dashboards for judicial officers may be helpful to promote visibility and transparency in system outcomes and feedback on pretrial decisionmaking.

3. Ensure ongoing resources are available for the collection, integration, and improvement of data from all justice system partners to study pretrial decisionmaking.

The pilot program took the crucial step of collecting data to provide transparency into the pretrial process so that racial bias and impacts can be made visible.

Data can be used to measure and track goals as set by policymakers. Legislation around pretrial decisionmaking specifies that judicial officers consider “the protection of the public, the safety of the victim, the seriousness of the offense charged, the previous criminal record of the defendant, and the probability of his or her appearing at the trial or hearing of the case” (Cal. Const., art. I, § 28(f)(3)). Any evaluation that aims to measure the efficacy of pretrial decisionmaking according to these guidelines therefore needs data on current charges, previous criminal records, and outcomes of pretrial defendants. To evaluate fairness in decisions based on these factors, demographic data is additionally necessary. Courts should be encouraged to share their data with their justice partners, and expansion of the data infrastructure created by the Judicial Council of California for the pilots should be supported and encouraged.

To evaluate racial bias in a data-driven manner, statistical techniques would be used to look at what happens to “similarly situated” defendants of different races. “Similarly situated,” given the statutory guidelines, would involve similarities in current charges, prior criminal record, and likelihood of the stated outcomes—public safety and return to court. This means that a statistical proxy for risk—in essence, a risk assessment score—is a crucial part of a data-driven approach to identifying bias. Whether or not this risk assessment score is used by the judicial officer is not a critical piece of the statistical technique, but it is understandable that judicial officers may want this information when available to inform their evaluations of risk.

The pretrial pilot data allows for unprecedented visibility into the pretrial process and ability to see and measure any bias therein. Because of the coincidence of the COVID-19 pandemic with the start of the Pretrial Pilot Program, any attempt to do a pre/post analysis of the impact of the pilot on pretrial efficacy and fairness is impossibly confounded by pandemic-related

changes to arrest, booking, and release practices. Considering this inability to compare pilot findings with pre-pilot findings, it is important to keep in mind that algorithmic risk tools are simply generating more precise predictions from information that judicial officers are already constitutionally required to consider. Rejecting algorithmic tools for any bias or disparate impact found may not in fact mitigate the bias or disparate impact in pretrial decisionmaking, but it would make any issues more difficult to see and address.²⁷

It is essential that data continue to be collected so that more research can be done to discover where bias may enter the system and possible strategies to mitigate it. As long as risk is a statutory requirement for consideration, judicial officers should determine what outcomes they would like predictive tools to measure that would be most useful in practice, and researchers should be guided by practitioners and policymakers in the development of tools to fit that purpose. For example, researchers could craft tools more narrowly designed to align with judicial officers' concept of "public safety," or to distinguish willful absconding from other types of failures to appear. Researchers can also modify existing tools as needed to mitigate bias. Policymakers should ensure resources are available for this research so that fair risk tools can be better crafted to fit the needs of California judicial officers.

4. Ensure adequate resources are available for jurisdictions seeking consultation for research on appropriate tool adjustments and/or further analyses aimed at identifying and mitigating potential bias.

Under Penal Code section 1320.35, jurisdictions using pretrial risk assessment tools are required to validate these tools periodically. However, the legislation does not specify how counties should move forward if the results of their validation studies are not satisfactory. This often leaves counties in the situation of only being able to either keep using the same tool that may not be meeting their goals or to stop using the tool and potentially default to systems that are even further from their goals. Counties are generally aware that ad hoc modifications of tools can invalidate them, but data-driven modifications are possible if done by trained professionals using scientific methodologies.

If a jurisdiction wishes to tailor a pretrial risk assessment tool to better fit their population or their policy goals, they need research resources and expertise that they may not have in-house. Counties therefore need to be able to contract with researchers and/or tool developers when needed for consultation on any necessary tool modifications.

Another recommendation from PROW that remains directly related to mitigating racial bias is that "validation processes should strive to improve PRAIs rather than just test them."²⁸

The definition of "validate" in Penal Code section 1320.35 includes using scientifically accepted methods to measure "any disparate effect or bias in the risk assessment tool based

²⁷ Mayson, S. G., "Bias in, bias out" (2019) 128 *Yale L.J.* 2218.

²⁸ Pretrial Reform and Operations Workgroup, *supra* note 3, at. p. 24.

on gender, race, or ethnicity.” The periodic validation studies required under section 1320.35 will therefore offer regular opportunities to identify any disparate effect or bias in pretrial risk assessment tools. In the validation studies that have been completed so far, some disparate effects have been found. As the data and expertise required to perform validation studies overlaps with that required to scientifically update tools, the validation process presents an opportunity to use scientific methods to tailor tools, when appropriate and feasible, for the local jurisdiction so as to address any disparate effects or bias.

Conclusion

Penal Code section 1320.35 established mandatory and ongoing tool validation and reporting requirements for pretrial services agencies using a pretrial risk assessment tool, including scientifically measuring not only the accuracy of the risk assessment tool, but also any disparate effect or bias based on gender, race, or ethnicity. Section 1320.35 also required the Judicial Council to produce this report with recommendations to mitigate bias or disparate effect in pretrial decisionmaking.

The Pretrial Pilot Program has been important in collecting and integrating data to make analysis for mitigating bias possible. All pilot sites have been successful in collecting data from justice system partners and sharing the requisite elements with the Judicial Council to meet the reporting and validation requirements. Ongoing validations are required pursuant to Penal Code section 1320.35, and will be performed by the Judicial Council as long as sufficient data continue to be shared.

The timing of the COVID pandemic coinciding with the start of the Pretrial Pilot Program prevents clear analysis of whether the program overall increased or reduced bias. Ongoing data collection and further research will be needed to answer remaining questions related to mitigating bias and disparate effect in pretrial decisionmaking.

The analyses performed on the Pretrial Pilot Program data investigate predictive bias in the tools, but cannot assess potential bias in other parts of the pretrial system. While some calibration issues were found in some risk assessment tools, given the potential for unmeasured bias in other pretrial practices more policy and research guidance is needed to weigh options in order to mitigate bias overall. Risk assessments can be a useful tool in pretrial decisionmaking under certain conditions, but are not a panacea. Policymakers need to make comprehensive and values-based pretrial systems of which risk assessments may be a part as needed for estimation of risk, but, when used, tools should be designed and maintained in alignment with policy goals.

This report provides general recommendations for the mitigation of bias in pretrial decisionmaking, but each county faces unique challenges. Counties need to be provided the resources to combine research and policy goals to craft county-specific solutions that consider the full pretrial system.

Attachments and Links

1. Attachment A: *Pretrial Risk Assessment Instrument Recommendations and Areas for Further Policy Development*
2. Attachment B: Summary Table of Tool Validation
3. Link A: *Pretrial Risk Assessment Tool Validation*, www.courts.ca.gov/documents/Pretrial-Pilot-Program-Risk-Assesment-Tool-Validation-2022.pdf
4. Link B: *SB 36: 2022 Pretrial Pilot Program Aggregated Data Report*, www.courts.ca.gov/documents/SB_36_2022_Pretial_Pilot_Program_Aggregated_Data_Report.pdf
5. Link C: *SB 36: 2021 Pretrial Pilot Program Aggregated Data Report*, www.courts.ca.gov/documents/SB_36_Pretial_Pilot_Program_Aggregated_Data_Report.pdf



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REPORT TO THE JUDICIAL COUNCIL

Item No.: 20-170

For business meeting on: November 13, 2020

Title

Pretrial Reform: Pretrial Reform and Operations Workgroup Update and Recommendations on Use of Pretrial Risk Assessment Instruments

Agenda Item Type

Information Only

Date of Report

November 13, 2020

Submitted by

Pretrial Reform and Operations Workgroup
Hon. Marsha G. Slough, Chair

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Executive Summary

The Chief Justice appointed the Pretrial Reform and Operations Workgroup (PROW) (the Workgroup) in January 2019 to review progress on reforms to California's system of pretrial detention and release and identify next steps. PROW was charged with (1) reviewing progress on reforms to California's system of pretrial detention and release; (2) developing recommendations for funding allocations of court pilot projects, should they be included in the final State Budget for fiscal year 2019–20; (3) developing a plan for judicial branch education on pretrial issues; and (4) conducting an examination of pretrial risk assessment instruments.

The Workgroup has met frequently since its appointment, both in-person and virtually, to fulfill these charges. It has reviewed progress on pretrial reforms, developed funding recommendations and provided ongoing oversight to the Pretrial Pilot Program, and developed judicial branch education programs on pretrial issues. The documents provided as Attachment A, *Pretrial Risk Assessment Instrument Recommendations and Areas for Further Policy Development*, and Attachment B, *Fundamentals of Pretrial Risk Assessment Instruments*, are the culmination of PROW's comprehensive examination of pretrial risk assessment instruments (PRAIs) and recommended best practices for their use by California trial courts and justice partners. PROW submits this report, including the attached documents relating to its fourth charge, for the consideration of the Judicial Council.

Relevant Previous Council Action

In January 2019, the Chief Justice appointed the Pretrial Reform Operations Workgroup (PROW) and charged this group with reviewing progress on reforms to California's system of pretrial release and detention and identifying next steps to continue work on this important issue. The 12-person group is comprised of trial court judges, appellate justices, and court executive officers with varying backgrounds and experience, who serve in courts of various sizes, geographic locations, and communities. Judge J. Richard Couzens serves as the Criminal Law Advisory Committee Liaison to the Workgroup.

The members of the Pretrial Reform and Operations Workgroup include:

- Hon. Marsha G. Slough (Chair), Associate Justice, Court of Appeal, Fourth Appellate District, Division Two (Riverside)
- Hon. Marla O. Anderson, Judge, Superior Court of Monterey County
- Hon. C. Todd Bottke, Presiding Judge, Superior Court of Tehama County
- Hon. Thomas DeSantos, Associate Justice, Court of Appeal, Fifth Appellate District (Fresno)
- Hon. Judith K. Dulcich, Presiding Judge, Superior Court of Kern County
- Hon. Jackson Lucky, Judge, Superior Court of Riverside County
- Hon. Serena R. Murillo, Judge, Superior Court of Los Angeles County
- Hon. Sam Ohta, Judge, Superior Court of Los Angeles County
- Hon. Winnifred Younge Smith, Judge, Superior Court of Alameda County
- Hon. J. Richard Couzens (Ret.), Superior Court of Placer County (**Criminal Law Advisory Committee Liaison**)
- Mr. Alex Calvo, Court Executive Officer, Superior Court of Santa Cruz County
- Ms. Sherri R. Carter, Court Executive Officer, Superior Court of Los Angeles County
- Mr. David Yamasaki, Court Executive Officer, Superior Court of Orange County

PROW continues the work of the Pretrial Detention Reform (PDR) Workgroup, a group appointed by the Chief Justice in the fall of 2016 to provide analysis and recommendations for identifying better ways for courts to make pretrial release decisions. The PDR workgroup presented its final report to the Chief Justice in October 2017, which included a recommendation that money bail be replaced with a risk-based assessment and supervision system for releasing and detaining defendants before trial based on their threat to public safety and their likelihood of appearing for court as required (see Link A).

Two PROW members, Mr. Alex Calvo and Judge Serena Murillo, previously served on the PDR workgroup, and provided PROW members with an overview of the work of PDR and the recommendations included in its final report to the Chief Justice.

Analysis/Rationale

The Chief Justice charged PROW with (1) reviewing progress on reforms to California's system of pretrial detention and release; (2) developing recommendations for funding allocations of

court pilot projects, should they be included in the final State Budget for fiscal year (FY) 2019–20; (3) developing a plan for judicial branch education on pretrial issues; and (4) conducting an examination of pretrial risk assessment instruments (PRAIs).

In February 2019, PROW members held an introductory conference call at which Justice Marsha Slough, Workgroup chair, introduced members and gave an overview of the Workgroup’s charge, goals, and scope. Since its initial conference call, the Workgroup has held seven in-person meetings, 10 virtual meetings, and numerous email and phone communications in order to fulfill the charges assigned to it by the Chief Justice. As a result of the ongoing COVID-19 pandemic, all in-person PROW meetings scheduled after March 2019 took place via videoconference.

Pretrial detention and release in California

Workgroup members initially undertook an exhaustive education in the many elements of the pretrial landscape in California. Members reviewed a wide variety of research and policy materials on pretrial detention and release issues, including those gathered by the PDR workgroup.

Over the last 18 months, the Workgroup received in-person and virtual presentations on pretrial issues from more than 35 speakers, including state and national experts, justice system partners, victim and civil rights advocates, California counties that have had experience with pretrial services programs, and jurisdictions outside California that have undertaken pretrial reform efforts. PROW also heard from Judicial Council research, legal, programmatic, and information technology staff at various points throughout their work. (For a complete list of presenters, see Attachment B.)

Pretrial Pilot Program: funding recommendations

In January 2019, Governor Gavin Newsom included in his FY 2019–20 budget a proposed two-year court pretrial pilot program to be funded at \$75 million. Since its appointment that same month, PROW immediately began work on its charge to develop recommendations for the selection criteria, application process, and funding allocations for court pretrial pilot projects, should they be included in the final State Budget for FY 2019–20.

The goals of the Pretrial Pilot Program, as set by the Legislature in the 2019–20 Budget (Assem. Bill 74; Stats. 2019, ch. 23), are to (1) increase the safe and efficient prearrestment and pretrial release of individuals booked into jail; (2) implement monitoring practices with the least restrictive interventions necessary to enhance public safety and return to court; (3) expand the use and validation of pretrial risk assessment tools that make their factors, weights, and studies publicly available; and (4) assess any disparate impact or bias that may result from the implementation of these programs.

Between February and May 2019, PROW held multiple in-person meetings and conference calls to work with Judicial Council staff on developing, reviewing, and approving the goals and scope of the pilot program. In June and July 2019, the Workgroup engaged in an extensive and

methodical process of interviewing and selecting pilot courts for participation in the program. The eligibility requirements and application and review processes were designed based on the budget bill language, feedback from legislative budget committee members, and the recommendations of the Chief Justice's Pretrial Detention Reform Workgroup. (For more detailed information on the application and selection process of pilot programs, see Link B.)

At the Judicial Council meeting on August 9, 2019, the Workgroup presented its recommendations for funding 16 courts selected for participation in the Pretrial Pilot Program. The council approved these recommendations and the allocation of approximately \$68 million to the selected trial courts for the period of August 1, 2019, to June 30, 2021, for their pretrial projects. The 16 selected pilot court projects represent a great diversity of size, geographic location, data integration status, and chosen risk assessment instruments.¹

Since fulfilling its charge to develop recommendations for the funding allocations for these pilots, PROW members have met throughout the year to address both programmatic and policy-related concerns raised by participating courts and partners. On April 11, 2020, PROW members held a conference call to discuss the potential impact of the COVID-19 pandemic on the activities and scope of the pilot program. At the time of this meeting, all 17 superior courts involved in the program were operating under individual COVID-19 emergency orders as well as emergency rules that the Judicial Council had adopted. PROW members discussed how to best support pilot courts during this unprecedented time, including scheduling conference calls with court program managers and CEOs, and introducing flexibility in submission dates for upcoming progress reports.

PROW has also overseen submission of the first two legislatively mandated reports on the Pretrial Pilot Program to the Judicial Council and the Legislature, in January and July 2020 (see Links C and D). Reports on the progress of the program will continue to be submitted by Judicial Council staff for the remainder of the program, as mandated by the Budget Act of 2019.

Judicial branch education

In recognition of the essential role of education in the success of pretrial operations, Workgroup members dedicated a significant amount of time to reviewing and developing educational materials for the branch. Four PROW members served on the PROW Education Committee, a subset of the Workgroup that met monthly to review the status of these materials and identify areas of need for future educational content. In collaboration with CJS staff, this committee developed a two-year plan to produce in-person and on-demand education resources and events for courts and justice system partners participating in the Pretrial Pilot Program, as well as for trial courts throughout the state.

¹ The superior courts in the counties of Alameda, Calaveras, Kings, Los Angeles, Modoc, Napa, Nevada-Sierra (as a two-court consortium), Sacramento, San Joaquin, San Mateo, Santa Barbara, Sonoma, Tulare, Tuolumne, Ventura, and Yuba were selected for participation in the Pretrial Pilot Program.

The judicial education plan includes developing content and selecting speakers for a series of webinars and podcasts on pretrial release and best practices. These resources cover topics including the fundamentals of pretrial release decisionmaking, guidance on conditions for monitoring pretrial release, and the basics for use of pretrial risk assessment instruments. Plans for future webinars and podcasts are underway, including a webinar on mental health and pretrial release, and another on technology for effective collection and communication of pretrial data that will be offered later in the year.

On October 9–10, 2019, PROW members and Judicial Council staff held the Pretrial Justice Practice Institute (PJPI) in Oakland, California. This two-day conference convened presiding judges, court executive officers, project managers, court information officers, chief probation officers, sheriffs, corrections authorities, and other pretrial operations staff from all 16 pilot court projects to discuss program goals and learn more about recent research and practices on risk assessments, supervision, use of technology, data exchange, and justice partner coordination. PROW members were involved in developing the content and selecting the faculty for this event, and many members served as co-presenters and facilitators at various sessions throughout the conference. PROW members also participated in the content development, design, and facilitation of a second institute, which was restructured to be held virtually on September 10–11, 2020, due to the COVID-19 pandemic.

Judge J. Richard Couzens (Ret.), Superior Court of Placer County, the Workgroup’s Criminal Law Advisory Committee Liaison, traveled to counties across the state to hold in-person roundtables with judicial officers to discuss the fundamentals of bail and pretrial release, the use of pretrial risk assessment instruments, and the legal framework for pretrial release, and addressed potential concerns of the trial courts. These sessions were offered both to counties participating in the pilot program and those not in the program but interested in having candid discussions and addressing central questions about bail and pretrial release. Roundtables have been held in four counties thus far. The remaining sessions scheduled for the year have been postponed due to the COVID-19 pandemic.

Several PROW members spent several additional meetings dedicated to educational efforts related specifically to PRAIs, including developing a benchguide to assist judicial officers using PRAIs when making release decisions. This guide, *Fundamentals of Pretrial Risk Assessment Instruments*, provides a general overview of the fundamentals of risk assessment and guidance for judicial officers (see Attachment B).

Pretrial Risk Assessment Instruments (PRAIs)

The Workgroup spent considerable time on its charge to examine the use of pretrial risk assessment instruments. Over the past 18 months, PROW has heard from numerous experts in the field—including academics, practitioners, justice system partners, and advocacy group affiliates—on the development, mechanics, and potential issues involved in the use of these instruments.

At its meeting on March 29, 2019, PROW members heard from several experts on PRAIs who spoke about the background of these tools, including racial equity concerns surrounding PRAIs and the process of local tool validation. At its meeting on October 30, 2019, the Workgroup began developing an education plan designed specifically for judicial officers on the background and use of PRAIs. The Workgroup reviewed an example of guidance on PRAIs created by the Chief Probation Officers of California (CPOC) in order to inform its work (see Link E).

On February 10–11, 2020, the workgroup met in San Francisco to hear perspectives from various groups on the use of PRAIs, with a specific focus on racial equity concerns. Over the course of the two days, the workgroup heard from five justice system partner representatives from various counties, 18 representatives of community organizations, and six academics conducting research on PRAIs from across the country. Presenters were asked to provide their perspective on the use of PRAIs, including how policy decisions might improve or impact a pretrial system with a focus on ways to improve on racial equity and mitigate bias in pretrial decisionmaking. Workgroup members received materials provided by the presenters for further study of PRAIs. (A complete list of presenters to PROW is provided as Attachment C.)

The Workgroup scheduled two public hearings to be held in March (in Los Angeles) and April (in San Francisco) to give interested organizations and members of the public the opportunity to share their thoughts and concerns relating to PRAIs. Due to the travel and crowd restrictions associated with the COVID-19 pandemic, however, both hearings have been indefinitely postponed. The Workgroup alerted individuals and organizations that expressed interest in the hearings to the cancellation and indicated that public comments could be submitted via email. All emails received by Judicial Council staff were forwarded to members of the Workgroup for review and consideration as it continued to research and work on this issue.

Between June 23 and August 17, 2020, PROW members held six virtual meetings to develop the contents of the attached report, *Pretrial Risk Assessment Instrument Recommendations and Areas for Future Policy Development*. Assisted by Judicial Council staff, PROW members reviewed the extensive information gathered over the past 18 months from a growing body of research on pretrial risk assessment instruments from the legal, policy, technology, and other communities. PROW used this research and information to develop recommendations for further guidance on the use of these tools. This document provides a set of 12 recommendations related to the design, deployment, and validation of pretrial risk assessment instruments and suggests four specific areas identified by the Workgroup as needing further study and policy development relating to the use of PRAIs. (These recommendations are provided as Attachment A.)

Fiscal Impact and Policy Implications

There are no fiscal or operational impacts directly related to receipt of this report. The recommendations provided in the attached report are being presented by PROW for consideration by the council. In the future, courts that choose to include the use of PRAIs in pretrial operations and adopt the associated recommendations in this report would likely observe

one-time and sustained annual costs related to implementation, training, and ongoing use of these instruments.

PROW is providing these recommendations to the council as an informational document that may be used in future policy discussions regarding the use of pretrial risk assessment instruments by the courts. The recommendations in the attached report are the result of PROW's thorough investigation over the past 18 months and builds upon the previous study and recommendations submitted by the Pretrial Detention Reform Workgroup. They represent PROW's conclusions about the use of pretrial risk assessment instruments and recommendations for best practices for their use.

Attachments and Links

1. Attachment A: *Pretrial Risk Assessment Instrument Recommendations and Areas for Further Policy Development*
2. Attachment B: *Fundamentals of Pretrial Risk Assessment Instruments*
3. Attachment C: *Comprehensive List of Presenters to the Pretrial Reform and Operations Workgroup, February 2019–September 2020*
4. Link A: [Pretrial Detention Reform: Recommendations to the Chief Justice from Pretrial Detention Reform Workgroup \(October 2017\)](#)
5. Link B: [Judicial Council Report: Pretrial Reform: Pretrial Pilot Program Recommended Awards](#)
6. Link C: [Pretrial Pilot Program: Report to the Legislature \(Jan. 2020\)](#)
7. Link D: [Pretrial Pilot Program: Report to the Legislature \(July 2020\)](#)
8. Link E: [Effective Pretrial Practices Implementation Toolkit, CPOC \(Mar. 2019\)](#)

Pretrial Risk Assessment Instrument Recommendations and Areas for Future Policy Development

WORKING DRAFT

August 2020

OVERVIEW

This document is designed to provide a set of recommendations and points for discussion related to the design, deployment, and validation of pretrial risk assessment instruments (PRAIs), tools often used to aid judicial officers in making pretrial release determinations. The recommendations and discussion points presented are coalesced from the growing body of research on and proposals for the use of PRAIs that has emerged in recent years from the legal, policy, technology, and other communities.

The recommendations are organized into sections focused on different parts of the PRAI process. The first, “Measuring Risk,” is related to aspects of PRAI design and the selection of PRAIs for use in a jurisdiction. The next section, “Responding to Risk,” focuses on risk assessment use, including the use of decision aids like Release Conditions Matrices that connect risk assessments to possible conditions of release. “Responding to Risk” also discusses training and education around PRAIs for relevant stakeholders and the public. “Continuous improvement” includes some recommendations for best practices when validating, designing, or redesigning PRAIs. For more background on PRAIs, refer to *Fundamentals of Pretrial Risk Assessment Instruments* (provided as Attachment B).

The “Areas for Future Policy Development” section contains information on active issues around PRAIs for which the state of current research does not yet have a clear recommendation.

RECOMMENDATIONS

MEASURING RISK

- I. Instruments should produce separate scores for each outcome considered.
- II. The results of risk assessment instruments should include corresponding probabilities of FTA and new arrest to ensure decision-makers are provided with clear risk information.
- III. In selecting a risk assessment instrument, a jurisdiction's decision-makers should consider whether a tool has been validated on a similar population to that of their jurisdiction.
- IV. Mental illness or mental health status should not be included as a risk factor within or in addition to PRAIs.

RESPONDING TO RISK

- I. It is essential to the proper use of risk assessment tools that judicial officers be provided with training, guidance, and resources for using PRAIs.
- II. Education regarding the development and use of PRAIs is essential for justice system partners including probation, prosecutors, and defense attorneys.
- III. The public should be provided with educational resources regarding the development and use of PRAIs.
- IV. Guidance should be created for the design, selection, and use of Release Conditions Matrices.

CONTINUOUS IMPROVEMENT

- I. Conduct further research on how PRAIs can be used to identify and mitigate racial bias in pretrial decisionmaking, including identifying alternate proxies for new crime, developing potential improvements in PRAIs, and cultivating best practices in implementation of PRAIs.
- II. Minimum standards should be set for validation of PRAIs.
- III. Validation processes should strive to improve PRAIs rather than just test them.
- IV. The Judicial Council should continue to monitor the PRAI landscape and support coordination of local efforts.

AREAS FOR FUTURE POLICY DEVELOPMENT

- I. Monitor the evolving research related to specialized DV assessments to evaluate whether they add predictive value beyond that provided by general pretrial risk tools.
- II. Research best practices with regard to the use of interviews in PRAs and evaluate the costs and benefits of conducting an interview.
- III. Consider the effect of presenting PRA information to judicial officers as “likelihood of success” rather than “likelihood of failure.”

MEASURING RISK – I. SEPARATE SCORES

RECOMMENDATION: Pretrial Risk Assessment Instruments should produce separate scores for each outcome considered.

Background

PRAIs vary in how they distinguish and communicate estimated risk for different outcomes. Some risk assessment tools distinguish between outcomes by producing separate scores for each outcome of interest, i.e., one score for FTA risk and one score for recidivism risk. Other tools produce a composite score, a single score that represents the estimated probability of multiple outcomes like FTA and recidivism.¹

RATIONALE

- A high score in a combined risk tool does not necessarily mean a person has a high likelihood of all outcomes. Providing separate scores can more clearly communicate the specific risk that an individual poses so that decision-makers can choose how to tailor their response.
- Some commonly used PRAIs, including one in use in California, already produce separate scores for risk of FTA, new criminal activity, and new violent criminal activity. New tools being developed can choose to produce separate or composite scores. Existing tools with composite scores can undergo a validation and improvement study process if they wish to update their design to include separate scores.

¹ Robinson, D. G., Sassaman, H. J., & Stevenson, M. (2018). Pretrial Risk Assessments: A Practical Guide for Judges. *The Judges' Journal*, 57(3), 8-11.

MEASURING RISK – II. PRESENTATION OF RISK INFORMATION

RECOMMENDATION: The results of risk assessment instruments should include corresponding probabilities of FTA and new arrest to ensure decision-makers are provided with clear risk information.

Background

PRAIs often condense risk scores into less specific groupings with categorical labels such as “low,” “moderate,” and “high” risk, or numerical labels such as “Level 1” to “Level 6.” Judicial officers may only be presented with the broader categorical information rather than the risk score with the underlying probability, an estimate of the likelihood that a defendant may fail to appear in court or commit a new crime if released.²

Furthermore, there is no standard process for determining where to draw the lines between “low,” moderate,” and “high” risk. The cutoffs for each category are sometimes determined by the developer of a tool (see, for example, the ORAS-PAT tool development report³) or as a matter of policy by stakeholders in the jurisdiction where a tool is used.⁴

RATIONALE

- Categorical labels are prone to misinterpretation.⁵ For example, a 2018 study found that, when given risk assessment results in categorical form with labels like “low,” and “high,” study participants overestimated the risk of “moderate” and “high” risk defendants.⁶
- Risk scores with underlying probabilities provide judicial officers a more accurate picture of a defendant’s risk compared to condensed categories. For example, rather than just saying a defendant is “moderate risk,” a tool may specify: “the defendant scored 4 out of a possible 6 points. In the validation study, 93% of defendants who scored 4 on this tool successfully completed their pretrial period with no new arrests.”

² Desmarais, S. L., & Lowder, E. M. (2019). Pre-trial Risk Assessment Tools: A Primer for Judges, Prosecutors, and Defense Attorneys. *MacArthur Foundation Safety and Justice Challenge*.

³ Edward, J., Lemke, R., Makarios, M., & Smith, P. The Creation and Validation of the Ohio Risk Assessment System (ORAS). *Federal Probation*, 74(1).

⁴ Desmarais, S. L., & Lowder, E. M. (2019). Pre-trial Risk Assessment Tools: A Primer For Judges, Prosecutors, And Defense Attorneys. *MacArthur Foundation Safety and Justice Challenge*.

⁵ Robinson, D. G., Sassaman, H. J., & Stevenson, M. (2018). A Practical Guide for Judges. *Judges’ Journal*, 57(3).

⁶ Krauss, D. A., Cook, G. I., & Klapatch, L. (2018). Risk Assessment Communication Difficulties: An Empirical Examination of the Effects Of Categorical Versus Probabilistic Risk Communication In Sexually Violent Predator Decisions. *Behavioral Sciences & the Law*, 36(5), 532–553.

- Tools that produce separate scores can provide independent probabilities of FTA and new arrest that correspond with each separate score. Even for tools with a composite score, however, validation studies can calculate separate probabilities for each outcome that correspond with the single composite score. This cannot reveal if a defendant is high risk on one outcome and low on another, as tools with separate scores can, but can clarify if the overall failure rate for that score is primarily driven by one outcome over another. For example, rather than saying, “In the validation study, 70% of defendants who scored 6 on this composite tool successfully completed their pretrial period with no new arrests or FTAs,” a tool may specify, “In the validation study, of the defendants who scored 6 on this composite tool, 93% had no new arrests during the pretrial period and 76% had no new FTAs during the pretrial period, with an overall successful completion rate of 70%.”

MEASURING RISK – III. TOOL CONSIDERATIONS

RECOMMENDATION: In selecting a risk assessment instrument, decision-makers should consider whether a tool has been validated on a similar population to that of their jurisdiction.

Background

Some risk assessments are built for particular jurisdictions using data from that area, and others are built using data from a variety of jurisdictions. Some of the PRAIs frequently used in California right now were developed using data from other states or using data from around the country.

A risk assessment tuned to a particular geographic area at a particular time may not generalize well to a different locale or era.⁷ For example, a tool that was developed on a rural population in the South may not work well on an urban population on the West Coast, due to differences in local policies, mores, and demographic distributions. This issue is known as *sample bias*, which occurs when the sample population used to develop the RAI differs from the population using the tool. Local validation with recent data is the only way to be sure that a PRAI is properly attuned to a new jurisdiction. In some cases, local validation may be possible using historical data, but when local validation is not yet possible, concerns about sample bias are reduced when a tool has been tested on a similar population.

Senate Bill 36 requires: “Any pretrial risk assessment tool used by a pretrial services agency shall be validated ... on a regular basis..., but no less frequently than once every three years.” It further specifies: “a pretrial risk assessment tool shall be validated using the most recent data collected by the pretrial services agency within its jurisdiction, or, if that data is unavailable, using the most recent data collected by a pretrial services agency in a similar jurisdiction within California.” These requirements ensure that many California-based validation studies will be available for jurisdictions looking to adopt a pretrial risk assessment tool, and that after a tool is selected it will be tested for whether it is a good fit for that jurisdiction.

RATIONALE

- Considering when a risk assessment was designed and where the data used to design it came from is important for understanding whether a risk assessment is likely to work well in a particular jurisdiction.
- SB 36 requires local validation of PRAIs at least every three years, which will test whether the tool a jurisdiction selects is a good fit.

⁷ Desmarais, S. L., & Lowder, E. M. (2019). Pre-trial Risk Assessment Tools: A Primer for Judges, Prosecutors, and Defense Attorneys. *MacArthur Foundation Safety and Justice Challenge*.

MEASURING RISK – IV. MENTAL ILLNESS AND RISK

RECOMMENDATION: Mental illness or mental health status should not be included as a risk factor within or in addition to PRAIs.

Background

As of the writing of this report, none of the PRAIs commonly used in California rely on mental illness or mental health status as a factor. However, some tools used outside of California include mental health or illness as a factor⁸ and some of the tools used in California list mental health issues as suggested reasons for professional overrides of risk assessments⁹ or as an exacerbating factor in a release conditions matrix.

Many studies have found that the presence of a mental illness does not necessarily increase a person's likelihood of pretrial failure.¹⁰ Risk in people with mental illness is predicted by the same factors that predict risk in the general population; while people with mental illness may be more likely to have general risk factors, factors specific to mental health status do not increase their risk.¹³ Mental health status and the availability of community mental health resources may be useful for judicial officers to consider in terms of responding to risk and a defendant's responsivity to conditions of release, all of which will be discussed in later sections of this document. Mental health status should not be considered as a risk factor either within or on top of PRAIs.

RATIONALE

- Research has found that general risk factors significantly predict recidivism for individuals with mental illnesses and that the addition of mental illness–specific factors does not improve predictive utility over the use of general risk factors.¹¹
- Considerations of mental health in responding to risk and responsivity to risk mitigation efforts will be discussed in later sections.

⁸ Pretrial Justice Institute, & United States of America. (2013). Colorado Pretrial Assessment Tool (CPAT): Administration, Scoring, and Reporting Manual, Version 1.

⁹ Edward, J., Lemke, R., Makarios, M., & Smith, P. The Creation and Validation of the Ohio Risk Assessment System (ORAS). *Federal Probation*, 74(1).

¹⁰ Bechtel, K., Lowenkamp, C. T., & Holsinger, A. (2011). Identifying the Predictors of Pretrial Failure: A Meta-analysis. *Federal Probation*, 75, 78.

¹¹ Skeem, J. L., Winter, E., Kennealy, P. J., Loudon, J. E., Tatar, I. I., & Joseph, R. (2014). Offenders with Mental Illness Have Criminogenic Needs, Too: Toward Recidivism Reduction. *Law and Human Behavior*, 38(3), 212.

RESPONDING TO RISK – I. TRAINING FOR JUDICIAL OFFICERS

RECOMMENDATION: It is essential to the proper use of risk assessment tools that judicial officers be provided with training, guidance, and resources for using PRAIs.

Background

In order to best integrate risk score information with other considerations, judicial officers need to be familiar with the PRAI used in their jurisdiction.

PRAIs take into account many risk factors that judicial officers typically consider in their decisionmaking process. Familiarity with the particular PRAI used in their jurisdiction can help judicial officers make informed decisions about how to weigh risk assessments and other considerations in their decisionmaking process.

Judicial discretion is an essential part of pretrial decisions even with the guidance of a risk assessment tool. Training will allow judicial officers to identify appropriate circumstances in which to follow the recommendation of the tool versus depart from it and to avoid departures which may inadvertently result in bias. Training on judicial overrides can help judicial officers evaluate and optimize their own practices.

Trainings should educate judicial officers about what pretrial supervision or programmatic options are available through their local pretrial services office and present evidence about when each may be most useful for risk mitigation. Trainings should also cover what options the local pretrial services office can offer to address concerns around responsivity, such as when the presence of mental illness or other factors raises concerns about a defendant's amenability to supervision or programming.

RATIONALE

- Training and guidance for judicial officers can help promote best practices in using PRAIs and translating risk scores into release recommendations.
- Training should provide judicial officers with information about the factors that contribute to a risk score, what outcomes the risk score predicts, and how common these outcomes are at each risk level. Training can also inform judicial officers about what services are available for risk mitigation through their local pretrial services office.

RESPONDING TO RISK – II. JUSTICE PARTNER EDUCATION

RECOMMENDATION: Education regarding the development and use of PRAs is essential for justice system partners including probation, prosecutors, and defense attorneys.

Background

It is essential that justice system partners who will interact with PRAs also receive training on PRAs. Probation plays an integral role in the use of PRAs, and therefore it is imperative that probation officers receive thorough training on the tools they will be using. The Chief Probation Officers of California have already foreseen this need and have various resources already available for probation departments.¹² Prosecutors and defense attorneys may interact with PRAs used for clients. These attorneys need to be familiar with what risk scores mean, what factors contribute to the risk score for the tool used in their jurisdiction, and how PRAs are developed and used.

RATIONALE

- Justice system partners whose work may interact with pretrial risk assessment instruments need a strong understanding of the design and use of PRAs.

¹² Chief Probation Officers of California and Pretrial Justice Institute (2019). *Effective Pretrial Practices Implementation Toolkit*, https://cpoc.org/sites/main/files/file-attachments/effective_pretrial_practices_implementation_toolkit_0.pdf.

RESPONDING TO RISK – III. PUBLIC EDUCATION

RECOMMENDATION: The public should be provided with educational resources regarding the development and use of PRAIs.

Background

The public would also benefit from training on PRAIs. The public may interact with PRAIs used for family or loved ones. Education on PRAIs would increase the transparency of their use in the pretrial justice system.

There has been increased interest amongst the public concerning pretrial systems and practices, including the use of risk assessment tools. Senate Bill 36 mandates a study to look at the use of PRAIs including outcomes and potential bias or disparate impact, the results of which will be made publicly available. Contextualizing this data with information about the development and use of PRAIs will ensure that data is consumed in an informed manner.

RATIONALE

- Public education efforts will help meet the interest around issues concerning pretrial release and build understanding in preparation for the reports on PRAIs that will be produced pursuant to Senate Bill 36.

RESPONDING TO RISK – IV. RELEASE CONDITIONS MATRICES

RECOMMENDATION: Guidance should be created for the design, selection, and use of Release Conditions Matrices.

Background

Release Conditions Matrices (RCMs) (also known as Decision-Making Frameworks) are sometimes used to translate risk scores into recommended release decisions and/or conditions of release. RCMs can be useful in establishing standardized recommendations for similarly situated defendants, but cannot replace a judicial officer's personalized assessment of individual circumstances. Although RCM recommendations are often presented to judicial officers as a part of the risk assessment tool results, RCMs are typically not designed empirically. Some jurisdictions use generic RCMs that are associated with certain PRAIs, while other jurisdictions have developed local RCMs that reflect local practices and priorities.¹³

While the recommendations that RCMs produce can have substantial influence as a factor judicial officers consider in coming to their pretrial decisions, RCMs have been criticized for lack of transparency and stakeholder input in the design process. Some researchers have argued that RCMs should not be selected off-the-shelf, but should be designed carefully and specifically by particular jurisdictions.¹⁴ Care should be taken that RCMs do not introduce bias into tool-based recommendations.

Further study is needed regarding the relationship between PRAI scores, recommended release conditions, and recidivism or nonappearance. Studies show that over-supervision of low-risk individuals can increase unwanted outcomes.¹⁵ One promising practice is providing court date reminders to pretrial defendants, which have been shown to increase court appearance rates.¹⁶ The concept of responsivity, recognized in evidence-based practice at other stages of criminal justice intervention, also merits further research in the pretrial context. For example, if amenability to pretrial services is a concern when considering risk mitigation strategies for

¹³ Koepke, J. L., & Robinson, D. G. (2018). Danger Ahead: Risk Assessment and the Future of Bail Reform. *Washington Law Review*, 93, 1725.

¹⁴ Koepke, J. L., & Robinson, D. G. (2018). Danger Ahead: Risk Assessment and the Future of Bail Reform. *Washington Law Review*, 93, 1725.

¹⁵ Lowenkamp, C. T., & Latessa, E. J. (2004). Understanding the Risk Principle: How and Why Correctional Interventions Can Harm Low-Risk Offenders. *Topics in Community Corrections*, 2004, 3–8; VanNostrand, M., & Keebler, G. (2009). Pretrial Risk Assessment in the Federal Court. *Federal Probation*, 73, 3.

¹⁶ Cooke, B., Diop, B. Z., Fishbane, A., Hayes, J., Ouss, A., & Shah, A. (2018). Using Behavioral Science to Improve Criminal Justice Outcomes.

higher-risk individuals with mental illness, community-based mental health treatment may have potential to improve engagement with pretrial services, thereby increasing pretrial success.¹⁷

RATIONALE

- Recommended release conditions are often presented along with risk information, but, unlike risk scores, RCMs are not evidence-based.
- Jurisdictions choosing to use RCMs should ensure transparency and stakeholder input in the design process.

¹⁷ Skeem, J. L., Steadman, H. J., & Manchak, S. M. (2015). Applicability of the Risk-Need-Responsivity Model to Persons with Mental Illness Involved in the Criminal Justice System. *Psychiatric Services*, 66(9), 916–922.

CONTINUOUS IMPROVEMENT – I. RACIAL BIAS IN PRAIS

RECOMMENDATION: Conduct further research on how PRAIs can be used to identify and mitigate racial bias in pretrial decisionmaking, including identifying alternate proxies for new crime, developing potential improvements in PRAIs, and cultivating best practices in implementation of PRAIs.

Background

Racial equity is a key concern among stakeholders in the adoption of PRAIs, although concerns about equity in the pretrial context predate the introduction of risk tools. Because PRAIs are based on data, potential racial disparities can be examined more closely. This offers an opportunity to directly address equity concerns, and, with appropriate study and action, has the potential to produce pretrial release and detention systems with less biased outcomes than unaided human judgment.

Under SB 36, all PRAIs in use by California pretrial agencies will be required to undergo scientific study to measure possible bias or disparate effect by race, gender, or ethnicity. The Judicial Council is required to provide a report to the courts and the Legislature containing recommendations to mitigate bias and disparate effect in pretrial decisionmaking.

Bias can be looked at through the lens of disparate treatment or of disparate impact. In order to test tools for disparate treatment, researchers look at whether a given risk score corresponds to the same rearrest or FTA rate across groups. Even if a risk tool treats individuals across groups fairly by this metric, however, it may still result in disparate impact across groups due to variations between groups in the frequency of rearrest or FTA.¹⁸ Part of this problem may derive from actions that occur outside the use of risk tools or the decisions of the court. For example, research has indicated that people of color are more likely to be arrested for drug use even when actual drug use is equivalent between racial groups.¹⁹ Because the occurrence of a new crime cannot be measured directly, rearrest is typically used as a proxy. Risk tools are designed and tested using this proxy; judges may also rely on this proxy when making release determinations based on professional experience alone, without the use of a PRAI. It may be possible to mitigate bias in pretrial practices by examining alternate proxies for new crime that are less susceptible to racial bias, such as new convictions instead of new arrest, or by focusing on types of arrest that are known to have less disproportionate impact across groups.

RATIONALE

¹⁸ Goel, S., Shroff, R., Skeem, J. L., & Slobogin, C. (2018). The Accuracy, Equity, and Jurisprudence of Criminal Risk Assessment. *Equity, and Jurisprudence of Criminal Risk Assessment* (Dec. 26, 2018).

¹⁹ Lum, K., & Isaac, W. (2016). To Predict and Serve?. *Significance*, 13(5), 14–19.

- Further study is needed to investigate potential racial bias in PRAs and to develop possible mitigation strategies.
- One potential avenue for research is investigating proxies for new crime that are less susceptible to bias than the commonly used measure of rearrest.
- Further study is needed to determine whether PRAs can be used to improve upon unaided human judgment in pretrial decisionmaking by identifying and mitigating racial bias.

CONTINUOUS IMPROVEMENT – II. VALIDATION STANDARDS

RECOMMENDATION: Minimum standards should be set for validation of PRAIs.

Background

Validation is an important part of the use of any PRAI and is widely agreed upon as crucial to the use of PRAIs. Validation can help ensure that a tool can reasonably assess the outcomes that it intends to, and validation can help surface issues with the tool’s construction and use. Under SB 36, counties in California are required to use validated risk assessment tools and to validate the tool they use at least every three years. Under SB 36, to “validate” a tool includes measuring its accuracy and reliability for assessing risk of failure to appear and public safety. It also includes assessing the tool for “disparate effects or bias...based on gender, race, or ethnicity.”²⁰

However, validation studies only measure how well tools work—they cannot determine whether that level of performance should be considered good enough for use. Bias can also be looked at in a number of different ways which often do not align.²¹ Furthermore, validation studies can vary widely in quality and approach.

RATIONALE

- Standards for validation efforts could include standards for data collection, sample size, metrics used, and infrastructure for regular monitoring and analysis in between validation studies.²² The creation and use of such standards could help jurisdictions ensure their validation efforts are continuous, effective, and actionable.
- Standards can also specify which statistics and information would be useful to include in publications to facilitate knowledge sharing and strengthen the PRAI research landscape.
- Research on the effectiveness of PRAIs and best practices for designing, deploying, and evaluating them is continuously growing and changing, further underscoring the need for clear standards for validation.

²⁰ Sen. Bill No. 36 (2019–2020 Reg. Sess.).

²¹ Corbett-Davies, S., & Goel, S. (2018). The Measure and Mismeasure of Fairness: A Critical Review of Fair Machine Learning. *arXiv preprint arXiv:1808.00023*.

²² Koepke, J. L., & Robinson, D. G. (2018). Danger Ahead: Risk Assessment and the Future of Bail Reform. *Washington Law Review*, 93, 1725.

CONTINUOUS IMPROVEMENT – III. IMPROVING TOOLS

RECOMMENDATION: Validation processes should strive to improve PRAIs rather than just test them.

Background

Validation can and should go beyond merely testing or analyzing a tool's performance. The process of validation is an opportunity to not only measure how well a tool works, but also to examine possibilities to improve the tool and the systems supporting it. As criminal justice policies shift and pretrial monitoring practices improve, some risk factors may cease to be predictive while other new risk factors may emerge. Under SB 36, PRAIs will be locally validated regularly. These check-ups could also become opportunities for tune-ups to ensure that PRAIs adapt with our changing society.

For example, the VPRAI underwent a validation study that resulted in a revision of the tool which is now widely in use as the VPRAI-R.²³ Risk factors and weights were modified in response to updated data, resulting in a more accurate and fairer tool.

RATIONALE

- While measuring PRAI performance can shed light on issues, measurement alone cannot fix any issues that come to light. Validation efforts should be designed and planned with the goal of updating the tool and the systems supporting it if necessary or possible.

²³ Danner, M. J., VanNostrand, M., & Spruance, L. M. (2016). Race and Gender Neutral Pretrial Risk Assessment, Release Recommendations, and Supervision: VPRAI and Praxis Revised. *St. Petersburg, FL: Luminosity.*

CONTINUOUS IMPROVEMENT – IV. ONGOING COORDINATION

RECOMMENDATION: The Judicial Council should continue to monitor the PRAI landscape and support coordination of local efforts.

Background

Knowledge and practices around PRAIs are rapidly evolving. As local jurisdictions validate, update, and implement PRAIs, statewide awareness of local efforts can help with knowledge-sharing. Facilitating coordination of local efforts at a statewide level would benefit local jurisdictions and strengthen California's overall pretrial landscape.

By the requirements of SB 36, each pretrial services agency in California using a pretrial risk assessment tool must validate the tool regularly and make publicly available the validation studies and details on the items and weights of the tool. This transparency requirement will help jurisdictions learn from each other as they continue to refine their tools and practices. Further efforts may be useful to increase knowledge-sharing across jurisdictions.

RATIONALE

- Ongoing statewide monitoring of the PRAI landscape will benefit local jurisdictions by facilitating knowledge-sharing and coordination of efforts.

AREAS FOR FUTURE POLICY DEVELOPMENT – I. SPECIALIZED ASSESSMENTS IN DOMESTIC VIOLENCE CASES

Monitor the evolving research related to specialized DV assessments to evaluate whether they add predictive value beyond that provided by general pretrial risk tools.

Background

Researchers have highlighted the differences between domestic violence or intimate partner violence and other types of crime when it comes to risk assessment. There are a number of existing RAIs designed specifically to predict recidivism in domestic violence or intimate partner violence cases.²⁴ An important question pertains to the use of these tools—more specifically, whether courts should adopt a specialized RAI as a supplementary or alternative tool for risk assessment in cases of domestic violence and intimate partner violence.²⁵

DV-specific tools could potentially be more accurate and pick up on crucial risk factors specific to DV scenarios that standard tools would miss, but to date studies have not examined whether this is necessary or whether general PRAIs are sufficient in DV cases. Implementation of specialized tools for DV cases would add additional complexity, time, and expense to the risk assessment process.

²⁴ Specialized RAIs also exist for other case types such as sex offenses. This open question focuses on DV-specific tools due to the relative frequency of DV cases as compared to sex offenses.

²⁵ Berk, R. A., Sorenson, S. B., & Barnes, G. (2016). Forecasting Domestic Violence: A Machine Learning Approach to Help Inform Arraignment Decisions. *Journal of Empirical Legal Studies*, 13(1), 94–115.

AREAS FOR FUTURE POLICY DEVELOPMENT – II. INTERVIEWS IN PRAIs

Research best practices with regard to the use of interviews in PRAIs and evaluate the costs and benefits of conducting an interview.

Background

Conducting interviews with defendants as part of the PRAI process takes time and may increase the workload on the agency conducting the assessment. Some research has found that the most predictive risk factors are not ones typically collected through interviews,^{26,27} and some researchers have also raised the question of whether interviews might exacerbate issues in the data collection process that could lead to inconsistency in the data, such as defendants refusing to answer or answering falsely.²⁸ There may also be legal issues around coercion to answer and self-incrimination. While some PRAIs in use today were designed to not require interviews,²⁹ many commonly used PRAIs do require a defendant interview.³⁰ Some courts appreciate the human component added by the interview. Adding interview elements to the factors in the PRAI for the purpose of assessing *risk* may unintentionally introduce bias or double counting; however, information gained in interviews may be useful to judicial officers in considering *release conditions*.

²⁶ VanNostrand, M., & Lowenkamp, C. T. (2013). Assessing Pretrial Risk Without a Defendant Interview. *Houston, TX: The Arnold Foundation*.

²⁷ Bechtel, K., Lowenkamp, C. T., & Holsinger, A. (2011). Identifying the Predictors of Pretrial Failure: A Meta-Analysis. *Federal Probation, 75, 78*.

²⁸ VanNostrand, M., & Lowenkamp, C. T. (2013). Assessing Pretrial Risk Without a Defendant Interview. *Houston, TX: The Arnold Foundation*.

²⁹ VanNostrand, M., & Lowenkamp, C. T. (2013). Assessing Pretrial Risk Without a Defendant Interview. *Houston, TX: The Arnold Foundation*.

³⁰ Robinson, D. G., Sassaman, H. J., & Stevenson, M. (2018). A Practical Guide for Judges. *Judges' Journal, 57(3)*.

AREAS FOR FUTURE POLICY DEVELOPMENT – III. SUCCESS VERSUS FAILURE FRAMING

Consider the effect of presenting PRAI information to judicial officers as “likelihood of success” rather than “likelihood of failure.”

Background

Research shows that framing the same probabilities in terms of success versus failure can change how the probabilities are perceived.^{31,32} For example, if a defendant is described as having a 10% chance of failure pretrial, that defendant will be perceived more negatively than if the same defendant were described as having a 90% chance of success pretrial, even though the percentages are equivalent.

Other presentational choices may also impact risk perception. The fields of economics and psychology have extensive literature demonstrating that details such as the order that information is presented in, the availability of base-rate information, and the use of emotionally charged words can impact perception of the same factual information.³³ Marketing and public health fields also have extensive bodies of literature on conveying information, focused on techniques to enhance persuasive messaging. For example, using the color red to present risk information may artificially enhance the perceived threat.³⁴ Care should be taken to ensure that stakeholders are aware of the impact of the manner in which risk information is conveyed.

³¹ Piñon, A., & Gambará, H. (2005). A Meta-Analytic Review of Framing Effect: Risky, Attribute and Goal Framing. *Psicothema*, 17(2), 325–331.

³² Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All Frames Are Not Created Equal: A Typology and Critical Analysis of Framing Effects. *Organizational Behavior and Human Decision Processes*, 76(2), 149–188.

³³ Kahneman, D., Slovic, S. P., Slovic, P., & Tversky, A. (Eds.) (1982). *Judgment under Uncertainty: Heuristics and Biases*. Cambridge University Press.

³⁴ Gerend, M. A., & Sias, T. (2009). Message Framing and Color Priming: How Subtle Threat Cues Affect Persuasion. *Journal of Experimental Social Psychology*, 45(4), 999–1002.

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Attachment B: Fundamentals of Pretrial Risk Assessment Instruments

WHAT DO RISK ASSESSMENT INSTRUMENTS DO?

Risk assessment instruments (RAIs) estimate the probability of future events. By analyzing data about how people have behaved in the past, RAIs provide information about how similarly situated people might behave in the future [8]. Pretrial RAIs (PRAIs) are typically designed and deployed to inform pretrial release decisions by helping a judge answer two questions about a defendant: will this person fail to appear for future court appearances, and will this person commit a new offense pending trial if released [1]? Although numerous studies have found that risk assessment instruments can perform better than unaided human judgment [2, 3], they are intended to enhance, not replace, judicial decisionmaking. In order to do so effectively, judges must understand how these tools work, what the score means, how the score is communicated, and the tool's limitations.

HOW DO PRETRIAL RISK ASSESSMENT INSTRUMENTS WORK?

To understand how RAIs work, it is essential to first understand their key components. RAIs estimate the probability of certain **outcomes** by weighting different **factors**. While RAIs can be designed to estimate the probability of many different outcomes, **pretrial** RAIs commonly estimate the likelihood that an individual will **recidivate** and/or **fail to appear in court** if released pending trial [1]. Common factors that PRAIs use include an individual's prior convictions, prior failures to appear (FTA), other criminal history details, employment information, and residential stability. Although many PRAIs consider common factors, they are not uniform. For instance, some PRAIs do not use employment or residential stability as a factors.

Most PRAIs are relatively short instruments that associate numerical **weights** with each risk factor. The researchers developing the PRAI determine the weight to give each factor based on past data. The PRAI user computes a **risk score** by adding the weights associated with the presence or absence of each risk factor. The risk score estimates the probability of the outcome(s) at hand, e.g., reoffense or FTA [2]. This sequence of steps, checking risk factors and adding up their weights, is sometimes called an algorithm.

The example in Figure 1 below represents a hypothetical risk assessment. The algorithm is simple: the user adds two points to the total risk score if the individual is under 30, two points if the individual has at least one prior conviction, and one or two points for prior failures to appear.

Figure 1: Hypothetical Risk Assessment Instrument

Risk Factor	Weight
Age	<ul style="list-style-type: none"> • Over 30 = 0 points • Under 30 = 2 points
Prior convictions	<ul style="list-style-type: none"> • No prior convictions = 0 points • 1+ prior convictions = 2 points
Prior failure to appear in court	<ul style="list-style-type: none"> • No prior failures to appear = 0 points • 1 prior failure to appear = 1 point • 2+ prior failures to appear = 2 points

Let's try it: John Doe is a 31-year-old with no prior convictions and three failures to appear. Based upon the hypothetical algorithm, the tool might score John Doe at 2. [Over 30 = 0; No Prior Convictions = 0; Three Failures to Appear = 2: 0+0+2=2.] The meaning of this score and how it is communicated to the judge will be discussed next.

HOW IS THE SCORE COMMUNICATED?

PRAIs often group risk scores into **risk categories** with nominal labels such as “low,” “moderate,” and “high” risk, or numerical labels such as “Level 1” to “Level 6.” In both cases, either the tool or local policy assigns the raw score to a label. Using the example of John Doe, above, some tools might translate his raw score of “2” into a category like “low risk,” or “Level 1,” depending upon the risk category assigned. Tools also vary in how they distinguish and communicate **types** of risk. For example, John Doe may pose a moderate risk of failing to appear, but low risk of committing a new crime while released. An individual with a high probability of failing to appear in court may not necessarily have a high probability of recidivating, and vice versa. Some risk assessment tools distinguish between these types of risk by producing separate scores for each outcome of interest, i.e., one score for FTA risk and one score for recidivism risk. Other tools produce a **compound score**, a single score that represents the probability of multiple outcomes like FTA and recidivism [2]. A high score in the latter combined risk tool does not necessarily mean a person has a high likelihood of both outcomes. Understanding what scores actually mean and how they are communicated enables judges to ask the right questions and better assess the information provided by the tool used in their county.

WHAT DOES THE SCORE MEAN?

PRAIs estimate the probability of outcomes (failing to appear, committing a new crime) for individuals released on their own recognizance. Importantly, the labels assigned to risk categories do not translate directly into a statistical probability of misconduct. For instance, a risk score of “Level 3” on a scale of 4 does not mean a person has an estimated 75% chance of

committing a new crime or failing to appear. Similarly, while risk categories can create **comparative** groupings of individuals, it is important to also understand the amount of risk as it corresponds to a given label. For example, in tools that assign nominal categories, “High” risk indicates higher risk than the medium risk group, but some studies of some commonly used PRAs found that less than 10% of individuals in the highest risk group were rearrested within a six-month period [6, 7]. Thresholds for risk categories vary amongst PRAs and can vary between jurisdictions as well [2].

Lastly, PRAs estimate the probability of outcomes for individuals released on their own recognizance. Risk scores don’t indicate what release conditions are appropriate or how those release conditions can mitigate a person’s risk of recidivism or FTA [2]. Some jurisdictions supplement PRAs with **Release Conditions Matrices** (RCMs) or Decision-Making Frameworks (DMFs), which can be used to translate risk scores into release decisions. These frameworks may be paired with specific PRAs, or a county may use its own processes to design a DMF or RCM in accordance with their PRAI use and local circumstances [5].

LIMITATIONS OF RISK ASSESSMENT INSTRUMENTS

Risk assessment instruments are criticized for a variety of reasons, and some of the most common criticisms concern training data, lack of validation, and lack of transparency.

Training data is the data used to develop the assessments [3]. Figure 3 below illustrates some hypothetical training data that might be used to create PRAs.

Each row represents an individual for whom criminal history, case information, and one-year pretrial monitoring outcomes are available. Each column, aside from the ID column, represents information about the individuals in the data. The blue columns represent factors that are known or recorded before an individual’s pretrial release, such as prior convictions and the nature of the current offense. Red columns represent outcomes for these individuals after a year—in particular, were they arrested for a new crime or did they fail to appear in court within a year of release?

Figure 3: Hypothetical Training Data for a Pretrial Risk Assessment Instrument

ID	Is the current offense violent?	Prior convictions	Were they arrested for a new crime within one year?	Did they fail to appear in court within one year?
1	No	0	No	Yes
2	Yes	0	Yes	No
3	No	2	No	No

It is important for judges to be mindful of the fact that the factors or outcomes used in the training data may be inaccurately measured [3]. This is known as **measurement error**. For example, when judges determine whether to release individuals pretrial, judges must consider whether those individuals are likely to *commit* a new crime if released. However, the data collected cannot measure whether a released individual committed a new crime; the data can only reveal whether released individuals were *arrested* for or *convicted* of a new crime. For this reason, measurement error can be very difficult to avoid in practice. Research has indicated that arrest is an imperfect proxy for measuring which individuals commit new crimes [3, 4].

In addition, training data can be subject to **sample bias**. This can occur when the sample population used to develop the RAI differs from the population using the tool. For example, a risk assessment designed on a small sample size in a particular geographic area may not generalize well on another group in a different geographic area.

Validation allows jurisdictions using the tool to collect data on the tool's performance to evaluate its accuracy or equity in those jurisdictions [3]. Validation is one way to overcome the issue of sample bias when using a tool on a new population.

Lack of Transparency: While many risk assessments have published the factors, weights, and other methodology details of their instruments, others have protected the development of their tools as trade secrets [2]. Such secrecy may impede a judge's or researcher's ability to evaluate important characteristics of the tool, including characteristics related to measurement error, sample bias, and validation of the tool.

CONCLUSION

PRAIs are a valuable addition to a judge's pretrial release toolbox. When used with an understanding of how these tools work, what the scores mean, how the scores are communicated, and the tool's limitations, PRAIs provide judges with valuable information about risk. This information enhances a judge's ability to make sound release decisions that meaningfully assess an individual defendant and increase public safety.

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Attachment C: Comprehensive List of Presenters to the Pretrial Reform and Operations Workgroup, February 2019–September 2020

Academics/Researchers/PRAI Experts

Dr. Crystal S. Yang, Professor of Law, Harvard University
Dr. Jennifer L. Skeem, Professor, School of Social Welfare & Goldman School of Public Policy, University of California, Berkeley
Dr. Mathew Mizel, Associate Policy Researcher, RAND Corporation
Dr. Megan Stevenson, Assistant Professor of Law, George Mason University
Dr. Phil Malone, Professor of Law and Director, Juelsgaard Intellectual Property and Innovation Clinic, Stanford Law School
Dr. Richard A. Berk, Professor of Criminology and Statistics, University of Pennsylvania
Dr. Sarah Picard, Director, Research-Practice Strategies, Center for Court Innovation
Dr. Sharad Goel, Assistant Professor, Department of Management Science & Engineering, School of Engineering, Stanford University
Prof. David G. Robinson, Visiting Scientist, AI Policy and Practice Initiative, Cornell University
Prof. Sandra G. Mayson, Assistant Professor of Law, University of Georgia School of Law
Marissa Kumar Gerchick, Student, Stanford University

Court & Justice System Partner Representatives

Hon. Heather Mardel Jones, Judge, Superior Court of Fresno County & Board Member of CJA
Alma Zamora, Captain, San Mateo County Sheriff's Office, California State Sheriffs' Association
David Koch, Chief Probation Officer, Sonoma County, Chief Probation Officers of California
Oscar Bobrow, Chief Deputy Public Defender of Solano County & President of the California Public Defenders Association
Nancy O'Malley, District Attorney, Alameda County, California District Attorneys Association

Community Organizations & Advocates

Aaron Fischer, Litigation Counsel, Disability Rights California
Angie Wolf, Chief Program Officer, National Center on Crime and Delinquency
Hallie Fader-Towe, Program Director, Council of State Governments
Jessica Bartholow, Policy Advocate, Western Center on Law and Poverty
John Bauters, Budget Advocacy Director, Alliance for Safety & Justice
John Raphling, Senior Researcher, U.S. Program, Human Rights Watch
Kit Walsh, Senior Staff Attorney, Electronic Frontier Foundation
Krista Niemczyk, Public Policy Manager, Partnership to End Domestic Violence
Lisa Dyer, Director of Policy, Partnership on AI
Michelle Parris, Senior Program Associate, Vera Institute of Justice

Mona Wang, Staff Technologist, Electronic Frontier Foundation
Pilar Weiss, Director, Community Justice Exchange
Raj Jayadev, Cofounder, Silicon Valley DeBug
Robin Steinberg, CEO & Founder, The Bail Project
Sam Lewis, Executive Director, Anti-Recidivism Coalition
Tiffany Whiten, Long Term Care Director, SEIU State Council
Tyler Rinde, Policy Advocate, County Behavioral Health Directors Association
Zoe Willmott, Manager of Advocacy and Programs, Essie Justice Group

Judicial Council Staff

Shelley Curran, Director, Criminal Justice Services
Eve Hershcopf, Attorney, Criminal Justice Services
Deirdre Benedict, Supervising Analyst, Criminal Justice Services
Sonya Tafoya, Supervising Research Analyst, Criminal Justice Services
Noah Lehman, Senior Analyst, Criminal Justice Services
Sal Lempert, Analyst, Criminal Justice Services
Heather Pettit, Chief Information Officer, Information Technology

Attachment B: Summary Table of Tool Validation

Pretrial Risk Assessment Validation Summary: Accuracy and Tool Calibration by Race/Ethnicity and Gender

Outcomes shaded in gray indicate outcomes that the risk assessment tool was specifically designed to predict. Findings are presented in descending order of sample size. Smaller sample sizes decrease statistical power to detect group differences.

CALIBRATION LEGEND: ● Regression models showed statistically significant race/ethnicity main effects or interactions ● Regression models showed statistically significant gender main effects or interactions

County	Tool	Validation Dataset	ACCURACY									CALIBRATION						
			General AUC			Race AUC			Gender AUC			FTA	NA	NF	NC	NVA	FTA & NA	
Los Angeles	PSA	N General = 24,972	Risk Score	Outcome	AUC	AUC			AUC			●	●	●	●	●	●	
		N White = 3,981	PSA FTA	FTA	0.697	Outcome	White	Black	Hispanic	Outcome	Female							Male
		N Black = 5,670	PSA NCA	New Arrest	0.749	FTA	0.699	0.650	0.707	FTA	0.704							0.695
		N Hispanic = 14,239	PSA NCA	New Filing	0.710	New Arrest	0.772	0.703	0.758	New Arrest	0.742							0.748
		N Female = 4,329	PSA NCA	New Conviction	0.705	New Filing	0.716	0.678	0.716	New Filing	0.705							0.708
		N Male = 20,639	PSA NVCA	New Violent Arrest	0.578	New Conviction	0.704	0.675	0.711	New Conviction	0.709							0.700
						New Violent Arrest	0.573	0.583	0.572	New Violent Arrest	0.580							0.577
Sacramento	PSA	N General = 10,476	Risk Score	Outcome	AUC	AUC			AUC			●	●	●	●	●		
		N White = 3,728	PSA FTA	FTA	0.671	Outcome	White	Black	Hispanic	Outcome	Female						Male	
		N Black = 3,839	PSA NCA	New Arrest	0.628	FTA	0.653	0.671	0.669	FTA	0.670						0.671	
		N Hispanic = 2,131	PSA NCA	New Filing	0.608	New Arrest	0.628	0.613	0.632	New Arrest	0.627						0.628	
		N Female = 1,752	PSA NCA	New Conviction	0.599	New Filing	0.602	0.599	0.620	New Filing	0.592						0.610	
		N Male = 8,721	PSA NVCA	New Violent Arrest	0.586	New Conviction	0.596	0.586	0.611	New Conviction	0.590						0.600	
						New Violent Arrest	0.572	0.579	0.606	New Violent Arrest	0.597						0.585	
San Joaquin	VPRAI	N General = 4,816	Outcome	AUC	AUC			AUC			●	●	●	●	●	●		
		N White = 1,367	FTA	0.681	Outcome	White	Black	Hispanic	Outcome	Female							Male	
		N Black = 1,089	New Arrest	0.746	FTA	0.691	0.639	0.673	FTA	0.683							0.693	
		N Hispanic = 1,911	New Filing	0.710	New Arrest	0.758	0.702	0.749	New Arrest	0.734							0.758	
		N Female = 960	New Conviction	0.697	New Filing	0.696	0.675	0.722	New Filing	0.708							0.721	
		N Male = 3,856	New Violent Arrest	0.640	New Conviction	0.682	0.667	0.706	New Conviction	0.686							0.708	
			FTA or New Arrest	0.742	New Violent Arrest	0.613	0.620	0.666	New Violent Arrest	0.622							0.646	
Alameda	VPRAI-R	N General = 2,439	Outcome	AUC	AUC			AUC			●	●	●	●	●	●		
		N White = 478	FTA	0.682	Outcome	White	Black	Hispanic	Outcome	Female							Male	
		N Black = 1,017	New Arrest	0.727	FTA	0.694	0.632	0.722	FTA	0.669							0.685	
		N Hispanic = 708	New Filing	0.683	New Arrest	0.738	0.664	0.774	New Arrest	0.668							0.736	
		N Female = 394	New Conviction	0.671	New Filing	0.716	0.644	0.695	New Filing	0.630							0.688	
		N Male = 2,044	New Violent Arrest	0.577	New Conviction	0.697	0.642	0.681	New Conviction	0.607							0.677	
			FTA or New Arrest	0.726	New Violent Arrest	0.573	0.553	0.622	New Violent Arrest	0.592							0.573	
Ventura	ORAS	N General = 2,440	Outcome	AUC	AUC			AUC			●	●	●	●	●	●		
		N White = 803	FTA	0.658	Outcome	White	Hispanic	Outcome	Female	Male								
		N Black = 1,408	New Arrest	0.727	FTA	0.661	0.653	0.653	FTA	0.648							0.660	
		N Female = 1,855	New Filing	0.719	New Arrest	0.733	0.718	0.718	New Arrest	0.702							0.734	
		N Male = 555	New Conviction	0.721	New Filing	0.739	0.694	0.694	New Filing	0.698							0.724	
			New Violent Arrest	0.631	New Conviction	0.729	0.705	0.705	New Conviction	0.706							0.725	
			FTA or New Arrest	0.715	New Violent Arrest	0.618	0.628	0.628	New Violent Arrest	0.651							0.626	

			ACCURACY						CALIBRATION									
County	Tool	Validation Dataset	General AUC			Race AUC			Gender AUC			FTA	NA	NF	NC	NVA	FTA & NA	
Sonoma	PSA	N General = 1,546 N White = 751 N Hispanic = 638 N Female = 257 N Male = 1,289	Risk Score	Outcome	AUC	AUC			AUC									
			PSA FTA	FTA	0.702	Outcome	White	Hispanic	Outcome	Female	Male							
			PSA NCA	New Arrest	0.732	FTA	0.692	0.689	FTA	0.673	0.708							
			PSA NCA	New Filing	0.667	New Arrest	0.725	0.739	New Arrest	0.711	0.734							
			PSA NCA	New Conviction	0.664	New Filing	0.658	0.669	New Filing	0.637	0.672							
			PSA NVCA	New Violent Arrest	0.596	New Conviction	0.663	0.656	New Conviction	0.637	0.664							
						New Violent Arrest	0.621	0.569	New Violent Arrest	0.588	0.598							
San Mateo	VPRAI-R	N General = 1,372 N White = 334 N Black = 270 N Hispanic = 672	Outcome	AUC	AUC			The size of the subgroups does not meet threshold for gender bias validation.										
			FTA	0.645	Outcome	White	Black											Hispanic
			New Arrest	0.693	FTA	0.634	0.564											0.677
			New Filing	0.639	New Arrest	0.682	0.642											0.692
			New Conviction	0.623	New Filing	0.657	0.553											0.636
			New Violent Arrest	0.580	New Conviction	0.667	0.488											0.600
			FTA or New Arrest	0.704	New Violent Arrest	0.573	0.563											0.605
					FTA or New Arrest	0.700	0.635											0.706
Tulare	PSA	N General = 1,146 N White = 300 N Hispanic = 735	Risk Score	Outcome	AUC	AUC			The size of the subgroups does not meet threshold for gender bias validation.									
			PSA FTA	FTA	0.590	Risk Score	Outcome	White										Hispanic
			PSA NCA	New Arrest	0.685	PSA FTA	FTA	0.511										0.612
			PSA NCA	New Filing	0.669	PSA NCA	New Arrest	0.658										0.689
			PSA NCA	New Conviction	0.688	PSA NCA	New Filing	0.679										0.656
			PSA NVCA	New Violent Arrest	0.618	PSA NCA	New Conviction	0.726										0.667
						PSA NVCA	New Violent Arrest	0.616										0.611

Failure to appear (FTA) is measured using court records documenting the issuance of a bench warrant for FTA during the pretrial period.

New arrest (NA) is any new arrest during the pretrial period reported to the California Department of Justice (CA DOJ) or a new booking within county recorded by the jail.

New filing (NF) is any new arrest during the pretrial period that results in charges filed with the court and reported to the CA DOJ.

New conviction (NC) is any new arrest during the pretrial period that results in a conviction reported to the DOJ during the data collection period.

New violent arrest (NVA) is any new arrest during the pretrial period for an offense on the Pretrial Pilot consensus PSA Violent Offense List, which includes felonies and misdemeanors of a violent nature.

FTA or new arrest is a combined measure indicating an occurrence of an FTA, a new arrest, or both.