The Risks of Pretrial Risk Assessment Tools: Policy Considerations for Michigan

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EXECUTIVE SUMMARY

In the United States, many jurisdictions are turning to pretrial risk assessment tools as an alternative to cash bail.[1] More than 60 risk assessment tools are in use throughout the country today, at both the federal and state level and in multiple stages of a person's process through the carceral system. [2] In what follows, we analyze risk assessment tools for their claims of providing objective, empirical evidence to inform decisions around pretrial release and detention. We find serious concerns with their ability to generate accurate, valid, reliable, and unbiased outcomes and to address root causes of pretrial violence and flight risk. While often suggested as an alternative to cash bail, we find substantial evidence that pretrial risk assessment tools replicate the racial and socioeconomic disparities that bail reform seeks to address. We conclude that risk assessment tools should play no role in pretrial administration. Instead, jurisdictions seeking meaningful improvements to the pretrial process should invest in broader, more fundamental changes to the bail system.

BACKGROUND

The Rise of Pretrial Detention Nationwide

Almost every state has enacted reforms related to pretrial risk and detention.[3] These decisions reflect the fact that U.S. jails are increasingly overpopulated, and that many people are incarcerated due to their inability to afford money bail.[4]

While Michigan's total jail population increased 178% between 1970 and 2015,[5] the number of incarcerated people awaiting trial grew by more than 300%. Today, defendants awaiting trial compose almost half of the jail population in the state and most do not pose a threat to public safety or a high likelihood of flight risk.[6] As such, the Michigan Joint Task Force on Jail and Pretrial Incarceration recommended the implementation of policies that allow pretrial defendants to be released from jail quickly, and that set higher thresholds for imposing both financial and non-financial release conditions.[7]

Key Findings

Risk assessment tools should play no role in pretrial administration. While often suggested as an alternative to cash bail, we find substantial evidence that pretrial risk assessment tools replicate the racial and socioeconomic disparities that bail reform seeks to address.

Pretrial risk assessment tools overstate certainty and objectivity. The tools mask moral and political judgments as technical and scientific. In reality, subjective judgments affect what scores are considered "high risk", and it varies by jurisdiction. Different tools rarely agree with each other.

Pretrial risk assessment tools are based on flawed and subjective data. These tools rely on biased data, such as historical arrest records, and subjective judgments, such as the influence of personal attitudes and familial ties, to inform risk scores. This data is neither reliable nor neutral.

Pretrial risk assessment tools promote racial and socioeconomic bias. Many risk assessments perpetuate racial and socioeconomic discrimination in pretrial decision-making, as their inputs act as proxies for race and class. Racial biases throughout the criminal legal system lead to discriminatory risk scores for Black defendants.

Pretrial risk assessment tools overestimate the likelihood of violence. Although pretrial risk assessments are used to determine risks to public safety, most defendants, including those assessments might classify as high risk, do not commit a crime while awaiting trial.

Pretrial risk assessment tools overstate the risk of flight. These tools ignore factors contributing to why people fail to appear in court. Most defendants fail to appear due to minor inconveniences: they missed the bus, couldn't arrange childcare or time off work, or were subject to a clerical error or schedule misunderstanding.

Defining Risk

In the carceral system, "risk" often refers to the probability of reoffense.[8] For pretrial risk assessment, reform recommendations call for pretrial incarceration decisions that are based on a defendant's threat to public safety and their likelihood to appear for court hearings or trial.[9]

Historically, risk assessment was left to professional judgment. This refers to a decision-maker (for example, a judge or parole officer) using their experience, training, and relevant information to make a qualitative and subjective evaluation of a person's likelihood to reoffend or appear in court. While these decision-makers may have had a set of questions or factors they considered routinely in deciding cases, there were no standardized guidelines for assessing risk. This approach was the norm through the 1970s, until people began to recognize that human judgment is influenced by personal beliefs that can bias decisions.[10]

In the decades since, structured risk assessments have proliferated, influenced by research assessing what factors are statistically associated with risk. Actuarial risk assessment is one type of structured risk assessment, where risk factors are assigned numerical values, weighted, and combined to produce risk scores. Another approach is structured professional judgment, where decision-makers use a standardized framework for estimating risk instead of relying solely on their own judgment. Some jurisdictions use a combination of actuarial risk assessment tools and structured professional judgment.[11]

What Are Risk Assessment Tools?

Pretrial risk assessment tools are automated, data-based decision-making systems that claim to predict the likelihood (1) that a person will be arrested again for a new crime while waiting for trial, and (2) that a person will appear in court as scheduled. Such tools claim to provide objective and transparent empirical evidence that can improve the efficiency and fairness of judicial decision-making.[12]

In most cases, pretrial risk assessment tools compare a person's individual data to patterns based on past cases of people with similar characteristics.[13] In doing so, the tools provide a risk "score" that claims to measure a person's likelihood to return to court or reoffend while awaiting trial.[14] The exact information used in the system depends on the tool, but typically includes individual and community inputs such as:

- Age
- Prior convictions, including violence and failure to appear
- Pending/current charge(s)
- Active community supervision
- Substance use
- Employment status and duration
- Education level
- ZIP Code and/or home address
- Housing/residential stability, duration, and home ownership status
- Cell phone ownership
- Feelings (boredom, anger, sadness, isolation)
- Family/peer relationships, such as parents' marital status
- Family/peer drug and conviction history
- Community ties
- Neighborhood crime [15]

Risk assessment tools use a combination of the above inputs to create a score reflecting a person's purported risk estimate. This score is typically in the form of a probability that compares a defendant's score to a reference or normalized population, often other defendants studied during the tool's development or a validation process.[16] Local administrators then determine which risk estimates are categorized as high, medium, or low-risk, creating cut-off points for which people are detained, released while awaiting trial,[17] and/or given support to better ensure that they will appear in court and avoid arrest.[18]

A Closer Look at Pretrial Risk Assessment Tools

Across the U.S., some jurisdictions require specific risk assessment tools developed for statewide use, whereas others encourage the use of common national risk assessment tools, including the Correctional Officer

Management Profiling for Alternative Sanctions (COMPAS), the Ohio Risk Assessment System (ORAS), the Public Safety Assessment (PSA), and the Virginia Pretrial Risk Assessment Instrument (VPRAI). Risk calculations, inputs, costs, and customizations vary across tools, highlighting the subjectivity in risk assessment.[19,20]

A 2006 study of five risk assessment tools found that only 3% of people evaluated were categorized as "high risk" across all five tools, and only 4% were consistently characterized as "low risk."

In 2017, the Michigan legislature approved a one-time pilot of the PSA through the Michigan Supreme Court, which ran until 2020.[21] Michigan does not require risk assessment tools in any setting, although some jurisdictions chose to adopt a tool on their own.[22] It does not appear that the state presently requires scrutiny of a jurisdiction's intended use of pretrial risk assessment tools; however further research is needed. Twelve Michigan counties use one of two pretrial risk assessment tools: either the nationally used PSA or the Michigan Praxis, a state-specific tool originally developed by Luminosity, Inc for the Oakland County Community Corrections Division. One Michigan county, Calhoun, uses its own, county-specific tool.[23] In Appendix 1, we detail four common national tools and the Michigan Praxis.

Concerns About Pretrial Risk Assessment Tools

Risk assessment tools are commonly mischaracterized as objective, transparent, and scientific decision-making models that have removed human biases, like racism, from decision-making processes. They are purported to enhance

Considering Risk Assessment inputs in Michigan

Arnold Venture's Public Safety Assessment (PSA) claims to be more objective than other tools because it "only" assesses factors related to a person's criminal history and age.[69] However, the Michigan Joint Task Force on Jail and Pretrial Incarceration recently reviewed 10 years of statewide arrest and court data and three years of data from a sample of 20 county jails. Their results raise concerns about the accuracy of Arnold Venture's assertion and demonstrates the potential harms of using past criminal history as a risk assessment input. The following data about Michigan's jail population and arrest records are relevant when considering the potential biases of even these inputs:

Michigan's jail population increased substantially, even while crime fell from 1960 to 2016. Although Michigan's crime rate dropped to a 50-year low in 2016, the jail incarceration rate tripled.

Michigan underused the ability to give citations as an alternative to arrest. For nontraffic offenses, police officers arrested people in 90% of the cases analyzed instead of simply issuing citations for future court appearances. For misdemeanors eligible for a citation, such as shoplifting or disorderly conduct, officers arrested people 75-80% of the time instead of issuing citations.

Michigan has the sixth highest rate of people on community supervision. Hundreds of Michiganders are at risk of incarceration if they do not comply with a relatively minor probation or parole rule, such as following a curfew, staying sober, or participating in treatment programs. Noncompliance with such rules is the third-most common offense for people in Michigan jails.

Michigan was suspending driver's licenses as a penalty for non-dangerous driving and nondriving offenses. In 2018, Michigan suspended more than 350,000 driver's licenses for failure to pay fees or to appear in court. Relatedly, from 2016 to 2018, driving without a valid license was the third-most common reason for jail admission across all populations and the most common charge for the Black population.[70]

These realities all contributed to the overpopulation of Michigan's jails and pushed Michigan legislators to enact various changes to laws and policies. However, in jurisdictions using pretrial assessment tools, these factors, that were essentially recognized by legislators as being excessively punitive, could still be used as inputs that would negatively impact a person's risk score. This puts pretrial risk assessment tools at odds with the goals of pretrial reforms recommended by the Michigan Joint Task Force on Jail and Pretrial Incarceration.

the accuracy of pretrial detention risk determinations, relative to human decisions that rely exclusively on subjective judgment.[33] However, these characterizations mask the uncertainty and bias underlying the tools' inputs, development, and use. In what follows, we outline five key concerns that dictate how pretrial risk assessment tools perpetuate subjective and discriminatory outcomes.

Pretrial Risk Assessment Tools Overstate Certainty and Objectivity

Pretrial risk assessment tools mask moral and political judgments as technical and scientific.[34] While some tools dictate a defendant's risk category as low, medium, or high-risk, others calculate a risk score. Someone must determine what numerical threshold translates to accepted levels of risk for pretrial release or detention, whether it be the tools' creator or an administrator translating it for a specific jurisdiction.[35] In many uses, this decision-making happens outside of democratic processes, relying solely on the discretion of the tools' creators and city or county data administrators for input and authorizations for data sharing. This lack of oversight extends to the tools in practice, where judicial administrators are not trained or responsible for evaluating and critiquing the tools' outcomes and proper use or identifying errors.[36]

Because there are no standard definitions of numerical risk, low or high-risk characterizations may have different definitions across jurisdictions and uses. For example, the same tool could have two different thresholds for high risk in two different jurisdictions based on the preferences of those administering the tool locally.[37] Likewise, the same person's risk score could be categorized differently across different pretrial risk assessment tools. A 2006 study of five risk assessment tools found that only 3% of people evaluated were categorized as "high risk" across all five tools, and only 4% were consistently characterized as "low risk."[38] This is because they have different combinations of inputs and/or risk thresholds (see Figure 1). If the tools were as objective as they claim, respondents would get similar scores across uses and jurisdictions. While built to simplify decision-making, in practice, supporters of risk assessment tools overstate the certainty and objectivity of their predictions. The tools' outcomes are not data-driven, but instead, are highly subjective, moral, and political decisions.[39]

Figure 1. Example Scoring Forms from the Michigan Praxis and the Ohio Risk Assessment System

Factor	Point Value
Charge Type – the most serious charge is a felony	1 point
Released Pending Trial – the defendant was on release status pending trial at the time of offense	1 point
Criminal History – adult criminal history includes at least one misdemeanor or felony conviction	1 point
History of Failure to Appear – defendant has two or more FTAs	2 points
History of Violent Convictions – defendant has two or more violent convictions	1 point
Length at Current Residence – defendant has lived at his or her current residence for less than one year	1 point
Student, Employed, Primary Caregiver, Retired, or Disabled – defendant was not a student, employed, a primary caregiver, retired, or disabled at the time of arrest	1 point
History of Drug Abuse – the defendant has a history of drug abuse	1 point

Once the risk score is calculated convert it to a risk level using the table below

Risk Score	Risk Level
0 – 2	Low
3 - 5	Average
6 - 9	High

See appendices 2-3 for larger versions of Figure 1. Example scoring forms from the Michigan Praxis (left) and the Ohio Risk Assessment (right) pretrial risk assessment tools. By comparing these two tools, we can see how someone may score differently based on the different tools inputs and scoring system. For example, one tool gives risk points if a person lived at their current residence for less than a year, while the other if they've lived at their current residence for the last six months. Additional variations exist across different tools. Images were retrieved from Mapping Pretrial Injustice (Michigan) and the Berkman Klein Center (Ohio).

The inputs of pretrial assessment tools raise serious concerns. As we elaborate on below, some risk assessment tools conflate violence with minor offenses that are often directly related to poverty, such as missing fine payments. Overall, risk assessments rely on biased data, such as historical arrest records, and subjective judgments, such as the influence of personal attitudes and familial ties, to inform risk scores.[40] This data is neither reliable nor neutral in determining the answers sought by these tools: whether a defendant is likely to appear for trial or pose a public safety risk while awaiting trial.[41]

While pretrial risk assessment tools are promoted as an alternative to cash bail, they replicate the same inequities that bail reform seeks to resolve.

Pretrial risk assessment tools purport to be more objective than determinations made by judges, police, or parole officers, who may possess implicit or explicit biases. However, risk assessment inputs commonly include historical arrest records, prior convictions, and past sentencing outcomes – all subjective determinations made by the same potentially-biased decision-makers the tools were designed to replace.[42] In many cases, tools also use data that do not reflect policing and sentencing practices that are legal by today's standards. For example, in New York, the city's risk assessment tool uses data from 2009 to 2015, a period in which courts found stop-and-frisk policing practices to be unconstitutional and discriminatory.[43] This raises particular concern in Michigan, where recent legislative reforms have intentionally changed the criminality of certain offenses such as legalizing recreational marijuana,[44] reclassifying some traffic misdemeanors as civil infractions, and otherwise decreasing arrest rates for nonviolent offenses.[45,46] Notwithstanding these legal and societal shifts, such data points might still be captured or unfairly utilized as risk inputs in a person's present assessment.

Scholars also found that judges themselves were skeptical of pretrial risk assessment tools, noting how the absence of some contextual information could obscure decision-making. For example, one judge noted that defendants may be flagged as high-risk because they frequently cycle through the criminal legal system. However, when such offenses are nonviolent, 'public nuisance' offenses, they warrant a pretrial release, counter to their high-risk status.[47] Risk assessment tools rely on the flawed logic, fears, and biases they claim to correct.

Pretrial Risk Assessment Tools in the context of Michigan Legislative Reform

The Michigan Joint Task Force on Jail and Pretrial Incarceration found that law enforcement officers were more frequently arresting people for nontraffic misdemeanors than giving citations – tickets that provide a future court date. They also found that people were more likely to be arrested for missing court than for assault or driving while intoxicated.[71] These are two factors contributing to significant increases in the incarcerated population in Michigan. The Michigan Legislature recently enacted reforms to address these issues, among others.[72] However, pretrial assessment tools use historical records, including past instances of failure to appear, to assess risks associated with pretrial release.[73] When Michigan jurisdictions adopt such tools, they would be potentially incarcerating people for actions the Michigan Joint Task Force on Jail and Pretrial Incarceration and legislative reform sought to forgive.

Pretrial Risk Assessment Tools Promote Racial and Socioeconomic Bias

Many risk assessments perpetuate racial and socioeconomic discrimination in pretrial decision-making, as their inputs act as proxies for race and class. Low-income communities and communities of color are more likely to be targeted by disparities in profiling, policing, and social policy.[50] Nationally, Black and Latinx people are and have historically been more likely to get stopped, arrested, held pretrial, convicted, sentenced, and denied parole.[49] These disparities reflect racial inequities at every stage of the criminal legal system. In Michigan, the Black incarceration rate has increased 20% since 1990. Black people are incarcerated at 3.6 times the rate of white people, making up 37% percent of the jail population, while only constituting 17% of the state population.[48]

When considered in the context of pretrial assessment tools, these racial inequities lead to discriminatory risk scores based on both individual Black defendants' interactions with the criminal legal system and Black communities' interactions with the system. This is because scores measure a defendant's personal history, as well as their familial, neighborhood, and peer relationships and criminal histories. Factors such as housing, healthcare, and job status are also deeply influenced by structural racism, which further skews pretrial assessment risk by race, class, and gender.

Most defendants fail to appear due to minor inconveniences: they missed the bus, could not arrange childcare or time off work, or were subject to a clerical error or schedule misunderstanding.

In 2016, ProPublica obtained pretrial risk assessment scores for more than 7,000 people and calculated how many of the individuals were charged with new crimes over the next two years. Not only were the risk assessment scores unreliable predictors of reoffense, as detailed above, they also were inaccurate in ways that perpetuated racial disparities. Black defendants were twice as likely to be wrongly labeled as highly likely to reoffend than white defendants, and white defendants who did go on to reoffend were more frequently flagged as low risk.[54]

These findings replicate other studies that have found higher risk scores for socially marginalized individuals. Some argue that by measuring socioeconomic status directly or indirectly via educational, housing, and neighborhood factors, pretrial risk assessment tools are unconstitutional.[55] While pretrial risk assessment tools are promoted as an alternative to cash bail, they replicate the same inequities that bail reform seeks to resolve. As opposed to making the objective, "scientific" decisions they claim, individuals' scores are dependent on racial and socioeconomic circumstances.[56]

Pretrial Risk Assessment Tools Overestimate the Likelihood of Violence

Although pretrial risk assessments are used to determine risks to public safety, tools often count rearrests of any kind, when only a small minority of rearrests result in violence. Some tools, such as PSA and COMPAS, attempt to predict the likelihood of a rearrest for a violent crime.[57] However, most defendants, including the highest-risk individuals, do not commit a crime while awaiting trial. If pretrial risk assessment tools were accurate, they would score nearly every person as low risk.[58] Instead, such tools create false distinctions between people who all have little likelihood of committing pretrial violence.[59]

For example, the PSA seeks to determine whether defendants are at risk for "new violent criminal activity," which judges then use to recommend pretrial release or detention.[60] When assessing the tool in relation to real-world outcomes, scholars found that 92% of people flagged by the PSA for pretrial violence did not get arrested for a violent crime. Likewise, 98% of people not flagged by the tool did not get arrested for a violent crime. Others found that those predicted to have the highest risk for rearrest for violent crime have only approximately an 8% chance of being arrested for a violent crime within six months.[61]

These studies show how the tools create false positives by flagging people for potential pretrial violence who do not go on to commit violent crimes, conflating the likelihood of arrest for any reason (such as minor offenses, i.e. fine nonpayment and traffic infractions) with the risk of violence. Contrary to fearmongering perpetuated by the media and politicization of the issue, the large majority of people – including those with the highest 'risk' – will not commit a violent crime while awaiting trial. Because pretrial violence is actually quite rare, it is highly unlikely that any assessment tool could identify people who are more likely to commit a violent crime than others.[62] Pretrial risk assessment tools repunish people for past offenses and overinflate the likelihood of pretrial violence, instead of relying on research-guiding strategies to reduce reoffense and missed court appearances.

Pretrial Risk Assessment Tools Overstate the Risk of Flight and Abscondence

Pretrial risk assessment tools ignore factors contributing to why people fail to appear in court. Research illustrates that few people miss appointments for malicious or intentional reasons, known as abscondence. Rather, most defendants fail to appear due to minor inconveniences: they missed the bus, could not arrange childcare or time off work, or were subject to a clerical error or schedule misunderstanding.[63] In fact, research shows that reminders can dramatically improve court appearance rates.[64]

For example, a study by the University of Chicago Crime Lab found that pre-court reminders sent via text message

reduce failure to appear by 21%. Messages that both outline the consequences of missing court and help the recipient make plans to make their court date were particularly effective. The post-trial notices of missed appearances were over 30% more likely to return to court to clear their warrant than those who received no messages, and those who received only post-trial messages were 15% more likely to return to court than those who received no messages. Text message programs also reduced costs to jurisdictions relative to the costs associated with missed court appearances.[65] Similar results were found for automated phone calls, where appearance rates increased by 37%, and one county saved over one million dollars in just eight months.[66]

Rather than seeking to assess a person's likelihood to appear in court, jurisdictions should invest in strategies that address the root causes of missed court appearances. Digitized reminders, access to public transportation, free childcare in courtrooms, and programs to change court dates are all effective strategies that reduce costs and decrease rearrest and incarceration.[67]

CONCLUSION

By relying on biased data and focusing on negative outcomes, pretrial risk assessment tools do not accurately predict pretrial violence or flight risk. They also do not answer the questions that would most likely assist administrators seeking to reduce pretrial detention: Why do people get rearrested or miss court? What can be done to prevent this?[68] As noted above, most pretrial assessment tools only predict generalized risk scores for any rearrest, not exclusively violent offenses; they also overestimate rearrest, violence, and flight risk, particularly for racial and socioeconomic minorities.

We conclude that risk assessment tools should play no role in pretrial administration. While often suggested as an alternative to cash bail, we find substantial evidence that pretrial risk assessment tools replicate the racial and socioeconomic disparities that pretrial reform seeks to address. Policymakers who seek to reduce incarceration, address underlying racial inequality, and promote transparency would diminish the effectiveness of their efforts if they replace cash bail with risk assessments. Rather than hide behind a veneer of scientific certainty and objectivity, those seeking to reduce pretrial detention while promoting court efficiency and public safety should invest in evidence-based programs and supportive services designed to help avoid rearrest and promote court appearances.

The University of Michigan's Science, Technology, and Public Policy (STPP) program is a research, education, and policy engagement center concerned with cutting-edge questions at the intersection of science, technology, policy, and society. This memo was written as part of STPP's community partnerships initiative, where we work with organizations that have concerns related to a current or anticipated science or technology issue. Special thanks to our community partner, the Detroit Justice Center, who raised this issue for us to research. If you want us to take a deep dive into the implications of an emerging technology in your community, or if your city, county, or state is considering implementing pretrial risk assessment tools and you want more information, contact us at stpp@umich.edu.

Appendix 1. Details on Pretrial Risk Assessment Tools Commonly Used Nationwide or in Michigan

	Correctional Officer Management Profiling for Alternative Sanctions (COMPAS)[24]	Ohio Risk Assessment System (ORAS)	Public Safety Assessment (PSA)[25]	Virginia Pretrial Risk Assessment Instrument (VPRAI)	Michigan Praxis
Developer	Equivant, formerly Northpointe, Inc.	Ohio Department of Rehabilitation and Correction and the University of Cincinnati Center for Criminal Justice	Laura and John Arnold Foundation, now called Arnold Ventures	Virginia Department of Criminal Justice Services; later revalidated and revised by Luminosity, Inc.	Luminosity, Inc.[26]
Year Developed	1998	2009	2013	2003, revised in 2009	2009[28]
Developer Type	Corporation	Government + Academic Partnership	Philanthropy	Government + Corporation	Corporation
Jurisdictions Used	11 jurisdictions across 4 states	5 entire states ard 48 counties across 8 additional states	5 entire states and 59 counties across 20 other states.	43 counties across 11 states	8 counties in Michigan
Population Impacted	4.3 million people	31.4 million people	56.3 million people	19.9 million people	3.5 million people
Cost	For-profit	Free	Free	Free	Free
Inputs	The full COMPAS tool asks 137 questions around age, factors related to personal and associates' criminal history and employment, residential stability, education, social isolation, and characteristics and attitudes perceived to relate to criminality. The pretrial outcomes subset includes felony charge, pending case(s), prior failures to appear, prior arrests on bail, prior jail sentences, drug abuse history, employment, and duration at residence.	Age at first arrest, number of failure to appear warrants in past 2 years, number of prior jail incarcerations, employment at time of arrest, residential stability, illegal drug use, and severe drug use.	Age, current violent offense, pending charges at time of arrest, prior misdemeanor, felony, and violent convictions, prior failure(s) to appear, and prior sentence to incarceration.	Charge type, pending charges, criminal history, number of prior failures to appear, number of prior violent convictions, duration at current residence, unemployment at time of arrest, and history of drug abuse.	Charge type, release pending trial, criminal history, history of failure to appear, history of violent convictions, time at current residence, history of drug abuse, and status as an employed person, caregiver, student, or retiree, and disability status.[26]

Appendix 1. Details on Pretrial Risk Assessment Tools Commonly Used Nationwide or in Michigan

	Correctional Officer Management Profiling for Alternative Sanctions (COMPAS)[24]	Ohio Risk Assessment System (ORAS)	Public Safety Assessment (PSA)[25]	Virginia Pretrial Risk Assessment Instrument (VPRAI)	Michigan Praxis
Interview required between pretrial services agency and accused person?	Yes	Yes, also includes review of defendant's file	No	Yes	Yes[26]
Risk Scores Produced	Produces a scale for risk of failure to appear and new felony arrest.	Produces a single risk score categorized into low, moderate, and high risk levels on a range of 0-9.	Produces two sets of scales/weights: one for Failure to Appear and one for New Criminal Activity, scored 1-6. Does not produce risk levels, but encourages jurisdictions to use a decision-making framework to translate scores into pretrial decision recommendations.	Produces a combined score for risk of failure to appear and rearrest that ranges from 0-9 categorized into low, below average, average, above average, and high risk.	Produces a single risk score evaluating the risk of public safety and failure to appear. Scores range from 0-9 and are categorized as low, average, or high. Also includes a framework that provides recommendation based on risk score and category of offense: misdemeanor, high misdemeanor and non-violent felony, or violent felony.[26]
Additional Info	In 2016 a ProPublica report found racial bias in COMPAS outcomes. The tool is widely criticized for inputs such as gender, mental health history, housing, and educational status.[27]	ORAS is made up of six instruments that are used at different stages of the criminal legal system, including assessment for pretrial release, misdemeanors, community supervision, prison intake, reentry, and supplemental reentry.[27] Critics argue that assessment at multiple stages of the system increases the likelihood of bias and repunishment for former offenses.[29]	Arnold Ventures has received criticism for covertly funding surveillance technology used by Baltimore police[30] that was later deemed unconstitutional by U.S. courts.[31]	Luminosity, Inc, the corporation responsible for revising the tool in 2009, is a small business focused on data analytics and the justice system. The corporation argues they advance justice system data by combining data from multiple jurisdictions; however, we find this raises serious concerns when considering differences in legality and criminality of certain offenses across states and jurisdictions (see Pretrial Risk Assessment Tools in the context of Michigan Legislative Reform).	As noted in the Oakland County Praxis instruction manual, the Praxis blatantly discriminates against unemployed persons, able-bodied persons, and those who are not primary caregivers, students, or retirees at the time of arrest, noting that persons in such categories "are more likely to fail pending trial compared to defendants that are; employed, a primary caregiver, student, retired, or disabled" (p.9). The manual also notes that staff is encouraged, but explicitly not required, to verify the information inputted into the tool (p.4).[26]

Note: All information for Appendix 1 was found through the following two sources unless otherwise noted: Berkman Klein Center. (2023). *Risk Assessment Tool Database.* **https://criminaljustice.tooltrack.org** and Movement Alliance Project and Media Justice. (2019). *Mapping Pretrial Injustice.* **https://pretrialrisk.com**

Appendix 2

OHIO RISK ASSESSMENT SYSTEM: PRETRIAL ASSESSMENT TOOL (ORAS-PAT)

Name: _____   Date of Assessment: _____

Case#: _____   Name of Assessor: _____

Pretrial Items		Verified
1.1. Age at First Arrest		
0=33 or older		
1=Under 33		
1.2. Number of Failure-to-Appear Warrants Past 24 Months		
0=None		
1=One Warrant for FTA		
2=Two or more FTA Warrants		
1.3. Three or more Prior Jail Incarcerations		
0=No		
1=Yes		
1.4. Employed at the Time of Arrest		
0= Yes, Full-time		
1= Yes, Part-time		
2= Not employed		
1.5. Residential Stability		
0=Lived at Current Residence Past Six Months		
1=Not Lived at Same Residence		
1.6. Illegal Drug Use during Past Six Month		
0=No		
1=Yes		
1.7. Severe Drug Use Problem		
0=No		
1=Yes		

Total Score: _____

Scores	Rating	% of Failures	% of Failure to Appear	% of New Arrest
0-2	Low	5%	5%	0%
3-5	Moderate	18%	12%	7%
6+	High	29%	15%	17%

Appendix 3

Factor	Point Value
Charge Type – the most serious charge is a felony	1 point
Released Pending Trial – the defendant was on release status pending trial at the time of offense	1 point
Criminal History – adult criminal history includes at least one misdemeanor or felony conviction	1 point
History of Failure to Appear – defendant has two or more FTAs	2 points
History of Violent Convictions – defendant has two or more violent convictions	1 point
Length at Current Residence – defendant has lived at his or her current residence for less than one year	1 point
Student, Employed, Primary Caregiver, Retired, or Disabled – defendant was not a student, employed, a primary caregiver, retired, or disabled at the time of arrest	1 point
History of Drug Abuse – the defendant has a history of drug abuse	1 point

Once the risk score is calculated convert it to a risk level using the table below

Risk Score	Risk Level
0 – 2	Low
3 - 5	Average
6 - 9	High

ENDNOTES

1   van Eijk, G. (2020). Inclusion and Exclusion Through Risk-based Justice: Analysing Combinations of Risk Assessment from Pretrial Detention to Release. *The British Journal of Criminology*, 60(4), 1080-1097. https://doi.org/10.1093/bjc/azaa012

2   Picard-Fritsche, S., Michael Rempel, M., Tallon, J. A., Adler, J., & Natalie Reyes, N. (2017). *Demystifying Risk Assessment: Key principals and controversies.* Center for Court Innovation.

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4   Desmarais, S. L., & Lowder, E. M. (2019). *Pretrial Risk Assessment Tools: A Primer for Judges, Prosecuters, and Defense Attorneys. Safety and Justice Challenge.*

5   Henrichson, C., Schattner Elmaleh, E. K. B., Jacob, Hinds, O., & Wallace-Lee, J. (2019). *Incarceration Trends in Michigan*. Vera Institute of Justice.

6   Michigan Joint Task Force on Jail and Pretrial Incarceration. (2020a). *Promote Liberty and Public Safety in Pretrial Decision-making.*

7   Michigan Joint Task Force on Jail and Pretrial Incarceration. (2020b). *Report and Recommendations*. The State of Michigan.

8   St. John, V., Murphy, K., & Liberman, A. (2020). *Recommendations for Addressing Racial Bias in Risk and Needs Assessment in the Juvenile Justice System Child Trends.*

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10 Desmarais, S. L., & Lowder, E. M. (2019). *Pretrial Risk Assessment Tools: A Primer for Judges, Prosecuters, and Defense Attorneys. Safety and Justice Challenge.*

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13 Barabas, C., Dinakar, K., & Doyle, C. (2019, July 17). The Problems with Risk Assessment Tools. *The New York Times.*

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