

# ISSUE BRIEF

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## PRETRIAL RISK ASSESSMENT: SCIENCE PROVIDES GUIDANCE ON ASSESSING DEFENDANTS

Every day, criminal justice officials make decisions that have major implications for public safety and costs. Which defendants should be released pretrial and how should they be released, and which should be detained until adjudication? These decisions require an assessment of the risk that each defendant poses to be arrested on new charges or to fail to appear in court. Up until recently, jurisdictions all across the country have been limited to one of two approaches to making those assessments.

The first approach has been to use a money bond schedule, which is simply a list of all criminal charges and a corresponding dollar amount attached to each charge. The more serious the charge, the higher the corresponding bond amount. Money bond schedules presuppose that there is a strong link between the charge and pretrial risk.

The second approach has been through the use of intuition. Under this approach, pretrial release decision makers look at the factors that they believe to be related to higher risk and make their decisions accordingly. Officials in many jurisdictions using this approach have pooled the collective intuition of local decision makers to design what is known as a “consensus-based” pretrial risk assessment tool. While such consensus-driven tools promote consistency in pretrial release decision making, there remains no evidence that these tools are actually accurate predictors of pretrial risk.

In recent years, many jurisdictions have turned to science to see if there is any validity to the two existing approaches and whether a third, empir-

ically-derived approach could be developed. After a decade of studies, we now know the answers: money bond schedules and intuition-derived tools are poor predictors of risk, and empirically-derived tools can be accurate predictors of pretrial risk.

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**What is an empirically-derived pretrial risk assessment tool?**

An empirically-derived pretrial risk assessment tool is one that has been demonstrated through an empirical research study to accurately sort defendants into categories showing their likelihood of having a successful pretrial release—that is, they make all their court appearances and are not arrested on new charges.

**Why is it important to know a defendant’s risk level?**

A defendant’s risk level should be used to guide two decisions: 1) the decision to release or detain pretrial; and 2) if released, the assignment of appropriate release conditions, such as pretrial supervision. Recent research has shed new light on the importance of accurately assessing risks in making these decisions.

In one study, researchers found that low-risk defendants who were held in jail for just 2 to 3 days were 39% more likely to be arrested than those who were released on the first day. Those who were held 4 to 7 days were 50% more likely to be arrested, and those held 8 to 14 days were 56% more likely. The same patterns hold for medium-risk defendants held for short periods.<sup>1</sup>

That study also found that low-risk defendants who were held in jail throughout the pretrial period were 27% more likely to recidivate within 12 months than low-risk defendants who were released pretrial.<sup>2</sup>

Another study found that low-risk defendants who were detained pretrial were five times more likely to get a jail sentence and four times more likely to get a prison sentence than their low-risk counterparts who were released pretrial. Medium-risk defendants who were detained pretrial were four times more likely to get a jail sentence and three times more likely to get a prison sentence.<sup>3</sup>

Research has also indicated that putting conditions of non-financial release on low-risk defendants

actually increases their likelihood of failure on pretrial release. Rather, the most appropriate response is to release these low-risk defendants with no or minimal specific conditions.<sup>4</sup>

Other studies have found that higher-risk defendants who are released with supervision have higher rates of success on pretrial release. For example, one study found that, when controlling for other factors, higher-risk defendants who were released with supervision were 33% less likely to fail to appear in court than their unsupervised counterparts.<sup>5</sup>

These studies, taken together, demonstrate the longer-term implications of not accurately and quickly identifying, and then acting upon to mitigate, defendants’ risk.

Another reason to know a defendant’s risk score is to make the best use of scarce resources. It is a waste of money to over-condition people who do not need those conditions in order to comply. It is a good use of money to provide supervision in the community to someone who needs it, when compared to the cost of housing, feeding and providing medical care in jail. Supervision can cost \$3 to \$6 per day. The housing, feeding, medical care costs of jail, on the other hand, can cost approximately \$50 or more per day.

**What do these tools look like?**

A 2011 meta-analysis research study found that most validated pretrial risk tools contain similar risk factors.<sup>6</sup> Despite some slight differences in wording or weighting in scoring across the tools, these factors fall into one of two categories: “static” factors pertaining to criminal history/system involvement, and “dynamic” factors pertaining to stability/community ties. Factors in these two categories can be predictive of pretrial misconduct, and of the two, research shows the criminal history/system involvement factors are usually the stronger predictors. Table 1 shows factors common to six widely-used tools.

**Table 1: Factors in Pretrial Risk Assessment Tools**

	Virginia <sup>7</sup>	Colorado <sup>8</sup>	Kentucky <sup>9</sup>	Federal <sup>10</sup>	Florida <sup>11</sup>	Ohio <sup>12</sup>
Current charge	X			X	X	
Pending charges	X	X	X	X		
Previous convictions (misdemeanor and/or felony)	X		X	X	X	
Previous FTA	X		X	X	X	X
Violent conviction	X		X			
Residency (length, ownership, contribute, etc.)	X	X		X	X	X
Employment/student status	X			X	X	X
Current/history of drug or alcohol abuse	X	X		X	X	X
Working phone		X			X	
Age (current or at first arrest)		X		X	X	X
Active warrant		X	X			
Mental health		X			X	
On probation/parole			X			
Education				X		
Citizenship/foreign relations				X		
Marital status					X	
Previously incarcerated in jail or prison		X				X

**How are empirically-derived pretrial risk assessment tools developed?**

Developing an empirically-derived pretrial risk assessment tool is not typically a “do-it-yourself” project. The only exception would be if the jurisdiction has the requisite research expertise and ample data. So, the first thing that a jurisdiction that is serious about doing its own risk assessment study should do is to identify a qualified researcher.

If the jurisdiction has borrowed a validated tool from another jurisdiction, the researcher will design a methodology for validating that tool for the local defendant population. If the jurisdiction

currently does not use any such tool, the researcher will design a methodology for constructing an empirically-derived tool for the jurisdiction.

Regardless of whether the jurisdiction is validating an existing tool or constructing a new one, the researcher would likely begin by assessing the capacity of the system to produce the data that are needed to conduct the study. The first set of data relates to the outcomes: Was the defendant released during the pretrial period? If so, did the defendant fail to appear for any court dates or get arrested on new charges? For some jurisdictions, data on these basic outcomes can be difficult to capture, so careful attention to gathering accurate data is required.

The next set of data are the factors that need to be tested for their correlation with failure to appear or new arrest. These factors typically include: criminal history; history of appearance in court; existence of any pending cases; any current probation or parole status; the current charge; the defendant’s ties to the community (i.e., length of time in the area, time at current address, employment); and substance abuse or mental health issues. Researchers will usually try to test a wide range of such variables for their correlation with risk.

But establishing correlation is only the first step. The methodology will vary depending on whether the researcher is validating an existing tool or constructing a new one, but either way, researchers will then conduct multivariate tests, which will guide them in determining which combination of factors, and which weight to assign to each factor, produces the greatest predictive power.

There are a number of ways to accomplish the development of a locally valid tool. Local universities/researchers may have the capacity to develop a tool at reasonable cost. The US Department of Justice may provide assistance under grant or technical assistance programs.

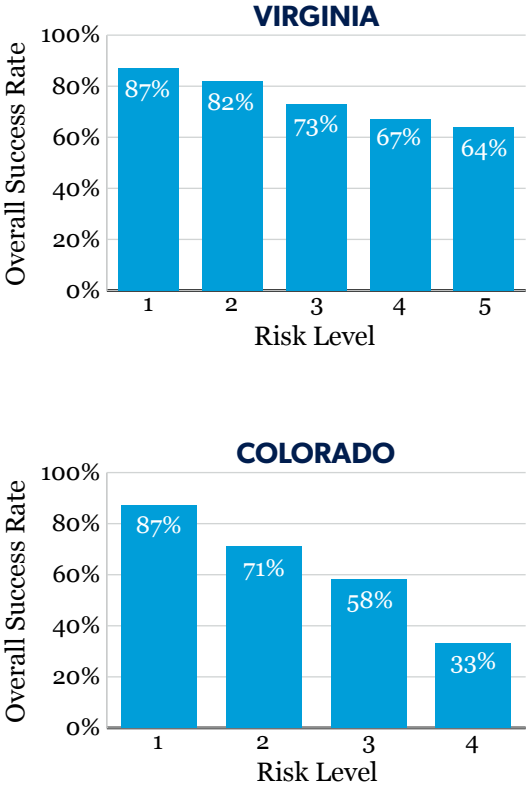
**What do pretrial risk tools tell us about typical success rates by risk level?**

When a defendant is scored on a pretrial risk tool, that score places the defendant into one of several (usually 3, 4, or 5) risk categories. A statistical likelihood of pretrial success is associated with each risk category. As the defendant’s risk score and associated risk category increase, the defendant’s statistical chance of pretrial success diminish. Figure 1 shows the overall expected success rates associated with different pretrial risk categories for two risk tools.

**How many places are using an empirically-derived pretrial risk assessment tool?**

At the turn of the 21st Century, only about a dozen or so local jurisdictions were using pretrial risk assessment tools that were developed using scientifically accepted research standards. However, over the subsequent decade, there was an explosion in the number of jurisdictions that used such tools. Some of these tools are still applicable to only a single local jurisdiction, but others have been developed for multiple localities or for statewide use. For example, there are empirically-derived statewide tools in Virginia, Ohio, Kentucky, Colorado, and an empirically-derived tool used nationwide in the federal courts.

**Figure 1: Overall Success Rates**



**How do we know that empirically-derived pretrial risk assessment tools work?**

Numerous studies have shown that empirically-derived pretrial risk assessment tools can accurately differentiate defendants’ risk. Jurisdictions that have implemented these tool have reported that released defendants’ actual success rates match very closely to the predicted success rates.

**Is there such a thing as a universal pretrial risk assessment tool—one that could be used in any jurisdiction?**

The Laura and John Arnold Foundation is currently in the final stages of developing such a tool. The tool is based on a study of about 750,000 cases of defendants released during the pretrial period from 300 different jurisdictions around the country. Based on that study, the Foundation has developed the Public Safety Assessment-Court (PSA-Court) tool. A unique feature of this tool is that it can be completed without any information that is typically obtained by interviewing the defendant. For example, there are no factors on the tool related to the defendant’s address or employment. The researchers found that including those factors in the tool did not improve its predictive power.

The PSA-Court has two important implications for jurisdictions that are not currently conducting pretrial risk assessment with an empirically-derived tool. First, given that this tool was tested in so many places around the country, any jurisdiction can feel confident that this tool is valid for them. Second, since the tool does not require information obtained from the defendant during an interview, jurisdictions that do not currently have the capacity to interview defendants before the bond-setting hearing need not worry about hiring new staff for this time-consuming purpose.<sup>13</sup>

The PSA-Court tool is currently being tested in several jurisdictions around the country, and should be available, free-of-charge, to all jurisdictions in the near future.

**What are the challenges and limitations of pretrial risk assessment?**

Pretrial risk assessment tools cannot predict with exact accuracy a specific individual’s future behavior. The tools are research-based guides to decisions courts must make. There will occasionally be a few lower-risk individuals who fail on pretrial release, and there will be some higher-risk individuals who succeed. However, these tools provide an objective, standardized way of assessing the likelihood of pretrial failure that research shows produces higher accuracy than subjective assessments by even the most experienced decision makers.

This does not mean that pretrial risk assessment tools should be used in place of professional discretion. The tool produces a score that can help anchor a decision, and occasional deviations, or overrides, can be expected. Nonetheless, overrides should be tracked and analyzed to ensure they are kept to a minimum and that they are not producing more detrimental outcomes.

These tools should be periodically revalidated to ensure their predictive validity. For revalidation to occur, jurisdictions must collect data similar to the data it collected to develop the tool—data on the individual predictive factors and data on defendant processing and outcomes, such as whether they are released pretrial, the quality and quantity of supervision and other release conditions, their pretrial behavior, and the disposition of their case.

Finally, pretrial risk assessment tools only measure defendants’ pretrial risk, and they do not measure defendants’ treatment or intervention needs that, when addressed, may improve a person’s longer-term chances of remaining crime free.

**How do pretrial risk tools differ from tools that assess needs or are used post-adjudication?**

Pretrial risk tools were developed for a different purpose than were tools that assess needs or that are used to inform post-adjudication sentencing decisions. While post-adjudication needs tools

assess convicted offenders’ treatment needs (e.g., social, behavioral) or their long-term risk for recidivism, pretrial risk tools only assess unsentenced defendants’ short-term pretrial risk to public safety and/or non-appearance in court; the only two things a court can lawfully consider when making the decision to release or detain pretrial and which release conditions to order for any given defendant. Because defendants are in a different legal status (i.e., unconvicted or unsentenced) than are sentenced offenders, the information on needs and from post-adjudication tools is not legally applicable to the court’s decisions about pretrial release/detention and release conditions. Furthermore, a defendant can have high needs (e.g., housing, employment, substance or mental health treatment), but still be low-risk for pretrial failure because research has shown that these “needs” characteristics have low relation to risk of failure during the shorter-term, pretrial period of the defendant’s case.

**What can stakeholders do?**

Criminal justice stakeholders—from elected county officials and sheriffs to judges and prosecutors—are putting research into action by collaborating to ensure their policies and practices match what research shows produces the best outcomes and are the most cost-effective. Over the past few years, jurisdictions have undertaken reviews of pretrial policies and procedures and implemented pretrial risk assessment tools. Some states have revised their statutes to mandate or recommend the use of empirically-derived pretrial assessment tools, while other states have implemented them through court rule. Finally, in some states, pretrial services programs from across the state have collaborated without changes to statute or court rule to voluntarily begin using pretrial risk assessment results as the foundation of the information they provide about defendants to the court.

**Citations**

1. Lowenkamp, C., VanNostrand, M., and Holsinger, A. (2013). *The Hidden Costs of Pretrial Detention*, Laura and John Arnold Foundation.
2. Ibid.
3. Lowenkamp, C., VanNostrand, M., and Holsinger, A., (2013). *Investigating the Impact of Pretrial Detention on Sentencing Outcomes*, Laura and John Arnold Foundation.
4. VanNostrand, M. and Keebler, G. (2009). Pretrial Risk Assessment in Federal Court. *Federal Probation*. Vol. 72 (2).
5. Lowenkamp, C. and VanNostrand, M. (2013). *Exploring the Impact of Supervision on Pretrial Outcomes*, Laura and John Arnold Foundation.
6. Bechtel, K., Lowenkamp, C., and Holsinger, A. (2011). Identifying the Predictors of Pretrial Failure: A Meta-Analysis, *Federal Probation*, Vol. 75 (2).
7. VanNostrand, M. and Rose, K. (2009). *Pretrial Risk Assessment in Virginia*.
8. Pretrial Justice Institute. (2012). *The Colorado pre-trial risk assessment tool (CPAT)*.
9. VanNostrand, M. and Lowenkamp, C. (2013). *Assessing Pretrial Risk without a Defendant Interview*, Laura and John Arnold Foundation.
10. *Federal Pretrial Risk Assessment Instrument: Version 2*. (2010).
11. Austin, J., Bhati, A., Jones, M. R., and Ocker, R. (2012). *Florida Pretrial Risk Assessment Instrument*, The JFA Institute.
12. Latessa, E., Smith, P., Lemke, R., Makarios, M., and Lowenkamp, C. (2009). *Creation and validation of the Ohio risk assessment system: final report*, University of Cincinnati.
13. Laura and John Arnold Foundation. (2013). *Developing a National Model For Pretrial Risk Assessment*.

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