In the last five years, legislators in all fifty states and many localities have made changes to their pretrial justice systems. Reform efforts aim to shrink jails by incarcerating fewer poor, low-risk defendants, and particularly, fewer racial minorities. Many jurisdictions are embracing pretrial risk assessment instruments — statistical tools that use historical data to forecast which defendants can safely be released — as a centerpiece of these changes. Scholars, system practitioners, advocates, and journalists are increasingly questioning the extent to which pretrial risk assessment instruments actually serve these goals. Existing scholarship and debate centers on how the instruments may reinforce racial disparities, and on how their opaque algorithms may frustrate due process interests.

In this article, we highlight three underlying challenges that have yet to receive the attention they require. First, today’s risk assessment tools make what we term “zombie predictions.” That is, the predictive models are trained on data from older bail regimes, and are blind to the risk-reducing benefits of recent bail reforms. This will lead to predictions that systematically overestimate risk. Second, the “decision-making frameworks” that mediate the court system’s use of risk estimates embody crucial moral judgments, yet currently escape public scrutiny. Third, in the longer term, these new tools risk giving an imprimatur of scientific objectivity to ill-defined concepts of “dangerousness”; pave the way for a possible increase in preventive detention; and may entrench the Supreme Court’s historically recent blessing of preventive detention for dangerousness.

We propose two vital steps that should be seen as minimally necessary to address these challenges. First, where they choose to embrace risk assessment, jurisdictions must carefully define what they wish to predict; must gather and use local, recent data; and must continuously update and calibrate any model on which they choose to rely, investing in data infrastructure where necessary to meet these goals. Second, instruments and frameworks must be subject to strong, inclusive governance.

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*Respectively, Policy Analyst, Upturn; Managing Director and co-founder, Upturn and Adjunct Professor of Law, Georgetown University Law Center. The authors are grateful to those who provided feedback and guidance on drafts of this Article, including Alvaro Bedoya, Robert Brauneis, Julie Cohen, Rebecca Crootof, Malcom Feeley, Brandon L. Garrett, William Isaac, John Monahan, Janet Haven, Daniel J. Hemel, Sarah Lustbader, Sandra Mayson, Paul Ohm, Andrew Selbst, Megan T. Stevenson, Annie J. Wang, and Rebecca Wexler; to participants in workshops at Georgetown University Law Center, the Information Society Project at Yale Law School, and the Data & Society Research Institute; and to many others who have helped shape and continue to stimulate our thinking, including Mark Houldin, Alec Karakatsanis, Kristian Lum, Hannah Sassaman, and, of course, all of our colleagues at Upturn. We are solely responsible for any remaining errors. Upturn receives substantial support from the Ford, MacArthur, and Open Society Foundations. Both authors are co-directors (with John Monahan and Kristian Lum) of the MacArthur Foundation’s Pretrial Risk Management Project, which provides practical guidance for practitioners on the issues that arise when quantitative risk assessment tools are incorporated into the pretrial decision-making process.
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INTRODUCTION

A. The Story of Springfield*

Springfield County has an open secret: It keeps many low-income people in jail who could safely be released. Two years ago, policymakers in Springfield joined a national trend, approving a suite of bail reform efforts that they hoped would dramatically reduce the jail population. Their goal was to hold in jail only the few defendants who are too risky to safely release, without needlessly subjecting many low-income defendants to the life-altering consequences of even a short jail stay.

The centerpiece of Springfield’s bail reform was its adoption of a popular pretrial risk assessment tool, which advises judges at arraignment. County leaders and local advocates believed that the tool would lead judges to release more defendants, would reduce existing racial disparities in the jailed population, and would reduce rearrest and missed court dates among those who are released.

Buoyed partly by their optimism about the new computer tool, policymakers also approved several new initiatives that strengthen alternatives to pretrial incarceration, including drug counseling, text message reminders of upcoming court dates, and ankle-worn GPS monitors that can be mandated in lieu of incarceration.

But the effects of Springfield’s bail reforms were not what local leaders hoped. Springfield’s average pretrial jail population remained the same, as did the average length of stay. The number of defendants jailed without any bail offer increased. The number of individuals with non-financial conditions of release, especially GPS monitoring, skyrocketed. Rearrest rates remained the same, while failure to appear rates rose slightly. And magistrate judges disregard the risk assessment tool’s recommendations in nearly half of cases. Nearly all of these departures are to detain someone who the tool had recommended for release.

Two years after what was supposed to be landmark reform, local leaders are left asking: What happened?

First, Springfield’s pretrial risk assessment tool has a numbers problem. The tool’s predictions are based on historic patterns in the combined data of many other jurisdictions, places that often had higher crime rates and offered little-to-nothing in the way of pretrial services, during the periods when the data was generated. Further, the tool’s predictions are neither tailored to Springfield nor updated to reflect the ways that Springfield’s other recent reforms have impacted pretrial risk. Taken together, these discrepancies have the perverse effect of not only making the accused in Springfield appear riskier than they truly are, continuing patterns of unneeded jailing and encouraging overuse of the new GPS monitors.

Second, there is a moral judgment at the heart of every risk assessment tool – namely, how to balance various risks with the liberty of the accused -- and Springfield’s leaders largely ignored that question. The “decision-making framework” — which converts raw risk assessment scores into proposed conditions

* An imaginary – but otherwise typical – U.S. jurisdiction.
of release — was treated as an afterthought, and in the end, the framework recommended far more defendants for detention than the community had hoped. As a result, the new tool’s recommendations, even if strictly adhered to by judges, would not have done much to help Springfield achieve its stated goal of decarceration.

Third, the pretrial risk assessment tool was proprietary. Defendants, lawyers, and judges were not able to understand what factors led an individual to be forecast as a high risk of rearrest. Further, given its proprietary nature, Springfield officials were unable to update the system’s underlying model with new pretrial release data.

B. Bail, Reform, and Risk Assessment

The parable of Springfield is fictional, but holds important lessons.

For nearly a century, scholars have charted how the American system of money bail needlessly jails low-income defendants, often derailing their lives, simply because they can’t afford to pay for release.¹ Today, recognizing this problem, legislators and courts in many jurisdictions are trying a wide range of reforms that replace or cabin money bail, aiming to ensure the defendant’s reappearance at trial and the protection of public safety without financial conditions. Reform steps are varied, and include drug diversion programs, GPS monitoring of people who are released, and “pretrial services” such as reminding defendants of upcoming court dates.

One popular reform — addressed in at least 20 laws in 14 states since 2012 — is the introduction of statistical risk assessment tools.² Such tools use historical data to describe how often defendants similar to the current one failed to appear for a court date, or were rearrested pending resolution of their cases.

Risk assessments are widely portrayed as progressive tools that will help shrink jails by releasing indigent, low-risk defendants who couldn’t afford to pay money bail. Last year, the National Association of Counties called on local officials to adopt risk assessment tools, and a cohort of prominent public defense and criminal defense groups called for “the use of validated pretrial risk assessment in all jurisdictions, as a necessary component of a fair pretrial release system.”³ This Article offers a different view.

¹ ARTHUR BEELEY, THE BAIL SYSTEM IN CHICAGO (1927).
Part I describes how America’s approach to money bail arose, the injustices that American bail practices have always entailed, and the challenges and reversals earlier reformers have faced. Part II describes today’s reform efforts, which are motivated by the enormous human and social costs that current bail regimes impose on defendants, their families, and their communities.

Part III explains the modern practice of pretrial risk assessment and describes three underlying challenges that have yet to receive the attention they require. First, today’s risk assessment tools make what we term “zombie predictions.” That is, the data on which predictions are based reflects different pretrial practices, older bail policy regimes, and different geography, so that the resulting predictions are blind to the benefits of local or recent reforms. Jurisdictions often do not even measure the changing landscape of actual risks their defendants face, let alone updating their forecasts of risk to reflect that changing landscape. We argue that these issues will lead many instruments to systematically overestimate risk, and we review early empirical evidence that suggests this may already be occurring. Second, the “decision-making frameworks” that mediate the court system’s understanding and use of risk estimates — for example, defining categories of “high risk” defendants and suggesting how they should be arraigned — embody crucial moral judgments and shape the impact of risk assessment tools, yet currently escape broad input and public debate. Together with exaggerated estimates of risk, harsh frameworks could easily undercut the apparent impact of other pretrial reforms. Third, the embrace of pretrial risk assessment instruments creates longer-term doctrinal and policy risks for advocates of bail reform. Specifically, these new tools risk giving an imprimatur of scientific objectivity to ill-defined concepts of “dangerousness”; pave the way for a possible increase in preventive detention; and may entrench the Supreme Court’s historically recent blessing of preventive detention for dangerousness.

Part IV proposes two vital steps that should be seen as minimally necessary to address these core challenges. First, where they choose to embrace risk assessment, jurisdictions must carefully define what they wish to predict; must gather and use local, recent data; and must continuously update and calibrate any model on which they choose to rely. As a result, many jurisdictions will need to invest in a robust data infrastructure in order to be able to wield prediction responsibly. Second, instruments and frameworks must be subject to strong, inclusive governance.

Part V concludes. We find that pretrial risk assessment instruments, as they are currently used, cannot safely be assumed to advance reformist goals of reducing incarceration and enhancing the bail system’s fairness. Early evidence remains sparse, and risk assessment instruments may yet prove themselves effective tools in the arsenal of bail reform. But they have not done so to date. Shifting to risk-based bail will not necessarily reduce incarceration. Without careful design and open governance, we believe it is likelier than not that these tools will perpetuate or worsen the very problems reform advocates hope to solve. Beyond improving the design and governance of risk assessment tools, participants in the bail reform debate may also wish to renew their focus on policies whose benefits are clearer, such as automatically releasing broad categories of misdemeanor defendants.

The United States has had money bail for more than a century, and reformers have been working for nearly as long to address its ills. Now that risk assessment
tools are becoming a widespread part of the pretrial landscape, basic justice and equity require a clear-eyed view of these tools, their limits, and how those limits can be addressed. We see this Article as a contribution to that effort.

I. America’s Contested Approach to Bail

A bail hearing has always involved a prediction, but what is being predicted has changed: Historically, the goal of a bail hearing was to ensure a defendant’s appearance for their trial, and the question was what it would take to ensure the defendant’s reappearance in court. Bail hearings have since evolved to incorporate — and in many cases to center on — predictions of a criminal defendant’s dangerousness — that is, the risk that he or she will commit future crimes if released.

The story of this turn toward dangerousness begins, improbably, with the civil rights movement and what commentators often call the “first generation” of bail reform. These reforms focused on eliminating inappropriate uses of pretrial detention, especially among poor defendants. The story ends after a second wave of bail changes, where the Supreme Court ultimately held that the Eighth Amendment provides individuals with no absolute right to bail.

The pendulum of policy change swung first toward more liberal release policies as part of the civil rights movement, then reversed as conservatives in the Nixon and Reagan years moved pretrial practice toward a “law and order” approach. Ultimately, this history demonstrates that risk assessment tools cannot safely be presumed to be instruments of decarceration, notwithstanding the widespread public hope that they will play that role.

4 Our framing is indebted to the work of other historians and scholars who have examined the critical role that the Johnson Administration played in, paradoxically, helping pave the way for the massive changes under the Nixon and Reagan administrations. See, e.g. Elizabeth Hinton, From the War on Poverty to the War on Crime: The Making of Mass Incarceration in America (2016), at 14, 134 (“By expanding the federal government’s power in the pursuit of twinned social welfare and social control goals, Johnson paradoxically paved the way for the anticrime policies of the Nixon and Ford administrations to be turned against his own antipoverty programs. Nixon merely appropriated the regressive aspects of the Johnson administration as his own …”)

5 This observation, of course, is not new. Writing in 1992, Malcom M. Feeley and Jonathan Simon detailed what they termed the “new penology” which replaced “a moral or clinical description of the individual with an actuarial language of probabilistic calculations and statistical distributions applied to populations.” In their view, “[t]he new penology is neither about punishing nor about rehabilitating individuals. It is about identifying and managing unruly groups. It is concerned with the rationality not of individual behavior or even community organization, but of managerial processes. Its goal is not to eliminate crime but to make it tolerable through systemic coordination.” Malcom M. Feeley & Johnathan Simon, The New Penology: Notes on the Emerging Strategy of Corrections and its Implications, 30 CRIM. 449, 452, 455 (1992); also see Eric Silver & Lisa L. Miller, A Cautionary Note on the Use of Actuarial Risk Assessment Tools for Social Control, 48 CRIM. & DELINQ. 138, 157 (2002)(arguing that “[i]nsufficient attention has been paid to the negative potential embodied in actuarial social control technologies that, in the name of science and safety, increasingly
A. The Origins of American Bail

Historically, American criminal defendants were generally presumed to have a right to bail — the right either to be released outright until their trial, or else to obtain release subject to some judicially imposed condition, usually financial. The exceptions to this general rule were capital cases, where the threat of execution was presumed likely to impel a defendant to flee the jurisdiction if released. In early American history, such release conditions typically took the form of a third-party “pledge” — someone known to the court who would be financially liable if the defendant failed to appear when required. “Bail historically served the sole purpose of returning the defendant to court for trial, not preventing her from committing additional crimes.”

Between the late 19th and early 20th century, the commercial bond industry superseded the personal surety system. Despite that watershed revolution, a bail hearing’s predictive goal remained the same: ensuring a defendant’s appearance. For example, in *Stack v. Boyle*, a 1951 Supreme Court case, the Court detailed how the commercial bail bond industry complemented the longstanding purpose of bail:

\[ \text{[t]he right to release before trial is conditioned upon the accused’s giving adequate assurance that he will stand trial . . . Like the ancient practice of securing the oaths of responsible persons to stand as sureties for the accused, the modern} \]

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6 This exception was longstanding. As William Blackstone wrote, “[f]or what is it that a many may not be induced to forfeit to save his own life?” See *William Blackstone, Commentaries on the Laws of England, in Four Books*. Notably, a substantial number of crimes in the 18th century were capital offenses. See, e.g. John N. Mitchell, *Bail Reform and the Constitutionality of Pretrial Detention*, 55 *Vir. L. Rev. 1223, 1227* (1969) ("...at the time the great majority of criminal offenses involving a threat of serious physical injury or death were punishable by death under state laws.")


8 First, the personal surety system that the United States adopted depended upon the sufficient availability of community members able to serve as sureties. The pace at which the United States grew — and the speed with which new communities formed — diluted the important community ties that made the personal surety click. Compounding this problem was a seemingly ever-expanding Western frontier, which only appeared to increase an individual’s likelihood of flight.

Second, changes in court practice contributed to the demise of the personal surety system. Arbitrary bail bond amounts continued to rise, often beyond what the defendant and his or her friends and family could pay on their own. On top of that, “courts began eroding historic rules against profiting from bail and indemnifying sureties, slowly ushering in the commercial bail bonding business at the end of the century.” These changes led states to experiment with new ways of ensuring a defendant’s appearance and administering bail, all of which “combined to give birth to a profession unique to the field of American criminal justice — the commercial money bail bond industry.” See Timothy R. Schnacke, Michael R. Jones, Claire M.B. Brooker, *The History of Bail and Pretrial Release*; also see Timothy Schnacke, *Money as a Criminal Justice Stakeholder: The Judge’s Decision to Release or Detain a Defendant Pretrial* (2014).
practice of requiring a bail bond or the deposit of a sum of money subject to forfeiture serves as additional assurance of the presence of an accused.9

A bail hearing’s officially narrow focus on ensuring a defendant would reappear at trial, however, was never the whole story. Unofficially, a defendant’s predicted dangerousness has always mattered to some degree, and it “was widely acknowledged that judges deliberately set unaffordable bail amounts on pretextual flight risk grounds so that dangerous individuals would be detained until trial.”10 By setting unattainable bail amounts — a practice known as sub rosa preventive detention — judges were able to keep defendants they believed to be dangerous from getting out of jail.11

Despite a recognition that judges sometimes did look to considerations other than flight risk in setting bail, the propriety of looking beyond flight risk was hotly contested. At the National Conference on Bail and Criminal Justice in 1964, the issue of preventive detention on account of a defendant’s perceived dangerousness was described as “[p]erhaps the most perplexing of all problems.”12 Some argued that the “jailing of persons by courts because of anticipated, but uncommitted crimes, is a concept wholly at war with the basic traditions of American justice.”13 Others argued that the “possibility of preventive detention should be a matter of discretion in cases where the welfare and safety of the public is in peril.”14

The debate would run for more than a decade and, in the end, transform bail.

B. The Civil Rights Era: Fighting to End Poverty Jailing

The early 1960s bail reform effort was tied to the larger movement for civil rights. It focused on the plight of poor defendants in crowded jails.15 The commercial bail bond industry, while promising to assist defendants in financial distress, in fact worked to create that distress, supporting widespread financial conditions and then charging steep up-front fees and collateral for their services.16

Civil-rights era reformers built their advocacy, in part, on empirical work that established two key findings: First, jails were overcrowded with defendants who

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9 Stack v. Boyle, 342 U.S. 1, 4-5 (1951) (emphasis added).
13 Id. at 170.
14 Id. at 164.
15 John S. Goldkamp, Danger and Detention: A Second Generation of Bail Reform, 76 J. CRIM. L. & CRIMINOLOGY 1, 2 (1985). See also, Jeffrey Fagan, Martin Guggenheim, Preventive Detention and the Judicial Prediction of Dangerousness for Juveniles: A Natural Experiment, 86 J. CRIM L. & CRIMINOLOGY 415, 417. (“The first reforms, in the 1960s, were aimed principally at eliminating the unregulated use of pretrial detention, primarily among poor defendants in urban jails. Reformers were critical of the conditions of confinement in American jails, the discriminatory setting of unaffordable bail for the urban poor and the indirect use of punitive detention.”)
16 Schnacke, Money as a Criminal Justice Stakeholder, at 31.
could not meet financial conditions of release. And second, defendants with community ties could in fact be released safely, even when they could not afford to pay bail.  

These findings were not necessarily new. As early as 1927, a seminal report on Chicago’s bail system had detailed how poor defendants languished in pretrial detention solely because they could not pay small bail amounts. Similarly, a 1954 study of bail in Philadelphia found that the “practical effect of Philadelphia’s methods for determining the amount of bail is to deny bail to . . . a substantial proportion of those charged with lesser crimes [and helps] explain[n] the chronic overcrowding in the untried department of the County Prison.” Concern over New York’s money bail system led the Vera Institute of Justice to design and implement the 1961 Manhattan Bail Project, which demonstrated that defendants with strong community ties could be released on their own recognizance without increasing rates of failure to appear.

These two general findings — that jails were overcrowded by defendants who could not meet financial conditions of release, and that defendants with community ties could be released safely — spurred reform efforts that sought to minimize cash bail on the one hand, and increase the use of release alternatives on the other.

In 1966 Congress responded by passing the Bail Reform Act — nearly unanimously — in order to “assure that all persons, regardless of their financial status, shall not needlessly be detained” pretrial. The Act sought to promote release on recognizance, and minimize reliance on money bail. It established that a defendant’s financial status should not be a reason for denying their pretrial release, made clear that the risk of nonappearance at trial should be the only criterion considered when bail is assessed, and mandated that non-capital defendants be released with the least restrictive set of conditions that would ensure their appearance at trial. The Act also generally forbid judges from treating a defendant’s dangerousness or risk to public safety as a reason for detention.

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17 The Manhattan Bail Project found that, after three years of operation, 65 percent of interviewees/arrestees could be safely released pretrial with only one percent of them failing to appear for trial.
20 Timothy Schnacke, Michael Jones, Claire Booker, The History of Bail and Pretrial Release, Sept. 24, 2010, at 10. (“The project generated national interest in bail reform, and within two years programs modeled after the Manhattan Bail Project were launched in St. Louis, Chicago, Tulsa, Washington D.C., Des Moines, and Los Angeles.”)
22 In making the determination that an individual would be likely to appear in court, the Act allowed judges to consider a wide range of factors, including the defendant’s “character, physical and mental condition, family ties, employment, financial resources, length of residence in the community, community ties, past conduct, history relating to drug or alcohol abuse, criminal history and, record concerning appearance at court proceedings.
24 In United States v. Leathers, the D.C. Circuit Court of Appeals held that the structure of the 1966 Act and “its legislative history make it clear that in noncapital cases pretrial
There were, however, three key exceptions: In capital cases, a defendant not yet convicted could explicitly be detained on grounds of “danger to any other person or to the community,” as could convicted defendants awaiting sentencing, or pending an appeal. These exceptions represented the first time in American history that a law authorized a judge to consider dangerousness as a legitimate reason to deny bail.

Critically, by allowing consideration of future dangerousness for a limited set of defendants, the Act opened a new door: If judges could consider future dangerousness for capital defendants, why not for other defendants, too? Were the circumstances so different? By allowing judges to consider future dangerousness for one set of defendants, the new law legitimated the project of judicial predictions of dangerousness.

C. The 1970s and 1980s: Reversing Course to Address “Dangerousness”

Shortly after these reforms arrived, the political consensus shifted decisively in the opposite direction. Rising crime rates fed a perception that earlier efforts had focused too much on the welfare of the defendant, and not enough on the welfare of detention cannot be premised upon an assessment of danger to the public.” United States v. Leathers, 412 F.2d 169, 171 (D.C. Cir. 1969). That’s because “only limited consideration was given to the protection of society from crimes which might be perpetrated by persons released under the Act; in fact, Congress specifically postponed consideration of those issues relating to crimes committed by persons released pending trial.” Warren L. Miller, The Bail Reform Act of 1966: Need for Reform in 1969, 19 Cath. U. L. Rev. 24, 32 (1969).


John B. Howard, The Trial of Pretrial Dangerousness: Preventive Detention after United States v. Salerno, 75 Vir. L. Rev. 639, 645 (1989) (“Although some argued that the exception simply recognized the unique temptation of the capital defendant to flee, others justified the exception by point to the dangers to the community of releasing a capital defendant. This latter argument, coupled with the view that bail is a statutory and not a constitutional right, formed the foundation of the argument in favor of the constitutionality of preventive pretrial detention.”)

(“The unprecedented rise in incarceration rates can be attributed to an increasingly punitive political climate surrounding criminal justice policy formed in a period of rising crime and rapid social change.”) NRC, The Growth of Incarceration in the United States: Exploring Causes and Consequences, Committee on Causes and Consequences of High Rates of Incarceration, J. Travis, B. Western, and S. Redburn, Editors. Committee on Law and Justice, Division of Behavioral and Social Sciences and Education.
the public. Commentators observed that crimes committed by individuals released pretrial remained a significant problem, in spite of the 1966 reforms.

Civil unrest during the mid-to-late 1960s played a critical role in shifting perspectives. Across the country, prosecutors and courts adopted ad hoc policies of preventive detention to “safeguard” the community from further unrest. The 1968 Kerner Commission even recommended that, under emergency conditions like civil disorder, the judiciary should have pretrial plans and procedures “which permit separation of minor offenders from those dangerous to the community, in order that serious offenders may be detained.” In many ways, the judicial response to civil unrest in 1967 and 1968 not only further normalized the task of predicting dangerousness, but also preventive detention more broadly.

Against this backdrop, President Nixon — elected in November 1968 — included in his “War on Crime” a call for “temporary pretrial detention . . . [for

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29 The recidivism problem might have been overstated. Statistics from 1968 in D.C. show that 153 people were rearrested out of 1,540 released pending trial, about 10 percent. But this rate is not wildly out of line with today’s levels of recidivism upon release. This rate is actually lower than what some jurisdictions experience today.

30 Here, the perception of pretrial recidivism mattered as much as — if not more — than reality. In 1969, Alan Dershowitz noted that the “net result of bail reform [from 1966] has been that more criminal defendants spend more time out on the street awaiting their trials than ever before. This has led to an increase — or at least the appearance of an increase — in the number of crimes committed by some of these defendants.” Alan M. Dershowitz, “On ’Preventive Detention,’” NY REV. BOOKS, March 3, 1969.


33 In fact, civil unrest during the mid-to-late 1960s played a direct role in these changes. The 12th Street Riot in Detroit, Michigan, is an illustrative example. On July 23, 1967, police raided an unlicensed speakeasy, where nearly 100 people were celebrating the return of two black servicemen from Vietnam. Soon, a riot started, sparked by rumors of police abuse. The riot lasted for five days, left 43 people dead, over 1,000 injured, and more than 7,000 arrested. In response to the disorder, Detroit’s public prosecutor stated that his office would ask for prohibitively high bonds on all those arrested “so that even though they had not been adjudged guilty, we would eliminate the danger of returning some of those who had caused the riot to the street during the time of stress.” One Detroit judge was quoted as saying that in cases like this, “[w]e will … allocate an extraordinary bond. We must keep these people off the streets. We will keep them off.” See, William A. Dobrovir, Preventive Detention: The Lesson of Civil Disorders, 15 VILL. L. REV. 313, 317, 1970, citing The Administration of Justice in the Wake of the Detroit Civil Disorders of July 1967, 66 Mich. L. Rev. 1542, 1549-50 (1968). (emphasis added); also see Editors, Criminal Justice in Extremis: Administration of Justice During the April 1968 Chicago Disorder, 36 U. CHI. L. REV. 455, 576 (1969). The April 1968 riots which dominated Washington, D.C., also temporarily brought a new standard for determining whether or not an arrestee should be released before trial: “whether in the judge’s view he was likely to contribute to further disorder, to commit further offenses.” See Dobrovir, Preventive Detention, at 322.

34 Report of the National Advisory Commission on Civil Disorders, Summary of Report, at 17.
people whose] pretrial release presents a clear danger to the community.”

Citing high-profile crimes committed in D.C. and other cities by defendants released pretrial, the Nixon administration played a key role in raising the issue’s profile. Of course, the focus of Nixon’s campaign and administration was never really on crime *per se* — race, more than anything, loomed large behind Nixon’s “War on Crime.”

In 1969, President Nixon’s Attorney General John Mitchell made the public argument for the necessity of preventative detention. Critically, he did so by drawing upon and exploiting logic of the 1966 Bail Reform Act. For example, Mitchell observed that the 1966 Act “specifically permits pretrial detention of defendants who are charged with capital crimes and are considered likely either to flee or pose a danger to the community.”

Next, Mitchell pointed out that no serious constitutional objection had been lodged against the practice of predicting a capital defendant’s future dangerousness. Finally, he noted that “objections to pretrial detention of dangerous defendants on the ground that it is improper to confine those not yet convicted apply with equal force to existing pretrial detention practices—detention because of risk of flight or of dangerous capital offense defendants.”

Above all, Mitchell argued that society had an equal right to assure that “those charged with noncapital but dangerous crimes will not expose the community to unreasonable risks of danger prior to trial” and that, in making those predictions, “due process of law requires fundamental fairness, not perfect accuracy.”

Many objected to this line of argument, but Mitchell’s arguments carried the day. Though the underlying philosophies motivating policy change could not have

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38 While the “southern strategy” is a historically problematic term, as both Republicans and Democrats had associated “blackness” with criminality, Nixon’s southern strategy was unique in that “rested on politicizing the crime issue in a racially coded manner. Effectively politicizing crime and other wedge issues—such as welfare—would require the use of a form of racial coding that did not appear on its face to be at odds with the new norms of racial equality.” See, e.g., The Growth of Incarceration in the United States: Exploring Causes and Consequences, 116.
40 Id.
41 Id. at 1241-1242.
42 The American Bar Association argued that courts could not “with any degree of tolerable accuracy predict in advance the defendants who will commit a further crime.” See American Bar Association, “ABA Opposes Preventive Detention in Congressional Testimony,” Section of Individual Rights and Responsibilities Newsletter, Vol. 1, No. 2 (December 1969). An ABÄ committee considering the issue expressed “serious misgivings,” on the proposals, noting that the “purpose of bail is to insure the defendant’s presence at the time of trial. William H. Erickson, The Standards of Criminal Justice in a Nutshell, 32 La. L. Rev. 377 (1972); Laurence Tribe and other scholars replied in part that a scheme authorizing pretrial detention based on future danger “has all the vices inherent in a law that makes the crime fit the criminal.”
been more different, Nixon-era reformers exploited the logic and toolkit of reforms driven by civil rights leaders for their own purposes.

Soon, a second generation of bail changes swept state and federal courts, enlisting judges en masse in the work of predicting defendants’ dangerousness. The 1970 District of Columbia Court Reform and Criminal Procedure Act (“The D.C. Act”) represented the first legislative move in this second wave of reform efforts, reaching outside the context of capital cases to allow “judges to detain a defendant pretrial without setting any bail if the defendant was deemed dangerous to society.”

The D.C. Act had an immediate impact across the country: within eight years of its enactment, almost half of all states passed legislation pointing to danger as a factor in bail decisions. By 1984, the number of laws passed had grown to 34. Four states — Nebraska and Texas in 1977, Michigan in 1978, and Wisconsin in 1981 — amended their state constitutions to allow denial of bail to defendants deemed to be dangerous.

Meanwhile, at the national level, a progression of Supreme Court cases — including Jurek v. Texas, Bell v. Wolfish, Barefoot v. Estelle, and Schall v. Martin — led the Court to credence predictions of future dangerousness, and approve the pretrial detention of allegedly dangerous defendants, even when they did not pose a flight risk.


Id. at 506.

Id. at 506.


Jurek v. Texas 428 U.S. 262 (1976) did not involve bail or pretrial detention. In upholding the Texas death penalty statute, the Supreme Court concluded that predictions of dangerousness are “an essential element in many of the decisions rendered throughout our criminal justice system. The decision whether to admit a defendant to bail, for instance, must often turn on a judge’s prediction of the defendant’s future conduct.” Importantly, the Court observed that though “[i]t is, of course, not easy to predict future behavior,” the “fact that such a determination is difficult, however, does not mean that it cannot be made.”; Bell v. Wolfish, 441 U.S. at 539 (1979) considered the conditions of confinement for pretrial detainees at the Metropolitan Correctional Center (MCC) in New York City. In finding that the MCC’s conditions of confinement did not infringe on a pretrial detainee’s constitutional rights, the Court held that “due process only requires that pretrial detainees be free from ‘punishment,’ rather than from a restraint of liberty.” The Court noted that punishment does not exist pretrial if an action is “reasonably related to a legitimate governmental objective.” “[I]n addition to ensuring the detainees’ presence at trial, [other objectives] may justify [the] imposition of conditions and restrictions of pretrial detention and dispel any inference that such restrictions are intended as punishment.”; in Barefoot v. Estelle, 463 U.S. at 916 (1983) the Court authorized contentious expert testimony about dangerousness in a capital case, further illustrating a growing openness toward predictions of future criminality. Schall v. Martin, 467 U.S. 253 (1984) upheld a New York state statute that authorized the preventive detention of juvenile delinquents. Echoing the sentiments of Jurek, Chief Justice Rehnquist noted that, “from a legal point of view there is nothing inherently unattainable about a prediction of future criminal conduct” and that the Court had “specifically rejected the contention … that it is
The Reagan administration — with overwhelming Democratic support — pushed these changes further, relying on similar tactics and rhetoric as the Nixon administration.\textsuperscript{48} The eventual 1984 Bail Reform Act became law with broad support.\textsuperscript{49} It “made public safety a central concern in the judicial officer’s choice [among] . . . pretrial custody options.”\textsuperscript{50} For the first time at the federal level,\textsuperscript{51} judges were asked to predict the danger a defendant’s release posed to the community.\textsuperscript{52} By 1984, “dangerousness” was included as a factor in bail decisions under federal law and in nearly two-thirds of the states.

But these laws suffered from a common ailment: how to define “danger.” Clues from the federal law pointed to a fairly broad definition of what “counted.” For example, the Senate Committee on the Judiciary’s report noted that “the risk that a defendant will continue to engage in [drug] trafficking constitutes a danger to the safety of any other person or the community.”\textsuperscript{53} Even the risk of non-violent crimes, such as those against property, satisfied this expansive “danger” standard.


\textsuperscript{49} Senators Kennedy and Biden, for example, were in strong agreement with the Reagan administration that federal bail law needed to be overhauled. For example, Senator Kennedy noted that, “With respect to bail, judges must be permitted by law to consider the dangerousness of a defendant in determining whether and under what conditions to permit release on bail.” Senator Biden noted that “When this package is signed into law, criminals who are found to be dangerous will no longer be free on bail to walk to streets and commit other crimes.” 130 \textit{CONG. REC. S13,063} (daily ed. Oct. 4, 1984) (statement of Sen. Joseph Biden).

\textsuperscript{50} \textit{Danger and Detention}, 42.

\textsuperscript{51} \textit{See}, e.g., (“The 1984 Act marks a radical departure from former federal bail policy. Prior to the 1984 Act, consideration of a defendant’s dangerousness in a pretrial release decision was permitted only in capital cases . . . Under the new statute judicial officers must now consider danger to the community in all cases in setting conditions of release.”) \textit{United States v. Himler} 797 F.2d 156, 159 (3d. Cir. 1986)

\textsuperscript{52} Notably, the legislative history of the 1984 law demonstrates that Congress clearly understood they were transforming the fundamental premise of bail. \textit{See}, e.g., Curtis E. Karnow, \textit{Setting Bail for Public Safety}, 13 \textit{Berk. J. of Crim. Law}, 1, 7 (2008).

Across the board, laws consistently failed to provide specific standards to determine whether a defendant was “dangerous” and the terms “threat,” “danger,” and “public safety” were defined in less than half of the laws that made reference to those terms.54 Eventually, in 1987, the Supreme Court upheld the Bail Reform Act of 1984 as constitutional, and in turn, sanctioned preventive detention and the trend towards predictions of dangerousness pretrial. In United States v. Salerno, the Court held that the Eighth Amendment does not grant an individual an absolute right to bail, that the denial of bail on the basis of dangerousness does not violate the Eighth Amendment, and that pretrial detention was a regulatory act, not punishment. In just over two decades, the judge’s predictive task in a bail hearing was fundamentally transformed. By 1987, states were passing laws mandating that “public safety be the primary [predictive] consideration” at a bail hearing.55 Throughout this period, conservative-minded reformers publicly argued that their set of bail reforms would make bail more honest by eliminating sub rosa detention through high bail. But more than three decades later, “after federal and state statutes were rewritten . . . [to] perm[i]t judges to order dangerous defendants to be detained, money bail is still used as a back-door means to manage dangerousness.”56

In fact, what began in the mid-1960s as an effort to reduce poverty-based pretrial detention ended in the mid-1980s with a law that led to immediate — and lasting — increases in pretrial detention.57 In our view, this was no accident. Bail reform’s pivot in the late 1960s from a focus on unnecessary pretrial detention, to a focus on widespread prediction of dangerousness, took a mere two years. Critically, this pivot relied — in large part — on law and order reformers successfully subverting the logic and tools of previous liberal reform efforts. That current reform efforts bear a striking similarities to those discussed here should caution liberal reformers. 58

54 Preventive Detention, 418; Danger and Detention 17 - 23. (“The vagueness of danger definitions in pretrial laws are made more problematic by the manner in which they are framed.” Danger references spanned from provisions making some defendants unbailable, to provisions discussing conditions of release, to provisions discussing specific factors to be considered in assessing bail. )
55 Setting Bail for Public Safety, at 8.
57 The U.S. Marshals Service found that there was “a 32 percent increase in prisoner population … during the first year after its passage.” See, Riley, “Preventive Detention Use Grows — But Is It Fair?” Natl. L. J., Marc. 24, 1986, at 1, 32. Three years later, a General Accounting Office report found that “the 1984 Bail Reform Act led to a “greater percentage of defendants remained incarcerated during their pretrial period under the new law than under the [1966] law.” See, U.S. General Accounting Office, Report to the Chairman, Subcommittee on Courts, Civil Liberties, and the Administration of Justice, Committee on the Judiciary, House of Representatives, Criminal Bail: How Bail Reform Is Working in Selected District Courts, October 1987, at 18
58 See infra Part II.C
II. BAIL IN PRACTICE TODAY

Across the country, after someone is arrested, they appear at a bail hearing. Sometimes the defendant appears in court via videoconference from jail. Other times, defendants, en masse, sit in a makeshift courtroom in a jail for their arraignment. Specific practices vary widely from jurisdiction to jurisdiction. Nevertheless, at the bail hearing, the law generally asks a judge or other magistrate to assess the risk that a defendant, if released before trial, will flee the jurisdiction, or whether the defendant would pose a danger to the community if released. The judge is asked to order the least restrictive set of conditions needed to ensure the defendant’s appearance at future court dates and does not harm the community in the meantime.59

If a judge predicts, or a bail schedule requires, that no feasible combination of conditions could adequately ensure the defendant’s appearance for their trial, nor protect public safety, then that individual is non-bailable, or not eligible for release before trial. These defendants will be remanded to custody, and will wait in jail until their trial or other resolution of their case. On the other hand, if a judge believes that the defendant will appear for trial and doesn’t think the defendant will be a danger to the community if released, or that some set of conditions would ensure either, then that individual is bailable and eligible for some form of pretrial release. Complicating matters, in some jurisdictions a judge is constrained by a bail schedule, where certain crimes merit certain statutorily determined conditions.

There are three basic approaches to release:

1. Release on personal recognizance (sometimes called “ROR”): The defendant promises to reappear for his or her future court dates with no judicially-imposed restrictions or conditions.
2. Conditional release: The defendant is released with non-monetary conditions, such as a requirement to check in with a pretrial services agency, undergo drug treatment, or wear a GPS monitoring anklet.
3. Release on bond: A set financial obligation is defined that the defendant will have to pay if she fails to return to court when required. A secured bond means the defendant must pay the amount up front, in order to be released from jail, while an unsecured bond means that the defendant is released without paying, but will become liable for the defined amount if she fails to appear in the future.

Judges can also combine an offer of conditional release with a financial bond.

Even when a judge sets a condition of release, the defendant still may not be freed before trial. For example, when a secured bond amount is set, the defendant remains in jail unless and until that money is given to the authorities. Many jurisdictions abide by a “10 percent” rule, where defendants only need to post 10 percent of a bond in order to secure their release that day. Funds can come from the defendant directly; a friend, relative or community member, or bail fund; or from a commercial bail bondsman (more on that below). But across the country, low

59 Again, practices can vary widely across jurisdictions. We only generalize the process for the sake of clarity.
income defendants struggle and are often unable to raise the necessary funds. Even though a judge has approved a path for their release, they remain in jail.

A. Motivations for Reform

Bail decisions can upend people’s lives. Before a trial has begun, without any finding of guilt, a judge may nonetheless deprive the defendant of her liberty, or impose a range of other burdens, during the weeks, months, or years that may pass until guilt or innocence is finally determined. Those who are denied bail, or who are offered it on terms they cannot afford, have to stay in jail until trial. While they wait, they often lose their jobs, face eviction from their homes on the outside, and otherwise watch their lives crumble.

Pretrial detention plays a central role in America’s globally extraordinary patterns of incarceration. On any given day in the United States, more than 400,000 individuals are detained and awaiting trial. The total population estimated to be in local jails nationally is up about 20 percent since 2000, and 95 percent of that growth is attributable to people awaiting trial.

Two specific motivations deserve to be highlighted. First, the longstanding ills of money bail remain. Inability to pay bail is the primary reason why pretrial defendants stay in jail until the disposition of their cases. Compounding the problem, the proportion of felony defendants subject to some financial condition for their release has skyrocketed. From 1990 to 2009, the overall percentage of felony cases involving some sort of financial condition for release rose from just over one-third to nearly two-thirds of all releases. Meanwhile, the fraction of outright releases (without conditions) declined apace.

Second, and relatedly, the human cost of pretrial detention is staggering. A growing body of research indicates that pretrial detention itself directly increases the probability of worse case outcomes for the defendant — meaning a guilty plea or conviction at trial. Further, recent research shows that pretrial detention worsens

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62 The most recent statewide data available shows that 38 percent of felony defendants in the largest 75 counties were detained until the end of their case. Of that group, about 90 percent were detained because they were unable to meet the financial conditions offered for release. The percentages are essentially the same for felony defendants in state courts, too. See, Brian Reaves, Felony Defendants in Large Urban Counties, 2009 - Statistical Tables (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2013) at 15; also see Thomas Cohen, Brian Reaves, Pretrial Release of Felony Defendants in State Courts, State Court Processing Statistics, 1990-2004 at 2.
63 From 1990 to 2009, the overall percentage of felony cases involving some sort of financial condition for release rose from just over one-third to nearly two-thirds of all releases. Meanwhile, the fraction of outright releases (without conditions) declined apace. See, Reaves, Felony Defendants in Large Urban Counties, 2009, at 15.
64 Kristian Lum, Mike Baiocchi, The causal impact of bail on case outcomes for indigent defendants, July 15, 2017, at 1, 4. (“It has long been observed that those who are detained pre-trial are more likely to be convicted … but only recently have formal causal inference methods been brought to bear on the problem of determining whether pre-trial detention causes a higher likelihood of conviction. In each case where causal inference methods were used, a statistically significant effect was found.”) (“We find a strong causal relationship between setting bail and the outcome of a case … for cases
the risks that judges aim to predict. That is, pretrial detention itself leads to higher rates of pretrial rearrest, more failures to appear, and greater long-term recidivism than the same defendants would have shown if immediately released.\textsuperscript{65} This finding has significant import for our core thesis, discussed \textit{infra} Part \textsc{III.B.2}, \textsc{B.3}.

\textbf{B. The Shape of Current Reforms: Away from Money, Toward Risk}

Today’s reform efforts mark what some call the third generation of bail reform.\textsuperscript{66} The pace of reform is rapid, and the shape of reforms is varied. A central goal of most of these efforts is to move pretrial justice systems toward a risk-based model.\textsuperscript{67}

In many states, legislatures are the first movers of reform. Since 2012, over 500 bills across all 50 states were enacted related to pretrial justice, including financial and non-financial conditions for release, pretrial services and supervision, diversion programs, citation in lieu of arrest, and victim support and services.\textsuperscript{68} In 2016, 44 states enacted nearly 120 laws related to pretrial administration. Almost two-thirds of those states enacted some sort of law related specifically to pretrial diversion.

Twelve states, the District of Columbia, and the federal government have enacted a statutory presumption that defendants charged with bailable offenses be released on personal recognizance or unsecured bond “unless a judicial officer makes an individual determination that the defendant poses a risk that requires more restrictive conditions or detention.”\textsuperscript{69} Six more states have done so by court rule.\textsuperscript{70}

Recent proposed or enacted legislation directly targets money bail, too. In June 2017, Connecticut passed legislation which barred “cash-only” bail for certain crimes and prohibits courts from imposing a financial condition of release on defendants charged with only a misdemeanor crime.\textsuperscript{71} New Jersey’s comprehensive

\footnotesize{\begin{itemize}
\item for which different judges could come to different decisions regarding whether bail should be set, setting bail results in a 34% increase in the chances that they will be found guilty.” \textit{See also} Emily Leslie, Nolan G Pope, \textit{The Unintended Impact of Pretrial Detention on Case Outcomes: Evidence from NYC Arraignments} (2016); Megan Stevenson, \textit{Distortion of justice: How inability to pay affects case outcomes} (2016).
\item Schnacke, \textit{Fundamentals of Bail}, 36.
\item Conference of State Court Administrations, 2012-2013 Policy Paper Evidence-Based Pretrial Release, Final Paper, at 3.
\item Id.
\end{itemize}}
bail reforms took effect in January 2017, virtually eliminating cash bail across the state. Illinois enacted legislation in June 2017 that requires judges to use the least restrictive conditions to assure a defendant’s appearance, with a presumption that any conditions of release would be non-monetary. In early 2017, New Orleans’ City Council passed an ordinance eliminating cash bail for defendants charged with minor, non-violent crimes. A new rule promulgated by Maryland’s Court of Appeals, which instructs judges to first look to non-financial conditions of release, went into effect on July 1, 2017, after the legislators in the state failed to pass new legislation before their session ended. Atlanta’s city council passed an ordinance eliminating a cash bond requirement for low-level offenses. Alaska enacted new reforms that eliminate money bail for most defendants, and multiple New York City district attorneys have ordered prosecutors to not request money bail in most cases.

Among the most popular reforms are policies that introduce or expand pretrial services and, in turn, either introduce or expand actuarial risk assessment. Since 2012, at least twenty laws in 14 states either created or standardized the use of pretrial risk assessment. In 2014 alone, eleven laws were passed to regulate how risk assessment tools were used pretrial. Almost half of the states that passed laws relating to pretrial services between 2012 and 2014 authorized or created statewide

Three exceptions exist to the new misdemeanor release rule: if (1) person is charged with a family violence crime, (2) if a person requests such conditions, or (3) court makes a finding on the record that there is a likely risk that the arrested person will fail to appear in court, will obstruct or attempt to obstruct justice, or threaten, injure or intimidate or attempt to threaten, injure or intimidate a prospective witness or juror, or the arrested person will engage in conduct that threatens the safety of himself or herself or another person.

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pretrial service programs.\textsuperscript{80} Cities and counties across the country have experimented with pretrial risk assessment—some develop their own tool, others implement or purchase another tool.\textsuperscript{81}

Among policymakers, actuarial tools enjoy broad support across the political spectrum. The American Bar Association specifically recommends that judges use actuarial models in making bail determinations.\textsuperscript{82} A cohort of prominent public defense and criminal defense groups recently called for “the use of validated pretrial risk assessment in all jurisdictions, as a necessary component of a fair pretrial release system.”\textsuperscript{83} The National Association of Counties recently adopted a resolution calling on the U.S. Department of Justice to advise state and county governments to adopt pretrial risk assessment and eliminate commercially secured bonds.\textsuperscript{84} The Conference of State Court Administrators (COSCA)\textsuperscript{85} and the Conference of Chief Justices have both called for the use of risk assessment.\textsuperscript{86}

But a growing chorus of advocates have begun to raise some objections. For example, Human Rights Watch argues that pretrial risk assessment tools should be opposed “entirely.”\textsuperscript{87} Over a hundred community and advocacy groups in New York recently argued that pretrial risk assessment tools will “further exacerbate racial bias in [the] criminal justice system” and that the tools will “likely lead to increases in pretrial detention in the state.”\textsuperscript{88} Early evidence on the impact of risk assessment is limited, but nascent. A recent study of Kentucky’s bail reforms by Megan Stevenson found that a new risk assessment tool and other policy reforms “led to only a trivial increase in pretrial release” and, simultaneously, “an uptick in failures-to-appear (FTAs) and pretrial crime; a disappointing counter to hopes that all three margins could be improved simultaneously.”\textsuperscript{89}

\textsuperscript{80} Id. at 3.
\textsuperscript{82} American Bar Association, ABA Standards for Criminal Justice: Pretrial Release, Standard 10-1.10.
\textsuperscript{83} These included the American Council of Chief Defenders, Gideon’s Promise, the National Association for Public Defense, the National Association of Criminal Defense Lawyers, and the National Legal Aid and Defenders Association.
\textsuperscript{85} Conference of State Court Administrators, 2012-2013 Policy Paper Evidence-Based Pretrial Release, Final Paper.
\textsuperscript{86} Conference of Chief Justices Resolution 3, Endorsing the Conference of State Court Administrators Policy Paper on Evidence-Based Pretrial Release, Adopted as proposed by the CCJ/ COSCA Criminal Justice Committee at the Conference of Chief Justices 2013 Midyear Meeting on January 30, 2013.
III. THE CHALLENGES OF PRETRIAL RISK ASSESSMENT

Despite pretrial risk assessment’s broad and enthusiastic adoption, there are significant reasons for caution. Some of these reasons are underappreciated in the public debate. Existing skepticism about the adoption of pretrial risk assessment tools centers on concerns of racial bias and on due process inequities, both of which are substantial concerns.\(^\text{90}\)

We believe that these debates, important and valuable though they are, have contributed to a lack of discussion of a more basic tension between statistical prediction and bail reform. On the one hand, in order to change a broken system, policymakers enact and implement policies that work to reduce the risk of failure to appear and rearrest. On the other hand, policymakers ask statistical tools — which are based on data from the very same broken system under reform — to forecast those very same risks. As a result, without the right conditions and policies, risk assessment tools will typically be blind to the helpful impact of the very changes that reformers seek to introduce.

In this section, we first describe how actuarial risk assessment tools work. Second, we illustrate how current pretrial risk assessment tools will likely make what we term “zombie predictions,” where old data, reflecting outdated practices, are newly reanimated. To do so, we focus specifically on two popular strains of reform: creating or expanding pretrial services, and limiting or eliminating cash bail, describing in turn why those reforms will likely significantly change the risks that risk assessment tools seek to forecast.

Third, we examine the underappreciated role of decision-making frameworks, and the risks associated with their creation. These are matrices, akin to bail schedules, which attach risk assessment scores to some proposed course of action for a judge. We posit that when defendants are systematically regarded as riskier

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\(^{90}\) In particular, ProPublica’s assertion that COMPAS risk assessment tool was “biased against blacks” stimulated much of this research. COMPAS’ creator claims that their risk assessment tool is fair because it maintains “predictive parity” — meaning that defendants with the same risk score are equally likely to reoffend. For example, in Broward County, Florida, 60% of white and 61% of black defendants assigned a risk score of seven actually reoffended. However, among defendants who ultimately didn’t reoffend, black defendants were twice as likely as whites to receive a medium or high risk score. Further, white defendants who subsequently reoffended had lower average risk scores than their black counterparts. Essentially, blacks were over-classified as risky and unnecessarily subjected to harsher scrutiny. The lesson of the ProPublica piece, however, is that this result is inevitable. Where there’s a divergent base rate (on average, black defendants recidivate at higher rates) and predictive tools like COMPAS must maintain predictive parity (to pass statistical muster), a predictive algorithm cannot satisfy both fairness criteria (predictive parity and equalized false positive and negative rates) simultaneously. COMPAS is also at the center of another debate: due process. In *Loomis v. Wisconsin*, the question presented by the petitioner, Eric Loomis, was whether or not “it [is] a violation of a defendant’s constitutional right to due process for a trial court to rely on [proprietary] risk assessment results at sentencing: (a) because the proprietary nature of COMPAS prevents a defendant from challenging the accuracy and scientific validity of the risk assessment; and (b) because COMPAS assessments take gender and race into account in formulating the risk assessment?”
than they truly are, today’s decision-making frameworks will unnecessarily subject defendants to overly-burdensome — and perhaps counterproductive — conditions of release. As a result, risk assessment tools and the accompanying decision-making frameworks may actually erode the benefits of risk-reducing bail reforms.

Fourth and finally, we examine the longer-term dangers that pretrial risk assessment tools pose to bail reform and pretrial jurisprudence more generally. Pretrial risk assessment tools may further legitimize and expand preventive detention. As a result, there is good reason to reexamine whether or not United States v. Salerno was rightly decided. Assuming Salerno was properly decided, which there is fair reason to doubt, the case nevertheless left open significant questions which will have to be resolved.

A. How Pretrial Risk Assessment Works

Risk assessment tools use data about groups of people — typically about people who have been arrested — to assess the probability of future behavior. The creator of an actuarial tool may test hundreds of variables — like a previous failure to appear or age at current arrest — to determine which factors, when weighed together, are most predictive of rearrest and failure to appear.

Tools vary in the numbers of factors they use. Each included factor gets a weighting that reflects how strongly it correlates with rearrest or failure to appear. For example, historical data might show that defendants who are under the age of thirty when arrested are much more likely to be rearrested or fail to appear, compared to defendants who at current arrest are over thirty. Accordingly, if person’s age at current arrest is under thirty, they might be assigned three points. If a person’s age at current arrest is over thirty, they might only be assigned one point. The greater the numerical value, the more that variable is correlated with worse outcomes.

Although these tools are sometimes drawn into broader debates about “machine learning” or “artificial intelligence,” they in fact typically rely on longer-established statistical methods such as logistic regression. What’s new, often, is the way the tools are being used, rather than the methods employed in their creation. 91

During the process of tool development, either a human or a computer will determine what variables are applicable and then calculate the total risk score. Those risk scores are then transformed into risk categories or scales known as “decision-

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91 There is a thriving debate about how and where the recent growth of machine learning methods (sometimes broadly termed “AI”) should stimulate changes to legal doctrine or public administration. Most of those questions are not (yet) presented in the pretrial context. It’s unclear whether or not these newer technologies should really be seen by the law as something significantly new or different. See, e.g., Cary Coglianese & David Lehr, Regulating by Robot: Administrative Decision Making in the Machine-Learning Era, 105 GEO. L.J. 1147 (2017); Paul Ohm & David Lehr, Playing with the Data: What Legal Scholars Should Learn About Machine Learning, 51 U.C. DAVIS L. REV. 653-717 (2017); Richard Berk & Justin Bleich, Statistical Procedures for Forecasting Criminal Behavior: A Comparative Assessment, 12 CRIM. & PUB’L. POL’Y, 513 (2013) (Arguing that, after comparing various methods, “[t]here seems to be no reason for continuing to rely on traditional forecasting tools such as logistic regression.”).
making frameworks.” For example, a tool might sort defendants into “low risk,” “moderate risk,” “high risk,” or might be “category one,” “category two,” “category three,” or “category four.”

A risk assessment tool with scores between 1 and 15, might be banded into three categories: Scores between 1-5 might represent a “low risk,” 5-10 a “moderate risk,” and 11-15 a “high risk.” The Colorado Pretrial Assessment Tool (CPAT) provides an accessible example.92

<table>
<thead>
<tr>
<th>Revised Risk Category</th>
<th>Risk Score</th>
<th>Public Safety Rate</th>
<th>Court Appearance Rate</th>
<th>Overall Combined Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 to 17</td>
<td>91%</td>
<td>95%</td>
<td>87%</td>
</tr>
<tr>
<td>2</td>
<td>18 – 37</td>
<td>80%</td>
<td>85%</td>
<td>71%</td>
</tr>
<tr>
<td>3</td>
<td>38 – 50</td>
<td>69%</td>
<td>77%</td>
<td>58%</td>
</tr>
<tr>
<td>4</td>
<td>51 - 82</td>
<td>58%</td>
<td>51%</td>
<td>33%</td>
</tr>
<tr>
<td>(Average)</td>
<td>30</td>
<td>78%</td>
<td>82%</td>
<td>68%</td>
</tr>
</tbody>
</table>


In the above example, risk scores are grouped into bands. Those bands, in turn represent the rate of rearrest and/or failure to appear. If a defendant has a score of 31, they fall into Category 3. Placement into that category can be interpreted as meaning that defendants assessed as similar to the current defendant, as a group, were rearrested 31 percent of the time and failed to appear 23 percent of the time.93


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92 Pretrial Justice Institute, JFA Institute, *The Colorado Pretrial Assessment Tool*, at 18, Table 4.

93 *Id.* 15, Figure 2.
B. Zombie Predictions

Pretrial risk assessment tools developed on data that does not reflect changing ground realities as a result of risk-mitigating reforms will likely make what we term “zombie predictions.” That is, the predictions of a such a pretrial risk assessment tool may reanimate and give new life to old data and outcomes from a bail system that’s presently under reform. Below, we detail the intersection between two common bail reforms, expanding pretrial services and cabining money bail, and zombie predictions. We finish by examining how such zombie predictions might actually dampen the otherwise positive effects of risk-mitigating policy reforms.

Our criticism of zombie predictions should not be read as a general criticism of prediction. Predictions are always based on training data which, by definition, come from the past. But prediction at bail, as practiced today, is problematic because the training data comes from times and places that are materially different from the ones where the predictions are being made, and isn’t getting updated with new facts. Responsible, fully informed prediction — where outcomes are tracked, and models refined and updated — is not necessarily objectionable.

1) Today’s Predictions Follow Yesterday’s Patterns

Using one jurisdiction’s data to predict outcomes in another is an inherently hazardous exercise, a challenge that is highlighted in the existing literature. When a risk assessment tool’s developmental sample — that is, the data the tool was built upon — does not reflect local conditions, it might not accurately classify risk. Geographic differences in law enforcement patterns, for example, can undermine tools’ accuracy: The factors that bring individuals into contact with the criminal justice system in one jurisdiction or country may not be the same as those for offenders in a different jurisdiction or country. Local differences in correctional resources can also make a substantial difference in predictive efficacy. In writing about risk assessment in the neighboring context of criminal sentencing, John Monahan and Jennifer Skeem note that “[v]ariables that predict recidivism in a jurisdiction with ample services for offenders may not predict recidivism in a resource-poor jurisdiction.”

Take the Level of Service (LS) family of assessment instruments as an example. The LS tools are some of the most widely used risk and needs assessment tools in

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94 We use the term “zombie” here, not in the Oxford English Dictionary’s first-listed sense of “a soulless corpse said to have been revived by witchcraft,” but rather in the extended sense indicated in the Dec. 14, 2016 online update to the OED’s Third Edition — now listed as the “most common sense” of the term — a “similar[ly] mindless creature.” OXFORD ENGLISH DICTIONARY ONLINE, http://www.oed.com/viewdictionaryentry/Entry/232982#eid13494009 (last visited Feb. 10, 2018). We choose this evocative term and its negative connotations intentionally.

correctional settings.\textsuperscript{96} Notably, the tools were developed based on the histories of Canadian offenders, and are now some of the most widely used risk assessment instruments across U.S. correctional facilities. The creators of those instruments found “high predictive validity” in their published validation studies. But the “predictive performance results reported by [other assessors] especially those outside Canada, have not been as favorable.”\textsuperscript{97} One meta-analysis of LS-instruments found that their predictive capacity was significantly worse for U.S. offenders, compared to their performance for Canadian and other offenders.\textsuperscript{98}

The same problem applies not only across geography, but also across time. Underlying conditions, like economic growth and development, can change across time and lead to different results for various reasons.

As Melissa Hamilton argues, problems arise when the group being assessed “is not similar to the developmental sample, [or] the developmental sample is not a representative reference for the individual to be assessed. . .”\textsuperscript{99} Just as a pretrial resource-poor jurisdiction in Wyoming differs in significant ways from a pretrial resource-rich jurisdiction California, so too does the same jurisdiction when it significantly changes its bail system. Simply put, risk-mitigating policies will likely change the risks a defendant faces upon release, just like a change in economic conditions or in time can. Overall, using historic, pre-reform outcome data to predict future risks within a jurisdiction that’s significantly reforming its bail system deserves heightened, continued scrutiny.\textsuperscript{100}

The challenge of time-based changes in risk applies equally to jurisdictions that are creating their own pretrial risk assessment tool from scratch, as well as those that are validating a commercially developed tool — or a tool built by public authorities in a different jurisdiction — for local use. For tools to make well-calibrated predictions from the start, they need to be trained on data that matches the conditions about which they are making predictions.


\textsuperscript{98} Mark E. Olver, et al., \textit{Thirty years of research on the Level of Service scales: A metaanalytic examination of predictive accuracy and sources of variability}, 26 PSY. ASSESS. 156 (2014).


\textsuperscript{100} In many ways, proposals for periodic, localized revalidation of risk assessment tools are similar to our argument. For example, in the criminal sentencing context, Skeem and Monahan argue that “[u]nless a tool is validated in a local system—and then periodically revalidated—there is little assurance that it works.” These proposals capture a sense that, within a jurisdiction, outcomes can change and that it is important for policymakers to track those changes. Our argument effectively extends and further underscores this conceptual point: thanks in part to the reforms that brought many risk assessment tools into existence, outcomes within jurisdictions are already changing. The need for what Monahan and Skeem call for in the sentencing context is heightened in the pretrial context, where the ground truth of rearrest and failure to appear rates may be significantly mitigated by other pretrial policies.
There is strong reason to believe that the data used to build today’s risk assessment tools do not match the reality into which the tools are deployed. As we detailed in Part II.C, jurisdictions across the country are pursuing reforms aimed at transforming a defendant’s odds of success upon release. From more funding to pretrial service agencies, to moving a bail schedule from cash bonds to unsecured bonds (or significantly lowering the scheduled cash bond amounts), to widespread electronic monitoring, to text message reminders of court dates, a range of policies work to mitigate the risk of a defendant failing upon release — failing to appear to a court date, or being rearrested. But today’s risk assessment tools are not built or designed to incorporate the effects of these reforms.

Publicly available information about the data behind two of the most popular risk assessment tools is instructive. The Public Safety Assessment (PSA) and Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) were each developed on multi-jurisdiction data. PSA, an instrument developed by the Laura and John Arnold Foundation, is based on nearly 750,000 cases drawn from more than 300 jurisdictions.101 Similarly, COMPAS was initially developed on a sample of 30,000 survey responses, administered to prison and jail inmates, probationers, and parolees across the country, between January 2004 and November 2005.102

Pretrial risk assessment tools that are developed locally within a jurisdiction or state typically rely upon smaller samples of data, often dating from before significant reform efforts began. For example, the Florida Pretrial Risk Assessment instrument was developed on 1,757 cases, across six counties, from January to March 2011.103 The Ohio Risk Assessment System’s Pretrial Assessment Tool was developed on “over 1,800” cases, from September 2006 to October 2007.104 The Virginia Pretrial Risk Assessment Instrument was originally developed on a sample of “over 2,300”

102 Northpointe, Practitioner’s Guide to COMPAS Core, March 19, 2015, at 11. (“The Composite Norm Group consists of assessments from state prisons and parole agencies (33.8%); jails (13.6%); and probation agencies (52.6%).”) Agencies using COMPAS Core can select the default norm group, or a more specific subgroup, like “male jail” or “male prison/parole” or “female jail.”
103 James Austin et al., Florida Pretrial Risk Assessment Instrument, at 3-4.
104 Edward J. Latessa et al., The Creation and Validation of the Ohio Risk Assessment System (ORAS), 74 FED. PROB. 16 (2010); Edward Latessa et al., Creation and Validation of the Ohio Risk Assessment System: Final Report. at 10 (2009).
cases between July 1, 1998 to June 30, 1999, though it was later revised based on data from 2005.

Even where bail reform legislation simultaneously introduces broad pretrial reforms and risk assessment, the developers tasked with building such a tool still have to look backwards for their examples. In fact, the incentives to look further back in history can be strong: A larger, more diverse developmental sample is less likely to contain random statistical artifacts that could skew the results. But, in the bail context, doing so will also mean a deeper reliance on data that represents the historic risks of release, rather than the current ones.

Take Colorado as an example. A revised version of the Colorado Pretrial Assessment Tool (CPAT) was released in October 2012. But Colorado’s sweeping new bail reform was not signed into law until May 2013. Thus, in Colorado, we would expect to see zombie-style predictions that overstate defendants’ true levels of risk.

The available data suggest that this may indeed have happened. Below, we reproduce figures from The Colorado Bail Book: A Defense Practitioner’s Guide To Adult Pretrial Release.

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>CPAT 1</th>
<th>CPAT 2</th>
<th>CPAT 3</th>
<th>CPAT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPAT Projected</td>
<td>20%</td>
<td>49%</td>
<td>23%</td>
<td>8%</td>
</tr>
<tr>
<td>Denver 2012</td>
<td>12%</td>
<td>39%</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>Denver 2013</td>
<td>11%</td>
<td>38%</td>
<td>28%</td>
<td>23%</td>
</tr>
<tr>
<td>Denver 2014</td>
<td>13%</td>
<td>39%</td>
<td>38%</td>
<td>20%</td>
</tr>
<tr>
<td>Avg. Diff</td>
<td>- 8%</td>
<td>-10.33%</td>
<td>+ 8%</td>
<td>+ 13.66%</td>
</tr>
</tbody>
</table>

Here, the number of defendants who the tool’s designers expected to be classified as CPAT 3 or CPAT 4 — the higher risk categories — is compared to the number of defendants who were actually classified as CPAT 3 or CPAT 4. The gap is striking. Based on their training data, the tool’s designers suggested that about a third of defendants would be classified as higher risk. But, for each year of data in

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107 Notably, smaller jurisdictions (aside from likely having fewer resources to dedicate to pretrial systems) might have fewer examples to create a locally-developed tool on and thus have an even greater incentive to look farther back.
Denver, essentially half of all defendants were assessed as higher risk. Based on the available data, it’s unclear why this is the case.\footnote{One might suspect that defendants from Denver are higher risk than other Coloradans and were not included, or were not heavily weighted, in the development sample of CPAT. In fact, defendants from Denver actually represented 13% of CPAT’s development sample. The Colorado Pretrial Assessment Tool, A Joint Partnership among Ten Colorado Counties, the Pretrial Justice Institute, and the JFA Institute, Oct. 19, 2012, at 9.}

The other side of the coin is, how did defendants who were classified as riskier perform?

\begin{table}
\centering
\caption{Failure to appear rates across CPAT risk category in Denver}
\begin{tabular}{|l|c|c|c|c|}
\hline
 & CPAT 1 & CPAT 2 & CPAT 3 & CPAT 4 \\
\hline
CPAT Projected & 5\% & 15\% & 23\% & 49\% \\
\hline
2013 Denver Actual & 7\% & 11\% & 16\% & 20\% \\
\hline
2014 Denver Actual & 5\% & 14\% & 16\% & 23\% \\
\hline
Avg. Diff & +1\% & -2.5\% & -7\% & -27.5\% \\
\hline
\end{tabular}
\end{table}

\begin{table}
\centering
\caption{Failure to appear rates across CPAT risk category in Mesa}
\begin{tabular}{|l|c|c|c|c|}
\hline
 & CPAT 1 & CPAT 2 & CPAT 3 & CPAT 4 \\
\hline
CPAT Projected & 5\% & 15\% & 23\% & 49\% \\
\hline
2014 Mesa Actual & 7\% & 9\% & 13\% & 15\% \\
\hline
Avg. Diff & +2\% & -6\% & -10\% & -34\% \\
\hline
\end{tabular}
\end{table}
Figure 1 (drawn from Tables 2 and 3)

![Graph showing failure to appear rates across CPAT categories for Denver and Mesa cities.]

**Table 4**

*New criminal offense rates across CPAT Category in Denver*

<table>
<thead>
<tr>
<th></th>
<th>CPAT 1</th>
<th>CPAT 2</th>
<th>CPAT 3</th>
<th>CPAT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013 Denver</strong> Actual</td>
<td>9%</td>
<td>20%</td>
<td>31%</td>
<td>42%</td>
</tr>
<tr>
<td><strong>2014 Denver</strong> Actual</td>
<td>3%</td>
<td>8%</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Avg. Diff</strong></td>
<td>-5.5%</td>
<td>-12.5%</td>
<td>-16.5%</td>
<td>-23%</td>
</tr>
</tbody>
</table>

**Table 5**

*New criminal offense rates across CPAT Category in Mesa*

<table>
<thead>
<tr>
<th></th>
<th>CPAT 1</th>
<th>CPAT 2</th>
<th>CPAT 3</th>
<th>CPAT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2014 Mesa</strong> Actual</td>
<td>9%</td>
<td>20%</td>
<td>31%</td>
<td>42%</td>
</tr>
<tr>
<td><strong>Avg. Diff</strong></td>
<td>+2%</td>
<td>+1%</td>
<td>-6%</td>
<td>-14%</td>
</tr>
</tbody>
</table>
We find similar evidence in efforts to develop and validate the Public Safety Assessment.\textsuperscript{112} The projected rate of failures to appear — based on PSA’s developmental sample\textsuperscript{113} — diverged from the actual rate of failures to appear in jurisdictions where PSA was validated.\textsuperscript{114} As Table 6 demonstrates for every FTA category above “low risk,” that is, between FTA 3 – FTA 6, the expected failure to appear rate outpaced that actual failure to appear rate. We see less of this phenomenon with respect to new criminal activity rates in Table 7. Nevertheless, generally speaking, it appears that defendants who are assessed as higher risk, in reality, exceed expectations upon release.


Table 6
Failure to appear rates across PSA FTA categories

<table>
<thead>
<tr>
<th></th>
<th>FTA 1</th>
<th>FTA 2</th>
<th>FTA 3</th>
<th>FTA 4</th>
<th>FTA 5</th>
<th>FTA 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA Developmental Sample Projections</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>31%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>PSA Validation</td>
<td>12%</td>
<td>16%</td>
<td>18%</td>
<td>23%</td>
<td>27%</td>
<td>30%</td>
</tr>
<tr>
<td>Avg. Diff</td>
<td>+2%</td>
<td>+1%</td>
<td>-2%</td>
<td>-8%</td>
<td>-8%</td>
<td>-10%</td>
</tr>
</tbody>
</table>

Table 7
New criminal activity rates across PSA NCA categories

<table>
<thead>
<tr>
<th></th>
<th>NCA 1</th>
<th>NCA 2</th>
<th>NCA 3</th>
<th>NCA 4</th>
<th>NCA 5</th>
<th>NCA 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA Developmental Sample Projections</td>
<td>10%</td>
<td>15%</td>
<td>23%</td>
<td>30%</td>
<td>48%</td>
<td>55%</td>
</tr>
<tr>
<td>PSA Validation</td>
<td>9%</td>
<td>15%</td>
<td>21%</td>
<td>34%</td>
<td>43%</td>
<td>52%</td>
</tr>
<tr>
<td>Avg. Diff</td>
<td>-2%</td>
<td>+0%</td>
<td>-2%</td>
<td>+4%</td>
<td>-5%</td>
<td>-3%</td>
</tr>
</tbody>
</table>

This is the stark, unfortunate irony at the heart of today’s bail reform: today’s pretrial risk assessment tools reflect and reinforce the very patterns of failure to appear that new, innovative policies work to change. Below, we consider specifically how these other policy changes may be shaping changes in failure to appear and rearrest risk.

a. Expanded Pretrial Services Will Change the True Risk of Failure to Appear

Small changes in the administration of bail can have a substantial impact on failure to appear rates in a jurisdiction. Many of these reforms are relatively low-cost and low-tech. For example, Other changes may further reduce failure rates. Creating pretrial service agencies in jurisdictions that do not already have them, and expanding funding for those agencies already in place, will likely help to curb the incidence of failures to appear. Of course, the same intervention may reduce failure to appear more in one jurisdiction than another. For example, low-income defendants — who may lack stable housing — might benefit disproportionately from text message reminders, as opposed to physical postcards sent by mail.

“Failure to appear” often reflects factors far more prosaic than a defendant absconding from the jurisdiction. As a 2001 National Institute of Justice report noted, when “released defendants miss a court appearance, it is often not because
they are fleeing from prosecution but, rather, for other reasons ranging from genuine lack of knowledge about the scheduled date to forgetfulness. Our discussion below focuses on these other failures to appear.

What causes such non-flight failures to appear? Considering the available data about inability to meet financial conditions of release, it’s likely that financial concerns play a prominent role. People with jobs that have inflexible hours, or that require a significant commute, might find it difficult to miss work for a court date. In fact, some may see failing to appear for work as more consequential than failing to appear for a court date — losing a job and income may seem more immediately threatening to their well-being, particularly for defendants who have not had contact with the criminal justice system and are unaware of the consequences for failing to appear. A defendant might also fail to appear because they simply forget about an upcoming court appearance. They may be scared or have insufficient information about how to get to court, what to do once there, and what will happen next.

Some observers emphasize the slow pace of justice, arguing that “the typically long period of time between the citation and the court date naturally leads to [failures to appear] due to the relative instability of many defendants.” One study found that the amount of time between a defendant’s release and the disposition of her case was the most important factor in predicting failures to appear. Others argue that defendants are often “unaware that failing to show up for court can lead to an arrest warrant for seemingly minor violations of the law.” Still others counter that deliberate refusals to appear in court are commonplace.

These are the risks that reforms are motivated to mitigate. A series of studies suggests that reminders, alone, may make a major difference. Administrators in Jefferson County, Colorado, for example, implemented live-caller reminders where, if the caller “successfully contacted a defendant, she read a script (in either English or Spanish) reminding the defendant of the court date, giving

116 Timothy R. Schnacke, Michael R. Jones, Dorian M. Wilderman, Increasing Court Appearance Rates and Other Benefits of Live-Caller Telephone Court-Date Reminders: The Jefferson County, Colorado, FTA Pilot Project and Resulting Court Date Notification Program, 48 CT. REV. 86, 87 (2012).
117 Stevens H. Clarke, Jean L. Freeman, Gary Koch, The Effectiveness of Bail Systems: An Analysis of Failure to Appear in Court and Rearrest While On Bail, Jan. 1976, at 34.
118 Timothy R. Schnacke, Michael R. Jones, Dorian M. Wilderman, Increasing Court Appearance Rates and Other Benefits of Live-Caller Telephone Court-Date Reminders: The Jefferson County, Colorado, FTA Pilot Project and Resulting Court Date Notification Program, 48 CT. REV. 86, 87 (2012).
119 Pretrial Justice Center for Courts, Use of Court Date reminder Notices to Improve Court Appearance Rates, September 2017. (“Several jurisdictions across the country have adopted a court date reminder process (or court date notification system) to improve court appearance rates, such as in Coconino County (AZ), Jefferson County (CO), Lafayette Parish (LA), Reno (NV), New York City (NY), Multnomah and Yamhill Counties (OR), Philadelphia (PA), King County (WA), and the states of Arizona, Kentucky, and Nebraska. Recently, Judge Timothy C. Evans, Chief Judge of the Cook County Circuit Court in Illinois, issued an order requiring the county to implement a pretrial notification system by December 1, 2017.”)
directions to the court, and warning the defendant of the consequences of failing to appear for court.”

By their own account, the results of their program have been “exceptional.”

In 2010, “the court-appearance rate for defendants who were successfully contacted was 92%, compared to an appearance rate of 73% for those who were not.”

A postcard-reminder study in 14 counties across Nebraska during 2009 and 2010 found that postcard reminders significantly reduced failure to appear rates. The study examined three different types of postcard reminders (all in English/Spanish): one reminder-only postcard with just a notification, one reminder postcard that included the threat of sanctions for failure to appear, and one that included both the threat of sanctions and other elements of procedural justice. All led to significant reduction in failures to appear, with the two postcards with more information having most significant effect.

Other initiatives look to capitalize on SMS text messages as a reminder. For example, the Court Messaging Project — an open-source initiative from Stanford’s Legal Design Lab — works to “to make the court system more navigable and to improve people’s sense of procedural justice — that the legal system is fair, comprehensible, and user-friendly.”

In New York City, a recent experiment found that simple text reminders reduced failures to appear by 21 percent, while those with more information led to a 26 percent drop.

Uptrust, a company “which sends text message reminders to attend court and other obligations” claims it can reduce failure to appear rates by 80 percent.

Other reforms might reduce a defendant’s flight risk, too. For example, electronic monitoring — which already has “a long history of pretrial use” — may deter defendants from fleeing by leading them to predict a swift police response.

This type of monitoring typically takes one of two forms: the device relies either on a radio link to a nearby base station, or on GPS to operate and monitor an individual. Unlike reminders — whose effectiveness is documented in a wide range of studies — the efficacy of GPS monitoring for reducing failures to appear remains an open question.

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120 Timothy R. Schnacke, Michael R. Jones, Dorian M. Wilderman, Increasing Court-Appearance Rates and Other Benefits of Live-Caller Telephone Court-Date Reminders: The Jefferson County, Colorado, FTA Pilot Project and Resulting Court Date Notification Program, 48 CT. REV. 86, 91 (2012).
121 Id. at 92.
122 Id.
123 Alan Tomkins, Brian H. Bornstein, Mitchel Norman Herian, David I. Rosenbaum, Elizabeth Neeley, An Experiment in the Law: Studying a Technique to Reduce Failure to Appear in Court, 48 CT. REV. 96, 100 (2012).
124 Id. at 98-100.
126 Cooke, et al., Using Behavioral Science to Improve Criminal Justice Outcomes Preventing Failures to Appear in Court, University of Chicago Crime Lab, 16.
127 Uptrust, “What We Do - Our Results,” available at http://www.uptrust.co/what-we-do#our-results-section
question. But it is certainly plausible to imagine that electronic monitoring would effectively deter some defendants who might flee from actually fleeing. If so, such an intervention would further reduce the risk of pretrial failure, compared with rates from past patterns.

But consider New York City. At a recent public event, the city’s Criminal Justice Agency announced that it would be developing a new risk assessment tool, based off of seven years of criminal justice data. Specifically, the Agency detailed it was developing a new risk assessment model on data from 2009 - 2015. Of course, it’s immediately notable that the city is using data that reflects policing practices that were ruled as unconstitutional. Complicating matters even further, the city only just began an expansive supervised release program in March 2016. While supervised release programs had existed in the city before, those were only pilot programs in select areas. Thus, without changes, New York City’s new risk assessment tool will only observe the effects of the pilot phase of supervised release, not the citywide program. As a result, more defendants might be classified as a higher risk of failure to appear simply because the new model does not reflect a change in pretrial policy that reduces defendants’ risk upon release.

Of course, New York City is just a microcosm: today’s suite of pretrial risk assessment tools were largely “trained” on populations that did not receive the benefit of newly-enacted, risk-mitigating reforms. As a result, the question that today’s tools answer is, “how likely is this defendant to return to court on schedule without being reminded to appear?” The tools do not measure — because the historical data does not reflect — the greater chance that some defendants will reappear after being reminded.

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129 Id. at 1368-69. Most focus on post-conviction proceedings, though a few studies have examined the effectiveness at pretrial (albeit with small sample sizes).

130 Though, as we noted, the incidence of flight from a jurisdiction in 2017 are probably minimal.


133 Despite studies and pilot projects demonstrating the success of live-caller reminders, postcard reminders, and other reminders in helping reduce the number of failures to appear, the majority of pretrial service agencies have not adopted these relatively low-tech techniques. For example, the findings from a 2009 Pretrial Justice Institute survey for pretrial service programs found that from 1989 to 2009, the percentage of programs that called the defendant before a scheduled court date declined from over 40 percent in 1989 to 30 percent in 2009. In 2009, about 5 percent of programs used an automated dialing system to call and remind the defendant. The percentage of programs that produced a manually generated reminder letter in 1989 was just under 40 percent, but in 2009 was about 4 percent, while about 17 percent used automatically generated reminder letters. Almost 10 percent of surveyed pretrial service agencies had no court date reminder procedures at all. See Pretrial Justice Institute, 2009 Survey of Pretrial Services Programs, August 11, 2009 at 50.
2) Replacing or Cabining Money Bail Could Reduce the True Risk of Rearrest for Those Released

Transformative bail reforms that reduce or altogether eliminate money bail — if they lead as expected to many more releases on recognizance — are likely to reduce the risk of pretrial rearrest. As detailed above, research demonstrates that pretrial detention itself actually increases risk of pretrial rearrest once a defendant is released. And current statistics clearly show that money bail is the main reason defendants spend any significant amount of time in jail pretrial.

Accordingly, policies that would reduce or eliminate money bail, and release those currently held on small bail amounts, are likely to have a significant effect: Such policies would reduce number of people who spend any time in jail pretrial. As a result, released defendants will likely face a lower risk of rearrest following their immediate release from custody. In short, by reducing the incidence of pretrial detention, jurisdictions may also reduce the overall level of rearrest risk.

Recent research findings lend support to this hypothesis. Heaton, Mayson, and Stevenson, find that if defendants in Harris County who were assigned the lowest amount of cash bail ($500) had simply been released instead, the county would have released 40,000 more defendants pretrial between 2008 and 2013. They further find that if those defendants had been directly released (and did not spend any time in jail at all between arraignment and trial), these defendants as a group would have committed 1,600 fewer felonies and 2,400 fewer misdemeanors than they ultimately did after their eventual, later releases. They find that pretrial detention increases the share of defendants charged with new misdemeanors by more than thirteen percent thirty days post-bail hearing, and increases the share of defendants charged with new felonies by more than thirty percent within one-year post-bail hearing.

If Harris County abandoned their bail schedule — which is promulgated by county courts — in favor of a presumption of release on personal recognizance, the effect could be significant. The incidence of pretrial detention would likely significantly decline. Such a policy would, in turn, accomplish what Heaton, Mayson, and Stevenson simulate: reducing the number of pretrial rearrests, and of rearrests post-case disposition.

Yet, a risk assessment tool developed on data that predates these reforms would not capture this new ground truth. Such a risk assessment tool would, oddly,
compare post-reform defendants, who benefitted from being released immediately, to a very different group: defendants who were detained a few days or several weeks before being able to meet their financial conditions of release.

Here, the risk assessment tool would be blind to the range of possible risk-mitigating reforms — for example, substituting a money bail schedule for presumptive release of all misdemeanor defendants — and would instead look back to pre-reform outcomes to characterize the defendant’s risk. Doing so will, in all likelihood, overstate those defendants’ risk of rearrest. And in jurisdictions where a higher risk assessment score for rearrest can lead to presumptive pretrial detention hearing — like New Jersey — it’s possible that some poor defendants will be jailed because, historically, the jailing of people similarly situated left those people incredibly ill-prepared to succeed on release.

3) Zombie Predictions May Dampen the Positive Effects of Other Reforms

Zombie predictions might perversely undermine the apparent impact of other bail reforms. A robust literature on the communication and framing of risk suggests that magistrates will perceive defendants as tainted, and will treat them differently.\(^\text{140}\) Thus, zombie predictions may steer a sizable number of defendants away from risk-mitigating reforms and, in turn, dampen the positive effects of policy reforms. In turn, such systematic over-prediction of risk may make the ground realities in a jurisdiction seem worse than they truly are. That is, policymakers may see that there are more “risky” defendants in their jurisdiction than they might have expected. Accordingly, policymakers might second-guess their pursuit of risk-mitigating reforms and focus on more punitive, restrictive conditions of release. This potential feedback loop is subtle, and may be hard to detect, but it should nevertheless concern reformers — if they cannot champion the positive results of new policies and procedures, their endeavor may backfire.

Once risk is overestimated, defendants may be subject to stricter conditions of release through the decision-making framework.\(^\text{141}\) This observation is especially relevant given the literature on how lower-risk defendants perform with certain

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\(^{141}\) Decision-making frameworks are discussed more in the next section.
release conditions.\textsuperscript{142} Multiple studies have shown that lower-risk defendants succeed on release — meaning fewer failures to appear, and less rearrest upon release — \textit{more often} when released without conditions, and that placing conditions of release on lower-risk defendants can actually \textit{worsen} their odds of success.\textsuperscript{143}

Such a scenario — where defendants are systematically overestimated as riskier than they truly are, leading lower-risk defendants to be subjected to conditions of release that are counterproductive — could perversely sustain an avoidably elevated pretrial failure rate. Similarly, a systematic overestimation of rearrest risk may lead jurisdictions to unduly lean on more controversial reforms, like electronic monitoring, a highly restrictive condition of release.

Consider a hypothetical defendant. She was assessed by a pretrial risk assessment tool that was developed on historical data that pre-dates her county’s bail reform. The tool forecast her to be a moderate failure to appear risk and rearrest risk. Accordingly, the jurisdiction’s decision-making framework called for her to be subject to monthly in-person reporting to pretrial services, monthly phone check-ins, as well as a curfew. In reality, she was a busy single mother, who simply needed a timely phone reminder to ensure her appearance. If she had been assessed as a lower failure to appear risk, that’s the only intervention she would have received. However, the zombie prediction led her to then be subject counterproductive conditions of release. As a single mother, the in-person check-ins and curfew were difficult to manage. Ultimately, she failed to appear for some of her court dates, but appeared to most. This hypothetical is of course stylized. But the risks are plausible given the implementation of today’s bail reforms.

As an example, consider New Jersey. Below is a comparison of the anticipated percentages of defendants that would be subject to each set of conditions of release — what New Jersey calls pretrial monitoring levels (PML)\textsuperscript{144} — and the actual percentages of defendants who were subject to each PML for the year 2017.\textsuperscript{145}

Table 7
New Jersey’s Projected Conditions of Release vs. Actuals

<table>
<thead>
<tr>
<th></th>
<th>DMF recommended %s</th>
<th>Actual State Avg. %s 1/1/17 – 12/31/17</th>
<th>Net difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROR</td>
<td>26.9</td>
<td>7.5</td>
<td>- 19.4</td>
</tr>
<tr>
<td>PML 1</td>
<td>24.6</td>
<td>20.6</td>
<td>- 4.0</td>
</tr>
<tr>
<td>PML 2</td>
<td>16.3</td>
<td>14.8</td>
<td>- 1.5</td>
</tr>
<tr>
<td>PML 3</td>
<td>9.8</td>
<td>26.4</td>
<td>+ 16.6</td>
</tr>
<tr>
<td>PML 3 +</td>
<td>2.4</td>
<td>8.3</td>
<td>+ 5.9</td>
</tr>
<tr>
<td>Detention</td>
<td>5.1</td>
<td>18.1</td>
<td>+ 13.00</td>
</tr>
<tr>
<td>Total</td>
<td>85.2</td>
<td>95.7</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Figure 3 (taken from data in Table 7)

Here, nearly one-third more defendants were subject to the most restrictive conditions of release — or were denied release — than was expected. And while nearly one quarter of defendants were expected to be released on recognizance, only 7.5 percent of defendants were. Meanwhile, while only 10 percent of defendants were supposed to be subject to the relatively intense monitoring known as PML 3, in fact more than a quarter were. The predicted and real intensities of pretrial conditions are nearly perfect inverted mirrors of each other.

Based on available data, it is difficult to tell why this happened. One potential explanation is that more defendants than expected were charged with crimes that carry a presumptive recommendation detention or high-levels of supervision. Another explanation is that defendants have systematically been overestimated as risky, and thus subject to more punitive and restrictive conditions of release. Another explanation is that defendants’ risk was assessed as lower, but judges systematically increased conditions of release. Of course, all the above could be true.

To our knowledge, New Jersey has not released data on failure to appear or rearrest rates for 2017. Nor has New Jersey released data on how many defendants
received what kind of PSA classification. Thus, we cannot compare risk forecast, against conditions of release, against pretrial failure rates. As a result, we cannot clearly evaluate whether or not defendants were systematically overestimated as riskier than they truly were. Nor can we see the effects these conditions of release have.

But, under our argument, when defendants are systematically overestimated as riskier than they truly are — and thus subject to conditions of release that are potentially counterproductive — jurisdictions could, perversely, sustain an avoidably elevated pretrial failure rate. As a result, policymakers in the future might look back on the move toward non-financial conditions of release as misguided and might inaccurately conclude that, despite its ills, a money bail system is the least bad option.

Here, the history of bail reform is instructive: conservatives in the late 1960s used the logic of liberal reforms to, in turn, advocate for a broader, more a punitive system. Similarly, though pretrial risk assessment tools currently enjoy bipartisan support in the mission of decarceration, pretrial risk assessment tools and decision-making frameworks are vulnerable to a new “law and order” turn. In Fact, New Jersey’s Attorney General just recently released modified guidance related to its decision-making framework, adjusting many recommendations to favor lower standards for pretrial detention.

C. Frameworks of Moral Judgment

Between any numerical estimate of risk and the deciding magistrate, there is an important mediating step — some set of choices about what the risk estimates mean, how much risk is tolerable, and how to communicate that information to a judge or magistrate. Though there is growing public debate about the quantitative interstices of risk assessment, there is relatively little discussion of the vital policy judgments that render those risk numbers into actionable advice.

These policy judgments are often represented in matrices known as a “structured decision-making process,” “pretrial decision-making matrix,” or “decision making framework.” These matrices attach risk assessment scores to a proposed course of action for a judge. The frameworks are similar to bail schedules. But, where charged offenses might have previously determined outcomes in bail schedules, risk assessment scores guide conditions of release (or non-release) in decision-making frameworks.

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146 We do not suggest that in every case this would be true. Of course, local conditions vary incredibly. Some jurisdictions might have put a premium on release a majority of defendants on their own recognizance, or with the minimal set of conditions. Others might experience a decline in cases where certain charges require certain more restrictive conditions of release.

147 For example, many modifications “recalibrate[d] the presumptions for pretrial-detention applications that are triggered by the PSA scores” downward. See, http://nj.gov/oag/newsreleases17/Revised-AG-Directive-2016-6 Introductory-Memo.pdf.
Below is a visual summary of the decision-making framework used in New Jersey.\textsuperscript{148}

\textit{Figure 4

\textbf{New Jersey’s Decision-making Framework}}

<table>
<thead>
<tr>
<th>NCA 1</th>
<th>NCA 2</th>
<th>NCA 3</th>
<th>NCA 4</th>
<th>NCA 5</th>
<th>NCA 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA 1</td>
<td>ROR 11.0% of population</td>
<td>NCA 2</td>
<td>NCA 3</td>
<td>NCA 4</td>
<td>NCA 5</td>
</tr>
<tr>
<td>FTA 2</td>
<td>ROR 0.5% of population</td>
<td>ROR 6.5% of population</td>
<td>PML 1 11.0% of population</td>
<td>PML 2 6.0% of population</td>
<td>PML 3 0.5% of population</td>
</tr>
<tr>
<td>FTA 3</td>
<td>PML 1 2.0% of population</td>
<td>PML 1 8.0% of population</td>
<td>PML 2 6.0% of population</td>
<td>PML 3 2.0% of population</td>
<td></td>
</tr>
<tr>
<td>FTA 4</td>
<td>PML 1 0.0% of population</td>
<td>PML 1 3.0% of population</td>
<td>PML 2 0.0% of population</td>
<td>PML 3 0.0% of population</td>
<td></td>
</tr>
<tr>
<td>FTA 5</td>
<td>PML 1 3.0% of population</td>
<td>PML 2 2.0% of population</td>
<td>PML 3 1.0% of population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTA 6</td>
<td>PML 1 0.4% of population</td>
<td>PML 2 0.4% of population</td>
<td>PML 3 0.4% of population</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the above example, a defendant who receives a new criminal arrest score of four (“NCA 4”) and a failure to appear score of three (“FTA 3”) would be suggested for what New Jersey calls “pretrial monitoring level 2” (“PML 2”). Each pretrial monitoring level calls for different non-financial conditions of release, with each increase in pretrial monitoring level calling for a requisite increase in the number or kind of conditions. For example, PML 2 includes various conditions for a pretrial defendant like reporting once a month in person, once a month by phone, and abide by some set of curfew or travel restrictions.\textsuperscript{149}

1) Undemocratic Justice

Determining how much risk a society should tolerate — and then formalizing those answers inside decision-making frameworks — is a difficult political and moral question, not a primarily technical one. To date, however, this decision has generally not been a target of considered political or policy debate.


\textsuperscript{149} ACLU NJ, NACDL, NJ Public Defenders, The New Jersey Pretrial Justice Manual, December 2016, at 10. Note that, in some jurisdictions, some charges or circumstances may predetermine an outcome where pretrial detention will be ordered regardless of the risk assessment result. Typically, these charges might include murder, rape, first degree robbery, felony domestic violence, violation of a protective order, felony sex crimes, or charges involving the use of a weapon. Another example of a DMF matrix can be seen in Volusia County, Florida. There, the release with conditions level 1 requires monthly reporting, release with condition level 2 requires bi-weekly reporting, and release with conditions 3 requires weekly in-person meeting. See Zach Dal Pra, Justice System Partners, at 50, \textit{available at https://cdn.muckrock.com/foia_files/2016/12/15/Volusia_Stakeholder_Training_10162015.pdf}.\footnote{https://cdn.muckrock.com/foia_files/2016/12/15/Volusia_Stakeholder_Training_10162015.pdf}
The description of a defendant or group of defendants as “high risk,” for example, singles that group out for different treatment, and there is no mathematical rule about how expansive the category should be, or what it should or does mean. To see the quandary, it may be helpful to imagine defendants lined up in descending order of their respective risk levels as calculated by a statistical model. The most widely used metric for the performance of a risk assessment instrument is the “Area Under the Curve” (AUC) metric, which simply measures the likelihood that when two individuals are picked at random, the one with the higher score actually does have a higher true level of risk. In other words, the AUC measures the extent to which a risk tool places different defendants into correct rank order of riskiness for whatever the tool measures. The AUC does not, however, say anything about the size of the difference in risk level between any two individuals, or between any two deciles in the risk distribution.

The question of how to define and use risk categories, in short, may best be answered by tandem consideration of three things—a community’s preferences and moral judgments; the specifics of how “risk” has been defined and measured; and a histogram that literally displays the shape of how that risk is distributed in the population of defendants. To date, few if any jurisdictions have successfully combined these elements. Instead, risk categories are defined by technicians and interpreted (or at times misinterpreted) by judges. One advocate who works on bail reform across many U.S. jurisdictions told us that, when he asks judicial system stakeholders what “high risk” means in their jurisdiction, many confess ignorance and others speculate that high risk many mean a greater than 50% chance of reoffends. (In fact, even for the highest risk categories, the actual failure rates are much lower than this.)

Further, the process by which a society determines and formalizes answers to how much risk to tolerate must be a democratic one. There is, potentially, a strong incentive for certain actors within the criminal justice system to perpetuate relatively

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150 This is especially true where the Public Safety Assessment’s dashboard displays a “stop sign” when a defendant’s new criminal activity is too high and is deemed to be an “elevated risk of violence.” See, https://nccalj.org/wp-content/uploads/2016/02/Virginia-Bersch-PSA-State-of-North-Carolina.pdf at 10.

151 Jay P. Singh, Predictive Validity Performance Indicators in Violence Risk Assessment: A Methodological Primer, 31 BEHAV. SCI. LAW 8, 19 (2013). (“…a number of performance indicators are available to researchers . . . the AUC has become ubiquitous in studies attempting to establish predictive validity.”)

152 More generally, the vocabulary used in the pretrial risk context—“this person is a high risk”—largely diverges from how individuals perceive the assessed risk. Take the earlier CPAT example. The “highest risk” category of failure to appear in the PSA is 40 percent. Whereas, within the internal logic of the pretrial risk assessment tool and relative sample, 40 percent is “high risk,” more generally, a 40 percent probability that some event will occur might could be understood as “unlikely” or “doubtful.” See, e.g. Richards J. Heuer, Jr., Psychology of Intelligence Analysis, Center for the Study of Intelligence, CIA, 154-155 (1999); zonination, “Perceptions of Probability and Numbers - Gallery,” available at https://github.com/zonination/perceptions.
high levels of pretrial detention. This is especially true of private actors who contract with local governments.153

This is not to say that local governments should be wary of expert help available from private industry. But those actors should not play an outsized role in developing decision-making frameworks. Nor should policymakers rely upon a decision-making framework successfully developed and deployed in another jurisdiction. True, there may also be a strong political incentive to rely on contractors. A message that a framework, developed by experts, which has succeeded elsewhere, might seem attractive. But, again, at its core the question being addressed is about the community. Thus, the process should include elected policymakers, judges, public defenders, individuals returning from incarceration, prosecutors, and the general public.154 A broad-based coalition would not only likely enhance perceptions of a decision-making framework’s legitimacy, but also empower communities to stick with their plan of reform after high-profile incidents of pretrial crime.

D. Longer-term Dangers

Beyond the immediate concerns detailed above, a bail reform movement predicated on the widespread adoption of pretrial risk assessment also presents three longer-term dangers to the norms and jurisprudence of pretrial justice. First, statistical risk assessment — including future machine learning-based approaches — may insulate poorly defined concepts of “dangerousness” from essential scrutiny. Second, the embrace of a risk-based approach could ultimately trigger an increase in pretrial detention. Third, the constitutionality of preventative detention will be left unexamined because pretrial risk assessments tacitly presume that Salerno’s core holding was correct.

1) Insulating Nebulous Concepts of “Dangerousness” From Scrutiny

One of the great ironies of the push to consider dangerousness at bail is that none of the professional communities involved has seized the mantle to define dangerousness. As Marc Miller and Norval Morris argued, by initially conceiving predictions of dangerousness as “‘the province of psychiatry,’ lawyers foreclosed

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153 That is to say, so long as “problems” continues to exist, private actors can continue to sell their services to help alleviate that problem.

154 Here, Mesa, Colorado actually serves as a good example. Officials developed a pretrial working group which consisted of “Members of the Pretrial Work Group included Judges, Public Defenders, District Attorneys, Private Defense Lawyers, Pretrial Services Officials, Mesa County Jail Officials, and Victim Advocates.” Ultimately, “new Guidelines were developed collaboratively, albeit through many heated and confrontational meetings . . . The Chief Judge, the District Attorney and the Sheriff signed this document, which showed a strong collaborative framework. The public and private defenders also showed support in the development and implementation of this document.” See Mesa County Evidence-Based Pretrial Implementation Guide, 2015 Innovations in Criminal Justice, at 6, 11, available at http://www.apaine.org/wp-content/uploads/Mesa-County-Evidenced-Based-Pretrial-Implementation-Guide-1.pdf.
appropriate jurisprudential consideration of the use of predictions."\textsuperscript{155} That reliance came at a time when psychiatrists disclaimed their ability as a profession to predict future dangerousness. With no one stakeholder claiming the mantle, courts began to allow "much greater reliance . . . on psychological predictions of dangerousness than do the organized professions of psychiatry and psychology."\textsuperscript{156}

This pattern of \textit{de facto} abdication of responsibility by lawyers and jurists continues today, but with the developers of risk assessment tools stepping into the extra-judicial, expert role formerly filled by psychologists.\textsuperscript{157} As risk assessment designers move from today’s logistic regression-based techniques toward more complex machine learning techniques, this may reinforce lawyers’ impression that they do not belong at the table. If lawyers conceive predictions of pretrial failure as the province of the data scientists who design new, advanced pretrial risk assessment tools, they may, yet again, foreclose appropriate jurisprudential consideration of the use of those predictions. Similarly, courts may begin to place much greater reliance on what a sophisticated computer program says, even though data scientists disclaimed their program’s ability to predict pretrial failure for a specific individual.

2) The Expansion of Preventive Detention

A bail regime predicated on pretrial risk assessment may simultaneously reduce the overall incidence of pretrial detention, but also lead to an increase in the number of defendants who are preventively detained pretrial — meaning they were never offered a path of release. For various reasons, explored more below, such a development should concern bail reformers.

Consider Maryland. Only a few counties in the state use a pretrial risk assessment tool.\textsuperscript{158} Montgomery County, the state’s largest, is one of them. In September 2017, only 3.4 percent of defendants were held without bail after their initial appearance.\textsuperscript{159} One year later, as of September 2017, 19.3 percent of

\begin{footnotes}
\item[156] Id.
\item[157] As an example, consider the Public Safety Assessments’s prediction of “New Violent Criminal Activity.” “Violent criminal activity” might, on the surface, seem like a good approximation for “violent felony,” or “dangerousness.” But, as detailed above, the PSA was developed on data from nearly 200 individual counties and cities and nearly 100 federal judicial districts, \textit{which, as a group, do not have a uniform definition of violent felonies}. Thus, when the PSA tool claims to predict “New Violent Criminal Activity,” even if one were to accept the premise that the tool successfully does so, to the public, it’s unclear what that prediction is actually about, despite the vague valence that it’s about “violence.”
\item[158] Maryland Attorney General, “Bail Reform FAQ,” available at http://www.marylandattorneygeneral.gov/Pages/BailReform.aspx. (“Montgomery County and St. Mary’s County are using a validated risk assessment tool for every defendant.”)
\end{footnotes}
defendants were held without bail after their initial appearance.\footnote{http://www.mdcourts.gov/reference/pdfs/impactofbailreviewreport.pdf at 33.} Statewide, one quarter of defendants are held without bail after their initial appearance.\footnote{Id.}

Similarly, three months after reforms were enacted in New Jersey, 12.4 percent of defendants were preventatively detained.\footnote{Judge Glenn A. Grant, “Remarks Before the Senate Budget and Appropriations Committee,” May 4, 2017, available at http://www.judiciary.state.nj.us/pressrel/2017/SenateBudgetCommitteeRemarks_May_4_2017.pdf at 4.} As of December 2017, nearly 20 percent of defendants are detained without bail.\footnote{Initial Release Decisions for Criminal Justice Reform Eligible Defendants, January 1 - December 31, 2017, Chart A, available at https://www.judiciary.state.nj.us/courts/assets/criminal/cjrreport.pdf.} Similarly, detention in Lucas County, Ohio increased after the county implemented risk assessment.\footnote{Marie VonNostrand, “Assessing the Impact of the Public Safety Assessment, Lucas County, Ohio,” Luminosity, at 15 (observing that nearly 6 percent more defendants remained in custody until the final disposition of their case.)} Overall, even where risk assessment tools are adopted to advance explicitly liberal reforms, nothing inherent to risk assessment guarantees liberal results.\footnote{Consider the immigration context (which is different in significant ways but supports the broader point). In 2013, U.S. Immigration and Customs Enforcement (ICE) deployed the Risk Classification Assessment (RCA) system. The RCA forecast public safety and flight risks to help ICE officials make release or detain recommendations. The purpose of the RCA was to “foster alternatives to detention” by ascertaining the “optimal pool of participants.” Notably, immigration advocates “uniformly embraced risk assessment with only qualified concerns.” But the tool’s flight risk assessment was based on an interview with questions that such individuals, justifiably, might not want to answer fully or truthfully, like family, residency, and work authorization history. Ultimately, the RCA over-classified individuals as medium and high flight risks, recommended less than 1 percent of arrestees for release in Baltimore. Overall, though the RCA was supposed to aid ICE in fostering alternatives to detention and alleviate bed shortages for detainees, it had exactly the opposite effect. See, e.g., Mark Noferi, Robert Koulish, The Immigration Detention Risk Assessment, 29 GEO. IMM. L. J. 45, 47, 48, 49 (2014); Robert Koulish, Immigration Detention in the Risk Classification Assessment Era, 16 CONN. PUB. INT. L. J. 1, 5, 33 (2016).}

In upholding the 1984 Bail Reform Act, the Chief Justice Rehnquist wrote that, “[i]n our society, liberty is the norm, and detention prior to trial or without trial is the carefully limited exception.”\footnote{United States v. Salerno 481 U.S. 739, 755 (1986)} Of course, this stated truth rings hollow when compared to today’s stark reality. True, an emergent consensus says that individuals should not be detained before trial simply because they are too poor to pay their way out. Yet, even in New Jersey — a pioneering state that eliminated money bail in favor of widespread pretrial risk assessment — one fifth of defendants are detained pretrial. Ultimately, pretrial risk assessment may expand the instances in which defendants are preventively detained and denied bail pretrial.

3) Conceding Salerno
Only a few decades ago, the constitutional propriety of predicting dangerousness pretrial was a matter of vociferous and widespread debate. Yet, oddly, a practice that was once seen as fundamentally at odds with our constitution and system of moral judgment is now seen as an obvious, rational component of pretrial decision-making.\(^{167}\)

Reductions in pretrial jailing may come at the cost of further marginalizing the presumption of innocence. Though there “has been relatively little innovation in the law and scholarship on bail in the twenty years since Salerno,”\(^{168}\) the new era of bail reform requires such innovation.

The logic of a bail reform model predicated on risk assessment actually “requires that judges have authority to order pretrial preventive detention,”\(^{169}\) as Sandra Mayson argues. As she observes, fully realizing this vision of reform will require massive changes: “twenty-three states still guarantee a broad constitutional right to bail and [would] have to amend their constitutions to authorize preventive detention without bail.”\(^{170}\)

Actuarial tools may, in short, offer bail reformers a Faustian tradeoff: a chance (or hope) to reduce present incarceration by ratifying recent erosions of the fundamental rights of the accused. We do not take a normative stance on which decision is the right one. We do, however, believe that reformers must be more attentive to this longer-term trade-off.

This question ultimately points back to Salerno, and the contested question of whether that case was rightly decided. In examining Salerno, scholars take particular issue with Salerno’s conclusion that preventive detention would not be punitive, and with its treatment of the risk of error in preventive detention decisions.

To determine whether or not a governmental act – in this case, preventive pretrial detention – had punitive effect, the Salerno court applied Kennedy v. Mendoza-Martinez. Under that case, the first step was to examine the legislative history to determine if there was explicit punitive intent. According to the Court in Kennedy, if no punitive Congressional intent is discernible, “each factor of the following test is to be weighed”:\(^{171}\)

\[
[1] \text{Whether the sanction involves an affirmative disability or restraint, [2] whether it has historically been regarded as a punishment, [3] whether it comes into play only on a finding of a scienter, [4] whether its operation will promote the traditional aims of punishment—retribution and deterrence, [5] whether the }
\]

\(^{167}\) Mayson, Dangerous Defendants, at 5. (“[A]uthorities on pretrial law and policy—including pretrial laws themselves—now universally identify . . . protecting the public from harm at the hands of defendants” as a core purpose of the pretrial system.)


\(^{170}\) Id. 515-516.

behavior to which it applied is already a crime, whether an alternative purpose to which it may rationally be connected is assignable for it and whether it appears excessive in relation to the alternative purpose assigned.\footnote{172}{Kennedy v. Mendoza-Martinez, 372 U.S. 144 168-169 (1963) (internal footnotes omitted).}

Where “conclusive evidence of congressional intent as to the penal nature of a statute” is not available, the seven factors “must be considered in relation to the statute on its face.”\footnote{173}{Kennedy v. Mendoza-Martinez, 372 U.S. 144, 169 (1963)} But, as Jean Koh Peters has argued, two key cases upon which Salerno relied had already derogated from this test. In \textit{Bell v. Wolfish}, the Court stated that:

\begin{quote}
[a]bsent a showing of an expres[s] intent to punish . . . that determination generally will turn on ‘whether an alternative purpose to which [the] restriction may rationally be connected is assignable for it, and whether it appears excessive in relation to the alternative purpose assigned [to it].’ Thus, if a particular condition or restriction of pretrial detention is reasonably related to a legitimate governmental objective, it does not, without more, amount to ‘punishment.’”\footnote{174}{Bell v. Wolfish, 441 U.S. 520, 538 (1979).}
\end{quote}

By interpreting \textit{Kennedy} this way, the \textit{Bell} Court by effectively “amputated the first five \textit{Kennedy} criteria.”\footnote{175}{Jean Koh Peters, \textit{Schall v. Martin and the Transformation of Judicial Precedent}, 31 B.C. L. REV. 641, 652 (1990).} Of utmost importance, according to the \textit{Bell} Court, was whether or not the policy in question was reasonably related to a “legitimate governmental objective.”\footnote{176}{Id.} In fact, after fully quoting the \textit{Kennedy} test, Justice Rehnquist “supported his drastic restatement of the test with neither precedent nor logic. In fact, he did not even acknowledge the change.”\footnote{177}{Eason, \textit{Eighth Amendment}, 1063. (emphasis added)} \textit{Schall}, in turn, relied on \textit{Bell}’s truncated version of the \textit{Kennedy} criteria to find that juveniles could be detained before trial to prevent their commission of conduct that would be a crime if committed by an adult.\footnote{178}{But in doing so, the Court actually further cabined its analysis. Specifically, the Court in \textit{Schall} only evaluated whether or not the text of the New York Family Act statute evidenced punitive intent, whereas the Court in \textit{Kennedy} had examined legislative history that “revealed not only a predecessor statute that had called the measure a ‘penalty,’ but also legislative memoranda and floor debates replete with punitive language.” \textit{Id.} at 659.}

This is the foundation upon which \textit{Salerno} relies. So long as a statute authorizing pretrial detention was not \textit{intended} to be punitive, and so long as it could be understood as “reasonably related” to a legitimate governmental interest, it would
not fall within the definition of punishment. Under this formulation, once the Salerno Court determined that Congress did not intend for pretrial detention to be a punitive restriction in the Bail Reform Act, it only needed to identify an “alternate purpose” for the restriction. There, the Salerno majority identified the prevention of danger to public safety as a “legitimate regulatory goal.” The Salerno Court did not even mention the other five Kennedy criteria. Nor does the majority acknowledge, as an earlier case had held, that “even a clear legislative classification of a statute as “non-penal” would not alter the fundamental nature,” or effect, “of a plainly penal statute.”

Once it found that preventive pretrial detention was regulatory rather than punitive, the Salerno court next interpreted Mathews v. Eldridge, which established a three factor balancing test to determine what kinds of procedures are required once an individual has been deprived of life, liberty, or property on a regulatory basis:

first, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and, finally, the Government’s interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.

Generally, when the liberty or property interest is weightier, more process is required. So, for example, depriving someone of their fundamental interest in freedom from detention would require substantial process.


181 Id.


183 Trop v. Dulles, 356 U.S. 86, 95 (1958). In other contexts, the Court has distinguished between what Congress calls an action and the effect of that action. See, e.g., United States v. Constantine, 296 U.S. 287, 294 (1935) (“But even though the statute was not adopted to penalize violations of the amendment, it ceased to be enforceable at the date of repeal if, in fact its purpose is to punish, rather than to tax.”); United States v. La Franca, 282 U.S. 568, 572 (1931) (“No mere exercise of the art of lexicography can alter the essential nature of an act or a thing, and if an enactment be clearly a penalty, it cannot be converted into a tax by the simple expedient of calling it such.”); Lipke v. Lederer, 259 U.S. 557, 561-562 (1922) (“When, by its very nature the imposition is a penalty, it must be so regarded.”) Helwig v. United States, 188 U.S. 605, 613 (1903) (“...the use of those words does not change the nature and character of the enactment.”)

But here again, Peters argues, an earlier case had distorted the relevant precedent and set the stage for Salerno to disregard that precedent. Schall had ignored the first part of Mathews’ second factor — risk of error — “by focusing not upon the question of whether a prediction can be accurate, but rather upon the far more simplistic question of whether the prediction can be made or ‘attain[ed].’”185 As Peters argued, if the Salerno Court were forced to apply Mathews’ second criterion, “it would have been obliged to evaluate not whether any detention are justified, but rather whether the risk of erroneous detentions would be acceptable.”186

But the Salerno Court did not do so. Instead, following Schall, its analysis was largely framed as a two-pronged balancing process: society’s interest, on the one hand, to prevent crime, and the individual’s interest, on the other, in their liberty.187 The Salerno Court neither “acknowledged nor discussed the [second] Mathews . . . criteria, the risk of error in current procedure and the probable value of additional or substitute procedures, respectively.”188 Whatever one thinks of the safeguards that the Bail Reform Act of 1984 provides, they are irrelevant when examining the “probable value, if any, of additional or substitute procedural safeguard,’ if indeed no procedures, no matter how intricate, could ever make the procedure more accurate.”189 By ignoring the second part of the Mathews test, the Salerno Court avoided squarely addressing whether or not predictions of dangerousness could ever be tolerably accurate.190

If a bail system centered on pretrial risk assessment does, in some instances, lead to a higher incidence of preventive detention, it’s all the more urgent for reformers to squarely address whether or not Salerno was rightly decided.

Even if one were to agree with the core holdings of Salerno — that the Constitution does not provide an affirmative right to bail and not definitively prohibit preventative detention — several pressing questions remain open and underexplored. First, Salerno said nothing about “what degree of risk is constitutionally sufficient to justify detention.”191 That question is perhaps “the most

185 Peters, supra note 175, at 677.
186 Id. at 690.
187 Jack F. Williams, Process and Prediction: A Return to a Fuzzy Model of Pretrial Detention, 79 MINN. L. REV. 325, 363 (1994) (“Again, the Court exhaustively considered treatment of the government’s interests while only begrudgingly recognizing an adult individual’s interest to be free from governmental restraint. Rhetorically, to mask the basis of the decision, the losing interest ought to receive more time than the winning one. In Salerno, this rhetoric is not the case.”); also see Alschuler, Preventive Detention and the Failure of the Interest-Balancing Approaches to Due Process, 85 MICH. L. REV. 510, 511, no. 1. (“…the Supreme Court’s current approach to the due process clause has tilted too far toward interest balancing and too far from historic concepts of individual freedom.”)
188 Peters, supra note 175, at 686.
189 Id. at 690.
190 Charles P. Ewing, Schall v. Martin: Preventive Detention and Dangerousness Through the Looking Glass, 34 BUFF. L. REV. 173 (1985) (arguing that, based on a survey of the literature, predictions of violent and criminal behavior are wrong more often than they are right).
191 Mayson, Dangerous Defendants, 498.
important [element] of risk assessment . . . because it marks the compromise between the presumption of innocence, decarceration, and public safety.”

Further, if it were determined that magistrates — or, more critically for our purposes, pretrial risk assessment tools — cannot predict dangerousness with adequate reliability, “pretrial detention [might] not be rationally related to the goal of reducing pretrial crime.” Finally, Salerno dictates that “detention prior to trial . . . is the carefully limited exception.”

A risk-based bail system seemingly requires some defendants to be detained, without ever having been offered a path of release. How many such cases are allowable until it can be no longer be said that detention is a “carefully limited exception” Rubicon?

Of course, risk assessment tools themselves cannot “answer [the] normative question at the heart of contemporary pretrial justice . . . how certain must we be that the person will commit a crime or not appear in court?” Instead, bail reform predicated on risk assessment means that answers to this question are all the more urgent and necessary.

IV. ADDRESSING THE CHALLENGES

A. Relevant, Timely Data

1) Risk Assessment Tools Should Always Rely on Recent, Local Data

Jurisdictions that are reforming bail practices should always rely on recent data, gathered after their other pretrial reforms have taken root, to construct or calibrate their risk assessment tools. Existing “off the shelf” risk assessment tools, whose predictions assume that defendants still face the same long odds of succeeding outside jail, should not be used without adjustment in jurisdictions where those risks have been mitigated. Risk assessment tools developed solely from historical data that predates the enactment of significant risk-mitigating reforms will not reflect defendants’ new odds of success on release and could, in turn, hamper overall reform efforts.

193 Eason, Eighth Amendment, 1065.
196 Here, Sandra Mayson’s recent work deserves special note. She argues that “there is no clear, relevant distinction between defendants and non-defendants who are equally dangerous . . . there is no constitutional text or doctrine that clearly grants the state more expansive preventive authority over defendants than non-defendants. . . . [Further], the practical justifications proffered to support the special preventive restraint of defendants are, at best, incomplete.” Given that there is no moral or practical distinction, and like cases should be treated similarly, she develops a “parity principle,” which “holds that the state has no greater authority to preventively restrain a defendant than it does a non-defendant who poses an equal risk.” Overall, she argues “[g]iven the trajectory of pretrial reform, it is both an important and an opportune time to clarify the contours of the state’s pretrial powers.” See Mayson, Dangerous Defendants, 499-500.
What counts as “recent data” will vary, depending on context. For example, a jurisdiction’s decision to move from a money bail schedule to a system that presumptively releases all misdemeanor defendants would be a major risk mitigating reform, and no risk assessment instrument should be used unless it can reflects the outcomes of a presumptive-release regime.

What’s ultimately important is for jurisdictions to track changing patterns of risks and outcomes

Recent data is indispensable — but earlier can also be responsibly used. The critical concept is that the scoring process must evolve to reflect declining risks of pretrial failure. Models based partly on older data can be adjusted to reflect more recent developments. Adjustment is possible because the defendants who get released are themselves a diverse group, with different (albeit low) levels of failure risk, and their outcomes can be compared both before and after reforms. If released defendants are grouped by the risk score they were assigned at arraignment, so that there are separate groups of released defendants who earned scores of 1, 2, and 3 out of ten (say), the groups should each have different — presumably increasing — rates of pretrial failure. Those rates can be compared both before and after a reform to assess how scores may need to be adjusted.

A regression that compared the failure rates of these before and after reform could reveal by how much, and for which offenders, risks have now been reduced. A regression linking scored risk level to post-reform failure rate can reveal when a jurisdiction has succeeded in reducing the actual level of risk associated with each score. The jurisdiction can then either recalibrate the risk scale or simply begin to release more defendants at the higher score levels (which have come to betoken a lower true level of risk than they did initially).

Ultimately, if jurisdictions are to truly rely on and promote “evidence-based practices,” they must gather the evidence first. For a pretrial risk assessment tool to promote evidence-based practice, the tool must incorporate recent data — data that reflects the fact that bail reform policies have mitigated the risks defendants face once released.

If jurisdictions cannot — or will not — wait for fresh data to introduce risk assessment, then they must vigorously collect data on the failure rates of defendants before and after reform. This would empower policymakers to update the model early on. And, once they do so, they should weight the recency of post-reform data higher within the model.

2) Continuously Compare Predictions Against Outcomes

It is vitally important, in any jurisdiction using a risk assessment tool, that the jurisdiction track the risk scores and subsequent outcomes. This may seem like a

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197 We expand on the benefits of vigorous pretrial outcome data collection in the next section.
198 Megan Stevenson, Assessing Risk Assessment in Action, Geo. Mas. Law & Econ. Research Paper No. 17-36 1, 59 (2017). (“When a new technique is adopted, outcomes should be monitored to see if the desired effects were achieved. If they were not,
simple or obvious suggestion, but current practice lags woefully far behind it. Data collection practices on pretrial outcomes at the county level are notoriously varied, often haphazard, and sometimes totally absent.\textsuperscript{199} Some agencies do not or cannot calculate failure to appear rates or pretrial rearrest rates.\textsuperscript{200} Even more basic information, like the average length of jail stay for detained pretrial defendants, is sometimes unavailable or not tracked.\textsuperscript{201} Others alter the very pretrial failure rates they seek to measure through technological errors.\textsuperscript{202}

Data on the risk scores and subsequent outcomes, whether for all defendants or for a representative sample of them, is necessary in order to understand the relationship between scores and true levels of risk. Without such, there is no way to know whether the risk assessment data is systematically wrong about the risks posed by defendants. Such continuous tracking would not only allow jurisdictions to evaluate how well their risk assessment tool classifies risk, but also empower jurisdictions to track how reform efforts may be changing risk levels. It is also important for a defendant’s risk assessment prediction, their subsequent outcome, and case file to be linked. This would make it possible to analyze how predictions adjustments can be made accordingly. In this paradigm, a method would be neither championed nor pilloried until its impacts in practice are clearly understood.”

\textsuperscript{199} “A 2014 report by the Governor’s Commission to Reform Maryland’s Pretrial System identified the following gaps in available data about Maryland’s pretrial population. “Unanswered question in Maryland: How many defendants post bond? How many defendants are released on pretrial supervision? How many defendants released pretrial are arrested prior to trial? Of those defendants on pretrial supervision, how many fail to appear for court or get arrested prior to trial? What is the risk level of each defendant detained pretrial in jail? How many pretrial defendants are detained in jail who could not post bond? What was the bond amount? What is the average length of stay of pretrial defendants detained in jail?” Commission to Reform Maryland’s Pretrial System, Final Report, December 19, 2014, at 15.

\textsuperscript{200} “As in other areas of Ohio’s criminal justice system data regarding pretrial decisions, agencies, and outcomes is rarely collected. Fewer than 20 percent of respondents to the Ad Hoc survey collect data on failure-to-appear rates and even fewer collect data regarding arrests for crimes committed while on release pretrial. The Ad Hoc Committee recommends a dedicated and concerted effort to increase data collection and analysis for all facets of the bail and pretrial system in Ohio. At a minimum, the committee recommends that collection of appearance rates, safety rates, and concurrence rates (how often a judge accepts a pretrial service agency recommendation) be mandated for each jurisdiction.” (5 of 45 programs with survey responses in Ohio said they calculate failure to appear rates, 0 of 42 programs with survey responses said they calculate pretrial rearrest rates.) Ohio Criminal Sentencing Commission, Ad Hoc Committee on Bail and Pretrial Services, Final Report & Recommendations, June 2017, at 21, 176 - 184, available at http://media.newsnets5.com/uploads/report.pdf (Finding that 5 of 45 programs with survey responses in Ohio said they calculate failure to appear rates, 0 of 42 programs with survey responses said they calculate pretrial rearrest rates, and 4 of 43 calculate release rates.)

\textsuperscript{201} Id. at 88, 94-95.

\textsuperscript{202} In Harris County, newly approved court rules schedule many hearings for within one business day. The county’s computer system, however, still tells misdemeanor defendants to return to court in seven days. Misinformed defendants are missing their court dates, which may make the otherwise successful reform look like a failure. See, Bryce Covert, “Are Harris County Officials Trying to ‘Sabotage’ Bail Reform with Misleading Data?” In Justice Today, Dec. 8, 2017.
or outcomes correlate with other features, such as a defendant’s race, socioeconomic status, recent rearrests, or type of pretrial monitoring. Doing so would help ensure that risk assessment tools lead to more equitable outcomes across race, gender, and socioeconomic status.

Such tracking should also include data on how often judges concur with the risk assessment tool’s recommendations, and ideally on their reasons for diverging when they do. If jurisdictions don’t track judicial concurrence or rates with recommendations, it’s likely that today’s state of affairs — widespread judicial divergence — will continue. By tracking concurrence, divergence, and why a judge diverged, policymakers may be able to create a positive feedback loop: The more that judges understand how a risk assessment tool works, and the more that the developers of a risk assessment tool understand how judges use — or don’t use — their tool, the better.

Many jurisdictions may lack the technological infrastructure, expertise, and other resources to pay attention to whether their pretrial risk assessments are right or wrong. Such challenges, where they exist, must not be considered a warrant to ignore the question. To the extent policymakers imagine that they can combine bad data with good prediction, a shift in perspective is essential. Data infrastructure is not an afterthought, but an indispensable pillar of the responsible deployment of statistical predictions in pretrial justice.203

3) Focus on the Risks that Matter Most

Pretrial risk assessment tools generally predict two outcomes: failure to appear and rearrest. It’s important to interrogate the gap between data we have — who shows up to court, who is rearrested for a crime — and the questions we ask of that data.

Currently, 45 states and the District of Columbia permit either pretrial detention or release subject to restrictions “[a]fter a finding that a defendant poses a danger to an individual or community.”204 However, most of today’s risk assessment tools only predict future rearrest. As others have observed, the two are not the same. While rearrest for a violent crime might signal danger to an individual or community, rearrest writ large does not. Predictions of rearrest do not so much measure “dangerousness” as they measure — and anticipate — future contact with the criminal justice system.205

203 See, e.g., Erika Parks, et al., “Local Justice Reinvestment,” Urban Institute, at 12, (August 2016) (“A critical component of justice reinvestment is data analysis and data-driven decision-making . . . To improve data capacity, local sites developed data warehouses, integrated data systems, data dashboards, and jail population and cost-benefit projection tools.”)


For example, most rearrests pretrial appear to be for technical violations, not new violent crimes. Federal data from 2012-2014 show that for defendants released to the community pretrial who had at least one violation while on release, technical violations of bail conditions represented nearly 90 percent of all violations in which a new offense was charged. Among defendants for whom a drug crime was the most serious offense charged, in 2014, 92 percent of all new offenses charged were because of technical violations of bail conditions. The technical conditions of bail are often mundane: curfews, travel restrictions, drug tests, and even keep-your-job requirements.

Other bail reforms will make it all the more important to delineate technical violations from new violent arrests. Jurisdictions will release more defendants pretrial by increasing the use of non-financial conditions of release. In all likelihood, this will increase the incidence of rearrest for technical violation of release conditions.

Ultimately, communities should determine which public safety risks matter most to them — and researchers, practitioners, and policymakers should act accordingly. Should decisions be based on “the risk of the defendant committing another crime pretrial or the risk of the defendant committing specific crimes pretrial (e.g., violent offences)”? And though developers of risk assessment tools sometimes concede that rearrest data is an imperfect measure, they generally defend it as the one of the few measures available — or, the least bad option available. But we would argue that differentiating new violent crimes from technical violations is a bare minimum requirement for responsible use of these tools.

Similar critiques can be made about failure to appear data. While data on failure to appear does not suffer from sampling bias, the reasons defendants fail to appear vary widely and should not be construed to suggest flight risk. Thus, generalized failure to appear data flattens the underlying circumstances.

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206 A “technical violation” of conditional release, benign as it may sound, can also carry serious and immediate consequences (beyond making the person appear riskier in future risk assessments). The American Bar Association’s Pretrial Release General Principles say that “a person who has been released on conditions and who has violated a condition of release, including willfully failing to appear in court, should be subject to a warrant for arrest, modification of release conditions, revocation of release, or an order of detention, or prosecution on available criminal charges.”

207 That’s at least already an observable trend in federal-level data. (80 percent of defendants released on personal recognizance received some set of pretrial conditions, while only 40 percent of defendants with a surety bond release received pretrial conditions) Pretrial Release and Misconduct in Federal District Courts, 2008 - 2010 at 9. See also, Santa Cruz County Probation Department, Alternatives to Custody Report, 2015. (Detailing a decrease in the ADP in the first half of the year, followed by a modest increase in the next half. However, “following modifications of the PSA-Court decision making framework, in the first quarter of CY2016 saw a dramatic rise of the [Average Daily Population on pretrial supervision]—almost double of previous years.”)


209 That is to say, a person either did or did not show up to a court date or hearing. A court does not only observe a select class of failures to appear.
Moreover, the risks that matter most might not just be the risks of a defendant’s rearrest or failure to appear. As Crystal Yang recently argued, jurisdictions could also consider the risks that pretrial detention might worsen a defendant’s circumstances. In imagining a “net-benefit” assessments, Yang argues that risk assessment tools could be used to “maximize social welfare in the bail setting [by] . . . also us[ing] data to predict the likelihood of harms associated with detention.”

Given the emergent literature on the staggering downstream costs of pretrial detention, such a concept is worth future research.

B. Strong, Inclusive Governance

1) Risk Assessments and Frameworks Must Be Public

Risk assessment models used in the courtroom pretrial — and the process used to develop and test them — must be public. Of course, making the risk assessment models and the process used to develop and test them would do much to alleviate due process concerns. Risk assessment tools that rely on trade secret claims, like Northpointe’s COMPAS risk assessment tool, have already seen due process challenges. But it’s not just defendants who fear what may be happening behind the curtain of trade secrecy. Judges may also be wary.

For example, in State v. Loomis, the Wisconsin Supreme Court became the first court to address the relationship between trade secrets in risk assessments and due process principles in sentencing. Although the Court ultimately rejected Loomis’ due process claim, one Justice noted in a concurrence that “this court’s lack of understanding of COMPAS was a significant problem in the instant case. At oral argument, the court repeatedly questioned both the State’s and defendant’s counsel about how COMPAS works. Few answers were available.”

Though Loomis involved the use of a risk assessment tool’s findings at sentencing, the same problems apply pretrial. Early literature suggests that judges diverge from the recommendations of risk assessment tools at rates which should concern reformers and policymakers alike. One way to ensure that judicial

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211 Id. (“For example, data on detained defendants can be used to identify factors that are most predictive of agreed-upon harms: whether someone is wrongfully convicted, whether someone loses their home, whether someone is unable to find employment in the formal labor market, and whether someone commits crime in the future.”)

212 Id., 1489-90. Though Yang does not advocate for the practicality of her suggestion, she does note that “[u]ltimately, by using data to predict both the costs and benefits of pretrial detention for each defendant, jurisdictions could create ‘net-benefit’ assessment tools using largely the same set-up already employed for risk-assessment tools.”

213 State v. Loomis, 881 N.W.2d 774 (Abrahamson, J., concurring).

214 Early evidence indicates a high rate of judicial overrides, in which judges depart from the recommendations of a risk assessment tool. A report by the Cook County sheriff’s office reportedly found that Cook County judges diverged from the recommendations of their risk assessment tool more than 80 percent of the time. See, Frank Main, “Cook County judges not following bail recommendations: study,” The Chicago Sun-Times,
concurrency rates with risk assessment recommendations stay high is to ensure that judges are involved from the outset of the development, design, and testing of a new pretrial risk assessment system. A criminal justice system that’s better understood and debated by all stakeholders will not only enjoy greater public support, but also enjoy greater legitimacy from all of those actors. Higher perceptions of legitimacy when it comes to pretrial risk assessment likely means higher concurrency rates.

Algorithmic trade secrecy is just one problem, however. For example, the Public Safety Assessment is a fairly simple system that can be implemented without a computer. And it appears that the Arnold Foundation is benevolently motivated — it provides the system free of charge. But, today, there is still a substantial amount that’s unknown about PSA. As Robert Brauneis and Ellen Goodman recently observed, the Arnold Foundation has not revealed how it developed its algorithms, why it used the data it chose to develop the system, whether it performed validation, and, if it did, what the outcomes were.215 Nor has it disclosed, in quantitative terms, what “low risk” and “high risk” meant.

In order to see if court systems had this information, Brauneis and Goodman sent open records requests to 16 different courts, only to largely be stymied.216 Of the five courts that responded to their request by providing documents, four of them “stated that they could not provide information about PSA because that information was owned and controlled by the Arnold Foundation,” thanks to a Memorandum of Understanding “which contained identical language prohibiting the courts from disclosing any information about the PSA program.”217 Such contractual confidentiality requirements may have its benefits. But such confidentiality can also be detrimental and worsen perceptions of procedural legitimacy.

Overall, in order for bail reform to be best positioned to succeed, the public needs a chance to find — and to press authorities to address — the kinds of risks we have described elsewhere in this paper. Claims of trade secrecy or confidentiality provisions in contracts immunize pretrial risk assessment tools from meaningful public inspection — including from judges.


Other evidence suggests that these diversions are not randomly distributed. Human Rights Watch, “Not in it for Justice”: How California’s Pretrial Detention and Bail System Unfairly Punishes Poor People, April 2017, at 93. (“judges disregard release recommendations, setting bail for as much as 75 percent of all defendants determined to be “low risk.”); Santa Cruz County Probation Department, Alternatives to Custody Report, 2015, at 2. 8. (Santa Cruz County piloted PSA-Court from July 2014 to June 2015. During 2015 the Superior County Court considered 1,437 recommendations. 644 PSA-Court recommendations were for release and 793 were for detention. Judges departed from the release recommendations a little more than half of the time — 53 percent of the time — but only departed from detain recommendations 16 percent of the time. Most of the departures, in other words, were in the direction of greater detention.)

216 Id.
217 Id. at 26-27.
Community Oversight of the Tools and Frameworks is Essential

As we argued in Part III.C., the role of decision-making frameworks in bail reform is sorely underexamined. Substantial attention and scholarship is directed to the pretrial risk assessment tool. But the goal of pretrial risk assessment tools is limited: to classify risk. Yes, that classification is important in and of itself. But what magistrates do with that information matters. Ideally, more scholarship and experimentation will lead to a more robust debate regarding the role and importance of decision-making frameworks.

Given the right conditions and sets of policies, decision-making frameworks could operate as a strong force for decarceration. For example, decision-making frameworks that presumptively favor release on recognizance, or the fewest, least restrictive conditions of release, for the vast majority of defendants would significantly mitigate the concerns we advance here — that systematically overestimating risk will, in turn, subject a substantial number of defendants to counterproductive conditions of release.

Of course, however, most decision-making frameworks are advisory. Though a decision-making framework advises a magistrate as to what conditions of release — or non-release — are recommended for a given defendant’s level of risk, a magistrate is largely free to assign what conditions of release they wish. In fact, maintaining this level of judicial discretion is seen as an important political bargain.

But maintaining judicial discretion does not necessarily vitiate the need for community oversight. Ideally, a decision-making framework is the product of vibrant community input and debate, from advocates, former defendants, public defenders, district attorneys, the judiciary, policymakers, and more. At its best, the document should formalize the answer to the question: “how much risk will our community tolerate?”

Understood this way, a decision-making framework would provide any magistrate judge a strong signal as to what the community would like done with defendants of various risk levels. Accordingly, it should be the norm, not the exception, that magistrate judges concur with the recommendations of a decision-making framework. Early evidence indicates that current practice is precisely the opposite, however.218

One way to increase concurrence rates is to make the decision-making framework presumptive, not advisory, in releasing certain classes of defendants, establishing heightened evidentiary and procedural burdens for upward departures (that is, for steps that increase incarceration or the intensity of supervision). In other words, jurisdictions might require magistrate judges to explain their decision when they diverge from the decision-making frameworks’ recommendations. When magistrate judges do disagree with the recommendations of a decision-making framework — which, even in a perfect world, would not be infrequent — several steps could be required. First, a system — either operated by the court system or other entity — could immediately capture the fact that the magistrate diverged from

218 See supra note 214.
the recommended course of action. Second, the judge could have to explain in writing why they diverged from the decision-making framework’s recommendation. Ideally, this explanation should be released in machine readable format.

Under such a system, jurisdictions could plausibly be better positioned to not only ensure that judges follow the recommendations of a decision-making framework, but also be better positioned to lock-in decarceral results. Such a system would offer valuable data to policymakers and researchers, like: how often magistrates diverge from the recommendations, for what types of defendants they diverge, and why they diverge. The histories of bail reform, recited above, and of sentencing reform, of course, offer current bail reformers a useful cautionary tale for limiting judicial discretion through technocratic solutions.

V. CONCLUSION

Pretrial risk assessment instruments, as they are currently used, cannot safely be assumed to advance reformist goals of reducing incarceration and enhancing the bail system’s fairness. Early evidence remains sparse, and risk assessment instruments may yet prove themselves effective tools in the arsenal of bail reform. But they have not done so to date. Shifting to risk-based bail will not necessarily reduce incarceration. Without stronger data practices and open governance, we believe it is likelier than not that these tools will perpetuate or worsen the very problems reform advocates hope to solve.

Beyond improving the design and governance of risk assessment tools, participants in the bail reform debate may also wish to renew their focus on policies whose benefits are clearer, such as automatically releasing broad categories of misdemeanor defendants.

If history is any guide, the most significant impacts of today’s bail reforms may turn out not to be the ones that reformers intend. By updating their models with recent, post-reform data, continuously monitoring outcomes, measuring the indicators that truly matter, and ensuring that tools are open to public scrutiny, today’s reformers can at least minimize their own risk of frustration in the vitally important work that they pursue.

219 Ideally, this would be linked to the defendant’s file at hand — that way policymakers and researchers could analyze why magistrate judges deviate from the recommended course of action and why.

220 Note, Bail Reform and Risk Assessment: The Cautionary Tale of Federal Sentencing, 131 HARV. L. REV. 1125, 1138 (2018). “The history of sentencing reform warns that technocratic criminal justice reform can be vulnerable on nearly all fronts. Powerful system actors can hijack tools of reform toward their own economic, structural, and racial ends. In the face of political pressure and media attention, the same legislature that passes reform can waver in its commitment to evidence-based practices and undermine the project. And without buy-in, aligned incentives, and limits on discretion, prosecutors and judges can manipulate technocratic reform. Technocratic tools can be useful, but they cannot answer tough normative questions at the heart of criminal justice.”