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Enhanced Public Defense Improves Pretrial Outcomes and Reduces Racial Disparities

PAUL HEATON*

Numerous jurisdictions are working to reform pretrial processes to reduce or eliminate money bail and decrease pretrial detention. Although reforms such as the abandonment of bail schedules or adoption of actuarial risk assessment tools have been widely enacted, the role of defense counsel in the pretrial process has received less attention.

This Article considers an approach to pretrial reform focused on improving the quality of defense counsel. In Philadelphia, a substantial fraction of people facing criminal charges are detained following rapid preliminary hearings where initial release conditions are set by bail magistrates operating with limited information. Beginning in 2017, the Defender Association of Philadelphia implemented a pilot program wherein “bail advocates” interviewed defendants shortly after arrest to collect individualized information that could be used to more effectively argue for pretrial release.

Using administrative data covering nearly 100,000 criminal cases and a quasi-experimental research design that exploits the random shuffling of arraignment shifts covered by advocates during the pilot, we measure the causal impacts of the advocates on pretrial release, failure to appear, case outcomes, and future crime. Bail advocates did not reduce detention rates (at least on average) but did substantially reduce clients’ likelihood of bail violation (-64%) and future arrest (-26%). Bail advocates also reduce racial disparities in pretrial detention. Interviews with prosecutors, defenders, and bail advocates suggest that these impacts likely represent both better understanding of defendant risk and needs by magistrates and a better sense of procedural justice by defendants.

These results suggest that bail advocates might achieve a key objective desired by proponents of risk assessment tools—the provision of better information to pretrial decisionmakers—without triggering comparable concerns. A workable solution to the problem of improving pretrial outcomes may lie with an old mainstay of the criminal process—the defense attorney.

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INTRODUCTION

There is a growing consensus across both the political left and right regarding the need to reduce the U.S. incarceration rate, which stands above that of all other developed countries in the world and at nearly three times the rate it was in 1980. Conservatives decry the enormous taxpayer costs of this system of mass incarceration along with the considerable imposition it places on human liberty, while Progressives emphasize racial and other inequities in the system and the harms it inflicts on disadvantaged populations.

In seeking to roll back the U.S. incarceration rate, reformers have seized upon pretrial reform as a particular area of opportunity. Nationally, individuals in pretrial custody represent 65% of the overall jail population, meaning that lowering pretrial detention can have an appreciable impact on overall incarceration rates. A growing body of high-quality research links pretrial detention to later adverse outcomes, including unemployment and recidivism, implying that pretrial reform can

4. See Paul Heaton, The Expansive Reach of Pretrial Detention, 98 N.C. L. Rev. 369 (2020) for a summary of this literature.
potentially generate both short run benefits in the form of reduced incarceration costs and longer run benefits as cases resolve differently. Moreover, pretrial detention is a clear driver of race- and wealth-based disparities in the criminal justice system, meaning that reforms in this area offer the potential to improve equity within the system. Responding to these realities, within the past three years numerous states, including New York, New Jersey, New Mexico, California, Texas, and Kentucky, have enacted or considered significant changes to rules governing pretrial detention, as have many of the nation’s largest cities and counties.

While there is widespread enthusiasm for pretrial reform, there remains considerable debate as to how pretrial systems should be changed in actual practice. Proposals for reform have considered a wide range of alternatives, including eliminating cash bail, speeding up the trial process, modifying constitutional or procedural rules to limit eligibility for pretrial detention, providing supportive services to charged persons, and removing individuals from the system altogether through diversion. This Article describes and evaluates an intervention focused on defense attorneys, one component of the system that has arguably received insufficient attention within the pretrial reform movement.

In Philadelphia, as in many jurisdictions, initial pretrial release decisions are made in brief hearings that include little contextualized information about the defendant. Beginning in April 2017, the Defender Association of Philadelphia launched a pilot program that hired “bail advocates” who met with people facing criminal charges shortly after arrest and prior to the initial bail hearing. The bail advocates collected information about these individuals and their cases, familiarized them with the pretrial process, and linked them to not only their family members and friends during their initial holding period, but also to a larger cluster of services offered by the Defender Association and community partners. A key objective of the program was to furnish defenders staffing the pretrial hearings with more individualized information about clients, which could be used to argue for less stringent pretrial release conditions.

The Defender Association shuffled the dates on which the bail advocates were available to take cases, creating quasi-experimental variation that allows us to rigorously measure the causal impacts of having a bail advocate on criminal justice outcomes. Using administrative data covering nearly 100,000 criminal cases in

9. Id.
Philadelphia, this Article demonstrates that the bail advocates did not affect release decisions on average but did substantially reduce clients’ incidence of bail violation (-64%) and both pretrial (-41%) and overall future crime (-26%). These gains are comparable to those achievable using state-of-the-art risk assessment instruments. Bail advocates also lessen punishment, reducing the likelihood clients will need to resolve their cases by pleading guilty or engaging in court-mandated remedial activities.

Importantly, the results also suggest that bail advocates reduce racial disparities in pretrial detention. In Philadelphia, 59% of people facing criminal charges are Black, yet 66% of defendants who are detained pretrial are Black. The estimates in this study suggest that, other things being equal, if bail advocates were available to all people facing criminal charges, only 58% of pretrial detainees would be Black, thereby eliminating the increase in disparity observed due to pretrial detention. Bail advocates thus provide one of the first examples of a pretrial intervention shown to reduce disparities in an experimental evaluation.

Interviews conducted with numerous bail advocates, public defenders, prosecutors, and supervisory personnel were used to better understand the mechanisms through which the bail advocates generate these impacts.10 Interviewees—who were blinded to the results of the empirical analysis—widely believed that the advocates affected how magistrates decided cases, and those with firsthand experience in bail hearings cited specific examples of cases where the advocates’ information led to a different bail outcome. That bail advocates affected magistrates’ decision-making in at least some cases is also supported by ancillary statistical analyses that demonstrate that advocates increase the average amount of time magistrates spend on the hearing, and that the causal effect of the bail advocates varies across individual magistrates.

Interviewees identified another channel of impact, one that might not be achieved by other pretrial reforms. Interviewees posited that, by siding with people facing criminal charges—many of whom had no prior experience in the criminal justice system—at a moment of particular vulnerability, explaining the process, calling family members, and encouraging future contacts between defendants and their attorneys, the bail advocates increased their clients’ sense of procedural justice11, which fostered better engagement throughout the adjudication process. Such an effect would be consistent with prior research demonstrating that supportive pretrial interventions can increase defendants’ sense of fairness regarding the process and intention to comply with the court.12 Moreover, the magnitude of the decrease in arrests and the finding that the bail advocates reduced defendants’ ultimate punishment in their cases are difficult to explain if bail advocates only enable magistrates to better select less risky subjects for release. However, these findings are consistent with an environment where bail advocates alter some individuals’

10. We attempted to interview the bail magistrates, but they declined to participate. See infra Part V.
11. See infra note 136.
underlying behavior to become more engaged with their attorneys and more compliant with court requirements, as posited by the interviewees.

Defense-oriented interventions to improve the pretrial process could prove attractive for a variety of reasons. As one method of reform, many jurisdictions have recently implemented pretrial actuarial risk assessment instruments (ARAI), which use statistical analysis of large datasets to predict the likelihood that a particular person facing criminal charges will fail to appear (FTA) or engage in pretrial crime as a function of characteristics such as age, prior criminal history, charge, and prior bail violations. However, ARAIs have proven politically controversial, and a number of jurisdictions, most notably California, have recently rejected reforms that expand the use of pretrial risk assessments.13

Improving the quality of representation at first appearance seems to achieve one of the primary goals of those calling for the implementation of ARAIs—namely, providing more individualized information about defendant risk to courts—while simultaneously fulfilling a key goal of ARAIs’ opponents—allowing people facing criminal charges to better access supportive services that reduce future contact with the criminal justice system. Moreover, defense-focused solutions likely do not raise the same concerns regarding net widening, racial bias, or non-transparency that have animated opponents of ARAIs. Additionally, in most jurisdictions, improvements to defense representation could be achieved without substantial changes to existing court procedures or rules, so there are potentially fewer veto points for reform. And such improvements could be implemented in concert with other changes, including, where desired, ARAIs. While there are also important limits to defense-centric interventions—several of which are discussed below—overall these results suggest that solutions focused on improving the quality of defense representation at the earliest stages of the process deserve a more prominent place in the larger discussion around pretrial reform.

These findings carry import for current legal doctrines regarding the right to counsel. Current caselaw extends the Sixth Amendment right to counsel to “critical stages”14 of the prosecution, but the Supreme Court has not definitively indicated whether the bail determination itself qualifies as a critical stage.15 Although many lower courts recognize bail hearings as a critical stage,16 this recognition is not universal.17 These quasi-experimental results indicate that the quality of counsel at the initial bail hearing has a direct impact on the outcome of a case and sentence. In

Gerstein v. Pugh, the Supreme Court indicated that critical stages include “pretrial procedures that would impair defense on the merits if the accused is required to proceed without counsel.” Under this formulation and in light of these findings, it seems apparent that a bail setting should qualify as a critical stage where there is a right to effective counsel.

It is likely that multiple solutions will be required to correct the problems of current pretrial systems, and defense attorneys are no panacea. Nevertheless, whereas there has been much public discussion of algorithmic solutions to improve pretrial decisions, the findings of this Article offer a person-focused path towards pretrial reform that centers on the defense attorney.

I. PRETRIAL REFORM AND THE APPEAL OF ACTUARIAL TOOLS

Pretrial reform has emerged as a key component of the larger criminal justice reform movement in the United States. As of March 2019, reforms had been recently initiated in thirty-seven of fifty states, and public support for limits to pretrial detention remains robust. Several features of the pretrial process have rendered reforms of this part of the system more politically viable than broader, more comprehensive sentencing reforms. During the pretrial phase, criminal defendants maintain the legal presumption of innocence, allowing politicians to advocate for pretrial reform without appearing soft on crime. Moreover, because pretrial detention generally occurs in local jails, there is also better incentive alignment between those making pretrial detention decisions—local prosecutors and magistrates—and those who benefit from a reduced jail population. The reform movement has also been fueled by a number of recent court decisions identifying constitutional infirmities in common procedures for setting and enforcing bail, which has spurred some


jurisdictions to engage in reform efforts to defend against the possibility of future litigation.24

The movement to reform pretrial processes and end cash bail has coincided with a proliferation of interest in using “big data” and artificial intelligence to address problems in business and government.25 While scientists and scholars have contemplated numerous applications of such technologies to the criminal justice system,26 perhaps no aspect of the system is as natural of a fit as the problem of bail setting, which is a quintessential classification problem. Bail setting has long been conceptualized by scholars and practitioners as a risk assessment exercise that requires classifying defendants based on their likelihood of failure to appear for court and setting release conditions accordingly;27 in recent years the technologies for solving such classification problems have advanced tremendously. Unsurprisingly, these technological advances have spurred widespread efforts to incorporate more advanced actuarial approaches for assessing risk into the pretrial process.28 Spurred in part by efforts of the Laura and John Arnold Foundation to develop and disseminate an evidence-based pretrial ARAI called the Public Safety Assessment (PSA),29 today numerous jurisdictions provide bail decisionmakers with outputs


from an actuarial risk assessment instrument that can be considered when determining pretrial release conditions.\textsuperscript{30}

Actuarial tools offer a solution to a key political problem facing those who advocate shrinking the pretrial system’s footprint: releasing more defendants, absent any other changes to the system, will mechanically lead to increases in FTA or pretrial crime due to reverse incapacitation. While expanding pretrial release remains popular with the general public, members of the public also express concern about pretrial misconduct and endorse pretrial detention when doing so would seemingly prevent violent crime.\textsuperscript{31} Policymakers must balance the potential benefits of liberalizing pretrial release with concerns about the possibility that some newly released defendant might commit a high-profile offense that erodes their political support.\textsuperscript{32}

ARAI\textsuperscript{s} offer a solution to this problem by promising to reduce the underlying rates of FTA and pretrial crime by better sorting defendants. ARAIs are commonly described as permitting the identification of “low risk” individuals who might otherwise be detained under a cash bail system who can then be released without posing a threat to public safety.\textsuperscript{33} By pairing adoption of ARAIs with proposals to reduce or eliminate cash bail or otherwise liberalize pretrial release, policymakers have sought to neutralize concerns that moving away from bail-based systems will lead to an uptick in crime or FTA. Proponents also point to the tools’ potential to bring greater accuracy, transparency, and uniformity to the process of determining

\textsuperscript{30} Sandra G. Mayson, Dangerous Defendants, 127 YALE L.J. 490, 508–10 (2018) (describing some of the most common actuarial tools used in the pretrial arena).


pretrial release conditions and argue that ARAIs can increase racial equity in the system by correcting explicit or implicit bias of criminal justice decisionmakers.34

However, as more jurisdictions have come to embrace ARAIs, the tools have come under increasing criticism from both scholars35 and activist groups.36 For example, recently over 100 civil rights groups, including the ACLU, Color of Change, and the NAACP have called for their exclusion from the pretrial process,37 and a prominent provider of pretrial technical services reversed its position supporting ARAIs.38 Opponents express concerns that, by labeling some defendants “high risk,” ARAIs can be used to widen the pretrial net and increase the use of preventative detention.39 They further contend that ARAIs are likely to embed racial bias in the pretrial process,40 both because the tools themselves can treat racial groups disparately, and because the underlying data used to train the instruments are produced through a racially biased process.41 They also cite an emerging body of empirical research suggesting that ARAIs, whatever their desirable theoretical attributes, do not necessarily generate lasting reductions in pretrial detention or racial disparities when actually implemented.42 Finally, they criticize the tools for being


37. Id.


40. See Sandra G. Mayson, Bias In, Bias Out, 128 YALE L.J. 2218 (2019) for a nuanced discussion of this issue.

41. The Use of Pretrial "Risk Assessment" Instruments, supra note 36, at 1; Wykstra, supra note 33.

insufficiently transparent.\textsuperscript{43} Although united in opposition to ARAIs, the critics of these tools have achieved less consensus in delineating what, if anything, should be used instead to improve the pretrial process.\textsuperscript{44} Some critics simply recite the drawbacks of ARAIs and call for more widespread pretrial release without proposing anything to address concerns about pretrial crime or nonappearance.\textsuperscript{45} Among those who do propose alternatives, common proposals include expansions of pretrial monitoring, text reminders,\textsuperscript{46} and rides to court.\textsuperscript{47} Text reminders, while promising, have a mixed record of success in addressing FTA,\textsuperscript{48} while rides to court have yet to be rigorously evaluated, and both solutions address FTA rather than pretrial crime, which is the issue of much greater public concern. Expanded pretrial monitoring carries the potential to address pretrial crime,\textsuperscript{49} but raises concerns similar to ARAIs regarding net widening and racial bias.\textsuperscript{50} And none of the proposed alternatives have been demonstrated to provably reduce racial disparities, a key concern with present pretrial systems.

\begin{itemize}
\item \textsuperscript{44} Arvind Dilawar, What Should Replace Cash Bail?, PAC. STANDARD (Apr. 9, 2019), https://psmag.com/social-justice/what-should-replace-cash-bail [https://perma.cc/QK6V-UJT9].
\item \textsuperscript{45} See, e.g., Jocelyn Simonson, Opinion, The Danger of ‘Dangerousness’: Bail Reform that Relies on This Slippery Notion Will Lock up Many More Black and Brown People Pretrial, DAILY NEWS (Mar. 10, 20202), https://www.nydailynews.com/opinion/nyoped-danger-of-dangerousness-20200310-33jydlhnr5dtvbuq62j4t3ehz4-story.html [https://perma.cc/JFF5-UULV].
\item \textsuperscript{47} Miguel Otárola, Minneapolis Seeks Alternative to Cash Bail for Low-Level Crimes, STAR TRIB. (Sept. 18, 2019, 9:01 PM), http://www.startribune.com/minneapolis-seeks-alternative-to-cash-bail-for-low-level-crimes/560730682/ [https://perma.cc/6GA9-S2KQ].
\item \textsuperscript{49} See Josephine W. Hahn, CTR. FOR COURT INNOVATION, AN EXPERIMENT IN BAIL REFORM: EXAMINING THE IMPACT OF THE BROOKLYN SUPERVISED RELEASE PROGRAM 19 (2016).
\item \textsuperscript{50} See Michelle Alexander, Opinion, The Newest Jim Crow, N.Y. TIMES (Nov. 8, 2018),
\end{itemize}
Opponents of ARAIs have also called for expanded access to broader supportive services, such as housing, employment, and health care, for pretrial populations, but such approaches raise considerable political, resource, and implementation challenges. Moreover, the effects of such general investments of this sort on the specific problems targeted by the pretrial system—FTA and pretrial crime—remain poorly understood.

The paucity of evidence-based alternatives to ARAIs creates a dilemma for proponents of pretrial reform—embracing risk assessment tools strikes many as problematic, yet ARIAs seem to be an effective way to assuage fears about increasing FTA and pretrial crime, which often must be addressed to enact reform. What appears to be needed are new, evidence-based approaches that achieve similar goals and objectives of ARAIs—facilitating the release of low-risk individuals and managing the increase in pretrial crime that might ensue if fewer people facing criminal charges are detained—without triggering the same concerns. Below we explore one such potential solution centered on a component of the pretrial system that has received less attention—the defense attorney—and provide rigorous evidence establishing its effectiveness.

II. THE PHILADELPHIA PRETRIAL PROCESS AND PRIOR EMPIRICAL LITERATURE

A. The Bail Process in Philadelphia

Philadelphia’s bail process shares features in common with many large jurisdictions—namely, a significant role for cash bail, use of an advisory bail schedule, and reliance on rapid, cursory hearings to make initial bail decisions followed up by an opportunity for more in-depth bail hearings for a subset of defendants. Following arrest, criminal defendants are transported to one of five booking facilities within the city, where they are fingerprinted and interviewed via video or in person by pretrial services staff who obtain information about financial resources, community ties, physical and mental conditions, and substance use for inclusion in a pretrial services report. They are detained until a preliminary arraignment, which combines a probable cause hearing with an initial bail determination and occurs within forty-eight hours of arrest. Preliminary arraignments occur twenty-four hours a day and are organized into three shifts: 7 a.m.–3 p.m., 3 p.m.–11 p.m., and 11 p.m.–7 a.m.


53. PHILA. BAIL FUND & PENNSYLVANIANS FOR MODERN COURTS, PHILADELPHIA BAIL WATCH REPORT: FINDINGS AND RECOMMENDATIONS BASED ON 611 BAIL HEARINGS 11 (Oct. 15, 2018), https://static1.squarespace.com/static/591a4fd51b10e32fb50fb73/t/5be60034a422f8cd2231c54/ [https://perma.cc/3ZHF-TYDG].
Preliminary arraignments are conducted via video conference, with arraignment court magistrates—commonly referred to as bail commissioners—presiding and defendants participating remotely. 54 Representatives from the district attorney (DA) and public defender (PD) are present in the room with the bail commissioner; 55 but, absent unusual circumstances, have not interacted with the defendant prior to the start of a hearing. Typical hearings last only a few minutes. 56 Defendants often do not speak during the hearings other than in response to questions, and in some cases are counseled not to speak by the PD representative, presumably out of a concern that they might make incriminating statements. After charges are read, bail magistrates review the arresting officer’s report and the pretrial services report (which includes information about prior criminal history), consult a grid of recommended bail amounts, 57 and consider any arguments made by the DA or PD representatives before deciding whether pretrial release is appropriate and, if so, under what conditions. Only in very rare cases in which defendants secured the services of counsel prior to or immediately after arrest would an attorney other than the PD representative be present to advocate on the defendant’s behalf. 58

Bail commissioners have several options regarding release. Release options that do not require money up front include release on recognizance, release with nonmonetary conditions, 59 or release with unsecured bond. 60 Slightly more than half of defendants in our sample are assigned money bail, in which case they must post 10% of the bail amount in order to be released. Atypical relative to other cities, in Philadelphia money bail is administered by the courts and commercial sureties play a minimal role. Preventative detention is authorized by Pennsylvania law, 61 and in rare cases defendants are detained without bail. In our sample, roughly 30% of defendants are detained until the completion of their case, some due to inability to pay money bail.

At the preliminary arraignment, indigent defendants are assigned to the Defender Association or private appointed counsel. Those clients unable to post bail following the preliminary arraignment can have their bail reviewed later in the criminal

54. Id. at 13.
55. Neither these representatives nor the bail commissioners are required to be licensed, practicing attorneys. Id. at 14.
58. See PHILA. BAIL FUND & PENNSYLVANIANS FOR MODERN COURTS, supra note 53, at 14.
59. For example, compliance with a stay-away order or supervision by the First Judicial District’s Pretrial Services Division.
process,\textsuperscript{62} and bail can also be reviewed on motion of the defense attorney. Bail can also be revoked on motion by the DA, or when defendants are rearrested while their case is pending or fail to appear for court. Approximately 6\% of defendants in our sample experience bail forfeitures or revocations during their case.

To summarize, the initial bail determination is made at a preliminary arraignment where the bail commissioner, defense counsel representative, and prosecutor representative need not be trained attorneys; there is very limited information available about the defendant or circumstances of the alleged crime; defendants participate little; and decisions are usually made within the space of two or three minutes.\textsuperscript{63}

B. The Bail Advocates Pilot

Beginning in April 2017, the Defender Association piloted a new program designed to enhance the ability of the public defender representative to advocate on behalf of defendants’ interests at the preliminary arraignment. The advocates pilot began with two advocates operating on selected day (7 a.m.–3 p.m.) shifts out of the city’s Police Detention Unit (PDU), which is its largest booking facility. New advocates rotated in during the summer of 2018.

One key drawback of the normal process is that defendants are not able to speak to the PD representative prior to the hearing, meaning that PD representatives have little factual basis at the time of a hearing to advocate for a particular disposition. If, for example, the defendant is unable to afford bail beyond a certain amount, or there are mitigating factors, such as possible adverse impacts on employment or family members that might militate in favor of release, traditionally there would be no way for the PD representative to know about such circumstances during the preliminary arraignment. Only later in the process, after attorneys first had the opportunity to interview clients, would such circumstances become apparent. The dearth of information at the preliminary arraignment limits defense representatives’ ability to raise meaningful arguments.

Under the pilot program, the Defender Association hired bail advocates who are assigned to interview clients after arrest but before the preliminary arraignment. During the interviews, advocates inform defendants about the criminal process, and collect mitigating information that might be useful in the preliminary arraignment. Examples of such information include information regarding unique burdens that


\textsuperscript{63} \textit{PHILA. BAIL FUND & PENNSYLVANIANS FOR MODERN COURTS, supra} note 53, at 14.
might arise due to unaffordable bail, family or other personal information that establishes community ties, or low nonappearance risk. Advocates also serve as information conduits to family members about the location and status of the defendant, an important role given defendants’ limited access to outside communication. Notably, advocates do not provide direct representation but instead serve an information-gathering role, conveying information gleaned from their interviews and follow-up to the PDs appearing in the courtroom. Advocates will, in some cases, also follow up after a preliminary arraignment to collect necessary documentation establishing employment or other prerequisites for release, and they also assist clients who are released in accessing supportive services.

Conceptually, there are a range of possibilities for how a program such as the advocates pilot might affect criminal justice outcomes. Bail advocates could conceivably operate similar ARAIs, injecting more information into the initial decision regarding release conditions. However, other mechanisms of action different from those of ARAls are also conceivable.

Perhaps the simplest possibility is that, like many promising interventions, ultimately, the advocates do little to change pretrial decisions, either because the advocates fail to collect useful information or because bail commissioners, prosecutors, or other downstream actors neutralize the effect of the new information. Under this “no effect” scenario, we would not expect to observe measurable changes in release decisions or other outcomes following the introduction of the advocates.

A second scenario is one in which advocates enhance the ability of defense attorneys in the courtroom to advocate for the narrow interests of their clients. Under this “enhanced defense” scenario, information provided by advocates enables defense attorneys to more successfully argue for less restrictive pretrial conditions for all types of defendants, including those who may be likely to recidivate or fail to appear for court.

A third possibility is that the bail advocates collect useful information about clients that enables bail commissioners, prosecutors, and defenders to better identify those at high risk of nonappearance or recidivism, and therefore make more tailored release decisions. In this scenario, bail advocates are operating similarly to ARAls. For example, it seems likely that some defendants assigned unaffordable bail and therefore detained under the status quo system would not have in fact recidivated or failed to appear had they been released; if bail advocates facilitate the identification of such individuals, they are essentially providing improved risk information to other decisionmakers in the system. How this better information would manifest in outcomes depends on how other parts of the system operate. One possibility is that more defendants would be released without increasing nonappearance or future crime. An alternative possibility is that the same number of people would be released while nonappearance and future crime diminish.

A fourth possibility is that bail advocates do not affect the behavior of other decisionmakers in the system but do affect defendant behavior. If, for example, speaking to an advocate early on in the case lends additional legitimacy to the adjudication process in the minds of defendants,64 and therefore fosters greater

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64. Douglas L. Colbert, Ray Paternoster, and Shawn Bushway demonstrate using survey data that this was indeed the case in their study of defendants in Baltimore. See supra note 12.
compliance and cooperation, even absent any impact of release decisions, we might observe changes in FTA rates or future crime.

A final possibility is a “backfire effect,” whereby advocates actually negatively impact release rates. Such a situation could occur if efforts by public defenders to raise arguments on behalf of their clients are disfavored by bail commissioners or prosecutors, and this distaste affects release decisions. In this scenario, introducing advocates would actually increase pretrial detention, and through an incapacitation effect would likely reduce FTA and future crime.

Table 1 summarizes the scenarios outlined above.

<table>
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<th>Scenario</th>
<th>Pretrial Release</th>
<th>FTA</th>
<th>Future Crime</th>
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<tr>
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<td>+</td>
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C. Prior Research on Representation at Bail Hearings

Whether improving representation at first appearance affects outcomes such as FTA, case outcomes, and posthearing crime is ultimately an empirical question, but one for which there is only limited existing evidence. A handful of recent studies examine this question using observational research designs that compare outcomes for defendants with and without early counsel. Notable examples include Alissa Worden et al.’s study of the introduction of counsel at first appearance in three counties in New York and Alena Yarmosky’s study of a pilot “Pre-Trial Release Unit” of the San Francisco Public Defender, which uses propensity score modeling to account for differences between defendants with and without early counsel. Both studies found evidence that early representation leads to elevated rates of pretrial release, but neither study explicitly examined outcomes such as FTA nor rearrest that may have resulted from elevated release rates.

These more recent studies are motivated by an older experimental literature that suggests that the provision of counsel at bail hearings can affect case outcomes. The Manhattan Bail Project, the earliest and most influential of these experiments, demonstrated that collecting individualized defendant information prior to bail hearings substantially increased the likelihood of release on recognizance (60% vs. 14%) while actually reducing FTA rates (1% vs. 4%). Later, Fazio et al. reported results from a three-site randomized control trial (RCT) involving over 5000 subjects randomly assigned to receive representation as usual or early assignment to public defender services, typically within a day or two of arrest. Pretrial release rates increased in one of the three sites and release occurred more quickly on average in all sites. Early representation also reduced conviction rates and shortened case processing time. In the most recent RCT, Colbert, Paternoster, and Bushway provided counsel to Baltimore defendants who would have gone otherwise unrepresented in early bail review hearings. They found that representation increased the pretrial release rate from 50% to 65% with no corresponding increase in rearrest up through six months posthearing. The authors did not explicitly consider FTA but did find that representation improved defendants’ perceptions across a range of procedural justice items, including intention to abide by the bail decision.

The prior literature thus suggests that representation at first appearance can causally influence release rates and other downstream outcomes. This paper expands upon this existing work in several ways: (1) it focuses on enhancing the quality of representation at first appearance rather than providing any representation at all, an improvement to the pretrial process that will become increasingly policy relevant as more jurisdictions provide counsel at first appearance; (2) like the prior experimental work, it provides strong causal estimates of the effect of enhanced representation, but within the context of a contemporary criminal justice system; and (3) it considers a wider range of outcomes, most notably both FTA and pre- and post-adjudication rearrest.

### III. Data and Research Design

To understand whether bail advocates improve the pretrial process, we seek to measure how bail advocates affect outcomes such as FTA, conviction, and future criminal activity. The effect of having a bail advocate represents the difference in outcomes that would occur when a defendant has access to the services of a bail advocate.
advocate as compared to an otherwise identical situation when that individual does not have a bail advocate. Because we can never observe both the true and counterfactual outcome for the same person, estimating such effects requires us to instead compare outcomes across pools of different defendants. Ideally, these pools would be as similar as possible to each other except in their access to the bail advocate to ensure that any outcome differences we observe represent the effects of the advocates rather than other uncontrolled differences in the defendant pools. Randomization is one way to achieve such comparability; when randomization is not possible, researchers typically turn to other less-robust methods such as matching or regression analysis.

In measuring the effects of the bail advocates, our primary data source is administrative court dockets obtained from the public website of the Unified Judicial System of Pennsylvania. These dockets cover the universe of unsealed criminal cases in Philadelphia and reflect the official record of the proceedings in each case. We limit the sample to cases with preliminary arraignments recorded in the Philadelphia Municipal Court that occurred between April 1, 2016, and March 31, 2019, yielding a pool of 99,091 cases.

Each docket records the identity and demographic information of the defendant (gender, race, date of birth, residence ZIP code); information about the arrest; charges filed in the case; procedural progress; bail amounts and status; court calendaring; and eventual outcome. Using court summary reports published by the Unified Judicial System, we also compiled information about the prior criminal history and future criminal history of each defendant.

The Defender Association of Philadelphia maintains records of all individuals represented by bail advocates, which they furnished to us and which we linked to the court dockets. Over the period in question, advocates worked with 2176 individual defendants. Table 1 reports summary statistics describing the overall sample and, separately, the individuals represented by advocates. Clients with advocates were more likely to be female, less likely to have a violent charge, more likely to have a drug charge, and less likely to have a prior felony conviction, among other differences. The differences shown in Table 1 likely stem from two factors. First, the defendants who are arraigned when bail advocates are working are different from the overall defendant population because bail advocates only staff day shifts on weekdays in one pretrial facility. Second, because advocates lack sufficient time to handle all defendants who show up in a particular shift, they focus efforts on defendants who might most plausibly benefit from a more individualized consideration in the preliminary arraignment. For example, advocates might deprioritize defendants with no prior record facing low-level charges, who will likely

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76. Because anyone with a preliminary arraignment could in theory be served by a bail advocate, the appropriate approach is to include all such individuals in the sample. As a practical matter, however, there are some defendants, such as those currently on probation, those with other pending matters, those with holds such as immigration holds that preclude release, and those who will likely qualify for a diversion program who will be presumptively released who would be unlikely to be selected for an interview by the bail advocates.

77. These records are limited to cases within the State of Pennsylvania.
be released on recognizance in any case, or defendants accused of serious crimes or those with extensive histories of nonappearance, who will likely receive high bails regardless of the intervention of the advocate.

Table 1: Characteristics of Philadelphia Criminal Defendants by Bail Advocate Status

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Entire Sample</th>
<th>No Bail Advocate (N=96915)</th>
<th>Has Bail Advocate (N=2176)</th>
<th>% Difference: Advocate vs. No Advocate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>81.9%</td>
<td>82.3%</td>
<td>66.0%</td>
<td>-19.7%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Black</td>
<td>57.9%</td>
<td>58.0%</td>
<td>53.8%</td>
<td>-7.2%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Other nonwhite race</td>
<td>2.6%</td>
<td>2.6%</td>
<td>2.9%</td>
<td>12.0%</td>
<td>0.389</td>
</tr>
<tr>
<td>Age (years)</td>
<td>34.4</td>
<td>34.4</td>
<td>35.0</td>
<td>1.9%</td>
<td>0.009</td>
</tr>
<tr>
<td>ZIP code poverty rate</td>
<td>29.9%</td>
<td>29.9%</td>
<td>30.8%</td>
<td>3.1%</td>
<td>0.002</td>
</tr>
<tr>
<td><strong>Current case</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># felony charges</td>
<td>0.922</td>
<td>0.922</td>
<td>0.941</td>
<td>2.0%</td>
<td>0.598</td>
</tr>
<tr>
<td># misdemeanor charges</td>
<td>1.579</td>
<td>1.580</td>
<td>1.502</td>
<td>-5.0%</td>
<td>0.007</td>
</tr>
<tr>
<td>Violent offense</td>
<td>18.9%</td>
<td>19.0%</td>
<td>14.8%</td>
<td>-21.8%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Drug offense</td>
<td>26.1%</td>
<td>25.8%</td>
<td>37.9%</td>
<td>47.0%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Represented by appointed counsel</td>
<td>11.7%</td>
<td>11.6%</td>
<td>15.2%</td>
<td>30.3%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Represented by public defender</td>
<td>74.7%</td>
<td>74.8%</td>
<td>72.4%</td>
<td>-3.2%</td>
<td>0.015</td>
</tr>
<tr>
<td><strong>Prior history</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td># prior arrests</td>
<td>1.76</td>
<td>1.77</td>
<td>1.50</td>
<td>-15.0%</td>
<td>&lt; .001</td>
</tr>
<tr>
<td># prior felony convictions</td>
<td>2.52</td>
<td>2.53</td>
<td>2.29</td>
<td>-9.3%</td>
<td>0.007</td>
</tr>
<tr>
<td># prior misdemeanor convictions</td>
<td>0.26</td>
<td>0.26</td>
<td>0.27</td>
<td>0.9%</td>
<td>0.888</td>
</tr>
<tr>
<td># local bail violations</td>
<td>0.991</td>
<td>0.991</td>
<td>0.998</td>
<td>0.7%</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Table 1 highlights the need to account for differences in the populations who were and were not served by the bail advocates in measuring advocates’ impact. While observable differences, such as those shown in the table, can be accounted for through regression modeling or matching, as in Alena Yarmosky’s work,78 a persistent concern is that these two populations might differ in unobservable ways. Estimates of the effect of bail advocates would be biased in the presence of such uncontrolled differences. For example, suppose certain defendants are combative and noncooperative, and therefore unwilling to engage with bail advocates and less likely to be represented by them. Suppose further that combativeness during the preliminary arraignment leads a bail commissioner to assign higher bail amounts.

78. YARMOSKY, supra note 67.
Under such a scenario, in a regression or matching analysis, we would see that the presence of bail advocates is associated with lower bail amounts, but this pattern would reflect the omitted variable of combativeness rather than the true causal effect of the advocates.

To overcome this obstacle, we can exploit a useful feature of the pilot. For logistical reasons, as the pilot started, it was necessary to confine the bail advocates to daytime (7 a.m.–3 p.m.) arraignment shifts in a single location on weekdays. Even under these restrictions, the Defender Association anticipated that they would only be able to cover a subset of available preliminary arraignment shifts. To facilitate a quasi-experimental evaluation, at our request, they intentionally shuffled the days of the week on which bail advocates were available to assist new clients. To illustrate, Figure 1 depicts a calendar covering June–August 2017, with the days during which advocates were available to take cases highlighted in grey. The figure shows that the particular weekdays covered by the bail advocates varied unsystematically from week to week, with the advocates covering as few as zero and as many as four days depending on the week, and also covering each of the days from Monday through Friday. The patterns shown in the figure are representative of the implementation of the pilot across the entire study period.

Figure 1: Bail Advocate Availability, June–August 2017

<table>
<thead>
<tr>
<th></th>
<th>Su</th>
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<tbody>
<tr>
<td><strong>June 2017</strong></td>
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<td><strong>July 2017</strong></td>
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<tr>
<td><strong>August 2017</strong></td>
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<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
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</tr>
</tbody>
</table>

To demonstrate the advantages of this quasi-random approach to implementation, Table 2 compares the characteristics of those with preliminary arraignments on dates...
and shifts when bail advocates were not staffing cases to those with arraignments where advocates were taking new clients. Because patterns of criminal activity are known to vary seasonally and across days of the week, the differences in the table are presented controlling for the day of week and week. The quasi-random shift shuffling employed by the Defender Association created two pools of defendants—those arraigned on “off” days and those arraigned on “on” days—that are statistically indistinguishable but that nonetheless differ greatly in the likelihood of being represented by a bail advocate. Given that the two pools of defendants appear highly similar on observable characteristics, it seems plausible to think that they are comparable on unobservables such as cooperativeness, quality of information about the case, etc. as well, just as would be the case had bail advocates been randomly assigned to clients. Comparing outcomes across these two pools of defendants is thus likely to provide a good causal estimate of the effects of the bail advocates.

Table 2: Defendant Characteristics by Arraignment Timing

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Arraignment Shift when Bail Advocate:</th>
<th>% Difference: Advocate vs. No Advocate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Taking Cases (N=87995)</td>
<td>Taking Cases (N=11096)</td>
<td></td>
</tr>
<tr>
<td>Had Bail Advocate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>81.7%</td>
<td>81.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Black</td>
<td>58.2%</td>
<td>58.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Other nonwhite race</td>
<td>2.6%</td>
<td>2.5%</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>34.4</td>
<td>34.3</td>
<td>-0.2%</td>
</tr>
<tr>
<td>ZIP code poverty rate</td>
<td>29.8%</td>
<td>29.9%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Current case</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># felony charges</td>
<td>0.927</td>
<td>0.912</td>
<td>-1.6%</td>
</tr>
<tr>
<td># misdemeanor charges</td>
<td>1.593</td>
<td>1.540</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Violent offense</td>
<td>19.3%</td>
<td>18.9%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Drug offense</td>
<td>25.3%</td>
<td>25.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Represented by appointed counsel</td>
<td>11.7%</td>
<td>11.9%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Represented by public defender</td>
<td>74.6%</td>
<td>75.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Prior history</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># prior arrests</td>
<td>4.27</td>
<td>4.31</td>
<td>1.0%</td>
</tr>
<tr>
<td># prior felony convictions</td>
<td>1.77</td>
<td>1.82</td>
<td>3.2%</td>
</tr>
<tr>
<td># prior misdemeanor convictions</td>
<td>2.53</td>
<td>2.48</td>
<td>-2.0%</td>
</tr>
<tr>
<td># local bail violations</td>
<td>0.261</td>
<td>0.251</td>
<td>-4.0%</td>
</tr>
</tbody>
</table>

Appendix Table 1 reports results for a more formal statistical test for as-good-as-random assignment that involves regressing the indicator for a bail advocate shift on the observable characteristics of the defendant and case while also conditioning on
day of week by hour and week fixed effects to take into account the manner in which
the pilot was implemented. If shift days were selected in a manner unrelated to
expected case outcomes, we should not see a strong relationship between defendant
or case characteristics and shift assignment. Appendix Table 1 demonstrates that is
in fact the case, and an omnibus F-test fails to reject the null hypothesis of no
relationship between observables and shift assignment (p = .462).

To implement the quasi-experiment, we turn to instrumental variable (IV)
regression. For our primary specifications, we estimate defendant-level IV
regressions where we model each defendant’s criminal justice outcome of interest
(e.g., an indicator for whether the defendant was detained pretrial) as a function of
an indicator for whether the defendant was represented by the bail advocate. We
instrument for bail advocate representation with an indicator for whether the
defendant had a preliminary arraignment on a shift when the bail advocates were
taking cases. We also include as controls variables capturing defendant
demographics (indicators for gender, age, race, and ZIP code of residence), prior
criminal history (arrests, felony convictions, misdemeanor convictions, and bail
revocations or forfeitures), current case characteristics (detailed top charge and total
number of felony and misdemeanor counts, attorney type [appointed counsel or
public defender], and bail commissioner fixed effects), and case timing (hour by day
of week and week of arraignment fixed effects).

Conceptually, these regressions measure the average expected difference in the
outcome between a defendant with a bail advocate and defendant without an
advocate who is otherwise similar in terms of demographics, prior criminal history,
charge, case timing, etc. Thus, any differences we observe in outcomes cannot be
attributed to the fact that defendants with bail advocates may have more or less
extensive criminal histories than other defendants or tend to appear for arraignments
at particular times of the week. Even if advocates target particular types of
defendants, so that those they ultimately represent are a nonrandom subset of the
overall pool of defendants, the IV approach should deliver valid causal estimates.

IV. RESULTS

A. Bail and Pretrial Release

One objective of the bail advocates pilot was to enable Philadelphia to reduce its
jail population by lowering bail amounts or otherwise securing pretrial release for
more criminal defendants. To examine whether pretrial release conditions were
affected by the bail advocates, we estimated a series of IV regressions with bail- and

79. Individuals who have immigration holds or detainers due to the fact that they are
already on probation for a prior offense may not be eligible for immediate pretrial release.
Unfortunately, detainers and holds are not well represented in the data, so the analysis does
not control for them. However, there is little reason to expect these case features to vary
systematically across shifts that were and were not covered by bail advocates.

80. The primary assumption required for the IV approach to deliver causal estimates is
that there is nothing about the particular shifts selected as advocate shifts that would lead
defendants arraigned on those shifts to be systematically different from defendants arraigned
at similar times of the week but in weeks where advocates were unavailable.
release-related outcomes as dependent variables using the approach described above. Appendix Table 2 reports coefficient estimates from the first-stage IV regressions that model whether or not a particular defendant is represented by a bail advocate as a function of a 0/1 indicator variable for whether they were arraigned during a shift when bail advocates were available to take cases. The table reveals a strong first-stage relationship between arraignment on a shift with bail advocates and eventual representation by advocates, with F-statistics sufficiently high so as to preclude weak instrument concerns. The table also shows that during this period of the pilot only about one in five defendants that could have been represented by advocates were in fact represented by them, suggesting that during this initial phase of the pilot advocates maintained a fair bit of discretion as to whom to interview.

Results of the analysis of bail outcomes are presented in Table 3. The top row of the table reports estimates of the effect of bail advocates on the overall detention rate, which we define as the share of defendants who both are never granted nonmonetary release conditions and who never post monetary bail prior to case disposition. There is no statistically significant relationship between availability of the bail advocate and the detention rate, meaning that advocates do not measurably increase the rate of pretrial release.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Those Without Advocate</th>
<th>Estimated Impact of Advocate</th>
<th>Implied % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detained pretrial</td>
<td>0.286</td>
<td>-0.014</td>
<td>-5.0%</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial bail amount ($)</td>
<td>$28,618</td>
<td>-1034</td>
<td>-3.6%</td>
</tr>
<tr>
<td></td>
<td>(5,745)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released on recognizance</td>
<td>0.372</td>
<td>-0.059+</td>
<td>-15.9%</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered unsecured bail</td>
<td>0.078</td>
<td>0.013</td>
<td>16.1%</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monetary bail required</td>
<td>0.513</td>
<td>0.023</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bail was modified down during case</td>
<td>0.075</td>
<td>-0.017</td>
<td>-23.1%</td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This table reports results from IV regressions of the listed outcome on an indicator for whether the defendant has access to bail advocates and additional controls. We instrument for the bail advocate indicator using an indicator for an arraignment during a shift where bail advocates were taking cases. The unit of observation is a defendant within a case and the sample size is 98,916 for all outcomes except bail amount. For bail amount, the top 0.5% of values (> $1 million) have been trimmed, leaving a sample size of 98,419. Each table entry reports results from a separate regression. Controls include hour by day of week and week of arraignment fixed effects, variables capturing defendant demographics (indicators for gender,
age, race, and ZIP code of residence), prior criminal history (indicators for numbers of arrests, felony convictions, misdemeanor convictions, and bail revocations or forfeitures), and current case characteristics (fixed effects for detailed top charge, total number of felony and misdemeanor counts, attorney type, and bail commissioner). Standard errors clustered on arraignment date are reported in parentheses, and the implied percent change in the outcome (effect estimate divided by mean for those with no advocate) is also reported. + denotes an estimate that is statistically significant at the 10% level, * at the 5% level, ** at the 1% level.

The next four rows of the table examine various bail-related outcomes to see if, on average, advocates change the types of bail conditions imposed. Bail advocates do not measurably increase the use of ROR or affect rates at which magistrates impose monetary bail. There is no measurable change in average bail amounts.81 We do see a practically large, albeit not statistically significant, reduction in downward bail modifications82 when an advocate is present. This result does not admit a clear interpretation; one possibility is that advocates enable bail magistrates to assign more appropriate bail conditions from the outset, rendering it less necessary to return and revise conditions further along in the case. Overall, we do not see strong evidence that bail advocates altered bail outcomes, at least on average, although most of these estimates are sufficiently imprecise that they cannot preclude moderate positive or negative impacts of bail advocates on the outcome in question.

B. Failure to Appear and Future Crime

The primary purposes of pretrial supervision are to ensure defendants appear in court and to minimize criminal infractions during the pretrial period. Table 4 reports estimates of the impact of bail advocates on proxies for failure to appear and future dangerousness. Because the quality of data on actual appearance at each scheduled hearing are limited, and, in any case, there can be excusable reasons for failing to show up for court appointments (e.g., illness), our preferred proxies for pretrial nonadherence are the two major categories of formal sanction for bail violations—revocation of release and revocation with forfeiture. Revocations of release occur when bail is initially set, but, at a subsequent hearing, the judicial authority determines that the defendant should no longer be released on bail, usually because of an additional intervening offense. Bail revocations with forfeiture occur when an individual is assessed the required amount of bail due to failure to abide by the terms of the bail, which typically means nonappearance in court. We also consider overall bail violations, which comprise both revocations of release and revocations with forfeiture, as an additional outcome. An advantage of focusing on these measures is that they are part of the formal record of proceedings and are therefore collected systematically for all defendants; moreover, they focus attention on activity that has been evaluated and deemed of sufficient import by a judge so as to merit a legal consequence rather than mere technical violations.

81. For the analysis of bail amounts we trimmed the top 0.5% of observations (bail amounts > $1 million) to exclude outlier cases; estimates on the full sample are substantially less precise and generate comparable conclusions.

82. A downward bail modification occurs when, at some point after the preliminary arraignment, a defendant’s bail is reduced or eliminated.
Pretrial conditions are also used to manage danger to public safety. As a proxy for dangerousness, we focus on future arrests, defined as the total count of new arrests accrued by the defendant subsequent to the arraignment. While it may seem more natural to consider pretrial arrest as the outcome of interest, a drawback of that metric is that the amount of time required to resolve a case might itself depend on whether an advocate is available. If advocates affect time to case resolution in some cases, then measured changes in pretrial crime confound actual changes in criminal activity with differences in exposure time across defendants. Measuring future crime unconditional on how the case is processed more closely reflects actual criminal activity, and thus is a preferred approach. For completeness, however, we also report impacts on pretrial arrest, which we define as arrest occurring between the preliminary arraignment and recorded case disposition date.

Table 4: Estimated Effect of Bail Advocates on Bail Outcomes and Future Crime

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Those Without Advocate</th>
<th>Estimated Impact of Advocate</th>
<th>Implied % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any bail violation</td>
<td>0.070</td>
<td>-0.045*</td>
<td>-64.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.020)</td>
<td></td>
</tr>
<tr>
<td>Revocation of release</td>
<td>0.025</td>
<td>-0.025*</td>
<td>-96.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.010)</td>
<td></td>
</tr>
<tr>
<td>Revocation with forfeiture</td>
<td>0.045</td>
<td>-0.022</td>
<td>-48.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.017)</td>
<td></td>
</tr>
<tr>
<td>Any future arrest</td>
<td>0.580</td>
<td>-0.116*</td>
<td>-20.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.062)</td>
<td></td>
</tr>
<tr>
<td># future arrests</td>
<td>0.994</td>
<td>-0.254*</td>
<td>-25.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.123)</td>
<td></td>
</tr>
<tr>
<td># pretrial arrests</td>
<td>0.188</td>
<td>-0.078*</td>
<td>-41.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.044)</td>
<td></td>
</tr>
</tbody>
</table>

Note: See notes for Table 3.

Table 5 demonstrates that bail advocates have a statistically significant and practically large impact on the likelihood of a bail violation, reducing it by 64%. Both revocations of release and revocations with forfeiture experience large decreases from bail advocates, although impacts are statistically significant for only the former measure. Other factors being equal, bail advocates are estimated to reduce

---

83. Arrest data are drawn from the court summary reports for each case, which report the entire criminal history for a particular defendant.

84. Implementing the IV estimation approach described above, we did not observe a statistically significant relationship between having a bail advocate and the number of days required to resolve a case, although the confidence interval on this estimate was wide, meaning that the data do not permit us to draw precise conclusions about how bail advocates affect overall case processing time.
future arrests by 26%, a sizeable impact. Estimated impacts on the likelihood of future arrest and arrest during the pretrial period are of comparable direction and magnitude. By way of comparison, using a large administrative dataset and strong empirical research design, Kleinberg et al. estimate that using a machine learning-based ARAI could enable bail magistrates in New York City to reduce crime by 25% relative to unaided decision-making if they elected to maintain constant release rates.\(^{85}\) Taken together, these results thus suggest that improving the quality of early defense representation might generate reductions in crime comparable to those achievable using high-quality ARAIs.

C. Case Outcomes

Does the lower incidence of FTA and pretrial arrest shown above translate into improved case outcomes for defendants? Table 5 presents IV estimates that measure the impact of bail advocates on conviction and sentencing. Only about 60% of criminal cases in Philadelphia generate a conviction or a referral to diversion; in the remaining approximately 40% of cases the defendant is acquitted or all charges are dropped or dismissed. The top rows of Table 5 indicate that representation by the bail advocates is associated with a statistically significant and practically significant decrease in the likelihood of a guilt determination, which we define here as a conviction, guilty plea, or diversion. The table also reveals a statistically significant (p = .06) reduction in the likelihood of a probation sentence, representing a shift of 7.2% of the defendant population away from probation, and no measurable change in the likelihood of a jail sentence. Taken as a whole, Table 5 suggests that bail advocates produce more lenient sentences for some defendants.

One possible explanation for the reduction in findings of guilt is that bail advocates may encourage greater engagement of defendants with their defense team, allowing them to achieve better outcomes for clients. Another logical interpretation of these results is that one effect of the advocates is to induce greater compliance with bail conditions, as shown in Table 4, and judges respond to this improved compliance by being less inclined to require additional defendant supervision postadjudication. Such a pattern would be consistent with work by Issa Kohler-Hausman, who, focusing on misdemeanor courts, proposed a managerial rather than adjudicative model of the courts to explain how they surveil and control criminal defendants.\(^{86}\) Here, because defendants with bail advocates demonstrate better “performance” during the pretrial period, they are subjected to less onerous control further on in the process.

---

Table 5: Estimated Effect of Bail Advocates on Case Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Those Without Advocate</th>
<th>Estimated Impact of Advocate</th>
<th>Implied % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any guilty</td>
<td>0.581</td>
<td>-0.079* (0.040)</td>
<td>-13.7%</td>
</tr>
<tr>
<td>Any conviction</td>
<td>0.525</td>
<td>-0.056 (0.039)</td>
<td>-10.6%</td>
</tr>
<tr>
<td>Any diversion</td>
<td>0.287</td>
<td>-0.056 (0.036)</td>
<td>-19.7%</td>
</tr>
<tr>
<td>Fraction of charges guilty</td>
<td>0.255</td>
<td>-0.014 (0.024)</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Fraction of charges diverted</td>
<td>0.654</td>
<td>0.033 (0.027)</td>
<td>5.0%</td>
</tr>
<tr>
<td>Probation sentence</td>
<td>0.370</td>
<td>-0.073 (0.039)</td>
<td>-19.6%</td>
</tr>
<tr>
<td>Jail sentence</td>
<td>0.165</td>
<td>0.006 (0.029)</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*Note: See notes for Table 3. Sample size is 79,979. “Any guilty” includes individuals who are convicted or plead guilty to at least one charge or who participate in a diversion program.

D. Sensitivity Analysis

Are the results above sensitive to how the IV models are implemented? Appendix Table 3 reports results from a series of alternative models that vary the sample or statistical model specification. For comparative purposes, the first specification shows the baseline estimates reported above across the key outcomes of detention, bail failures, future arrest, conviction, and sentencing types. The first sensitivity analysis re-estimates the model but without control covariates other than hour by day and week fixed effects; if the statistical assumptions underlying the natural experiment are satisfied, then inclusion of controls should not appreciably alter the effect estimates. The next specification drops the preimplementation period from the analysis and focuses attention on only the period during which the bail advocates were operating. Specification 4 omits controls for whether the defendant was represented by appointed counsel or the public defender later in the case; in theory, the presence of a bail advocate might affect a defendant’s willingness to retain private counsel, in which case attorney type would be an outcome of the bail advocate process and therefore not properly included as a control covariate.

87. The baseline models do include controls because including controls helps to guard against potential departures from randomization and also should tend to increase the precision with which effects can be estimated.
The next specification in the sensitivity analysis implements a matching estimator by estimating the probability that a particular defendant will be represented by a bail advocate as a function of her demographics and case characteristics and then controlling finely for this probability in the IV analysis. This has the effect of matching each defendant who had a bail advocate to another individual who, based on their demographics, charge, criminal history, and other case characteristics, would appear equally suitable for representation by an advocate, but who did not appear on a shift when advocates were taking cases. Specification 6 expands the baseline sample by including a set of cases which, by 2019, had been expunged from the court records.

The bail advocates we interviewed indicated that they were strategic in selecting who they would represent, focusing attention on individuals who, based on their charge and prior criminal history, would seem most likely to benefit from having additional personalized information presented at the preliminary arraignment. Such a selection process would render traditional methods used to analyze observational data, such as those used by Worden and Yarmosky, problematic and subject to potential bias. In the final rows of Appendix Table 3, we apply the traditional regression approach to these data. In contrast to the experimental estimates, the nonExperimental analysis yields little evidence that bail advocates affect bail failure or sentences. These differences highlight the value of the quasi experiment.

We also tested the sensitivity of our approach for conducting statistical inference. We gauged statistical significance above using p-values based on standard errors clustered on arraignment date, a conservative approach that accounts for the fact that advocate availability is assigned at the day rather than at the individual level. As an additional check, we calculated p-values via randomization inference, a simulation-based approach that requires minimal statistical assumptions about the data-generating process to generate p-values. As shown in Appendix Table 4, we

88. More specifically, I estimate a probit model to construct a predicted likelihood of being represented by an advocate for each defendant and then include fixed effects for 41,546 strata of the predicted probabilities as controls in the IV regression model.

89. We are able to include expunged cases because we collected the data for the study at two points in time—once in August 2018 and again in May 2019. In the August 2018 vintage of the data, we are able to observe 2972 cases that had been expunged by May 2019. A comparison of the two datasets suggests that roughly 7% of all cases are ultimately expunged, and expungements appear concentrated among a few specific offense categories. An unreported analysis conducted by the author provided no indication of a relationship between having a bail advocate and later expungement.

90. Interview with Bail Advoc. #1, in Phila., Pa. (Feb. 26, 2019); Interview with Bail Advoc. #2, in Phila., Pa. (Feb. 26, 2019).

91. Worden et al., supra note 66; YARMOSKY, supra note 67.


93. For each iteration of the simulation, we first randomly shuffled, without replacement, the weekdays occurring between April 1, 2017, and January 31, 2019 (when the pilot was operational), so that each simulated weekday was assigned to be an “on” or “off” day, and each “on” day had an associated fraction of defendants to be seen by advocates. We then randomly selected from among the defendants appearing during the day shift to create the
continue to observe statistically significant (P < .10) effects for key outcomes such as bail failures and pretrial arrest when calculating p-values via randomization inference.

E. Racial Disparities

We also estimated versions of our primary specification where we allowed the effects of the bail advocates to differ by the race (Black vs. non-Black), gender (male vs. female), or prior criminal history (no prior convictions vs. prior convictions) of the defendant (Appendix Table 5). For the analysis by race, ideally we would have separate measures of ethnicity and more detailed race information, but available data contained significant limitations, reporting race but not ethnicity and including only five racial categories, three of which together constituted only 1.2% of the sample. We were thus forced to collapse into two broad categories, Black and non-Black.94

Using the racial data that were available, we did not observe group differences in the effects of bail advocates on bail failures. However, for pretrial detention, while we did not observe statistically significant differences in the impact of the advocates by gender or prior criminal history, advocates were more effective when representing Black defendants as compared to non-Black defendants.

From the results in Appendix Table 5, we can calculate how bail advocates affect racial disparities in detention. Over the time period in question, 59% of arrestees were Black, and without bail advocates, 32% of Black arrestees are ultimately detained, versus 24% of non-Black arrestees. Thus, from a hypothetical pool of 100 arrestees, we would expect fifty-nine to be Black and forty-one non-Black, with nineteen Black arrestees ultimately detained versus ten non-Black arrestees. Thus, although only 59% of these hypothetical arrestees are Black, among the detained population of twenty-nine persons, 66% are Black.

Our estimates indicate that bail advocates are more effective at reducing detention for Black versus non-Black defendants. If all defendants had bail advocates, the quasi-experimental estimates suggest that, from that same pool of 100 arrestees, sixteen Black defendants would be detained and eleven non-Black defendants would be detained. With advocates present, 58% of detainees are Black, a number in line with this group’s proportion among arrestees. The estimates thus suggest that, whereas racial disparities increase between arrest and detention under the status quo, they no longer increase in an environment where bail advocates are available. The experiment thus suggests that bail advocates can reduce racial disparities, an important benefit which has not yet been rigorously demonstrated for other pretrial reforms.

Finally, we then estimated the effects of bail advocate presentation using the same IV models as in Tables 3–5, but with the simulated treatment status. This approach ensures that key features of how the pilot was implemented—the number of advocate days and the share of defendants seen by advocates—are preserved in the simulation. 94. If Hispanic defendants or other people of color are treated similarly to Black defendants, then our lack of ethnicity data would likely bias these estimates towards understating the benefits of bail advocates in terms of reducing racial disparity. We thus view the estimates below as conservative ones.
The preceding analysis demonstrates that bail advocates lower clients’ incidence of future law enforcement contacts and rate of bail violations, increase the leniency of sentences, and reduce racial disparities, but do not increase pretrial release rates. Through what mechanisms might the program generate such effects?

The empirical findings above allow us to adjudicate between some of the theoretical possibilities summarized in Table 1. Taken together, the results from Table 3 and Table 4 indicate that bail advocates do not alter the aggregate release rate but do appreciably decrease the likelihood of adverse outcomes such as nonappearance or future crime. These patterns are not consistent with the models where bail advocates have no impact, simply advance client interests to the detriment of the public (“enhanced defense”), or backfire. They are also inconsistent with one version of the “better risk management” model described above, in which system actors use the informational advantage produced by the advocates to increase pretrial release without adversely impacting FTA or public safety. They are potentially consistent with improved risk management, in which system actors choose to use the better information to optimize outcomes rather than liberalize release, as well as the “defendant response” model, in which defendants change behavior in response to the services provided by advocates.

To obtain greater insights regarding whether such mechanisms might plausibly explain our results, we conducted semistructured interviews with a number of individuals closely associated with the bail advocates program. Included among the interviewees were two bail advocates, five line defenders from the Defender Association, four senior Defender Association managers, a representative from the District Attorney’s Office who handles preliminary arraignments, and a district attorney with supervisory authority over the pretrial process.95 We also considered a number of ancillary analyses to develop stronger evidence regarding the mechanisms. The interviews and supplementary analyses suggest two primary channels through which the bail advocates generated effects: enabling the court to make more informed decisions regarding how to manage defendant risk of nonappearance or future crime (“better risk management”) and changing how defendants engaged with the lawyers and the adjudication process (“defendant response”).

95. These interviews were conducted between January and May 2019. We attempted to interview the bail magistrates in conjunction with the study, but they declined to participate, citing ongoing litigation against the city regarding its bail processes. See Philadelphia Community Bail Fund, et al. v. Commonwealth Arraignment Ct. Selected Postings, THE UNIFIED JUD. SYS. OF PA., http://www.pacourts.us/news-and-statistics/cases-of-public-interest/philadelphia-community-bail-fund-et-al-pets-v-commonwealth-arraignment-ct [https://perma.cc/CL5J-CHCR]. We also explored interviewing public defender clients, whose perspective on these issues would have been invaluable, but ethical and logistical constraints ultimately precluded us from incorporating client interviews into the study design.
A. Better Risk Management

One of the key functions of the bail advocates was to interview defendants to collect mitigating information that could be presented during the bail hearing. Numerous public defenders described how this additional information allowed them to more effectively advocate for their clients. The public defenders expressed how constraining it was for them to approach preliminary arraignments with limited, sometimes incorrect information about clients constructed from what they perceived as a biased perspective designed to convict. They noted a disconnect between the sort of information useful for actually making arguments in the hearing—information such as how much money the client can get access to if required to post bail or how detention might disrupt a client’s childcare arrangements—and the more basic information routinely collected by pretrial services (e.g., how much the client typically earns or how many kids they have). Moreover, the standard approach of representing defendants in preliminary arraignments without having previously spoken with them raised informational barriers—normally, clients were counseled to minimize speaking at arraignments to avoid making incriminating statements on the record, and when they did speak, they would say things like “I can’t afford that amount,” which, without further context, did little to advance the defense team’s arguments.

The bail advocates furnished a much richer base of knowledge about clients, which the public defenders used to humanize the defendants for magistrates and prosecutors. Many of the pieces of contextual information bail advocates provided could speak to defendants’ risk of nonappearance or threat to public safety—for example, information about community involvement, family arrangements, potential interactions with victims if released, or mitigating circumstances concerning prior offenses. In cases where the court record typically offered only one side of the story suggesting high risk, such as in domestic violence cases where only the complainant’s version of events was in the arresting officer’s record, the bail advocate interviews often furnished more balanced information. Bail advocates also encouraged family members to attend bail hearings, which sometimes helped to mitigate magistrate concerns that clients might lack outside support for successfully completing the adjudication process.

98. Interview with Pub. Def. Representative #1, supra note 96.
99. Id.
100. Interview with Pub. Def. Representative #3, supra note 97; Interview with Pub. Def. Representative #4, supra note 96.
103. Id.
105. Interview with Pub. Def. Representative #3, supra note 97; Interview with Bail
information would provide the defense team with a clearer understanding of how others in the court work group might assess risk. For example, one interviewee noted that the district attorney often had information about out-of-state cases unavailable in the printed record;\(^\text{106}\) the bail advocate could collect such information from the client and thus enable the defense team to better understand why the district attorney might oppose bail in a particular case. For public defenders, the informational advantages provided by bail advocates were apparent—as one interviewee summarized, they felt excited when they saw that bail advocate information was included in a client’s packet, and, conversely, they experienced cases without an interview for which having a bail advocate probably would have made a difference.\(^\text{107}\)

The views of the public defenders were echoed in comments from representatives from the District Attorney’s Office. A senior district attorney with managerial responsibilities stated that, from a prosecutor’s perspective, more information about the defendant is better, and the bail advocate program was an asset to the district attorneys because they provide more information.\(^\text{108}\) A district attorney representative who staffs bail hearings agreed, opining that the bail advocates made their job easier.\(^\text{109}\) This interviewee also discussed how the bail recommendations they proffered to the magistrate were affected by bail advocates, noting that there were some serious cases where defendants would always be held and some cases where it was easy to see alternatives to cash bail. However, according to this prosecutor, there was a middle set of cases where things weren’t so clear, and in those cases the bail advocate’s information could change the prosecutor’s mind about cash bail versus an alternative.\(^\text{110}\)

Interviewees also cited evidence that the magistrates were influenced by the work of the bail advocates. One senior defender noted that magistrates were initially skeptical of the bail advocates pilot, reasoning that the court’s Pretrial Services Division already existed to collect defendant information. However, over time, a number of magistrates saw the value of the program, and this interviewee noted instances where magistrates would call for bail advocates during hearings to get additional information.\(^\text{111}\) A different interviewee described how magistrates sometimes specifically credited bail advocates for changing their minds about release.\(^\text{112}\) Another defender cited an instance in which a magistrate modified a $50,000 bail to a release on recognizance based on information developed by a bail advocate.\(^\text{113}\) Similarly, a bail advocate also described being directly consulted by magistrates in some cases and noted observing cases where the magistrate would

Advoc. #2, supra note 90.
106. Interview with Pub. Def. Representative #2, supra note 97.
107. Id.
109. Interview with Dist. Att’y Representative #1, supra note 102.
110. Id.
113. Interview with Pub. Def. Representative #2, supra note 97.
initially set one bail and then modify it after hearing information about the client obtained by the bail advocate.\footnote{114}

One district attorney cited specific cases that illustrate how bail advocates can improve the ability of the court work group to assess the risk of nonappearance or future crime. This interviewee described a case involving a defendant charged with multiple counts of aggravated assault resulting from a minor altercation with police officers; the defendant had no recent history of violent crime but a cluster of violent offenses in the distant past. At the bail hearing, the defendant was not communicative, and the bail guidelines called for many thousands of dollars in cash bail. However, the bail advocate surfaced information that the prior violent offenses had resulted from a previously untreated mental health issue stemming from the defendant’s prior combat service that had been subsequently addressed. This new information convinced the prosecutor and magistrate to support the defendant’s release on an unsecured bond, and the defendant was ultimately diverted to a specialized veterans court.\footnote{115}

In another illustrative case, a defendant was charged with criminal threats and as a felon in possession of a firearm, serious charges that would normally carry a bail of at least $150,000. The police failed to recover a firearm and the defendant was visibly disabled when they appeared for their video hearing, two facts that rendered the charges less credible but ones the interviewee assessed would likely nonetheless have been insufficient to justify a departure from the usual high bail. However, drawing upon information collected by a bail advocate, the public defender argued at the hearing that the complaining witness was actually a drug-addicted individual who knew the defendant well, had a key to the defendant’s home, and was trying to get the defendant out of the way to gain access to pain medication recently prescribed for the disability. With those additional contextual pieces in place, the prosecutor and magistrate became convinced that this was a weak case, and the defendant was granted an unsecured bond. Such an outcome was virtually unheard of for such charges in the interviewee’s experience, but one the interviewee maintained was justified by the facts.\footnote{116}

Both examples illustrate situations where the court work group could easily have made poor risk assessments based on insufficient data. With the more extensive information provided by the advocate, they were able to more accurately understand the defendants’ risk levels.

These anecdotal accounts are bolstered by empirical evidence also consistent with the better risk management scenario. If bail advocates enable the public defender representative to raise novel arguments, we might expect this should prolong the length of the bail hearing. Table 6 reports coefficient estimates from an IV regression structured as before but using the length of the bail hearing in minutes as the outcome.\footnote{117}

Based on the time stamps included in the court dockets, the typical bail

\footnote{114. Interview with Bail Advoc. #2, supra note 90.}
\footnote{115. Interview with Dist. Att’y Representative #1, supra note 102.}
\footnote{116. Id.}
\footnote{117. Each record includes a time stamp down to the closest minute for when the bail hearing began; we infer hearing length based upon the time stamps of successive cases. This is an imperfect measure for a number of reasons: it rounds to the nearest minute, it does not take into account transition time between cases, and it is common for members of the court work group to spend time reviewing case files before they are officially on the clock. Interview
hearing lasts approximately 2.9 minutes, but the presence of a bail advocate increases
the length of the hearing to 3.5 minutes. While modest in absolute terms, this is an
increase of over 20% in the time spent on the case. Clearly the bail advocates do
something to change how discussions proceed during the preliminary arraignment;
the most plausible interpretation is that they surface additional information that
increases the deliberative effort of the magistrates, DA, and PD representative.

Table 6: Effects of Bail Advocates on Length of Bail Hearing

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Those Without Advocate</th>
<th>Estimated Impact of Advocate</th>
<th>Implied % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Bail Hearing (Minutes)</td>
<td>2.882</td>
<td>0.627+</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

Note: See notes for Table 3. Sample size is 92,092.

Examining whether the measured effects of bail advocates differ across individual
magistrates can furnish another source of indirect evidence as to whether bail
advocates alter magistrate decision-making. If the primary effect of advocates is to
alter defendant behavior, we wouldn’t necessarily expect to see heterogenous results
across magistrates; if, on the other hand, some magistrates are more receptive to the
information provided by advocates than others, we might observe such differences.
Multiple interviewees perceived a difference across magistrates in their
receptiveness to bail advocates, with several naming particular magistrates who
they viewed as more inclined to consult information from advocates.

Table 7 presents results from regressions similar to those in Table 3, where the
outcomes are bail decisions, and we have interacted indicators identifying each of
the six main magistrates handling preliminary arraignments with the bail advocate
indicator. This approach allows us to assess statistically whether the effects of bail
advocates vary from one magistrate to the next. Table 7 reveals that for one of the
bail outcomes considered (ROR), there is a statistically significant and practically
important difference across magistrates in the effects of having a bail advocate. These
results seem consistent with interviewees’ claims that magistrates do indeed take into
account information provided by bail advocates, with some showing greater
receptivity than others.

with Dist. Att’y Representative #1, supra note 102. However, we see no reason to expect that
this measurement error should be correlated with assignment to a shift with a bail advocate.

118. Interview with Bail Advoc. #2, supra note 90; Interview with Dist. Att’y
Representative #1, supra note 102; Interview with Pub. Def. Representative #3, supra note 97.

119. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra
note 90; Interview with Dist. Att’y Representative #1, supra note 102.
Table 7: Variation Across Magistrates in the Effects of Bail Advocates

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Effect of Bail Advocates for Magistrate:</th>
<th>Equality across Magistrates</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Release on Recognizance (ROR)</td>
<td>-2.38**</td>
<td>-1.12+</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>(.061)</td>
<td>(.065)</td>
<td>(.062)</td>
</tr>
<tr>
<td>Unsecured Bail</td>
<td>.025</td>
<td>-.022</td>
<td>-.051</td>
</tr>
<tr>
<td></td>
<td>(.059)</td>
<td>(.040)</td>
<td>(.033)</td>
</tr>
<tr>
<td>Monetary Bail</td>
<td>.010</td>
<td>-.011</td>
<td>.124*</td>
</tr>
<tr>
<td></td>
<td>(.052)</td>
<td>(.071)</td>
<td>(.060)</td>
</tr>
<tr>
<td>Initial Bail Amount</td>
<td>-2965</td>
<td>379</td>
<td>3581</td>
</tr>
<tr>
<td></td>
<td>(12,016)</td>
<td>(14,363)</td>
<td>(8,479)</td>
</tr>
</tbody>
</table>

Note: This table reports results from IV specifications similar to those reported in Table 3 but with additional interaction terms as explanatory variables to allow the effects of bail advocates to vary across each of the six magistrates. The sample has been limited to the 86,747 cases handled by the main six magistrates involved in bail hearings during the sample period. See notes for Table 3. Each row reports coefficients from a specific IV regression. The final column reports the p-value from a joint test of the null hypothesis that there are equal effects of bail advocates across all magistrates.

Finally, there is abundant theoretical and empirical literature suggesting that judges respond differently to minority defendants, which may reflect implicit bias and/or heuristic reasoning. If bail advocates furnish better information to magistrates, it is plausible to expect that such additional information might enable judges to more readily overcome the influence of implicit bias or heuristics, which would have the consequence of reducing racial disparities in detention. This is exactly what the disparities analysis above reveals.

If bail advocates do indeed influence magistrate decision-making, why were there no measurable effects on overall detention rates? Nearly every interviewee

believed that the bail advocates would encourage more lenient outcomes, so the lack of measured impact is perhaps surprising. One possibility is that the advocates did produce a net increase in bail leniency, but their impact was below the range statistically measurable given the size and nature of the pilot. The 95% confidence interval on detention reported in Table 3 above, for example, encompasses increases or decreases in detention of about 20%, meaning that even if detention decreased by 10 or 15%, there would not be a detectable statistically significant change.

Researchers have identified a psychological phenomenon known as sequential contrast effects that might also explain the pattern of results. These effects arise in settings involving sequential decisions and occur when evaluators assess the current case in a sequence in reference to one or more prior cases; if the preceding case was positive, the reference case appears correspondingly less positive by virtue of the contrast, but if the preceding case was unfavorable, the current case appears correspondingly more favorable. Contrast effects tend to generate a negative autocorrelation in decisions over time and have been demonstrated in diverse decision-making contexts including financial markets,121 sports,122 and speed dating.123 One of the earliest empirical demonstrations of contrast effects was in the context of criminal adjudication decisions,124 and this phenomenon has been demonstrated specifically for adjudication decisions by criminal judges in Pennsylvania.125

In the present context, after being presented with individualized information collected through a bail advocate that successfully argues for a more lenient treatment for one defendant, contrast effects, if operating, might predispose magistrates to harsher treatment of later defendants in the sequence. On net, these offsetting behaviors would generate no reduction in bail requirements on average in shifts with advocates, as shown above, even though magistrates are in fact influenced by the information provided by the advocates.


123. Saurabh Bhargava & Ray Fisman, Contrast Effects in Sequential Decisions: Evidence from Speed Dating, 96 REV. ECON. & STAT. 444, 444–45 (2014) (showing that speed daters are less likely to match with opposites who were preceded by attractive individuals in the sequence).

124. Albert Pepitone & Mark DiNubile, Contrast Effects in Judgments of Crime Severity and the Punishment of Criminal Violators, 33 J. PERSONALITY & SOC. PSYCH. 448 (1976) (lab experiment demonstrating that crimes were judged less harshly when preceded by a particularly egregious crime).

B. Changes in Defendant Behavior

Beyond changing how criminal justice actors assess defendants, the interviews also demonstrated that the bail advocates did substantial work to try to shape how clients understood and engaged with the criminal adjudication process. Both bail advocate interviewees viewed the information collection function they performed as a secondary (albeit important) role; they described their primary role as one of improving the client experience.\(^{126}\)

Interviewees cited several features of the pretrial process that could serve to alienate defendants and diminish their sense of the system’s legitimacy. Defendants are thrust in the PDU following what for most are highly stressful encounters with law enforcement but provided no meaningful tools for de-escalation.\(^{127}\) A number of interviewees noted that, although the PDU ostensibly has phones available for defendant use, as a practical matter the phones were often unavailable, leaving defendants isolated from support networks.\(^{128}\) Many defendants are frightened and do not understand the bail process or what will happen to them next.\(^{129}\) According to interviewees, many clients want to be heard and feel as though they have some power in the system,\(^{130}\) but without bail advocates, there is no one in the PDU who will listen to them.

These adverse experiences can extend to the hearing itself. The physical configuration of the hearings—with defendants assembled in one location and the rest of the court group in a different location, appearing via video link—reinforces a sense of separation and “otherness” to defendants. The video and audio quality are often poor,\(^{131}\) there is no opportunity for private conversations between public defenders and the clients with whom they have never previously spoken,\(^{132}\) and defendants are often counseled by those ostensibly on their side not to speak.\(^{133}\) All these factors can send a message to defendants that their participation is not valued. Public defender clients also experience frustration from observing the contrast between their experiences and those of defendants who have hired private attorneys, who often have much more information about their clients and client perspectives at the preliminary arraignment.\(^{134}\) Indeed, one senior public defender indicated that one

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126. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90.
127. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90.
128. Interview with Bail Advoc. #2, supra note 90; Interview with Dist. Att’y Senior Manager #1, supra note 102.
129. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90.
130. Interview with Bail Advoc. #2, supra note 87; Interview with Pub. Def. Representative #1, supra note 96; Interview with Pub. Def. Representative #4, supra note 96.
132. Id.
133. Interview with Pub. Def. Representative #1, supra note 96.
134. Interview with Pub. Def. Representative #6, supra note 104.
of the benefits of the bail advocates program is that it has helped public defenders better appreciate how clients typically understand little about the bail process and how problematic the defendant experience is between booking and the preliminary arraignment.  

A significant body of existing work on procedural justice pioneered by Tom Tyler and others describes how citizens’ compliance with the law hinges on their perceptions of the fairness, transparency, and legitimacy of legal authorities. Applied to the present context, that body of literature suggests the status quo approach of offering charged persons limited voice and autonomy in the initial encounter with the courts might erode later compliance. Other work highlights the specific role of attorney-client communication in establishing clients’ sense of procedural justice, so an innovation like the bail advocates that improves charged persons’ ability to interact with their attorneys might plausibly improve these clients’ sense of being treated appropriately.

Bail advocates employ a variety of strategies to counteract the sense of disengagement fostered by these conditions and encourage defendant participation with the process. Advocates’ first objective when meeting with a client is de-escalation—helping clients manage the emotional stress associated with arrest and imprisonment in the PDU. Early on in the interview, advocates also seek to provide defendants with an understanding of how the bail process works, assisting them to visualize their place in the process and understand what is expected of them at the bail hearing. They offer defendants a chance to share their version of what happened with a sympathetic party, an opportunity generally not available until after the preliminary arraignment under the traditional process. All of these strategies can help clients to feel as though they are being treated more fairly, and there is some evidence it has an immediate positive behavioral effect—a Defender Association representative indicated that one PDU manager expressed belief that the presence of the bail advocates calmed inmates and helped to reduce their disciplinary infractions while in custody there.

135. Interview with Pub. Def. Senior Manager #1, supra note 111.
138. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90.
139. Interview with Bail Advoc. #2, supra note 90.
140. Interview with Dist. Att’y Representative #1, supra note 102; Interview with Pub. Def. Representative #1, supra note 96; Interview with Pub. Def. Representative #4, supra note 96.
141. Interview with Def. Ass’n Senior Manager #1, in Phila., Pa. (Feb. 7, 2019).
Bail advocates help to connect clients with a larger support network. Given their problematic phone access in the PDU, clients often rely on bail advocates to call family members and notify them that the arrest had occurred. Advocates also relay information to families about the timing and process for paying bail, encourage family members to attend the preliminary arraignment if it appears that doing so would be helpful, and in one case even assisted a family in negotiating with a bank to release funds needed to pay bail. These measures served to better involve the family and community in addressing the consequences of the arrest, rather than leaving the defendant to rely primarily or solely on their own efforts.

Bail advocates also lay the groundwork for clients to engage in proactive activities following release that would tend to discourage bail violations and promote successful resolution of their case. Advocates’ activities in this vein include assessing need with respect to issues such as drug treatment, mental health, housing, or benefits and developing a release plan for the client to follow; ensuring clients have someone to pick them up and a place to go when released; helping clients with mental health or addiction needs gain access to treatment; or involving outside case managers who had prior relationships with the client. After the preliminary arraignments, bail advocates call clients and family members to encourage them to come in to meet with their attorneys, access social services relevant to their case, and make future court appearances. Many of these measures are designed to shape client behavior in directions with clear causal implications for the outcomes considered above—for example, ensuring that a defendant exhibiting unaddressed mental illness is released into treatment rather than back to the streets almost certainly diminishes their likelihood of future rearrest for behaviors associated with the illness, and reminding clients of court dates seems likely to reduce rates of bail violations from nonappearance. And if bail advocates’ efforts such as those above are successful, we would expect defendants to behave differently with respect to the court, their attorneys, and their community; these positive effects would occur post-arrest and pre-adjudication, and perhaps even continue after the case is resolved.

142. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90; Interview with Def. Ass’n Senior Manager #1, supra note 141; Interview with Pub. Def. Representative #3, supra note 97.
143. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90.
144. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90; Interview with Def. Ass’n Senior Manager #4, in Phila., Pa. (May 8, 2019); Interview with Pub. Def. Representative #3, supra note 97.
145. Interview with Pub. Def. Representative #1, supra note 96.
146. Interview with Dist. Att’y Senior Manager #1, supra note 102; Interview with Pub. Def. Representative #1, supra note 96; Interview with Pub. Def. Representative #2, supra note 97; Interview with Pub. Def. Representative #3, supra note 97.
147. Interview with Bail Advoc. #1, supra note 90.
148. Id.; Interview with Bail Advoc. #2, supra note 90.
149. Interview with Pub. Def. Representative #3, supra note 97.
150. Interview with Bail Advoc. #2, supra note 90.
151. See COOKE ET AL., supra note 48.
Although we lack direct measures of defendant behavior, several features of the empirical results below tend to corroborate the interviewees’ beliefs that the bail advocates modified at least some defendants’ behavior. First, the magnitude of the impacts on bail failures is large enough that it seems implausible that such impacts could be achieved solely through sorting. For example, absent some sort of behavioral change by clients, for the advocates to reduce bail failures by over 90% only through sorting, it would have to be the case that almost every individual sorted into release as a result of the work of the bail advocates has no propensity to violate bail conditions. Achieving such finely targeted results with an informational treatment in which the advocates themselves have only limited time to interact with clients would be surprising. If, on the other hand, there is some population of clients who would have been released in any case but become more compliant as a result of their interactions with bail advocates, sorting need only account for a portion of the large improvement in bail failures.

Perhaps the strongest evidence in favor of the behavioral change channel is the fact that clients ultimately were less likely to receive outcomes that require punishment or further monitoring (conviction or diversion and probation), with no corresponding increase in other sanctions. Because of the quasi-random design, clients with and without access to bail advocates should have similar levels of underlying culpability for their offenses. Because exposure to a bail advocate does not make an individual more or less “innocent,” the most plausible way it could impact the ultimate case disposition is by changing how the defendant behaves between arrest and disposition.

Case outcomes are determined not only by the underlying facts of the crimes and how the prosecutor developed the evidence of those facts, but also by the quality of evidence proffered by defense attorneys and how defendants present themselves before the court. Many bail advocates’ actions are designed to build a relationship of trust between the Defender Association and defendants. Defendants with more trusting relationships with their attorneys may be more receptive to attorneys’ strategic advice, whereas those that distrust attorneys may use their own cultivated expertise to navigate the adjudication process, which often results in more punitive outcomes.152 Engaged defendants may also help the defense team mount a stronger defense by, for example, encouraging reluctant witnesses to come forward.

Ethnographic work on sentencing further indicates that judges take into account factors such as the defendant’s demeanor toward the court, employment situation, and record of engaging in proactive corrective measures such as drug treatment or counseling in deciding sentences.153 By allowing clients to feel heard and included in the adjudication process, bail advocates can foster greater respect toward the court, and advocates also work to connect clients with community resources and social services predisposition that can further goals such as stable employment and


improved mental health. Thus, bail advocates encourage the very behaviors that have been linked in past research to improved case outcomes.

To summarize, the interviews and supplementary empirical analyses provide evidence in favor of two mechanisms of impact for the bail advocates. First, bail advocates enable members of the court work group to better understand the risks of nonappearance or future crime posed by particular defendants, permitting them to sort and release those posing lesser risk. Second, bail advocates appear to help clients feel more engaged with the adjudication process, which encourages behaviors that contribute to better case outcomes.

VI. IMPLICATIONS FOR LEGAL POLICY

A. Sixth Amendment

The analysis above demonstrates that the quality of representation provided at the preliminary arraignment directly affects the outcome of the case and the defendants’ likelihood of future involvement in the criminal justice system. These findings carry implications for how we should understand Sixth Amendment right to counsel.

Under current caselaw, the Sixth Amendment right to effective counsel does not extend to all possible interactions between the State and criminal suspects but is limited to so-called “critical stages” of the adjudication process.\textsuperscript{154} The Supreme Court has indicated that critical stages exist “where counsel’s absence might derogate from the accused's right to a fair trial”\textsuperscript{155} and to “pretrial procedures that would impair defense on the merits if the accused is required to proceed without counsel.”\textsuperscript{156}

Prior rulings suggest a mixed view of whether a bail setting specifically counts as a critical stage. In \textit{Coleman v. Alabama}, the Court extended the right to counsel to a preliminary hearing which only concerned determining the sufficiency of evidence against the accused and setting bail.\textsuperscript{157} Although noting the role of counsel in arguing for bail,\textsuperscript{158} it centered its analysis on the necessity of counsel for cross-examining witnesses and otherwise testing the State’s case, roles that have less valence in a bail setting. In \textit{Gerstein v. Pugh}, the Court specifically declined to extend the right to counsel to the probable cause hearing, noting that the limited function and nonadversarial character of the hearing differentiated it from the hearing in \textit{Coleman}.\textsuperscript{159} Other courts have similarly provided mixed indications regarding whether the right to counsel extends to bail settings. While some early decisions specifically exclude a bail setting as a critical stage,\textsuperscript{160} more recent rulings\textsuperscript{161} have come to an opposite conclusion. For Philadelphia specifically, although public

\begin{footnotesize}
\begin{enumerate}
\item[155.] \textit{Id.} at 226.
\item[156.] Gerstein v. Pugh, 420 U.S. 103, 122 (1975).
\item[157.] 399 U.S. 1, 7–10 (1970).
\item[158.] \textit{Id.} at 9.
\item[159.] 420 U.S. at 122.
\item[160.] See cases cited \textit{supra} note 17.
\item[161.] See cases cited \textit{supra} note 16.
\end{enumerate}
\end{footnotesize}
defender representatives staff preliminary arraignments as a matter of custom, the 
State has not formally designated this stage of the process as a critical stage.162

In Rothgery v. Gillespie County, the Court considered the right to counsel in a 
preatrial setting very similar to the preliminary arraignments considered here.163
Shortly following arrest, criminal defendants in Texas are brought before a 
 magistrate judge for a hearing that combines a probable cause review with an initial 
bail setting.164 In Rothgery, the Court ruled that the right to counsel “attaches” at this 
proceeding—meaning that occurrence of the hearing obligates the State to appoint 
counsel within a reasonable period of time.165 However, the Court did not go so far 
as to indicate that counsel was required at the proceeding itself, leaving that issue 
unresolved.166

The results here provide clear support for the notion that the early bail settings 
should be considered a critical stage, and therefore fall under the Sixth Amendment’s 
ambit. Whether a defendant has assistance from the defense team prior to and during 
the preliminary arraignment measurably affects case outcomes, sentences, and 
likelihood of further arrest. Defendants without bail advocates are less likely to be 
aquitted or have their charges dismissed and more likely to receive probation. Thus, 
requiring defendants to proceed without assistance of counsel prior to the bail hearing 
demonstrably “impair[s] defense on the merits,” the very definition of a critical stage 
proffered by the Court in Gerstein v. Pugh.167

Even accepting the above argument that bail represents a critical stage, the 
existing process in Philadelphia without bail advocates could arguably pass Sixth 
Amendment muster given that the Defender Association does represent all 
individuals not otherwise represented during the bail hearing. However, beyond 
justifying the presence of counsel, the findings here also suggest the possibility that 
counsel, even if physically present, might not be constructively available if they are 
not given adequate opportunity to confer with clients. Notably, because of the 
experimental design, the same public defenders represent both categories of clients— 
those that did and did not have access to a bail advocate. The difference in 
performance thus arises solely due to the fact in one case the office had an 
opportunity to meaningfully confer with the clients prior to the preliminary 
arraignment, and in another, it did not. Under the restrictive criteria set forth in 
United States v. Cronic168 for analyzing constructive denial of counsel, it seems 
unlikely courts would find a Sixth Amendment violation based on this procedural 
deficiency alone. Nevertheless, these results suggest that realizing the Constitution’s

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162. See Pa. R. Crim. P. 122(A) (noting in commentary that counsel shall be appointed “immediately after preliminary arraignment in all court cases”); see also Flora v. Luzerne Cnty., 103 A.3d 125, 139 (Pa. Commw. Ct. 2014) (claiming that, in Pennsylvania, “the defendant does not have a right to counsel to represent him at the preliminary arraignment”).


166. Id. at 212–13.


vision of fully effective counsel requires something more than mere presence in the courtroom.

B. A Different Approach to Addressing Risk

Improving the quality of representation at first appearance can address core objectives of both those who support risk assessment tools and those who oppose them. At the same time, this approach seems unlikely to trigger many of the concerns cited by opponents of ARAIs. Moreover, in most jurisdictions, enhanced defense can be implemented within the confines of current court processes, meaning that there may be less need to modify existing court procedures, pass new legislation, or secure consensus of all the various criminal justice agencies involved in the pretrial processing of defendants.

The fundamental premise behind ARAIs is that due to time constraints, cognitive load, implicit or explicit bias, poor incentives, or other concerns, judges or their agents are unable to make fully informed release decisions that maximize public safety. ARAIs, it is thought, serve to inject different information in the process and therefore allow those who make bail decisions to see some cases differently. As demonstrated above, better defense counsel can serve a similar purpose.169

The interviews and judge-specific analysis revealed that magistrates do in fact respond to the information gathered by bail advocates. Moreover, ARAIs incorporate predetermined information for all cases; however, the particular information that would help magistrates make better decisions in marginal cases seems likely to vary from defendant to defendant, meaning that a more flexible, defendant-specific information gathering process may offer some advantages.

While fulfilling a key objective sought by ARAI proponents—enriching the information set available to bail decisionmakers—improved defense counsel can also simultaneously serve a core objective of ARAI opponents, that of enhancing defendants’ access to supportive services during the pretrial period. The interviews revealed that the enhanced time and attention provided by the bail advocates enabled the Defender Association to more readily connect clients with services, such as drug or mental health treatment, and also to engage families and the community in their case. Ultimately, clients with better representation at the initial bail hearing are less likely to be rearrested and less likely to be subjected to probation, meaning that they become less entangled with the criminal justice system going forward.

Many concerns raised by opponents of ARAIs are not triggered by enhanced representation. ARAI opponents cite several potential problems: reliance on underlying data that is inaccurate or reflective of a biased system, lack of transparency, racially disparate impact, and tools’ potential to widen the detention net. Because defense counsel are not locked into using a rigid set of predictive factors in evaluating their clients, they have the ability to adapt the information they collect and present to the court, accounting for the unique characteristics of each case.

169. This finding is consistent with recent work demonstrating that holistic public defenders can also enable judges to identify individuals who can be released without impairing public safety. See James M. Anderson, Maya Buenaventura & Paul Heaton, The Effects of Holistic Defense on Criminal Justice Outcomes, 132 HARV. L. REV. 819 (2019).
Moreover, defense attorneys can help to address problems of biased or inaccurate data by providing better contextual information to the court work group regarding why a particular individual might have priors or other negative indicators in the written record, something that ARAIs do not do.

A defense-focused intervention arguably also has the potential for greater transparency than an ARAI. While the interactions between defense attorneys and clients are obviously privileged and not transparent, any information collected by defense attorneys that is to be used by a bail decisionmaker must be presented in filings or in open court in a manner conforming to the public transparency requirements of other court proceedings. In the case of Philadelphia’s bail advocates, for example, the public can attend preliminary arraignments and other proceedings where any information they develop would be presented to the court. This inclusion of the work of defense attorneys as part of the court record contrasts with risk assessment scores, which are generally not available to the public.\footnote{Of course, the internal mental processes of the defense team are not readily subject to external examination in the way that algorithm might be if it were fully documented for the public.}

Because of their structural role in the system, it is also less plausible to imagine that enhanced defense services would increase racial disparity or lead to a widened detention net. Defense attorneys are specifically tasked with advocating for the narrow interests of their clients, so it seems unlikely that improving their capabilities would lead to more detention. While in theory empowering defense attorneys could exacerbate racial bias if defense counsel are themselves implicitly or explicitly biased,\footnote{See Theodore Eisenberg & Sheri Lynn Johnson, *Implicit Racial Attitudes of Death Penalty Lawyers*, 53 DePaul L. Rev. 1539 (2004); L. Song Richardson & Phillip Atiba Goff, *Implicit Racial Bias in Public Defender Triage*, 122 Yale L.J. 2626 (2013).} our empirical analysis suggests that in fact the opposite is true—improving defense representation in Philadelphia reduced racial disparities.

A further advantage of defense-focused reform is that it may be more politically feasible to implement than an ARAI. Implementing an ARAI often requires achieving consensus across a broad range of criminal justice agencies, including law enforcement, pretrial services, prosecutors, defense attorneys, and courts, that a tool would be valuable; enactment of enabling legislation or, at a minimum, changing local court rules; and then developing, testing, and deploying the tool, along with associated data collection required to allow the tool to operate. This complex process involving a myriad of agencies and interests creates numerous veto points, and, indeed, there are a number of prominent recent examples where plans to implement ARAIs have been derailed by inability to achieve public and agency consensus.\footnote{See Samantha Melamed, *Pa. Officials Spent 8 Years Developing an Algorithm for Sentencing. Now, Lawmakers Want to Scrap It*, Phila. Inquirer (Dec. 12, 2018), https://www.inquirer.com/news/risk-assessment-sentencing-pennsylvania-20181212.html [https://perma.cc/C6SZ-YRB9]; Chad Sokol, *After setbacks, Spokane County abandons custom criminal justice algorithm in favor of simpler tool*, Spokesman-Rev. (Feb. 20, 2019), https://www.spknews.com/stories/2019/jan/04/after-setbacks-spokane-county-abandons-custom-crim/ [https://perma.cc/6RYJ-ZPS7].}

A defender-focused intervention, in contrast, could likely be implemented in many jurisdictions with less requirement for consensus and less disturbance to
existing rules and procedures. In jurisdictions where public defenders are already involved in representing defendants at first appearance, the public defender office could in theory unilaterally implement a reform like the bail advocates pilot by increasing the number of personnel devoted to meeting with clients and staffing the earliest bail hearings. In other jurisdictions, support of judges or jail authorities might be required to modify procedures to ensure that attorneys have adequate opportunity and space to meet with clients and that information obtained at these early meetings could be presented to decisionmakers in a robust hearing. However, so long as a court has some existing rules allowing for the participation of defense counsel in bail hearings, there would be a basis under existing rules to accommodate a program like that of the bail advocates.

Obviously, a further political hurdle would be securing appropriations for the enhanced representation—a perennial challenge for underfunded indigent defense systems. However, the problem of securing appropriations is not unique to defender-focused interventions—it also exists for reforms involving ARAls. Moreover, one reason for legislators’ reluctance to fund indigent defense is because they sometimes view such expenditures as potentially supporting criminals or being soft on crime. This Article demonstrates, in contrast, that robust defense services do not simply serve the narrow interests of criminal defendants but can be an important tool to serve broader objectives of crime prevention and efficient administration of justice.

Improving representation at first appearance is not incompatible with ARAls—a jurisdiction, if it so wishes, could pursue both reforms simultaneously. The qualitative data suggest that better defense counsel may serve a similar information processing role as an ARAI—in which case the two approaches might be substitutes—but it is also at least possible that the two solutions together perform better than either one alone. Moreover, it seems plausible to think that an ARAI may function best in an environment where there is robust defense representation at first appearance that can challenge and/or correct any data inputs to the ARAI which may be faulty. The empirical results here ultimately do not speak to whether bail advocates perform best in place of or in tandem with an ARAI, as there was no variation in the use of risk assessments in Philadelphia during the time period in question, but this could be an important issue to examine in future research.

C. Limitations

These results demonstrate that strengthening public defense at initial bail hearings offers a promising avenue towards pretrial reform, but improved public defense services are no panacea. Fully realizing the potential for enhanced defense services to contribute to pretrial reform will require addressing a number of challenges.

First, even though the bail advocates program improved release outcomes, it did not achieve one of the pilot’s primary goals: reducing pretrial incarceration. Even though nearly all interviewees thought the presence of bail advocates would lead to more pretrial releases, this did not occur. As discussed above, there are a variety of

potential explanations for this pattern, but one plausible explanation—likely not unique to Philadelphia—is that an intervention focused on one component of the pretrial system induces compensatory responses by other actors so that the system tends towards homeostasis. Given that the bail advocates did reduce FTA and pretrial rearrest, the program did furnish a strong foundation for further reductions in the pretrial population, as any mechanical increases in FTA or crime stemming from releasing more defendants could presumably be partly or even fully offset with higher quality defense services. Nevertheless, these results suggest that defense-focused interventions may be insufficient on their own to reduce incarceration rates absent other decarceration initiatives.

Another difficulty arises due to the different scalability and cost structures of defender-focused interventions as compared to ARAIs. ARAIs can require a substantial upfront investment to develop tools, build the necessary data collection infrastructure to support the tools, implement the tools, and train decisionmakers regarding their use. However, after these initial costs are realized, the tools can be extended to essentially all criminal defendants at low marginal cost, and such low marginal costs persist until the tools need to be recalibrated. Thus, one appealing feature of ARAIs is that they can be applied to new and growing criminal justice populations without substantial new appropriations. Defender-centric solutions such as the bail advocates, in contrast, require hiring of additional personnel and the ongoing costs associated with maintaining a labor pool; moreover, other than modest economies that might be gained through consolidating training or administrative support, costs for these programs will likely scale in proportion to the number of defendants served. This linear scaling of costs is a particular drawback for a program like that of the bail advocates, which may decrease in marginal effectiveness as it scales to encompass defendants for whom bail advocate services are less beneficial.

Finally, questions remain regarding the generalizability of these findings. The analysis presented here, while providing high quality causal evidence due to the quasi-random research design, is specific to a particular jurisdiction and time period. Philadelphia’s current pretrial process has particular problems—such as the poor access of defendants to lawyers or family members while in pretrial detention and the lack of communication with defendants about how the pretrial process works—that may not be shared by all jurisdictions. Whether these findings would generalize to other jurisdictions where defense counsel play either no role or a limited one in initial bail hearings remains uncertain, and impacts likely depend on factors such as the nature and quality of the pretrial services interview or the degree of individualization in the hearing that vary from jurisdiction to jurisdiction. While not all jurisdictions might benefit from bail advocates to the extent shown here for

174. Other work has demonstrated a similar tendency towards homeostasis following the introduction of ARAIs—for example, see Sloan et al., supra note 42; Stevenson, supra note 42.

175. Because they could not represent every defendant in a shift, the advocates focused on defendants who they believed would benefit most from an interview. Interview with Bail Advoc. #1, supra note 90; Interview with Bail Advoc. #2, supra note 90. Thus, clients who did not end up getting advocates may be less responsive to the intervention than those who participated in the pilot.
Philadelphia, it is also possible that enhancing the quality of defense counsel may be even more effective in some jurisdictions—after all, prior to the bail advocates pilot, there were at least Defender Association personnel at the hearings.

The bail advocate approach also may not fully generalize because some criminal defendants hire private counsel, and not all indigent defendants are represented by institutional providers such as public defenders. Defender-focused interventions cannot reach the universe of defendants in a manner achievable for some other interventions, like ARAIs or court reminders. Identifying ways to extend the benefits of robust representation at first appearance to all criminal defendants, regardless of the mode of providing indigent defense services, represents an important opportunity for further refinement and improvement of the model studied here.

CONCLUSION

Consider the following thought experiment: suppose the city of Philadelphia had been able to provide bail advocates to all 31,000 people arraigned in 2018. Further assume conservatively that, when calculated across this overall population of individuals accused of crime, the effects of bail advocates are only one-fourth as large as those shown in this Article. Based on the estimates above, bail advocates would have enabled roughly 600 individuals to escape the punishment and sometimes monitoring associated with conviction or diversion. A further 600 who faced a probation tail following their sentence would have been able to convince the court otherwise. Two hundred and fifty Black individuals who would have been detained under the status quo system in which disparities grow as the process advances would have secured release, while 350 people who would have had their bail revoked or forfeited due to FTA or additional crimes would have avoided these outcomes. Over the next eighteen months, the city would have prevented nearly 2000 further arrests involving this cohort of individuals.

What do such numbers tell us more broadly about pretrial reform? In Philadelphia, as in many other jurisdictions, initial bail decisions are made quickly and with limited opportunity for an individualized consideration of defendant risk and needs. Magistrates proceed based on sparse information. Minorities accused of crimes bear the brunt of these decisions and become even more disproportionately represented in the system once bail is set. Bail violations and rearrest occur regularly. Defendants’ expectations for how they will interact with their lawyers and the court are established in a hearing where they have no voice, and prior to which their attorneys have never spoken with them. The experience is bewildering, frustrating, and alienating for many.

Some reformers claim we can best improve this situation by providing magistrates with better information, while others emphasize giving those accused of crimes better resources for successful compliance during the pretrial period. On the information side, actuarial risk assessments have become a widely embraced solution, but this is not the only way to improve decisionmakers’ information set. And ARAIs do little to directly encourage compliance.

This Article identifies a solution that can serve the information-enhancing goals of those advocating for ARAs, while also directly helping people accused of crimes to avoid future violations. The experimental evidence is encouraging—enabling defense attorneys to better engage with their clients early on in the process improves
information available to magistrates. It fosters better engagement with the courts. These changes ultimately translate into fewer bail violations, less punitive punishments, and fewer arrests. And these impacts occur in a manner that reduces racial disparities. More so than new algorithms, the path forward to effective pretrial reform may require elevating an old mainstay of the criminal process—the defense attorney.
## Appendix Table 1: Regressions Examining Exogeneity of Instrument

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<td></td>
<td></td>
<td>(0.0031)</td>
</tr>
<tr>
<td>Represented by public defender</td>
<td></td>
<td>0.0045*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0022)</td>
</tr>
<tr>
<td># prior arrests</td>
<td></td>
<td>0.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0002)</td>
</tr>
<tr>
<td># prior felony convictions</td>
<td></td>
<td>0.0003*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0002)</td>
</tr>
<tr>
<td># prior misd. convictions</td>
<td></td>
<td>-0.0002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0002)</td>
</tr>
<tr>
<td># prior bail failures</td>
<td></td>
<td>-0.0015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0010)</td>
</tr>
<tr>
<td>N</td>
<td>98,874</td>
<td>92,455</td>
</tr>
<tr>
<td>F-Test P-value</td>
<td>0.462</td>
<td>0.219</td>
</tr>
</tbody>
</table>

*Note: This table reports coefficient estimates from linear regressions of an indicator for whether a particular defendant was arraigned in a shift during which bail advocates were taking cases on the indicated covariates and a set of hour by day of week and week fixed effects (not shown in table). Robust standard errors are reported in parentheses. Each column reports results for a separate regression; the sample size is lower in column II because zip code and...*
prior criminal history information were unavailable for some observations. The reported F-tests test the joint null hypothesis of no relationship for all covariates listed in the table.

Appendix Table 2: First Stage IV Results

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Limited Controls</th>
<th>Full Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeared on a shift where advocates taking cases</td>
<td>0.184**</td>
<td>0.185**</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
</tr>
<tr>
<td>F-Statistic on Instrument</td>
<td>1684.6</td>
<td>1732.9</td>
</tr>
<tr>
<td>Include week and hour by day of week fixed effects?</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Control for defendant and case characteristics and prior</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>criminal history?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This table reports coefficient estimates from the first stage IV regressions. The unit of observation is a case, and the outcome is an indicator for whether a bail advocate worked with the defendant in the case. The instrument is an indicator for whether the preliminary arraignment occurred during a shift in which bail advocates were taking cases. The “Limited Controls” column includes a full set of hour by day of week and week fixed effects (not shown in table) as additional controls; the “Full Controls” adds all controls used in Table 3. Standard errors clustered on arraignment date are reported in parentheses. Each column reports results for a separate regression; the sample size is 99,086. ** denotes an estimate that is statistically significant at the 1% level.

Appendix Table 3: Robustness Checks

<table>
<thead>
<tr>
<th>Specification</th>
<th>Detained</th>
<th>Any bail violation</th>
<th># future arrests</th>
<th>Any guilty</th>
<th>Probation sentence</th>
<th>Jail sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Baseline (N=98,916)</td>
<td>-0.014</td>
<td>-0.045*</td>
<td>-0.254*</td>
<td>-0.079*</td>
<td>-0.073*</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.020)</td>
<td>(0.123)</td>
<td>(0.040)</td>
<td>(0.039)</td>
<td>(0.029)</td>
</tr>
<tr>
<td>2. Limited controls (N=99,086)</td>
<td>-0.060</td>
<td>-0.048*</td>
<td>-0.188</td>
<td>-0.037</td>
<td>-0.058</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
<td>(0.021)</td>
<td>(0.129)</td>
<td>(0.044)</td>
<td>(0.043)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>3. Limit sample to Apr. 2017-Mar. 2019 (N=66,206)</td>
<td>-0.039</td>
<td>-0.038*</td>
<td>-0.233*</td>
<td>-0.117*</td>
<td>-0.115*</td>
<td>-0.034</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.022)</td>
<td>(0.129)</td>
<td>(0.049)</td>
<td>(0.045)</td>
<td>(0.034)</td>
</tr>
<tr>
<td>4. Omit attorney controls (N=98,916)</td>
<td>-0.013</td>
<td>-0.044*</td>
<td>-0.250*</td>
<td>-0.077*</td>
<td>-0.071*</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.020)</td>
<td>(0.123)</td>
<td>(0.040)</td>
<td>(0.039)</td>
<td>(0.029)</td>
</tr>
<tr>
<td>5. Matching estimator (N=87,142)</td>
<td>-0.038</td>
<td>-0.033</td>
<td>-0.392**</td>
<td>-0.103*</td>
<td>-0.048</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.027)</td>
<td>(0.137)</td>
<td>(0.061)</td>
<td>(0.060)</td>
<td>(0.044)</td>
</tr>
<tr>
<td>6. Include expunged cases (N=101,874)</td>
<td>-0.015</td>
<td>-0.042*</td>
<td>-0.268*</td>
<td>-0.065*</td>
<td>-0.073*</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.019)</td>
<td>(0.120)</td>
<td>(0.038)</td>
<td>(0.037)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>7. Non-experimental estimates (N=98,916)</td>
<td>-0.021*</td>
<td>0.003</td>
<td>0.014</td>
<td>-0.019</td>
<td>-0.002</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.006)</td>
<td>(0.026)</td>
<td>(0.014)</td>
<td>(0.013)</td>
<td>(0.008)</td>
</tr>
</tbody>
</table>
Note: See notes for Table 3. The “Limited Controls” specification includes only week and day of week by hour fixed effects as controls. The “Matching Estimator” specification is described in the main text of the paper. “Non-experimental estimates” were obtained via ordinary least square regression with controls as specified for Table 3.

Appendix Table 4: Randomization Inference

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Estimated Effect of Bail Advocates</th>
<th>Fraction of Simulated Coefficients Less Than Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detained</td>
<td>-0.014</td>
<td>16.3%</td>
</tr>
<tr>
<td>Any bail violation</td>
<td>-0.045</td>
<td>3.9%</td>
</tr>
<tr>
<td># future arrests</td>
<td>-0.254</td>
<td>5.6%</td>
</tr>
<tr>
<td>Any guilty</td>
<td>-0.079</td>
<td>0.6%</td>
</tr>
<tr>
<td>Probation sentence</td>
<td>-0.073</td>
<td>0.5%</td>
</tr>
<tr>
<td>Jail sentence</td>
<td>0.006</td>
<td>15.0%</td>
</tr>
</tbody>
</table>

Appendix Table 5: Estimated Effects for Population Subgroups

<table>
<thead>
<tr>
<th>Effect of bail advocate for defendants that are:</th>
<th>Outcome: Detained</th>
<th>Bail violation</th>
<th># future arrests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>-0.051</td>
<td>-0.029</td>
<td>-0.268*</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.024)</td>
<td>(0.134)</td>
</tr>
<tr>
<td>Non-black</td>
<td>0.041</td>
<td>-0.050*</td>
<td>-0.286*</td>
</tr>
<tr>
<td></td>
<td>(0.038)</td>
<td>(0.026)</td>
<td>(0.144)</td>
</tr>
<tr>
<td>P-value from H0: Black=Non-black</td>
<td>0.056</td>
<td>0.463</td>
<td>0.884</td>
</tr>
<tr>
<td>Male</td>
<td>-0.015</td>
<td>-0.054*</td>
<td>-0.401*</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
<td>(0.026)</td>
<td>(0.159)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.013</td>
<td>-0.028⁺</td>
<td>0.028</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.017)</td>
<td>(0.086)</td>
</tr>
<tr>
<td>P-value from H0: Male=Female</td>
<td>0.980</td>
<td>0.338</td>
<td>0.002</td>
</tr>
<tr>
<td>No prior convictions</td>
<td>-0.022</td>
<td>-0.048*</td>
<td>-0.338*</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.023)</td>
<td>(0.151)</td>
</tr>
<tr>
<td>Prior convictions</td>
<td>-0.003</td>
<td>-0.040⁺</td>
<td>-0.131</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.024)</td>
<td>(0.124)</td>
</tr>
<tr>
<td>P-value from H0: Priors=No Priors</td>
<td>0.669</td>
<td>0.771</td>
<td>0.141</td>
</tr>
</tbody>
</table>

Note: This table reports coefficients from IV specifications similar to those estimated in Table 3, but which include interaction terms allowing the effects of having a bail advocate to vary according to the characteristic indicated. The specifications for race, gender, and prior convictions are estimated separately. See notes for Table 3.