Does Cash Bail Deter Misconduct?

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Abstract

Courts routinely use low cash bail as a financial incentive to ensure that released defendants appear in court and abstain from crime. This can create burdens for defendants with little empirical evidence on its efficacy. We exploit a prosecutor-driven reform that led to a sharp reduction in low cash bail and pretrial supervision, with no effect on pretrial detention, to test whether such incentive mechanisms succeed at their intended purpose. We find no evidence that financial collateral has a deterrent effect on failure-to-appear or pretrial crime. This paper also contributes to the literature on legal actor discretion, showing that non-binding reforms may have limited impact on jail populations.

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Financial penalties are used in various areas of criminal justice, with the goal of deterring misconduct.[1] One iconic example is the requirement that defendants pay cash bail to secure pretrial release. In recent years, however, hundreds of jurisdictions across the United States have begun to reduce their reliance on cash bail. Bail reform is motivated by concerns about inadvertent detention for those who cannot afford to pay. But cash bail is not supposed to be a de facto detention order; rather, it's a collateral system that is designed to incentivize *released* defendants to appear in court and refrain from crime. In fact, the modal defendant is able to secure release by paying bail or agreeing to supervisory conditions (Reaves, 2013). This is particularly true among the type of defendants most affected by reform, who tend to be facing less serious charges and often have low bail even absent the reform. The elimination of low-level bail is expected to provide benefit to defendants, since it reduces monetary and time burdens. But getting rid of financial incentives could have adverse consequences in terms of appearance rates and crime. There is little empirical work exploring these dynamics.

In this paper we provide new evidence on the impacts of bail reform and the efficacy of low-level bail conditions. We do so by evaluating a prosecutor-led reform in Philadelphia. On February 21st, 2018, Philadelphia's newly-elected 'progressive-prosecutor' declared that his office would no longer seek monetary bail for defendants charged with a long list of eligible offenses. Nicknamed the 'No-Cash-Bail' policy, this reform applied to nearly 2/3 of all cases filed in the city of Philadelphia, including both misdemeanors and nonviolent felonies. To evaluate the impacts of this policy, we use web-scraped court data and a difference-in-differences design with defendants who were ineligible for the No-Cash-Bail policy as a control group.

Philadelphia's No-Cash-Bail policy, like most bail reform initiatives, is discretionary. That is, the bail magistrates still have full discretion to set monetary bail if they choose, even though the prosecutor's office no longer requests it for eligible categories. Since magistrates do not work for the district attorney, and since there are no changes to directly relevant factors such as the defendant's risk profile, one might not expect the policy to have much impact. Our results on this question are mixed. We find that the No-Cash-Bail policy did affect bail-setting behavior, leading to a sharp 22% (11 percentage point) increase in the likelihood of being granted release on recognizance (ROR, or release without monetary or supervisory conditions). However, the No-Cash-Bail policy had no impact on pretrial detention rates. This is because most of those who received ROR as a result of the reform would have otherwise been released after paying low monetary bail (a deposit of $500 or less) or agreeing to the conditions of

[1] Fines are generally found to be effective: for example, in improving driving behaviors (Luca, 2015; Bar-Ilan and Sacerdote, 2004; Goncalves and Mello, 2017) or reducing collusive pricing (Block et al., 1981).

pretrial supervision or unsecured bail (in which the defendant does not need to pay for release but owes money to the court should she fail to appear).[2] Therefore, while prosecutorial policy does appear to exert some soft influence on judicial behavior, its impact was attenuated by discretion in the implementation.

Since the No-Cash-Bail policy changed conditions of release without affecting the overall release rate, it provides an ideal opportunity to test the deterrent effects of monetary and supervisory conditions among this group of low-level offenders. Monetary bail is designed as a financial incentive that should act as a deterrent by raising the cost of failing to appear in court (Becker, 1968). Its role in detaining people has received much attention in the literature, but intentionally setting unaffordable monetary bail is controversial and potentially unconstitutional (Starger and Bullock, 2018; Mayson, 2020). Our setting allows us to evaluate the central claim that justifies the use of monetary bail and pretrial supervision: that such conditions incentivize better behavior among those who are released.

We find no evidence that this is the case. Our point estimates are close to zero and allow us to reject even small increases in failure to appear and pretrial crime at the 5% level. Subgroup analysis allows us to isolate impacts of cash bail as distinct from pretrial supervision; we find no evidence that financial incentives increase compliance. We leverage an instrumental variables difference-in-differences approach to directly test the impact of ROR on FTA and crime. Our results suggest that monetary bail is not necessary to prevent misconduct for the large majority of those evaluated.

This poses a puzzle: monetary bail is widely used under the theory that it incentivizes court appearance and deter crime. Yet Philadelphia was able to substantially liberalize the conditions of pretrial release with no detectable adverse consequences. Why was unnecessary bail being set so often prior to the reform? One possible explanation is that magistrates – or the individuals who set bail policy and oversee magistrate practices – have incentive to err on the side of setting restrictive conditions. If a magistrate makes a 'Type II error' (being too lenient towards someone who reoffends) they may come under public scrutiny. In a recent example, a man released on $1,000 bond intentionally drove his SUV into a crowded Wisconsin parade, killing six people and injuring many others. The media drew attention to all legal actors involved, and the court commissioner who had set low bail was reassigned away from criminal cases.[3] Even in less extreme examples, legal actors might feel remorse when people for whom they set low cash bail go on to commit new crimes. In contrast, no one knows for certain when a 'type I error? has been made (being too harsh on someone who would not have reoffended), since they don't observe what a detained person would have done

[2]There was no effect on larger bail amounts, which are more likely to lead to pretrial detention.

[3]https://www.tmj4.com/news/ aukesha-christmas-parade/court-commissioner-who-set-low-bail-for-waukesha-parade-suspect-reassigned-indefinitely

if released. If magistrates face asymmetric penalties in errors, they will tend to set bail higher than is necessary to ensure good conduct. This creates low-hanging fruit in bail reform: a pool of defendants for whom monetary and supervisory conditions can be eliminated without adverse consequences.

How big is this pool? Would a more comprehensive bail reform lead to greater adverse consequences? This depends on how many defendants are still receiving unnecessarily restrictive bail. If magistrates have already exhausted the pool of defendants who can be granted ROR without adverse consequence, then greater liberalization would come with trade-offs. To provide suggestive evidence on this, we exploit a second natural experiment in Philadelphia: the fact that defendants are quasi-randomly assigned to magistrates with varying initial levels of leniency and varying responsiveness to reform. We show that even originally-lenient magistrates were able to substantially reduce their use of monetary bail without adverse consequences. Since these are the magistrates most likely to have exhausted the pool of defendants who can safely be granted ROR, there may be room for the stricter magistrates to 'catch up'. We also show that our results are similar when we limit our analyses to more serious cases – felonies that were eligible for the No-Cash-Bail policy.

This paper contributes to several literatures. To begin, we provide some of the first evidence on the impacts of the current bail reform movement. Like Stevenson (2018a) we find that discretionary bail reform has little impact on pretrial detention rates. In contrast, Albright (2021) evaluates a non-discretionary bail reform and finds a large reduction in pretrial detention, at least for short stays. In order to substantially reduce jail populations, it might be necessary to limit discretion or impose some system of accountability that makes it costly to deviate from the reform policy.

We also provide one of the first evaluations of the empirical claim used to justify the use of monetary bail: that it deters failure-to-appear in court for *released* defendants.[4] We find no evidence that cash bail has a deterrent effect on misconduct among those evaluated, which goes against the traditional economic models of crime involvement (Becker, 1968). We consider several explanations. First, some defendants may simply comply because they were instructed to do so by the court; no further incentives are necessary. Second, for defendants who require additional incentives, sufficient incentive may already be in existence. Failing to appear in court is a crime; it results in a bench warrant and can be used to justify holding someone without bail (or on un-

[4]Closest to our work are Myers (1981) and Helland and Tabarrok (2004). The first paper uses regression analysis to look at the correlation between bond amount and FTA in New York in 1971, finding that increasing bail bond reduces FTA. The second paper uses propensity score matching, finding that felony defendants released with surety bonds are less likely to miss court appearances than similar defendants released on recognizance. Other studies that evaluate the combined incapacitative (due to pretrial detention) and deterrent effect of monetary bail include Abrams and Rohlfs (2011), Gupta et al. (2016) and Albright (2021).

affordable bail) in the future. Cash bail might provide little marginal deterrence on top of the criminal justice penalties. Finally, some instances of nonappearance may not be the result of intentional choice. Many arrestees struggle with substance abuse, mental health, and extreme poverty. If they fail to appear in court it may be due to challenges with time management. A recent study shows that sending reminders leads to a large reduction in FTA, suggesting that attention constraints may be a substantial contributor to nonappearance (Fishbane et al., 2020). Regardless of the explanation, our results call into question the widespread use of bail for low-level defendants. It imposes burdens without detectable benefit and raises potential constitutional issues around excessive bail and due process (Wiseman, 2014; Funk, 2019).[5]

Lastly, we provide new evidence about the influence of prosecutors. The nascent literature has thus far supported claims about outsized prosecutorial power, showing they are influential in both the high rates of incarceration and in racial disparities in sentencing (Rehavi and Starr, 2014; Pfaff, 2017; Arora, 2018; Krumholz, 2019; Sloan, 2019; Tuttle, 2019). This literature focuses on parts of the criminal justice system that prosecutors have direct control over, such as charging decisions. Our work shows that prosecutors can also be influential in areas where they have no direct control, such as bail. Such influence may stem from the norm-setting role of prosecutors in the courtroom. This is an additional channel of influence by which the progressive prosecutor movement might lead to more systemic change.

The remainder of the paper is organized as follows. In Section I we discuss background on bail reform, the natural experiment in Philadelphia, our data, and our empirical strategy. Section II presents the results of our empirical analysis and Section III concludes.

I. Empirical setting

A. Background on bail reform

The traditional goal of monetary bail is to ensure that those who are released from jail show up in court for their appointed dates (Funk, 2019). Monetary bail acts as collateral; if the defendant fails to appear in court, the bail amount will be forfeited. Although recent economics literature has modeled bail-setting as synonymous with the decision to detain or release,[6] the use of monetary bail as a de facto detention order is

[5]The Supreme Court held that "bail set at a figure higher than an amount reasonably calculated to fulfill this purpose [assuring the presence of the accused in court] is 'excessive' under the Eighth Amendment." *Stack v. Boyle*, 342 U.S. 1. While this has typically been interpreted as applying to high levels of cash bail, our results suggest that low levels of cash bail could also be excessive, since we find that they don't improve court attendance, compared to no bail at all.

[6]E.g. Arnold et al. (2018); Kleinberg et al. (2018); Hull (2017)

highly controversial, and potentially even unconstitutional (Starger and Bullock, 2018; Mayson, 2020). In fact, the legal phrase 'right to bail' is historically understood as a right to release (Schnacke et al., 2010). Nonetheless, monetary bail can often result in pretrial detention, sometimes intentionally, and sometimes inadvertently.

Pretrial release with monetary collateral is extremely common, despite the lack of evidence about whether financial conditions are necessary to reduce pretrial misconduct. The best available national statistics show that, among felony defendants in large urban counties, 33.7% were held on cash bail, 38.2% were released on cash bail, and only 14% were released on recognizance (Reaves, 2013). Among felony defendants with monetary bail set, 43% had bail less than $10,000 and 28% had bail less than $5000 (Reaves, 2013). Misdemeanors, however, constitute the large majority (∼80%) of cases filed. While there are no nationally representative statistics on bail for misdemeanors, Mayson and Stevenson (2020) analyze data across eight diverse jurisdictions and find that 40% to 90% of misdemeanor defendants were required to post monetary bond. Among those with monetary bail, the large majority had bail less than $5000.

In recent years, hundreds of jurisdictions are engaging in bail reform (PJI, 2020). Reform is motivated primarily by concerns about equity and efficiency in pretrial detention. Since monetary bail conditions release on ability-to-pay, poor individuals are disproportionately likely to await trial in jail even if they pose a low risk of nonappearance or crime. Given correlations between race and wealth in the United States, and evidence for racial disparities in many parts of the criminal justice, this concern is especially relevant for minority defendants.

While bail reform initiatives vary, there are several consistent themes. First, reform initiatives aim to eliminate or reduce the use of monetary bail. While this is not the only goal sought by reformers, it has been a centerpiece of the recent movement. Second, reform is often limited to relatively low level offenses such as misdemeanors and nonviolent felonies.[7] This is in part because the state wants to preserve the ability to detain those charged with more serious offenses and the ability to deny bail entirely can be limited by law. Third, most reform initiatives are discretionary, meaning that some body within the jurisdiction declares a presumption of nonmonetary release but leaves the final decision up to the bail magistrate.[8] Discretionary reform can come from the legislature, from the courts, or, as is increasingly common, from prosecutorial policy. A commitment to no longer request cash bail for many offense categories has been a staple of the recent 'progressive-prosecutor' movement (Bazelon, 2019). For

[7]For instance, reform in New York City was limited to misdemeanors and nonviolent felonies; Harris County, Texas, eliminated cash bail for misdemeanors; Kentucky presumes release without cash bail for low risk individuals charged with misdemeanors or nonviolent felonies; and so forth.

[8]This is in contrast to policies that directly change the *scope* of discretion, like mandatory sentencing guidelines (Kuziemko, 2013; Yang, 2015). Unlike in these situations, bail magistrates' choice set is neither expanded or restricted.

instance, on the first day in office, the recently elected Los Angeles district attorney instructed his prosecutors to no longer request monetary bail for misdemeanors and low-level felonies. Similar policies have been announced by prosecutors in Philadelphia, San Francisco, Austin, Chicago, Fairfax, Boston and a variety of cities both small and large.

B. The pretrial process in Philadelphia

Anyone who is arrested in Philadelphia gets brought to a nearby police station, where they are booked and placed in a holding cell.[9] The police officer will then send the report associated with the arrest to the district attorney's office, where a prosecutor reviews the case and determines what charges to file. Once charges have been filed, the defendant is interviewed by a pretrial services officer. The pretrial services officer makes a recommendation for the bail amount, taking into account the defendant's charges, criminal history and life circumstances. Their recommendation is not binding and bail decisions often differ from what was recommended (Shubik-Richards and Stemen, 2010). After the pretrial interview, the defendant is ready for the bail hearing. This takes place over videoconference: the defendant remains in the holding cell and communicates via video with the presiding magistrate. Representatives of both the district attorney's office (referred to in this paper as the DA rep) and the public defender's office are in the courthouse with the magistrate. While the representatives can make suggestions for the appropriate bail amount, the final decision is made by the magistrate, who is an employee of the judiciary. The DA rep is advised on how much bail to request by line prosecutors who work in the charging unit at the district attorney's office. Neither the magistrate nor the DA rep are, in general, attorneys. Both specialize in bail hearings, and they are not involved in later phases of the case's processing.

The bail hearing typically lasts only a minute or two, during which the magistrate reads the charges, schedules the next court date, determines eligibility for public defense, and decides the conditions of release. These conditions include:

- ROR (Release on own recognizance): The defendant is released solely on their promise to return to court.
- Supervised release: The defendant is released with supervisory conditions, such as drug testing, weekly meetings with the pretrial supervision officer, restrictions on travel, restrictions on who they can interact with, and so forth. Monetary bail is not required.

[9] In 85% of cases, the arrest happens within the two calendar dates after the alleged offense, so in most cases, arrest and offense dates are close to the same.

- Unsecured monetary bail: The defendant does not need to post any money for release, but if they do not show up to their court date, they owe the court their bail amount.
- Secured monetary bail: The defendant must pay a deposit (10% of the bail amount) to be released. If they don't show up in court they forfeit the deposit and owe the court the remaining bail amount.
- Bail denied: The defendant is ordered to be detained pretrial. (Used rarely in Philadelphia.)

For defendants with secured monetary bail, if the person fails to pay the deposit within 4-8 hours of the bail hearing, they will be transported to the local jail. They will remain there until the disposition of the case unless they can procure the bail deposit or obtain a bail reduction.

Professional bail bondsmen are allowed in Philadelphia, but they are less common than in other jurisdictions. This is partly because Philadelphia has a deposit system: the defendant is released if they can pay 10% of the total bail amount. If they comply with all release conditions 70% of the deposit will be returned when the case is disposed.[10]

C. The Philadelphia No-Cash-Bail reform

On November 7th, 2017, Larry Krasner was elected to the position of Philadelphia's district attorney (DA). He was the first criminal defense lawyer to be elected to that position, and he ran on a platform that included goals like lowering punishments for less serious crimes and reducing the use of pretrial detention.[11] However, and importantly for our research design, the exact timing of different reforms was not announced ahead of time.

On February 21st, 2018, DA Krasner announced that his office would stop seeking monetary bail if the lead charge was among a set of 25 low-level offenses. These offenses include both felonies and misdemeanors, and span from very low-level offenses to more severe offenses, such as burglaries with no person present. They also include several drug charges, such as possession with an intent to deliver.[12] The goal of this reform was to reduce pretrial detention and to avoid incarcerating defendants because they could not afford low bail amounts. Concretely, this meant that the DA's office would instruct their representatives at the bail hearing to ask that defendants with these lead charges be released on their own recognizance, or to not object if ROR was requested

[10] This has recently been revised, and a compliant defendant will now receive their full bail deposit back.
[11] His agenda can be found here: https://krasnerforda.com/platform/
[12] A list of the most common eligible and ineligible offense categories can be found in Appendix Table A1.

by the defendant's legal representative. Note that, as a practical matter, requesting ROR could result in a shift away from supervised release as well as monetary bail.

There was only one other reform to pretrial practices around that time.[13] On Feb. 15th, the DA's office announced a change in charging practices for marijuana possession, retail theft and prostitution. Appendix Figure A.1 shows that after that date, the number of charges filed for these offenses dropped. We remove them from our analyses. No other concurrent changes affected the prosecution of low-level offenses, or pretrial detention.[14]

D. Data and descriptive statistics

Our primary data source consists of court dockets web-scraped from the Pennsylvania Unified Judicial System (Philadelphia Municipal Courts, 2018). It is structured to include one observation per criminal case, and includes all criminal cases filed in Philadelphia from 2007 through April 2019. While we use the entirety of the court data to build criminal history and recidivism variables, our analysis focuses on cases whose initial bail hearing occurred in the six months before or the five months after the No-Cash-Bail reform. After dropping marijuana possession, prostitution, and retail theft cases,[15] duplicate cases (i.e. a defendant is brought for multiple cases on the same day),[16] and cases where covariates are missing,[17] our sample contains 22,589 observations.

The dockets include information on the defendant (first and last name, date of birth, gender, race, ZIP Code, and a unique court identifier), the charges (date of arrest, offense type), the bail hearing (date and time of the bail hearing, bail magistrate name, bail type and amount), whether and at what date and time bail was posted, and notes pertaining to each court appearance (including whether the defendant failed to appear). Using this data, we define several other main variables. First, we define 'eligible cases' as cases that are eligible for the No-Cash-Bail policy; in other words, cases for which the lead charge at the time of the bail hearing appears on the list of

[13] While DA Krasner hired a number of new prosecutors, and fired some old ones, there were no changes to the group in charge of pretrial processes (charging and bail) until after the end of our sample window – summer 2018.

[14] Over the last several years, Philadelphia has introduced several other changes to their pretrial system, such as early bail review, in which a judge reviews bail for cases in which a defendant is unable to pay, and a pilot project of providing pre-bail-hearing public defense to some defendants. However, these changes were implemented more than a year before the policy evaluated in this paper and should not affect our analysis, which focuses on a time window of 6 months before and 5 months after the No-Cash-Bail policy.

[15] As discussed previously, there was a concurrent policy that reduced arrest rates for these charges. Together, they constituted ∼10% of pre-reform caseload.

[16] 8.5% of cases are multiples; we omit these due to difficulties in defining the bail type for a defendant with multiple types of bail. Our results are very similar if we include duplicate cases.

[17] About 7% of cases are missing some covariates; most often information about past offenses

25 offenses for which the DA's office would no longer request cash bail .[18] 'Ineligible cases' are cases whose lead charge does not appear in that list of 25 offenses. Since the lead charge is the most serious charge, some cases that we categorize as 'ineligible' also have one or more eligible charges. If legal actors think that the policy could apply to cases in which *any* offense is eligible, this creates the potential for a slight spillover effect, which we discuss in more detail later.

Following previous literature, in our main specifications, we consider a person to be detained pretrial if they spend at least three nights in jail (Dobbie et al., 2018; Stevenson, 2018b).[19] We generate a dummy for 'recidivism' which is equal to one if a person with the same unique court identifier is charged with a new offense within six months of the bail hearing.[20] Our FTA variable is equal to one if the defendant fails to appear for at least one court date associated with this case. We define variables for prior FTA and prior charges by searching the data for prior instances with the same defendant identifier. For consistency across cases, and since our data begins in 2007, we limit our time window for priors to nine years before the bail hearing.

Table 1 presents descriptive statistics for cases filed in the six months before the No-Cash-Bail reform was announced on February 21st, shown separately for eligible and ineligible cases. First, note that a large portion – roughly 60% of the sample – is eligible for the reform.[21] Second, note that the reform targeted a group of defendants that were already being treated more leniently in the initial bail hearing, compared to defendants with ineligible cases. Half of eligible cases already received ROR before the reform, compared to only 7% of ineligible cases. Only about 17% of eligible cases led to at least three nights in jail compared to almost half of ineligible cases. This leniency is likely due to differences in the severity of the case. Even though a substantial portion (45%) of eligible cases carry felony charges, the charges tend to be less serious and defendants have fewer prior charges. Third, note that the FTA and recidivism rates are higher for eligible cases than ineligible cases. This could be because defendants charged with ineligible offenses are more likely to be detained and thus are mechanically prevented from accruing new charges or failing to appear in court. It also could be because eligible

[18]The one offense category where our definition of eligibility might be somewhat overinclusive is possession with intent to deliver (PWID). For drug types other than marijuana, there are a variety of circumstantial factors that may make a case ineligible. We are able to account for one of these factors – recent prior PWID arrests – but not others. 8% of ineligible cases are in this category. We show that our results are robust to dropping PWID cases in Appendix Table A12.

[19]Most defendants who fail to pay bail within the first three days remain detained until the disposition of the case.

[20]At six months, 61% of cases have been resolved; at 10 months, 80% of cases are resolved. We conduct robustness tests in which our recidivism and FTA measures are defined over varying time windows.

[21]Including the case types omitted because of a concurrent change in charging practice (marijuana possession, prostitution, and retail theft), approximately 67% of all cases filed in Philadelphia before the reform would have been eligible for the No-Cash-Bail policy.

defendants are less likely to have monetary or supervisory conditions to incentivize good behavior. Lastly, note that the average poverty rate within defendants' zipcode is 25%, and 75% of eligible defendants had a public defender, which means that they were found indigent by pretrial services. This suggests high levels of resource constraints.

E. Empirical strategy

Before moving to formal analyses, Figure 1 presents some raw graphical evidence of how the No-Cash-Bail policy seems to have affected eligible cases. Clockwise from the top left corner the subfigures show time trends in ROR, pretrial detention, recidivism and FTA. There was a sharp increase in ROR right after the reform, but neither jail, FTA, or recidivism changed much. Figure 2 presents the same raw evidence for ineligible cases. In contrast to the eligible cases, there is no sharp visible break in any of the trends around the implementation date.[22]

Our preferred research design is difference-in-differences, with ineligible cases as the control group. We select this research design to account for time varying trends that affect both groups equally. For instance, both eligible and ineligible cases saw a gentle increase in ROR during the months before the reform. This could be due to seasonality or a gradual change in bail-setting culture during the first few months Krasner was in office. We include three alternative specifications as our main robustness tests. The first is a difference-in-differences strategy with eligible cases from the previous year as the control group. The second is to drop cases where the lead charge is ineligible, but where a secondary charge is eligible, which represents 21% of ineligible cases (8% of the full sample). These cases could have been treated differently by legal actors, depending on their interpretation of the No-Cash-Bail guidelines. The third is a discontinuity-in-time estimation strategy, that exploits sharp changes for eligible cases only.[23] These alternative specifications are motivated by concerns about spillover effects that would lead us to underestimate the policy's impact on bail. By and large, we find very similar estimates using all three strategies.

Our primary specification is shown in Equation 1, where i indicates case, *Post* indicates that the initial bail hearing occurred after the No-Cash-Bail reform, and *Eligible* indicates that the case is eligible for the reform. Unless specified otherwise, covariates X include defendant race, age at arrest, gender, prior FTAs, prior convictions, types of

[22]The slight increase in ROR for ineligible cases after the policy is driven by cases where the lead charge is ineligible, but secondary charges were eligible. Appendix Figure A.2 presents trends for ineligible cases that had no eligible charge at all, and we see no change in trends at all. Later, we show that are results are similar when we drop these "hybrid" cases.

[23]We follow Calonico et al. (2014), using time as the running variable – approach whose merits and limits relative to more classic version of running variables have been discussed by Hausman and Rapson (2018).

offense,[24] grade of offense, whether the defendant was represented by a public defender, the bail magistrate, day of the week, and magistrate work-shift. The main coefficient of interest is δ.

$$Y_i = \alpha + \beta Post_i + \delta Post_i * Eligible_i + \lambda Eligible_i + \theta X_i + \epsilon_i \quad (1)$$

Our identifying assumption is that trends in outcomes between eligible and ineligible cases would have remained parallel had it not been for the No-Cash-Bail policy. We discuss challenges to this assumption and provide some initial evidence in support of this assumption here.

As discussed previously, there were no concurrent policy changes that could complicate analysis on our sample. However, it's possible that police and/or line prosecutors responded endogenously to the reform. For instance, police might deprioritize arrests for eligible offenses, or prosecutors may up-charge defendants to make them ineligible for the reform. This would be independently interesting, but would also be a threat to our research design, as it would result in a change in case composition.

Appendix Figure A.3 shows a time trend in the number of eligible and ineligible cases filed. (The number of cases filed should closely track the number of arrests, since the declination rate for offenses in our sample is only about 1%.) The trend remains roughly parallel with no divergence at the time of the No-Cash-Bail reform. This provides some initial evidence that there were no concurrent changes in behavior that would confound our analysis.

We provide a series of more formal tests in Table 2 and Appendix Table A2. In Columns 1 of Table 2, we test for changes in arrest patterns.[25] We find no evidence of differential patterns in arrests for eligible compared to ineligible offenses. In Columns 2-4, we test for changes in prosecutorial charging behavior. We focus on three outcomes: (1) declinations, or the decision to not file charges; (2) upcharging, which we define as a prosecutor charging a case as ineligible, when the police description would have put it in the eligible category; (3) downcharging, which we define as the converse – a prosecutor charging a case as eligible when the police description puts it in the ineligible category. Here again, we don't see any change in charging prosecutors' decisions: they did not appear to be trying to 'game the system' by upcharging, downcharging, or declining any more frequently as a result of the No-Cash-Bail reform. Lastly, Column

[24] Offenses have been aggregated to the 23 most common offenses and a catch-all category for the remaining offenses. We cluster standard errors at the offense level, motivated by concerns that effective treatment (i.e. perceptions of the appropriateness of responding to the No-Cash-Bail policy) and outcomes will be correlated within offense type. Our conclusions are unchanged if we do not cluster standard errors, or if we cluster standard errors at the judge level using a wild bootstrap (shown in appendix Table A8).

[25] For Columns 1-4 of this table, the data comes from arrest records (Philadelphia Police Department, 2018), which, importantly, includes what the police thought the offense to be and how the charging prosecutor assessed the case – i.e. if they declined to prosecute that case, and if not, what charge they would seek.

5 tests for changes in the number of cases filed. Again, we see no change.

Appendix Table A2 and Appendix Figure A.4 tests for changes in observable case characteristics: charges per case (which can be a proxy for case severity), probability of having a prior, gender, and whether a defendant is black. For all of these analyses, we fail to reject the null, and the coefficients are small relative to the mean.

II. The impact of a prosecutor-led bail reform

A. Bail and pretrial detention

We begin by evaluating whether the No-Cash-Bail policy affected bail. Given that the prosecutor's role in bail is merely advisory, it's unclear whether magistrates will change practices as a result of the district attorney's decree. Bail magistrates are, by law, supposed to set the least restrictive bail conditions that would ensure compliance. Bail amounts are thought to be determined by a trade-off between the costs of both misconduct and incarceration (Arnold et al., 2018; Kleinberg et al., 2018). Prosecutorial policy does not affect any of these key inputs to the bail-setting decision. Furthermore, bail magistrates work for a separate government agency (the judiciary) and are not directly accountable to the district attorney. Despite all this, we find that magistrates *do* respond to the prosecutor-led reform.

The first two columns of Table 3 show difference-in-differences estimates of δ (as described in Equation 1) with ROR as the outcome.[26] The odd column does not include controls; the even column does. We estimate that the No-Cash-Bail policy led to an 11 percentage point (22% relative to the pre-reform mean for eligible cases) relative increase in the likelihood that defendants will be released on their own recognizance. The coefficient is stable to the inclusion of covariates, again mitigating concerns about changes in arrest or charging practices that would have led to a change in case composition at the time of the reform.

Why would a change in prosecutorial preferences affect the behavior of bail magistrates? Note that bail requests did not provide more information about defendant riskiness – if anything, since the new policy applied to whole offense categories regardless of a particular person's characteristics, bail magistrates are getting less information from the DA representatives about each individual after the policy change. One potential explanation has to do with social norms. Magistrates plausibly want to make decisions that seem just to their peers, as well as the people who they represent. Even if a bail reform policy is non-enforceable, it may still influence norms, thus changing what it means to 'do justice' well. An elected district attorney is a representative of the

[26] Appendix Table A3 shows the β and λ coefficients from equation 1.

people, whose job is to administer justice in the name of the community. If a district attorney says that requiring cash bail for most misdemeanors and nonviolent felonies is unjust, this could be seen as both signal that a change in norms has already occurred, and a validation of that change. For the magistrate, deviating from community norms can result in challenges during reappointment, disapproval from peers and community members, and other types of soft costs.

Figure 3 presents event-study style coefficient plots in support of the difference-in-differences estimation. Each graph shows coefficients on lead/lag dummy variables interacted with a dummy for eligibility. The lead/lag dummy variables each correspond to one month of bail hearings: six before and five after the policy. Specifically, we estimate the following equation:

$$Y_{it} = \alpha_t + \beta Eligible_i + \sum_{t \neq -1} \delta_t Eligible_i + \theta X_i + \epsilon_i \tag{2}$$

α_t captures month fixed effects and δ_t captures the leads/lags of the policy, with the month immediately prior to the reform left out as the comparison category. Figure 3 plots the δ_t coefficients. For instance, the coefficients plotted at -2 in the graphs refer to cases where the bail hearing occurred between one and two months prior to the reform; the coefficients plotted at 1 refer to bail hearings one to two months after the reform. We see that trends in ROR are approximately parallel before the reform for eligible cases. This helps support a central assumption of the difference-in-differences analysis: that trends in outcomes for eligible/ineligible cases would have remained parallel in the absence of reform. The increase in ROR comes immediately after the reform and remains high throughout the time period analyzed.

These results are robust to variations in variable definition, sample, and specification. We present robustness tests in Columns 1-4 of Appendix Table A4. We vary our definition of ROR so that it equals one if the defendant *ever* receives ROR during the pretrial period, as opposed to whether they receive ROR at the *initial* bail hearing. We then limit the sample to 12 weeks before and after the reform; conduct doughnut difference-in-differences regression in which we drop the week just before, the week of, and the week after the reform; and collapse the data to the weekly level for eligible and ineligible cases and conduct the difference-in-differences estimate on the aggregated sample. The estimates remain largely unchanged.

We also find very similar results when we use alternative specifications. As discussed in the empirical strategy section, we use three alternative strategies: (1) using eligible offenses in the prior year as a control group, (2) dropping ineligible cases that have some eligible secondary offenses, and (3) regression discontinuity in time. The results

for ROR are presented in Column 1, Panel A, of Appendix Tables A5 - A7.[27] These alternative specifications provide similar (slightly larger) increases in ROR, demonstrating that the increase in ROR is robust across specifications.

We then move to evaluating the impact on pretrial detention. Despite the sizable change in ROR, there is no statistically detectable differential impact on the likelihood of being detained pretrial. As seen in Columns 3 and 4 of Table 3, the point estimates are small, stable to the inclusion of covariates, and correspond with a 0.72 percentage point increase in the pretrial detention rate. We can reject a decline of 1.9 percentage points or more at the 5% level.[28] Nor is there any visibly detectable change in the event-study graphical analysis – detention rates for eligible/ineligible defendants are parallel and unchanged both before and after the reform (see Figure 3).[29] Despite the hopes of reformers, this discretionary policy did not lead to a meaningful decrease in the pretrial detention rate.

At first glance, this seems inconsistent with prior claims that a sizable number of defendants are detained pretrial due to an inability to pay monetary bail. However, a closer look at the substitution patterns in bail can help explain why the increase in ROR did not translate into an increase in release. The No-Cash-Bail policy brought about an 11 percentage point relative increase in ROR, the least restrictive type of bail. Concordantly, other bail types declined by a net of 11 percentage points. We examine how the No-Cash-Bail policy affected four bail categories: supervised release without monetary conditions, unsecured bail, secured bail of $5,000 or less and secured bail over $5,000. (As a reminder, a defendant with secured bail of $5,000 would only need to pay $500 to be released, but they will owe the full $5,000 if they fail to appear in court.) Table 4 shows difference-in-differences estimates of the impact that the No-Cash-Bail policy had on these types of bail.[30] We see that there was about a four percentage point decline in both supervised release and low monetary (secured) bail. Unsecured bail declined by a little over two percentage points. Conversely, we see little evidence of a decline in higher bail amounts: the point estimate is about -0.7 percentage points and is not statistically significant. Most of those who received ROR as a result of the reform would otherwise have been able to secure their release by either paying a $500-or-less deposit, accepting the supervisory conditions, or agreeing to the unsecured

[27] In addition, Appendix Figure A.5 presents event-study graphs using eligible cases in the prior year as the comparison group.

[28] For many of the outcomes measured, our hypotheses are naturally one-sided. In this instance, we are interested in whether the No-Cash-Bail policy led to a *decrease* in pretrial detention rates. We use a one-sided test to provide boundaries on what size effects are inconsistent with our data.

[29] Our results are not driven by the choice of our definition of being in jail pretrial as having spent at least 3 nights in jail: as shown in Appendix Table A9, the results are similar if we vary the definition to having spent at least 1 to 7 nights in jail. Results are also similar across empirical strategies, as shown in Column 2, Panel A, of Appendix Tables A5 - A7.

[30] Appendix Figure A.6 presents event-study graphs for bail types.

bail.[31]

The fact that the change in prosecutorial policy did not affect detention rates is noteworthy, given that lowering pretrial detention rates is a primary goal of bail reform. We expect that this is likely because 1) the policy change targeted a group of defendants that already had relatively high rates of release and 2) discretion in implementation meant that only a subset of eligible defendants actually benefited from the reform. Given that many other bail reform initiatives also target low-level cases and allow judges discretion to continue to set monetary bail, results in Philadelphia provide a cautionary tale about the extent to which bail reform will affect jail populations.

However, even if the No-Cash-Bail policy did not affect pretrial detention, it still led to changes that are likely to be meaningful to a defendant's life. Court debt and pretrial supervision can contribute to net-widening in the reach of criminal justice: seemingly minor criminal justice interventions can lead to large burdens for individuals, and in particular for minority men (Rios, 2011; Martin et al., 2018). Several hundred dollars in secured bail deposits is a large sum for an indigent population. Unsecured bail poses no upfront costs but entails a threatening overhang on the defendant's life. Should she fail to appear in court due to difficulty in understanding when/where she was supposed to appear, accidental oversight in the midst of a chaotic life, inability to get time off of work, or any one of a plethora of reasons, unsecured bail results in court debt. Pretrial supervision requires time-consuming check-ins with pretrial services as well as restrictions on liberty, such as curfews or orders to remain within the jurisdiction. Eliminating the burdens of these conditions has benefit to the defendant. What remains to be seen is whether it has costs in terms of nonappearance or crime.

B. Pretrial misconduct

A concern with reducing the use of monetary bail and supervisory conditions is that misconduct will increase. This could be due to several reasons. If reducing monetary bail means that more defendants are released pretrial, this could result in a mechanical increase in FTA and recidivism simply because more defendants are out on the streets. Since the No-Cash-Bail reform did not affect the pretrial detention rate, this mechanism is not relevant to our context. However, reducing monetary bail and supervisory conditions could increase misconduct among released defendants if the prospect of monetary penalties act as a deterrent, or if supervision improves compliance. This is what classic economic theory would predict, and the reason why cash bail exists

[31]Even relatively low bail amounts can result in pretrial detention, if defendants are too poor to pay (Stevenson, 2018b). One interpretation of our results is that magistrates are able to identify which defendants can afford low monetary bail, and intentionally offer ROR only to those who would otherwise have been able to pay for release. However, given the relatively small changes in secured monetary bail, it would be premature to infer this from our data.

(Becker, 1968).

Table 5 presents the difference-in-differences estimates with FTA and recidivism as the outcomes (δ from Equation 1).[32] We find no statistically detectable impact of the No-Cash-Bail policy on the likelihood of failing to appear in court, or of receiving new charges within six months after the bail hearing for eligible relative to ineligible offenses. We can reject, at the 5% level, anything larger than a 0.009 percentage point increase in FTA.[33] We can reject any increase in pretrial rearrest.[34] These results are supported by our graphical event-study analysis, which is presented in the bottom two graphs of Figure 3. Trends in FTA and recidivism remain roughly parallel and unchanged both before and after the reform. In Appendix Table A10, we vary the time-windows for FTA and recidivism. There again, we find mostly small and insignificant coefficients. Our alternative specifications – using eligible cases from 2008 as a control group, dropping ineligible cases that had some eligible secondary charges, and regression discontinuity in time – also yield very similar results, as shown in columns 3 and 4 of Appendix Tables A5 - A7. Lastly, we run a placebo test where we randomly assign "treatment" dates between 2013 and 2016. We then run placebo difference in difference estimates, similar to those presented in equation (1).[35] Appendix Figure A.7 shows the distribution of coefficients obtained in 2000 random draws of the placebo policy date; and the dotted line present our main coefficients for the true experiment. This figure shows that only the true policy yielded changes in ROR; while the changes in pretrial detention, FTA and recidivism are within the placebo ranges.

As seen in Table 4, the No-Cash-Bail policy led to a decrease in supervision as well as in cash bail. If supervision has no effect, or has an opposite-signed effect to cash bail, an analysis that jointly measures the impact of both could be misleading. We use several strategies to better isolate the impact of cash bail. First, we conduct subgroup analysis on groups which experienced differential shocks. Table 6 breaks out eligible offenses into those that, prior to the reform, were less/more likely to get supervised release.[36] For offense categories shown in Panel A, the No-Cash-Bail reform led to a large decrease in the use of cash bail, but no detectable change in the likelihood of pretrial supervision. For offense categories shown in Panel B, the policy led to a large decline in the use of pretrial supervision and a small decline in the use of cash bail.

[32] Again, Appendix Table A3 shows the β and λ coefficients from equation 1.

[33] Columns 5-8 of Appendix Table A4 present a series of robustness tests, similar to those presented in section III.A., which yield very similar results.

[34] Our inquiry is motivated by concerns that bail reform will have adverse consequences. Consistent with this inquiry, we use a one-sided test to identify the magnitude of increase that can be rejected.

[35] The only difference is that we don't control for bail magistrates, since the data isn't available for earlier years. For consistency, we rerun our main results without controls for bail magistrates and include those results in the figure. The estimates change very little.

[36] Pretrial supervision is not equally used for all offenses – it is somewhat common (around 11% of cases get supervised release) for drug and property crimes, but not for other types of offenses (less than 2%).

The estimates shown in Panel A provide more direct evidence that cash bail does not improve court compliance.[37] The point estimates on misconduct remain small, mostly negative, and mostly statistically insignificant.[38] Figure 4 plots the δ_t coefficients from Equation 2 for offenses that were most likely to get cash bail before the No-Cash-Bail reform, providing visual confirmation of the results from Table 6. We provide more evidence on the impact of cash bail separate from pretrial supervision in Subsection D.[39]

Thus far we have shown that the No-Cash-Bail policy led to a sharp increase in the ROR rate with no evidence of an effect on the likelihood of being detained pretrial. This provides an opportunity to directly test the impact that ROR has on defendant misconduct among released defendants – a topic on which there is little empirical research, in spite of the prevalence of defendants released with monetary or supervisory conditions. To do so, we use an instrumental variables difference-in-differences approach to provide new evidence on this question.[40] Specifically, we use the differential impact that the No-Cash-Bail policy had on eligible defendants as an instrument for ROR. Note that most of the identifying assumptions for the IV method are the same as those for difference-in-differences. The exclusion restriction requires our instrument to potentially affect pretrial misconduct only through changes in pretrial conditions of release. It could be violated in particular if there were contemporaneous policy changes that would have affected the treatment and control group; and/or if the policy changes had affected other things than conditions of pretrial release. However, we have already explained that there were no other policy changes at the charging level over our study period; and we demonstrated that the No-Cash-Bail policy did not appear to influence arrest or charging practices and that there were no other confounding events at that time.

The additional assumptions necessary for an IV specification are that the No-Cash-Bail policy did not affect misconduct through channels other than bail. In Table 3, we show that the policy did not affect pretrial detention rates, which is one of the most obvious potential violations of the exclusion restriction. Furthermore, bail hearings are very short (a few minutes long), yielding few opportunities for magistrate behavior to affect misconduct through channels other than bail. Theoretically, awareness of

[37] Again, these results are not driven by our modeling choices. In Panel B of Appendix Tables A5 - A7, we present estimates from the alternative specification on the sample of eligible offenses that experienced the largest change in cash bail. Our results are very similar.

[38] Table 6 shows that ROR leads to a negative and statistically significant reduction in FTA. However, we don't want to over-interpret this result given that it is not statistically significant in two of the three alternative specifications or in the analysis discussed in Section D.

[39] While the point estimates from Panel B of Table 6 provide suggestive evidence that supervision has little effect on misconduct, the standard errors cannot rule out moderate sized effects.

[40] In the crime context, this approach has for example been used by Draca et al. (2011).

the policy could have an effect on defendant behavior by fostering greater trust in the criminal justice system. We cannot rule this out, but if this indirect channel existed, we expect it to have a relatively small impact compared to the more direct incentive effects. Furthermore, it arguably would have similar effects across treatment and control group.

Our first and second stage equations are listed below, where Y_i is FTA or recidivism of defendant i and all other variables are as described previously.

$$ROR_i = \alpha + \delta Post_i * Eligible_i + \beta_1 Post_i + \lambda_1 Eligible_i + \theta_1 X_i + \epsilon_i \tag{3}$$

$$Y_i = \alpha_2 + \gamma \widehat{ROR_i} + \beta_2 Post_i + \lambda_2 Eligible_i + \theta_2 X_i + \psi_i \tag{4}$$

Note that the IV estimates could be recovered by dividing the difference-in-differences for misconduct by those for ROR; but there are two advantages to computing them directly. First, this allows us to compute confidence intervals. Second, we are able to leverage differences across bail magistrates to increase the precision of our estimates. Our second IV estimates use an alternative specification that exploits the fact that magistrates respond differently to the reform, a phenomenon that is discussed in more detail in the next section. This adds some power to our estimates. We use LASSO regression to identify which magistrates have a meaningfully different response to the No-Cash-Bail reform. We find that only Magistrate 1's response differs meaningfully from the others.[41] The modified specification thus adds $Post_i * Eligible_i * Magistrate\_1_i$ in the instruments and $Magistrate\_1_i$, $Post_i * Magistrate\_1_i$, and $Eligible_i * Magistrate\_1_i$ as controls in both stages. For this strategy to be valid, we must make a partial monotonicity assumption (Mogstad et al., 2019) – that is, we assume that people are more likely to get ROR if $Post_i * Eligible_i = 1$ or if $Post_i * Eligible_i * Magistrate\_1_i = 1$.

Results are shown in Panel A of Table 7. Columns 1 and 2 show the first instrumental variables results, identifying the local average treatment effect for compliers in our analysis. The point estimates are negative. At the 5% level, we find that ROR leads to at most a 8.8 percentage point increase in FTA and does not increase recidivism. Columns 3 and 4 show the instrumental variables results which allow for heterogeneous magistrate response. In this specification, at the 5% level, we show that ROR leads to at most a 3.8 percentage point increase in FTA and a 3 percentage point increase in recidivism.[42]

Again, this method is capturing the joint effect of pretrial supervision and cash bail. To better isolate the impacts of cash bail versus ROR, we rerun our IV specifications

[41] We discuss and justify this approach further in section III.C.

[42] Evaluating the relative change with a binary outcome is problematic as the mean outcome approaches 0 or 1, since a simple reframing of the outcome as its inverse (1-X instead of X) can flip the interpretation from a large relative effect to a small one.

solely on the subsample of defendants who were charged with offenses that experienced a large change in cash bail but no change in pretrial supervision, as described in Panel A of Table 6. Results are shown in Panel B of Table 7. Across specifications, our point estimates are negative. At the 5% level, we are able to reject the hypothesis that the elimination of cash bail leads to more than a one or two percentage point increase in FTA or recidivism.

While not significant at conventional levels, our point estimates are most consistent with the claim that monetary bail leads to an *increase* in misconduct. There are certainly explanations consistent with this. The payment of bail and the time burdens of pretrial supervision could have a destabilizing effect on the lives of indigent defendants (Harris, 2016; Mello, 2018). The imposition of monetary bail or pretrial supervision without giving the defendant a chance to explain him or herself may feel coercive or unfair (Nagin and Telep, 2017).[43] This could foster the expectation that the court process will be similarly unfair, thereby decreasing compliance.[44]

Since the negative point estimates are not statistically significant, we can't make a definitive claim about the adverse effects of monetary bail. We do know, however, that monetary bail was not necessary to ensure appearance for the large majority of those evaluated. One possible explanation is that the amount of monetary penalty was not large enough to deter defendants. That is, it could be the case that higher bail amounts deter FTA but monetary penalties under $5,000 do not. We find this not fully convincing given the indigence of defendants in Philadelphia. Among eligible defendants in the pre-period, 50% of defendants lived in a zip code where the median income is less than $30,000, and 75% were poor enough to qualify for a public defender. The mean bail amount for eligible defendants in the pre-period with secured monetary bail under $5,000 was $3,750; and $4,900 for eligible defendants in the pre-period who got unsecured monetary bail.[45] Even if this is not the amount that defendants have to post to avoid pretrial detention, this is the amount that defendants would be liable for if they fail to appear in court. Thousands of dollars of bail – and hundreds of dollars in the bail deposit – are likely a meaningful sum for these individuals (Harris et al., 2010).

Another possibility is that defendants don't think that this court debt would be

[43]Defendants are discouraged from speaking during the bail hearing as they have not yet had a chance to speak to counsel about their case.

[44]The defendant may also see monetary bail as a 'price' that has been set for failing to appear. As discussed in the literature on fines as prices (Gneezy and Rustichini, 2000), the defendant may now feel that they have permission to skip the court appearance as long as they're willing to pay the price in terms of forfeited bail.

[45]Ideally, we would have liked to determine the percent change in FTA that could be ruled out as a function of changes in cash bail dollar amounts. However, bail amounts are heavily skewed, and our results are somewhat sensitive to how we deal with outliers. With this in mind, we do not include these analyses in the paper

collected, and thus discount it. However, there have been moments in recent history when Philadelphia hired debt collection agencies to aggressively pursue court debt, creating threats, hassle, and damage to credit.[46] Failure to pay court debt can also result in criminal penalties, including incarceration.[47]

Note that the most policy-relevant question is whether low monetary bail provides meaningful *marginal* incentive on top of other criminal justice penalties that exist. FTA is a crime – not just in Philadelphia, but in most jurisdictions. A person who fails to appear in court receives a bench warrant and, if convicted of this crime, may be punished with fines or even incarceration. Our results suggest that these threats provide sufficient incentive, at least for the type of person who might respond to cash bail. Crime policy focused on incentives and deterrence only work for defendants who are aware of and paying attention to the consequences of their choices. This may not be the case for all defendants, many of whom are young and may lack skills in managing time and attention. Consistent with this theory, Fishbane et al. (2020) find that simple interventions like increasing the salience of the court date on a citation and sending text message reminders decreased failures-to-appear by 13% and 21%, respectively. Taken together, these results suggest that interventions that marginally increase incentives may not be as effective as interventions targeting inattention. Criminal justice policy could gain in efficiency by identifying the causes of misconduct, rather than assuming that it was the result of deliberate choice.

C. Impacts by race and ethnicity

So far, we have presented average treatment effects of the No Cash Bail policy. In this section, we explore differences in implementation across Black, White, and Hispanic defendants. Given the disproportionate representation of Black and Hispanic groups in the criminal legal system, as well as evidence of racial bias in the setting of bail (Ayres and Waldfogel, 1994; Arnold et al., 2018), the racial/ethnic impacts of the reform are of particular interest.

In Table 8, we break out our sample by defendant race and ethnicity. Race information is provided in the court data, and Hispanic ethnicity is identified by surname.[48] Panel A presents our main results for non-Hispanic Black defendants, Panel B presents

[46] See for example https://www.marketplace.org/2012/12/20/philadelphia-collects-court-debt-decades-later. Note that ultimately, advocates had success in getting FTA related debt forgiveness in 2015. https://clsphila.org/employment/bail-forfeiture/

[47] News reports from other jurisdictions may also have created fear and uncertainty, such as the debates in Florida about whether it was necessary to pay off all court debt before a felony on the criminal record could be cleared – which has consequences on many aspects of a defendant's lives.

[48] Ethnicity is determined using the ethnicolr Python function that attributes the likely ethnicity of a person using Census data.

results for non-Hispanic White defendants, and Panel C presents results for Hispanics.[49] A few things are to note from this table. First, the pre-reform ROR rates are very different: among eligible defendants, 68% of White defendants were getting ROR, compared to 41-44% of Black and Hispanic defendants. Second, the estimated treatment effect is larger for Black and Hispanic defendants than for White defendants, both in absolute terms as well as relative to the pre-reform ROR rate. (The difference is not statistically significant). Black defendants experienced a 13 percentage point (30%) increase in ROR and Hispanic defendants experienced a 11 percentage point (26%) increase. This is compared to a 7.9 percentage point (12%) relative increase in ROR for White defendants.[50]

However, this interpretation is somewhat misleading, since it ignores base rates in the pool of defendants who were in a position to benefit from the reform. To illustrate this, consider the following example. Imagine the data consists of 100 White defendants and 100 Black defendants who are eligible for the reform. Before the reform, 90 White defendants received ROR and 10 Black defendants received ROR. Both groups saw a 10 percentage point increase in ROR as a result of the reform. A heterogeneous treatment effects analysis would say that both groups benefited equally, and that black defendants experienced a greater percent change in ROR relative to their pre-reform rates. However, white defendants were disproportionately selected for the benefit. That is because the pool of eligible defendants – those who were not already receiving ROR before the reform – was disproportionately (9/10) Black. If defendants were selected for ROR out of the pool of eligible defendants in a manner that is orthogonal to race, there would have been, in expectation, 18 Black defendants and 2 White defendants chosen. In other words, a selection mechanism that was uncorrelated with race would lead to highly heterogeneous treatment effects for Black defendants.

We can evaluate whether the selection mechanism was correlated with race by comparing pre/post reform changes in the racial/ethnic composition of eligible defendants with cash bail set. Before the policy change, White defendants represented 19% of defendants with monetary/supervisory conditions set. After the policy change, this went down to 16%. Hispanic representation among the group of eligible defendants with cash bail also decreased, from 26% to 24%. In contrast, the representation of eligible Black defendants receiving cash bail went up from 54% to 59%. This suggests that White and Hispanic defendants were slightly more likely to be granted ROR as a result of the reform then Black defendants.[51] Overall, these analyses suggest that the

[49] Only about 1% of our sample has a race label other than Black or White.

[50] As with our main results, there was no change in pretrial detention and no increase in pretrial misconduct for either group.

[51] We provide a more formal approach to this analysis in a companion paper, Ouss and Stevenson (2022). In short, our method adapts a complier analysis from the instrumental variables literature in order to identify which type of defendants were selected to benefit from a discretionary reform.

policy's impact on racial disparities depends on the framework chosen.

D. Generalizability

This section considers the extent to which our results generalize to other defendants or other jurisdictions. We focus our discussion on the generalizability of our main results, namely, that cash bail does not meaningfully deter FTA or crime among released defendants. However, we wanted to briefly flag two other issues relevant to bail reform: incapacitation and the supervisory functions of bail bondsman. Jurisdictions that see a large decrease in the jail population may see a mechanical increase in FTA or pretrial crime, simply since fewer are 'incapacitated' by incarceration. Likewise, jurisdictions which move away from the use of bail bondsman may need to find other methods to fulfill the various roles bondsman play, such as communicating with defendants about court appearances. A more comprehensive discussion about the consequences of bail reform should take into account these multiple potential channels.

***

Even after the reform, 30% of eligible defendants were still being assigned monetary bail. Could these individuals be granted ROR without adverse consequences? Or do these individuals require cash bail to incentivize appearance in court and deter crime? This type of generalizability question is motivated by a particular model of bail setting behavior: one in which magistrates grant ROR *first* to those for whom cash bail is *least* necessary. If so, then those who received ROR as a result of the No-Cash-Bail policy may be those for whom the deterrent effect of cash bail is particularly low. The remaining defendants – those who still have cash bail set – may require cash bail to prevent misconduct.

We formalize this bail setting model in Equation 5.[52] In this model, S is the cost of misconduct, $M_i|ROR$ is expected misconduct if defendant i was granted ROR, and $M_i|bail$ is expected misconduct if that defendant was required to pay cash bail.[53] The left-hand side of the equation is therefore the cost-weighted treatment effect of monetary bail. $C_{j,t}$ represents the costs of setting cash bail for judge j in time t, which could include fiscal costs of pretrial detention, costs to the defendant, and personal costs experienced by the magistrate, such as the cost of disregarding the prosecutor's recommendations.

$$S * (M_i|ROR - M_i|bail) > C_{j,t} \implies \text{Set cash bail} \tag{5}$$

[52]Thanks to anonymous referees for their suggestions about this section.
[53]For simplicity, this model does not consider supervised release.

Under this model, the No-Cash-Bail policy increased ROR rates by increasing $C_{j,t}$. What would happen if a new policy increased $C_{j,t}$ even further – say, by penalizing magistrates who continue to set cash bail on eligible defendants? Those who were granted ROR as a result of this expanded reform might be meaningfully different from those who were granted ROR in the No-Cash-Bail policy. The local average treatment effect we estimated previously might understate the deterrent effects of cash bail for this new group of hypothetical compliers.

We provide suggestive evidence on this by exploiting a second natural experiment in Philadelphia. Defendants in Philadelphia are quasi-randomly assigned to magistrates who vary in both their pre-reform levels of leniency and in the extent to they respond to the reform. The treatment effects among these six magistrates provide speculative evidence about the impacts of bail reform under different conditions.

Quasi-random assignment to magistrates in Philadelphia arises from their rotating work schedule – a feature that has been extensively documented in Gupta et al. (2016); Dobbie et al. (2018) and Stevenson (2018b). We confirm that quasi-random assignment persists in our time period of analysis as well.[54] Table 9 divides the sample into cases with bail set by each of six quasi-randomly assigned magistrates, and uses the difference-in-differences strategy to test the impact of the No-Cash-Bail policy on each subsample. Panels A-F show magistrate-specific results for ROR, pretrial detention, cash bail, pretrial supervision, FTA and recidivism, respectively. Magistrates are ranked across columns by use of ROR before the No-Cash-Bail policy, from lowest to highest usage.

Magistrates 5 and 6 were the two most lenient magistrates before the reform. This could be because they view cash bail as relatively more costly than other magistrates did (high $C_{j,t}/S$), or because they were less convinced about the necessity of cash bail to deter misconduct (low $M_i|ROR - M_i|bail$). Either way, as long as these magistrates prioritized granting ROR to those for whom it was least necessary (the core assumption behind the generalizeability concern), they are the ones most likely to have exhausted the pool of defendants who can be granted ROR without adverse consequences.

Nonetheless, these magistrates were able to increase ROR by 6-11 percentage points without detectable adverse consequences. This suggests that Philadelphia has not, in fact, exhausted the pool of defendants who are receiving unnecessarily restrictive bail conditions. At the very least, stricter magistrates should be able to 'catch up' to these more lenient magistrates without increasing FTA or crime rates. In fact, Magistrate 1,

[54] We regress case and defendant characteristics on bail magistrates dummies (omitting one bail magistrate), whilst controlling for day of the week, shift, and quarter – which we include in our analyses. As shown in Appendix Table A11, we find that case characteristics are very similar across these six bail magistrates. The last row of this table present p-values for a joint F-test, testing whether the judge coefficients are jointly equal to zero. For all but one variable (defendant race), we cannot reject the null.

the most strict magistrate before the reform, increased ROR by 30 percentage points as a result of the No-Cash-Bail policy. Even so, their post-reform ROR rates were still lower than the post-reform ROR rates of Magistrates 5 and 6. And, despite this large shift in bail practices, there were no detectable adverse consequences for Magistrate 1 either.

Note that the increase in ROR from Magistrate 5 and 6 came almost entirely from a reduction in the use of cash bail; there was no change in supervision rates. Similar to the sub-setting exercise shown in Table 6, this provides additional evidence on the impact of cash bail separate from pretrial supervision.

The magistrate-level analysis is not perfect. For one, it is possible that the stricter magistrates are better at identifying the treatment effects of monetary bail than lenient magistrates, or that they care more about this dimension.[55] Furthermore, the standard errors on the magistrate-level analysis are often too large to preclude firm conclusions. Yet, despite some drawbacks, we consider the magistrate analysis generally supportive of the argument that many defendants in Philadelphia are still receiving unnecessarily restrictive bail.

We provide one additional analysis related to generalizability questions in Table 10. This table subsets the eligible cases to include only people charged with a felony. (As a reminder, about 43% of eligible offenses and 69% of ineligible offenses are felonies.) Relative to ineligible cases, ROR rates doubled, (+17 percentage points), we find no decrease in pretrial detention, and no evidence of an increase pretrial misconduct. This suggests that even among more serious offenses, pretrial conditions of release did not affect misconduct.

Can our results speak to the deterrent effect of bail in other jurisdictions? While we can't answer this definitively, we don't see any reason why Philadelphia is unique. In terms of bail setting practices, there are not huge differences between Philadelphia and the national average. Before the No-Cash-Bail policy, 79% of felony defendants in Philadelphia had secured monetary bail and 40% of these were detained until disposition. Nationally, 69% of felony defendants had monetary bail set, and 40% of these were detained until case disposition (Reaves, 2013).[56] Philadelphia's reform initiative (discretionary reform targeted at low-level offenses) is also similar to many initiatives across the country, as are basic pretrial practices. FTA is a crime in most, if not all, jurisdictions. The criminal justice penalties in place to deter FTA (most notably, an arrest warrant being issued for failing to appear in court) may already provide sufficient

[55] The fact that the strictest magistrate was able to increase ROR by 30 percentage points without adverse consequences counsels against.

[56] Classification practices could explain why rates in Philadelphia are slightly higher. Pennsylvania classifies offenses as misdemeanors if the sentence is less than five years; in most jurisdictions, misdemeanors only have sentences up to one year. Misdemeanor bail-setting figures are not available nationally.

deterrence for those that respond to incentives. Similarly, the asymmetric incentives faced by magistrates are likely to be seen across many jurisdictions, suggesting that in the absence of public pressure towards leniency, magistrates may have been setting unnecessarily restrictive conditions.

III. Conclusion

We provide new evidence on discretionary bail reform by evaluating the impacts of the No-Cash-Bail policy in Philadelphia. This setting provides a unique opportunity to evaluate the main justification for the use of monetary bail: that it helps ensure appearance and prevent crime among released defendants. We find no evidence to support this, and can reject even small increases in FTA and rearrest.

Our paper makes several contributions to existing literature. First, we provide new insight about financial penalties: as a marginal incentive on top of other penalties, they may not serve as an effective deterrent. Second, our paper shows that prosecutors can influence practices they have no direct control over. This suggests that prosecutors can wield soft influence as norm-setters: an additional channel through which the progressive prosecutor movement may lead to systemic change. Third, our results provide practical information relevant to the current bail reform movement. It mitigates concerns about losing important deterrent effects as jurisdictions move away from cash bail. It also raises questions about current practices. If nonappearance in court has more to do with inattention than deliberate choice, then interventions targeted towards the root of the problem – such as court reminders – will be more effective than those that target incentives (Fishbane et al., 2020).

Lastly, our paper poses questions about determinants of judicial behaviors. If cash bail does not act as a deterrent, why were bail magistrates assigning unnecessarily restrictive conditions to so many defendants? One potential explanation is asymmetric penalties in errors. A type II error is when bail is set too low, and as a result the defendant commits crime or fails to appear in court. This type of error is visible to the community and may result in negative consequences for the magistrate or for those who set bail policies. Indeed, there have been numerous prominent examples in which bail magistrates and/or bail reformers have received substantial criticism when a person released on low bail goes on to reoffend.[57] In contrast, type I errors – setting monetary bail or pretrial supervision when none is necessary to ensure compliance – is much less visible. It's impossible to say whether a particular defendant would have appeared to all court dates and refrained from reoffending if they had been released on recognizance.

[57]For example https://www.foxnews.com/media/new-york-bail-laws-tiffany-harris

The implication of asymmetric penalties for errors is that magistrates will tend to err on the side of setting bail too high. This could lead to 'low-hanging fruit' in bail reform. Since many defendants receive bail that is more restrictive than necessary to ensure compliance, one could eliminate restrictive bail conditions for them with little adverse consequences. Careful attention to the motivation of different actors can help in the design of effective policy.

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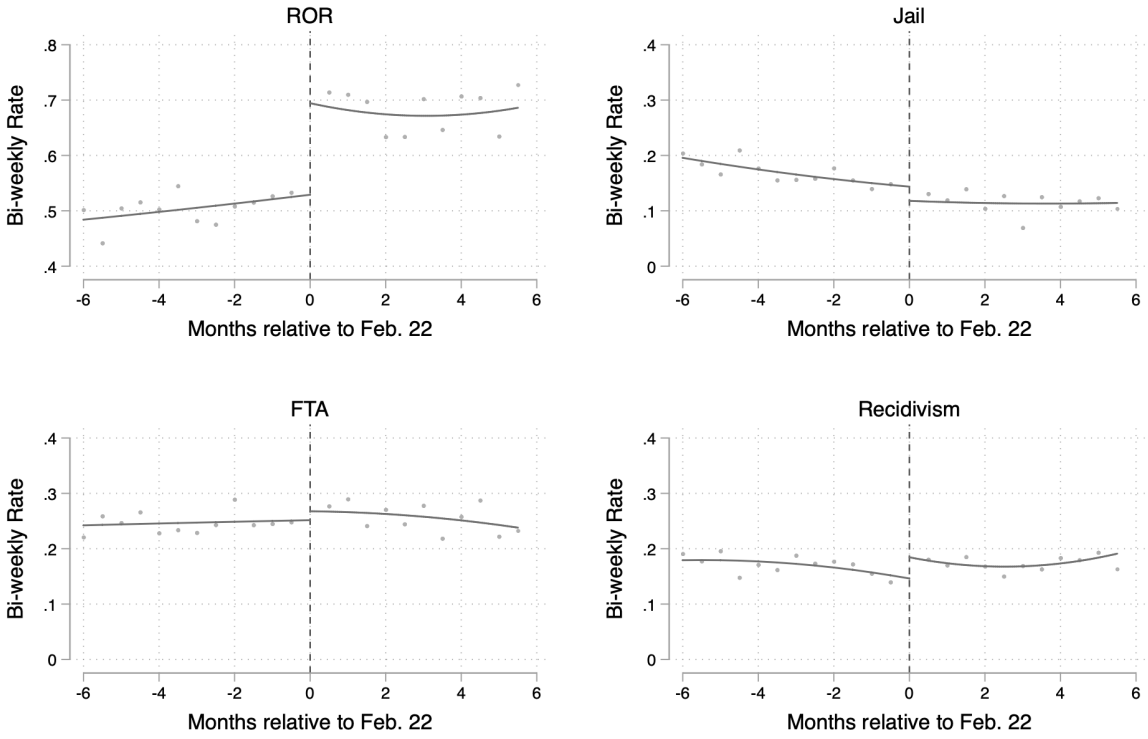
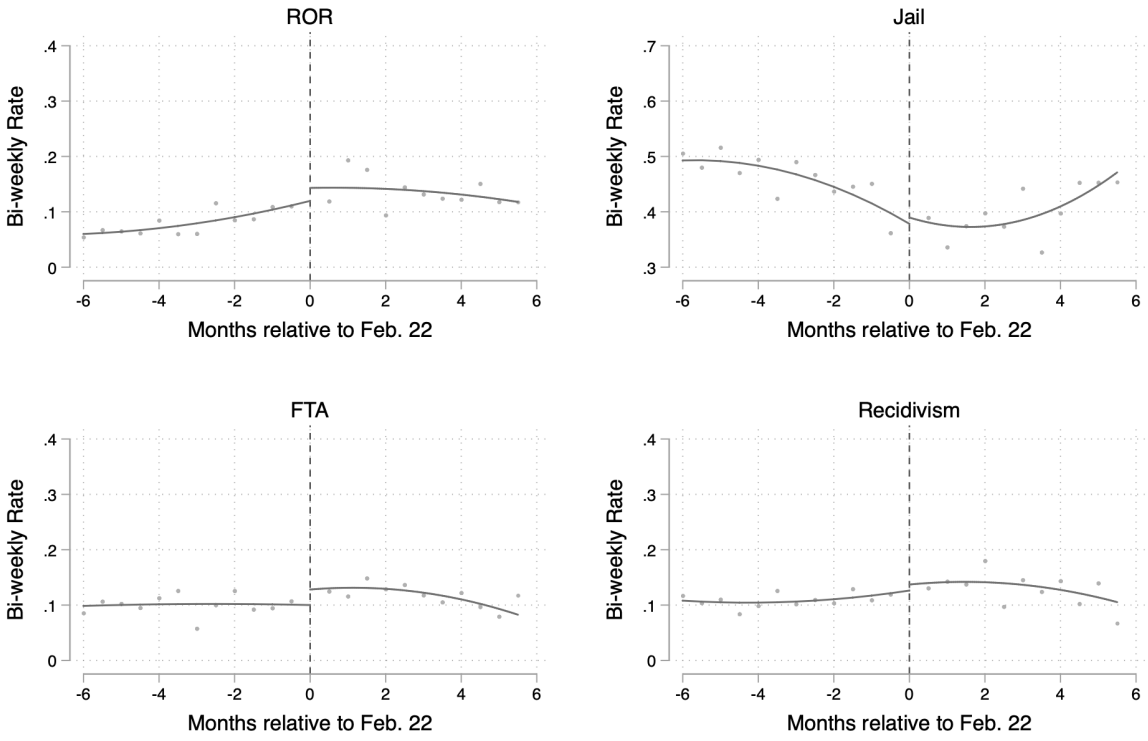
Figures and tables

Figure 1: Time trend in ROR, pretrial detention, FTA and recidivism for eligible cases



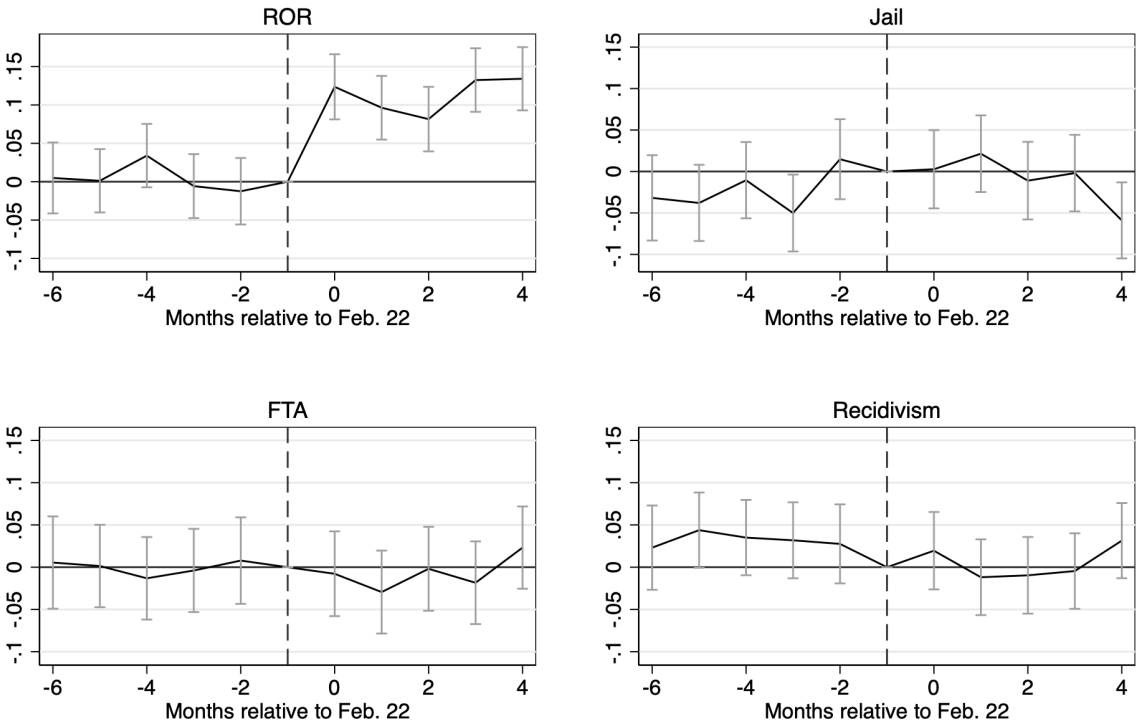
Note: Each dot represents the mean value in a two-week time period. The vertical line represents the Feb. 22 date of the No-Cash-Bail policy. The lines are quadratic fits, before and after Feb. 22. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure 2: Time trend in ROR, pretrial detention, FTA and recidivism for ineligible cases



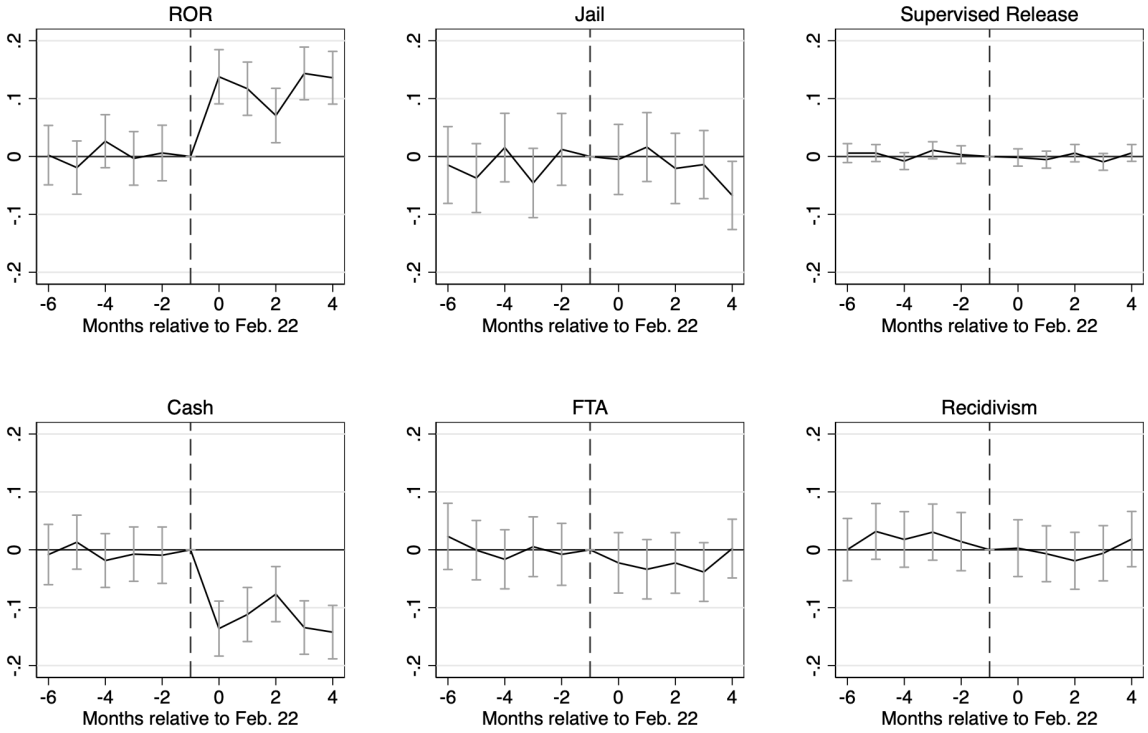
Note: Each dot represents the mean value in a two-week time period. The vertical line represents the Feb. 22 date of the No-Cash-Bail policy. The lines are quadratic fits, before and after Feb. 22. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure 3: Difference-in-differences estimates with leads and lags for how the No-Cash-Bail policy affected ROR, jail time, FTA and recidivism



Note: This figure plots the difference-in-difference coefficients obtained from estimating a single equation with monthly leads and lags (Equation 2), with the 95% confidence interval of the coefficient estimate. The treatment group is eligible cases and the control group is ineligible cases. The vertical dashed line indicates the month prior to Feb. 22. That month is left out as the comparison category. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure 4: High cash-bail offenses: Difference-in-differences estimates with leads and lags for how the No-Cash-Bail policy affected ROR, jail time, supervised release, cash bail, FTA and recidivism for offenses that are most likely to have had cash bail (and not supervised release)



Note: This figure plots the difference-in-difference coefficients obtained from estimating a single equation with monthly leads and lags (Equation 2), with the 95% confidence interval of the coefficient estimate. The treatment group is eligible offenses that were most likely to have had cash bail (and not pretrial supervision) before the No-Cash-Bail reform, as defined in Table 5, and the control group is ineligible offenses. The vertical dashed line indicates the month prior to Feb. 22. That month is left out as the comparison category. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table 1: Descriptive statistics for cases before the No-Cash-Bail policy

	Eligible cases	***Ineligible cases***
Defendant characteristics		
Age	34.41	32.76
Male	0.84	0.83
Black	0.48	0.67
Hispanic	0.22	0.16
White	0.29	0.16
Median household income in zip code	37847	35401
Percent below poverty in zip code	26.46	26.49
Public defender	0.75	0.68
Felony	0.45	0.70
Has a prior FTA	0.18	0.13
Has a past conviction	0.57	0.53
Has a past felony conviction	0.42	0.43
Pre-trial conditions		
ROR	0.51	0.08
Supervised release	0.06	0.01
Unsecured monetary	0.07	0.07
Secured bail up to 5000	0.16	0.27
Secured bail over 5000	0.20	0.56
Denied bail	0.00	0.01
Jail (3+ nights)	0.17	0.46
Misconduct		
FTA	0.25	0.10
Recidivism	0.17	0.11
Observations	7468	4281

This table presents descriptive statistics for cases filed during the six months before the No-Cash-Bail policy. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. All variables are dummies except age and median household income. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table 2: Legal actors' responses to the No Cash Bail Policy: arrests and charging

	# arrests	% declined	% upcharged	% downcharged	# cases
	(1)	(2)	(3)	(4)	(5)
Eligible*Post 02/21	-15.2	0.011	0.0059	0.012	-10.8
	(16.1)	(0.0070)	(0.0050)	(0.0063)	(14.1)
Mean Dep. Var.	358	0.015	0.129	0.052	298
N	94	26926	26926	26926	94

Note: In Columns 1-4, we use Philadelphia arrest data. In Columns 3 and 4, a case is considered as "upcharged" if the police classified it as an ineligible offense and it was initially charged as an ineligible offense, and "downcharged" if a case brought in as an ineligible offense is charged as an eligible offense. In Columns 2-4, we use difference-in-difference estimates. In Columns 1 and 5, the data is collapsed to the weekly level, and estimations include quadratic time trends. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Standard errors are in parentheses; they are clustered at the offense level in Columns 2-5.

Table 3: Difference-in-difference estimates of the effect of No-Cash-Bail policy on ROR and jail

	ROR		Jail	
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	0.12	0.11	0.0079	0.0071
	(0.028)	(0.021)	(0.021)	(0.016)
Controls	No	Yes	No	Yes
Mean Dep. Var.	0.505	0.505	0.169	0.169
N	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Odd columns don't include controls; even columns do. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. ROR means released on own recognizance. Jail refers to being detained pretrial for at least 3 nights after the bail hearing. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table 4: Difference-in-difference estimates of the effects of the No-Cash-Bail policy on initial bail type

	Supervised release	Unsecured Monetary	Secured Under 5,000	Secured Over 5,000
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	-0.041	-0.021	-0.046	-0.0070
	(0.019)	(0.0077)	(0.019)	(0.024)
Controls	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.061	0.069	0.164	0.200
N	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Secured bail requires the payment of a deposit before release; unsecured bail does not. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table 5: Difference-in-difference estimates of the effect of No-Cash-Bail policy on FTA and recidivism

	FTA		Recidivism	
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	-0.0068	-0.0077	-0.018	-0.019
	(0.011)	(0.011)	(0.013)	(0.011)
Controls	No	Yes	No	Yes
Mean Dep. Var.	0.247	0.247	0.171	0.171
N	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Odd columns don't include controls; even columns do. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table 6: Breaking out the effects of cash bail and supervised release

	ROR	Jail	Supervised release	Cash	FTA	Recidivism
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Cash bail						
Eligible*Post 02/21	0.12	-0.0087	-0.0039	-0.11	-0.023	-0.016
	(0.027)	(0.019)	(0.0038)	(0.026)	(0.0093)	(0.0092)
Mean Dep. Var.	0.287	0.271	0.018	0.695	0.201	0.149
N	16116	16116	16116	16116	16116	16116
Panel B: Supervised release						
Eligible*Post 02/21	0.10	0.027	-0.087	-0.014	0.0096	-0.024
	(0.025)	(0.017)	(0.011)	(0.029)	(0.012)	(0.021)
Mean Dep. Var.	0.760	0.049	0.113	0.127	0.300	0.198
N	14817	14817	14817	14817	14817	14817
Controls	Yes	Yes	Yes	Yes	Yes	Yes

Note: This table presents difference-in-differences estimates of δ in Equation 1. In both Panels A and B, ineligible offenses are the control group. In Panel A, the treatment group is eligible offenses that most often get cash before the No-Cash-Bail reform and rarely get pretrial supervision (crimes other than drug or property). In Panel B the treatment group is eligible offenses that are more likely to get pretrial supervision and less likely to get cash bail before the No-Cash-Bail reform (drug and property crimes). Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases within each panel before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table 7: IV estimates of the effects of ROR on FTA and recidivism

	IV		Magistrate IV	
	(1) FTA	(2) Recidivism	(3) FTA	(4) Recidivism
Panel A: Full sample				
ROR	-0.070	-0.18	-0.095	-0.12
	(0.099)	(0.095)	(0.084)	(0.089)
Upper bound	0.094	-0.019	.043	0.028
Mean Dep. Var.	0.247	0.171	0.247	0.171
N	22589	22589	22589	22589
First-stage F-stat	27.4		20.7	
Panel B: Cash Bail				
ROR	-0.19	-0.14	-0.20	-0.13
	(0.10)	(0.070)	(0.11)	(0.077)
Upper bound	0.014	0.0015	0.012	0.017
Mean Dep. Var.	0.202	0.149	0.202	0.149
N	16116	16116	16116	16116
First-stage F-stat	19.1		10.2	
Controls	Yes	Yes	Yes	Yes

Note: This table presents IV estimates in which we use $Post_i * Eligible_i$ as an instrument for the change in ROR (release on recognizance). In Columns 3 and 4 we also include interactions of $Post_i * Eligible_i$ with a dummy for having one's case examined by Magistrate 1, who had by far the biggest change in ROR, as shown in Table 7. Panel A presents results for the full sample. In Panel B, we subset eligible offenses to only include offenses that are most likely to have had cash bail (and not pretrial supervision) before the No-Cash-Bail reform, as defined in Table 5. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table 8: Difference-in-difference estimates of the effects of No-Cash-Bail, by defendant race and ethnicity.

	(1) ROR	(2) Jail	(3) FTA	(4) Recidivism
Panel A: Black, non-Hispanic				
Eligible*Post 02/21	0.13	-0.015	-0.0081	-0.018
	(0.024)	(0.023)	(0.015)	(0.0094)
Mean Dep. Var.	0.439	0.189	0.205	0.149
N	12602	12602	12602	12602
Panel B: White, non-Hispanic				
Eligible*Post 02/21	0.079	0.033	-0.019	-0.028
	(0.024)	(0.027)	(0.016)	(0.023)
Mean Dep. Var.	0.677	0.091	0.329	0.175
N	5702	5702	5702	5702
Panel C: Hispanic				
Eligible*Post 02/21	0.11	0.035	0.016	-0.0050
	(0.023)	(0.030)	(0.015)	(0.028)
Mean Dep. Var.	0.413	0.233	0.224	0.215
N	4285	4285	4285	4285
Controls	Yes	Yes	Yes	Yes

Note: This table presents estimates of δ in Equation 1, broken down by defendant race and ethnicity. Eligible cases are the treatment group, and ineligible cases are the control group. Each panel presents a different outcome, specified at the top of that panel. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. Cash is giving a defendant cash bail as a condition of release – either secured or unsecured. Supervision is giving a defendant pretrial supervision. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table 9: Difference-in-difference estimates of the effect of No-Cash-Bail policy, by bail magistrate

	Bail magistrate					
	1	2	3	4	5	6
Panel A: ROR						
Eligible*Post 02/21	0.30	0.021	0.085	0.12	0.11	0.064
	(0.023)	(0.020)	(0.020)	(0.023)	(0.023)	(0.022)
Mean Dep. Var.	0.324	0.445	0.490	0.543	0.599	0.621
Panel B: Jail						
Eligible*Post 02/21	-0.044	0.044	0.0020	0.012	0.0056	-0.0094
	(0.028)	(0.026)	(0.025)	(0.023)	(0.026)	(0.026)
Mean Dep. Var.	0.200	0.171	0.159	0.175	0.154	0.155
Panel C: Cash						
Eligible*Post 02/21	-0.15	-0.021	-0.039	-0.071	-0.11	-0.064
	(0.022)	(0.020)	(0.016)	(0.022)	(0.023)	(0.022)
Mean Dep. Var.	0.516	0.555	0.416	0.359	0.396	0.379
Panel D: Supervision						
Eligible*Post 02/21	-0.15	-	-0.046	-0.052	-0.0041	-
	(0.015)	-	(0.014)	(0.014)	(0.0027)	-
Mean Dep. Var.	0.160	0.000	0.094	0.098	0.004	0.000
Panel E: FTA						
Eligible*Post 02/21	-0.033	-0.014	0.016	0.020	-0.018	-0.015
	(0.029)	(0.027)	(0.026)	(0.025)	(0.027)	(0.028)
Mean Dep. Var.	0.251	0.253	0.243	0.234	0.237	0.265
Panel F: Recidivism						
Eligible*Post 02/21	-0.0100	0.0072	0.034	-0.073	-0.039	-0.071
	(0.026)	(0.025)	(0.024)	(0.023)	(0.025)	(0.026)
Mean Dep. Var.	0.165	0.172	0.154	0.189	0.182	0.171
Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	3187	3922	3586	3449	3287	4096

Note: This table presents estimates of δ in Equation 1, separately for each of the six bail magistrates who saw more than 100 cases in 2017. Eligible cases are the treatment group, and ineligible cases are the control group. Each panel presents a different outcome, specified at the top of that panel. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. Cash is giving a defendant cash bail as a condition of release – either secured or unsecured. Supervision is giving a defendant pretrial supervision. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

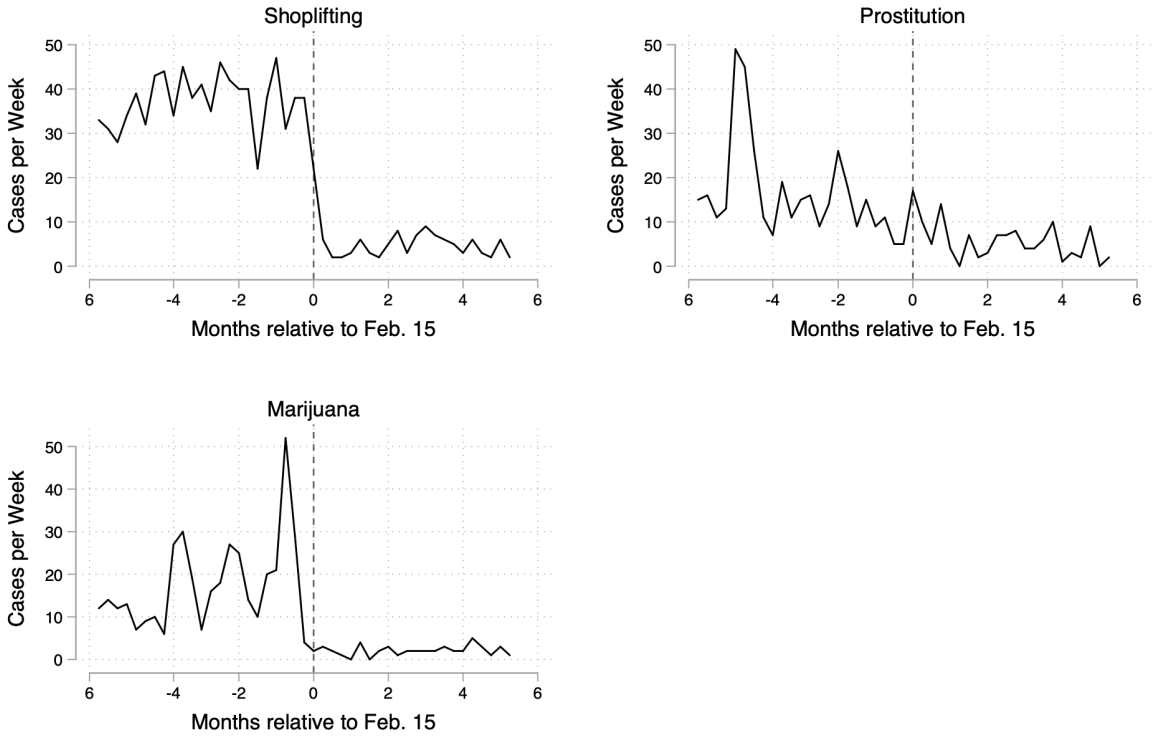
Table 10: Difference-in-difference estimates of the effect of No-Cash-Bail policy on ROR, jail, FTA and Recidivism, keeping only felony cases

	ROR	Jail	FTA	Recidivism
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	0.17	-0.021	-0.0093	-0.018
	(0.019)	(0.020)	(0.0086)	(0.0089)
Controls	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.172	0.322	0.181	0.185
N	12038	12038	12038	12038

Note: This table presents estimates of δ in Equation 1, keeping only felony cases. Eligible offenses are the treatment group, and ineligible offenses are the control group. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

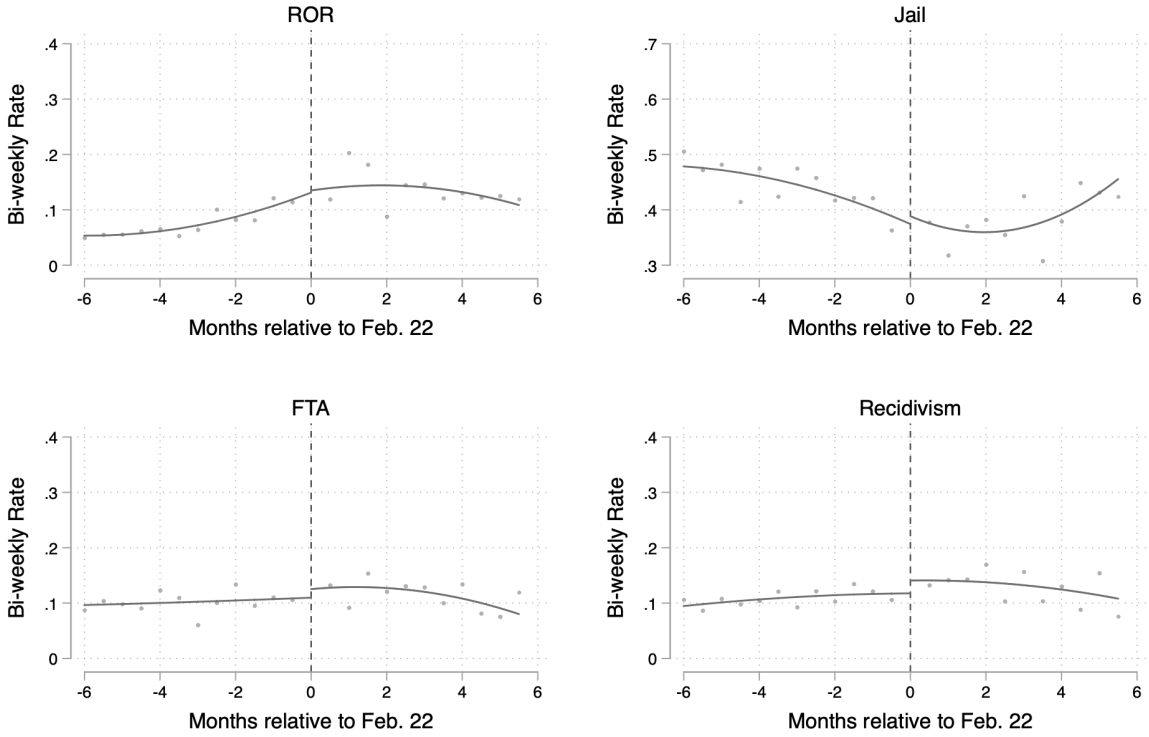
Additional figures and tables

Figure A.1: Changes in the weekly number of cannabis, prostitution and shoplifting cases after the Feb. 15th announcement not to prosecute these kinds of cases anymore. For all of our analyses, we drop these cases.



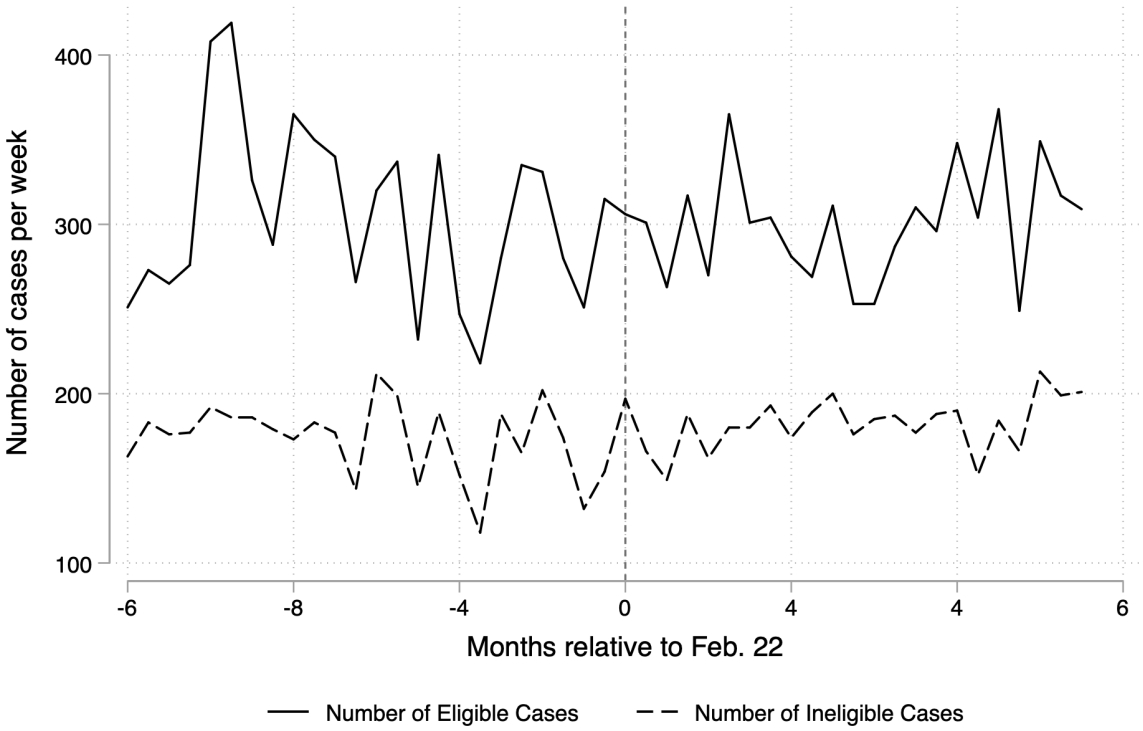
These figures document a decline in the number of cases filed for shoplifting, prostitution and marijuana offenses that occurred due to changes in prosecutorial policy around the same time as the No-Cash-Bail reform. We drop these cases from our analysis. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.2: Time trend in ROR, pretrial detention, FTA and recidivism for ineligible cases, dropping cases where the lead charge is ineligible but some secondary charges were eligible for the No-Cash-Bail policy.



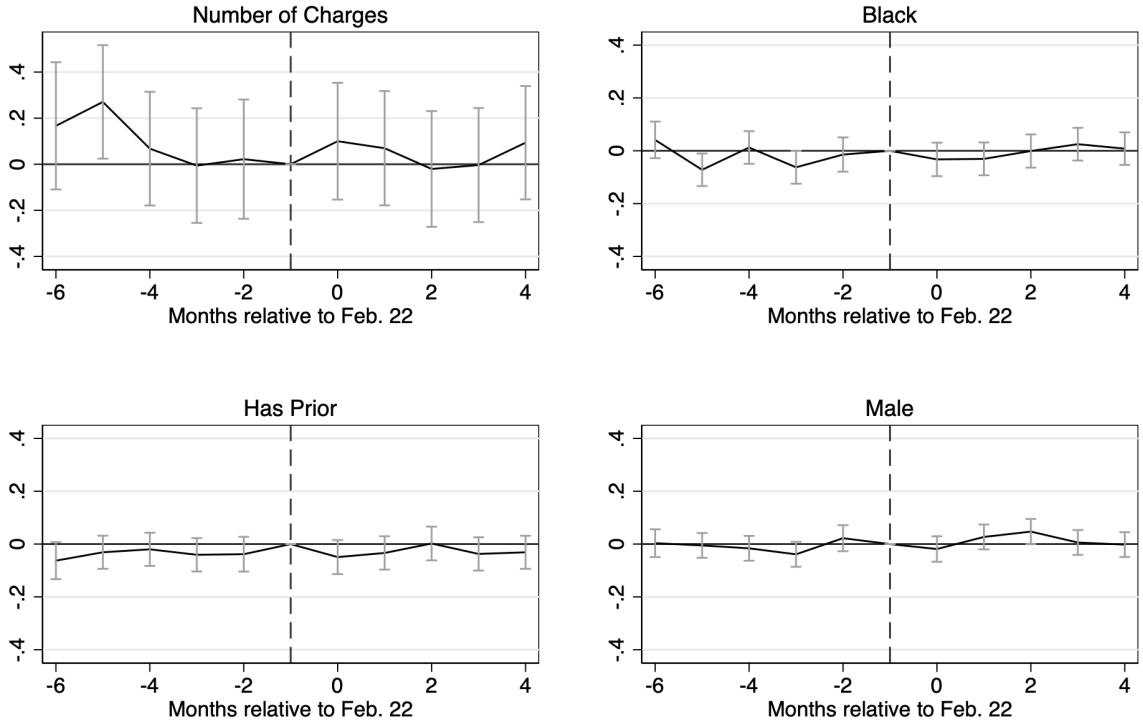
Note: Each dot represents the mean value in a two-week time period. The vertical line represents the Feb. 22 date of the No-Cash-Bail policy. The lines are quadratic fits, before and after Feb. 22. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.3: Trends in the weekly number of eligible and ineligible cases



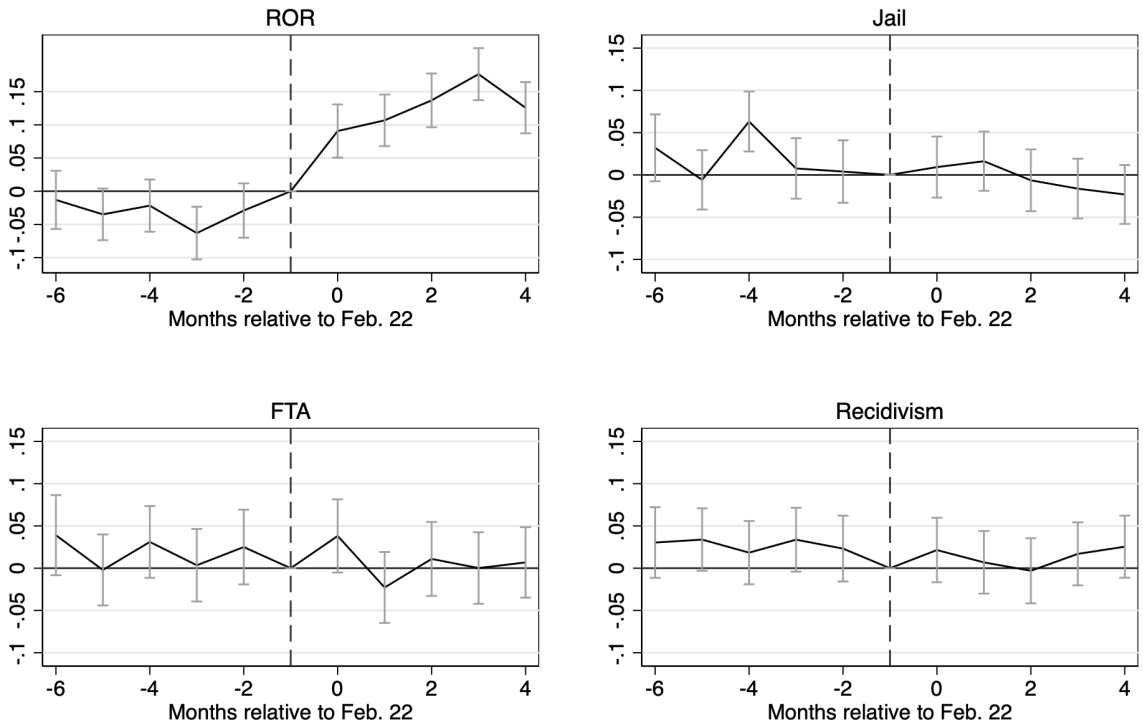
This figure presents trends in the weekly number of cases filed that were eligible for the No-Cash-Bail reform as well as those that were ineligible. The vertical line represents the Feb. 22 date of the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.4: Balance check: Difference-in-differences estimates with leads and lags for how the No-Cash-Bail policy affected case composition



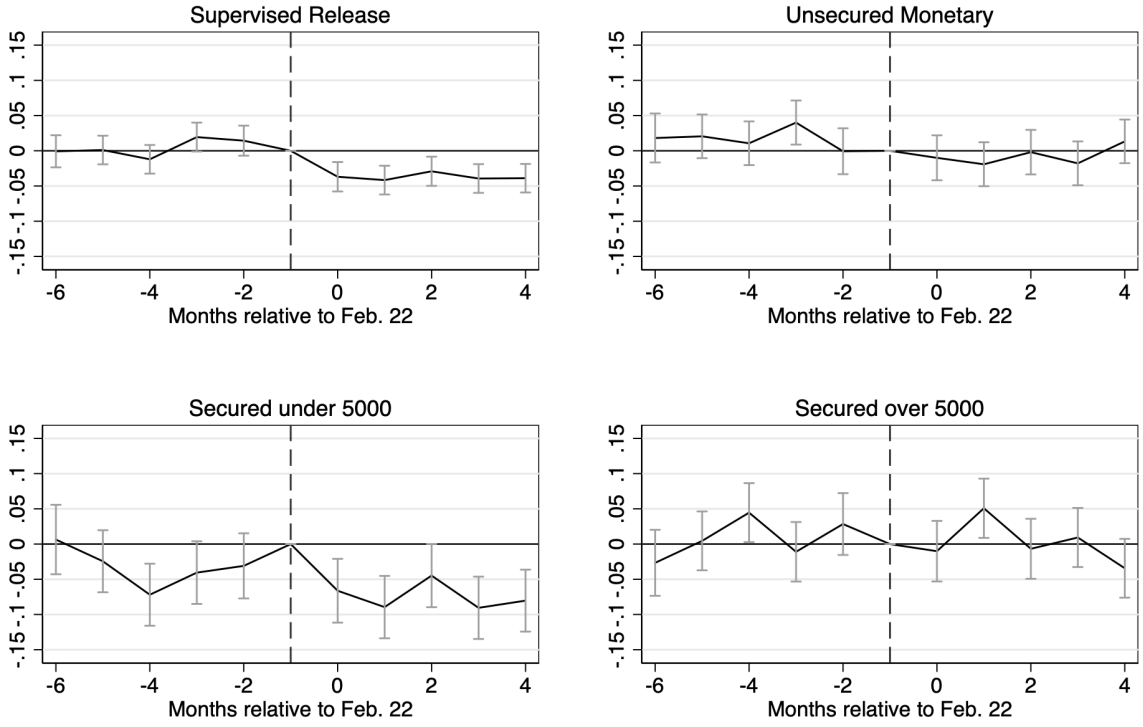
Note: This figure plots the difference-in-difference coefficients obtained from estimating a single equation with monthly leads and lags (Equation 2), with the 95% confidence interval of the coefficient estimate. The treatment group is eligible offenses and the control group is ineligible offenses. The vertical dashed line indicates the month prior to Feb. 22. That month is left out as the comparison category. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.5: Prior year as the comparison group: Difference-in-differences estimates with leads and lags for how the No-Cash-Bail policy affected ROR, jail time, FTA and recidivism



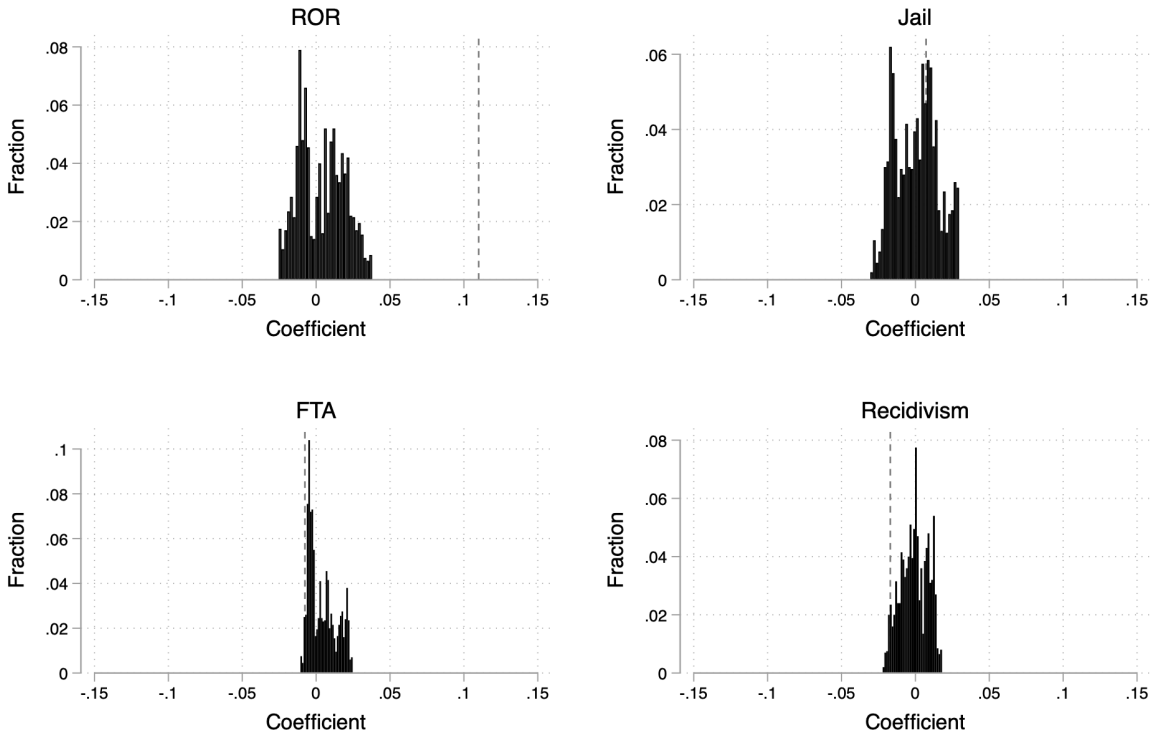
Note: This figure plots the difference-in-difference coefficients obtained from estimating a single equation with monthly leads and lags (Equation 2), with the 95% confidence interval of the coefficient estimate. The treatment group is eligible offenses that were examined 6 months before up to 5 months after Feb. 22, 2018, and the control group is eligible offenses that were examined 6 months before up to 5 months after Feb. 22, 2017. The vertical dashed line indicates the month prior to Feb. 22. That month is left out as the comparison category. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.6: Difference-in-differences estimates with leads and lags for how the No-Cash-Bail policy affected bail types



Note: This figure plots the difference-in-difference coefficients obtained from estimating a single equation with monthly leads and lags (Equation 2), with the 95% confidence interval of the coefficient estimate. The treatment group is eligible offenses and the control group is ineligible offenses. The vertical dashed line indicates the month prior to Feb. 22. That month is left out as the comparison category. Data source: court dockets from the Pennsylvania Unified Judicial System.

Figure A.7: Placebo analysis: comparing estimates of the No-Cash-Bail policy on ROR, jail time, FTA and recidivism to placebos policy changes in other years



Note: This figure compares the estimates obtained in our main regression (δ in Equation 1), represented by the dashed line, to a distribution of estimates obtained generating 2,000 "placebo" reform dates between 2013 and 2016. We randomly selected 2,000 "reform" dates in that time period and kept observations 6 months before and 5 months after this placebo reform date. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table A1: Offense category frequency for eligible and ineligible cases

	Panel A: Eligible Cases
Possession with intent to deliver (PWID)	0.28
Drug purchase	0.20
Drug possession	0.18
DUI	0.15
Theft	0.06
Burglary	0.04
Receiving stolen property	0.03
Other	0.03
Observations	7468
	Panel B: Ineligible Cases
Aggravated assault	0.20
Firearm violation	0.12
Robbery	0.10
Simple assault	0.09
Possession with intent to deliver (PWID)	0.09
Possession of weapon	0.06
Domestic violence	0.05
Other	0.17
Observations	4281

Note: This table shows the most frequent offense categories for eligible and ineligible cases. While PWID in general are eligible offenses, PWID cases for which the defendant had a PWID in the past 6 months are not eligible. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table A2: Testing for changes in case composition at time of reform

	Charges per case	Has Prior	Male	Black
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	-0.038	0.0054	0.020	0.0078
	(0.053)	(0.016)	(0.011)	(0.015)
Mean Dep. Var.	2.063	0.574	0.839	0.478
N	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. The outcomes are number of charges per case (Column 1), a dummy equal to 1 for having a prior (Column 2), for being male (Column 3) or for being Black (Column 4). 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A3: Difference-in-difference estimates of the effect of No-Cash-Bail policy on ROR, jail, FTA and Recidivism, showing coefficients on Post and Eligible Offenses

	ROR	Jail	FTA	Recidivism
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	0.11	0.0071	-0.0077	-0.019
	(0.021)	(0.016)	(0.011)	(0.011)
Post 02/21	0.034	-0.045	0.021	0.030
	(0.019)	(0.015)	(0.014)	(0.0074)
Eligible Offense	0.070	-0.080	0.0089	-0.031
	(0.086)	(0.089)	(0.056)	(0.030)
Controls	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.505	0.169	0.247	0.171
N	22589	22589	22589	22589

Note: This table presents estimates of δ, β and λ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A4: Robustness checks

	ROR				FTA			
	Ever	12 weeks	Donut	Weekly	Total	12 weeks	Donut	Weekly
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Eligible*Post 02/21	0.11	0.11	0.11	0.12	-0.016	-0.026	-0.0040	-0.0039
	(0.021)	(0.023)	(0.021)	(0.017)	(0.017)	(0.0099)	(0.011)	(0.010)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.513	0.515	0.505	0.510	0.329	0.252	0.245	0.248
N	22175	10680	20736	96	22175	10680	20736	96

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Columns 1-4 present robustness tests for ROR, and Columns 5-8 present robustness tests for FTA. In Column 1, Ever ROR is a dummy equal to 1 if a person gets an ROR at any point during the pretrial period, instead of just the initial bail hearing. In Column 5, total FTA is the total number of FTA incidents, instead of the likelihood of having an FTA. Columns 2 and 6 limit our sample to 12 weeks before and after Feb. 21. Columns 3 and 7 exclude the week of the policy, and the weeks just before and after. Columns 4 and 8 are collapsed to one observation per week. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. ROR means released on own recognizance. FTA is failure to appear in court. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A5: Difference-in-difference estimates of the effect of No-Cash-Bail policy on ROR, jail, FTA and Recidivism, using cases on the same calendar day of the past year as the control group

	(1) ROR	(2) Jail	(3) FTA	(4) Recidivism
Panel A: Full sample				
2018*Post 02/21	0.16	-0.022	-0.0100	-0.0096
	(0.024)	(0.017)	(0.019)	(0.013)
Mean Dep. Var.	0.483	0.197	0.236	0.158
N	31427	31427	31427	31427
Panel B: Cash Bail				
2018*Post 02/21	0.15	-0.026	-0.037	0.0033
	(0.040)	(0.025)	(0.014)	(0.0035)
Mean Dep. Var.	0.292	0.296	0.197	0.136
N	17736	17736	17736	17736
Controls	Yes	Yes	Yes	Yes

Note: This table presents estimates of δ in Equation 1. Eligible offenses 6 months before and 5 months after February 21, 2018 are the treatment group, and Eligible offenses 6 months before and 5 months after February 21, 2017 are the control group. Panel A presents results for the full sample. In Panel B, we subset eligible offenses to only include offenses that are most likely to have had cash bail (and not pretrial supervision) before the No-Cash-Bail reform, as defined in Table 5. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. ROR means released on own recognizance. FTA is failure to appear in court. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A6: Difference-in-difference estimates of the effects of No-Cash-Bail, dropping ineligible cases that have secondary charges that were eligible for the No-Cash-Bail reform.

	(1) ROR	(2) Jail	(3) FTA	(4) Recidivism
Panel A: Full sample				
Eligible*Post 02/21	0.11	0.0028	-0.0036	-0.020
	(0.020)	(0.015)	(0.011)	(0.011)
Mean Dep. Var.	0.505	0.169	0.247	0.171
N	20758	20758	20758	20758
Panel B: Cash Bail				
Eligible*Post 02/21	0.12	-0.014	-0.019	-0.016
	(0.026)	(0.018)	(0.0099)	(0.0086)
Mean Dep. Var.	0.287	0.271	0.201	0.149
N	14285	14285	14285	14285
Controls	Yes	Yes	Yes	Yes

Note: This table presents estimates of δ in Equation 1, removing ineligible cases that had some secondary charges that were eligible for the No-Cash-Bail reform. Eligible cases are the treatment group, and ineligible cases that had no eligible secondary charge are the control group. Panel A presents results for the full sample. In Panel B, we subset eligible offenses to only include offenses that are most likely to have had cash bail (and not pretrial supervision) before the No-Cash-Bail reform, as defined in Table 5. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. Cash is giving a defendant cash bail as a condition of release – either secured or unsecured. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A7: Regression discontinuity in time estimates of the No-Cash-Bail policy, for eligible offenses

	(1) ROR	(2) Jail	(3) FTA	(4) Recidivism
Panel A: Full sample				
Post 02/21	0.105	-0.0358	0.0113	0.0417
	(0.0282)	(0.0205)	(0.0267)	(0.0225)
Mean Dep. Var.	0.531	0.154	0.254	0.162
Effective RD observations	3475	4437	4818	4818
Bandwidth for estimation	41	52	57	56
Bandwidth for bias	61	78	86	84
Panel B: Cash Bail				
Post 02/21	0.140	-0.0528	-0.0522	0.0173
	(0.0379)	(0.0319)	(0.0364)	(0.0265)
Pre-reform mean	0.351	0.239	0.200	0.141
Effective RD observations	1880	2678	2315	3150
Bandwidth for estimation	40	58	48	68
Bandwidth for bias	59	89	80	103

Note: This table presents regression discontinuity in time estimates of the effect of the No-Cash-Bail policy, for eligible offenses, following Calonico et al. (2014). Panel A presents results for the full sample. In Panel B, we subset eligible offenses to only include offenses that are most likely to have had cash bail (and not pretrial supervision) before the No-Cash-Bail reform, as defined in Table 5. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System.

Table A8: Robustness checks: different clustering schemes

	(1) ROR	(2) Jail	(3) FTA	(4) Recidivism
Eligible*Post 02/21	0.11	0.01	-0.01	-0.02
	(0.069, 0.15)	(-0.024, 0.038)	(-0.029, 0.014)	(-0.041, 0.0021)
	{0.093, 0.13}	{-0.013, 0.027}	{-0.029, 0.013}	{-0.038, -0.00029}
	[0.049, 0.19]	[-0.022, 0.028]	[-0.029, 0.016]	[-0.064, 0.026]
Mean Dep. Var.	0.505	0.169	0.247	0.171
N	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. Columns 1-4 present robustness tests for ROR, and Columns 5-8 present robustness tests for FTA. Confidence intervals in parentheses are clustered at the offense level, as in our main specifications. Confidence intervals in curly brackets are not clustered. Confidence intervals in brackets are obtained using a wild cluster bootstrap, clustering at the judge level. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. ROR means released on own recognizance. FTA is failure to appear in court. 'Mean Dep. Var.' is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A9: Difference-in-difference estimates of the effect of No-Cash-Bail policy on jail: different lengths of jail time

	Spent at least x nights in jail, with x equal to...						
	1	2	3	4	5	6	7
Eligible*Post 02/21	0.0046	0.0067	0.0071	0.013	0.014	0.015	0.013
	(0.017)	(0.017)	(0.016)	(0.015)	(0.016)	(0.016)	(0.016)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.190	0.175	0.169	0.164	0.159	0.157	0.155
N	22589	22589	22589	22589	22589	22589	22589

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. The outcome in each column is being detained pretrial for at least x nights after the bail hearing – Column 1 is at least 1 night, Column 2 is at least 2 nights, and so on. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A10: Robustness for difference-in-difference estimates of the effect of No-Cash-Bail policy on FTA and recidivism: different time windows

	FTA within...			Recidivism within...		
	1 month	3 months	10 months	1 month	3 months	10 months
	(1)	(2)	(3)	(4)	(5)	(6)
Eligible*Post 02/21	0.010	0.011	-0.0053	-0.0036	-0.0086	-0.026
	(0.0048)	(0.0075)	(0.011)	(0.0051)	(0.0079)	(0.0093)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.035	0.085	0.157	0.046	0.108	0.235
N	22589	22589	20524	22589	22589	20524

Note: This table presents estimates of δ in Equation 1. Eligible offenses are the treatment group, and ineligible offenses are the control group. The outcome in Columns 1-3 is FTA and in Columns 4-6 is recidivism. They are defined as having missed one's court date or failed to appear in court within 1 month (Columns 1 and 4), 3 months (Columns 2 and 5) or 10 months (Columns 3 and 6) within one's initial court hearing. In Columns 3 and 6, we limit our sample to defendants for whom we observe outcomes for at least 10 months after their initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A11: Testing balance in judge case characteristics

	(1) Felony	(2) Black	(3) Age	(4) Male	(5) Past FTA	(6) Past charges
Judge 1	0.0048	-0.030	-0.31	-0.0034	0.0029	0.015
	(0.012)	(0.012)	(0.28)	(0.0090)	(0.0088)	(0.012)
Judge 2	0.014	0.0083	-0.044	-0.0051	-0.0048	0.00055
	(0.011)	(0.011)	(0.27)	(0.0085)	(0.0083)	(0.011)
Judge 3	0.00021	0.0045	-0.079	0.013	0.017	0.0059
	(0.012)	(0.012)	(0.27)	(0.0086)	(0.0084)	(0.012)
Judge 4	-0.0075	-0.0087	-0.22	-0.0042	-0.0016	0.013
	(0.012)	(0.012)	(0.27)	(0.0088)	(0.0085)	(0.012)
Judge 5	0.014	-0.00053	-0.30	0.0078	-0.0048	0.00032
	(0.011)	(0.011)	(0.26)	(0.0083)	(0.0082)	(0.011)
Mean DV	0.532	0.559	34.061	0.834	0.160	0.558
N	21527	21527	21527	21527	21527	21527
Pval joint F test	0.361	0.037	0.793	0.259	0.141	0.691

Note: This table tests whether cases are quasi-randomly assigned to bail magistrates. To do so, we regress observable case characteristics on dummies for bail magistrates, while controlling for day of the week, shift, and quarter in the year. We drop cases that are not examined by judges who see at least 100 cases a year. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. "Pval joint F test" presents the p-value of a joint F-test, testing the null hypothesis that the judge coefficients are equal to 0. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.

Table A12: Difference-in-difference estimates of the effect of No-Cash-Bail policy on ROR, jail, FTA and Recidivism, dropping PWID cases

	ROR	Jail	FTA	Recidivism
	(1)	(2)	(3)	(4)
Eligible*Post 02/21	0.099	0.013	-0.0072	-0.018
	(0.021)	(0.016)	(0.013)	(0.015)
Controls	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.684	0.084	0.275	0.157
N	17952	17952	17952	17952

Note: This table presents estimates of δ in Equation 1, dropping PWID (possession with intent to deliver) cases. Eligible offenses are the treatment group, and ineligible offenses are the control group. ROR (released on own recognizance) means that a defendant is released with no monetary or supervisory conditions. Pretrial detention is defined as spending at least 3 nights in jail immediately after their initial bail hearing. FTA means failure to appear in court. Recidivism (new criminal charges) is measured within 6 months after one's initial court hearing. Controls are for offense statute and class, age, gender, day of week, shift, presence and number of past offenses and past FTAs, and initial bail commissioner. "Mean Dep. Var." is the mean of the dependent variable for eligible cases before the No-Cash-Bail policy. Data source: court dockets from the Pennsylvania Unified Judicial System. Standard errors, clustered at the offense level, are in parentheses.