I have had the 'you can wait it out or take the deal and get out' conversation with way too many clients. -a public defender, Philadelphia

1 Introduction

There are currently 467,000 people awaiting trial in jail in the United States (Cohen and Reaves, 2007). In fact, there are more people in jail awaiting trial than are incarcerated due to a drug sentence.¹ This number is particularly striking considering that our criminal justice system is founded on a presumption of innocence, where "liberty is the norm, and detention prior to trial or without trial is the carefully limited exception."²

According to Bureau of Justice Statistics, five out of six people detained before trial on a felony charge are held on money bail (Cohen and Reaves, 2007). Some of these defendants are facing very serious charges, and accordingly, have very high bail. But many have bail set at amounts that would be affordable for the middle or upper-middle class but are simply beyond the reach of the poor. In Philadelphia, the site of this study, more than half of pretrial detainees would be able to secure their release by paying a deposit of \$1000 or less, most of which would be reimbursed if they appear at all court dates. Many defendants remain incarcerated even at extremely low amounts of bail, where the deposit necessary to secure release is only \$50 or \$100. Nor are the charges faced by many pretrial detainees particularly serious: 60% of those held for more than three days were charged with non-violent crimes and 28% were charged only with a misdemeanor.

It's long been postulated that pretrial detention increases the likelihood of conviction and the severity of sentences. Defendants may plead guilty to get out of jail, or accept an overly punitive plea deal because detention impaired her ability to gather evidence or meet with her lawyer. Adjustment to life in jail, combined with the potential loss of employment or housing, may reduce the incentives to fight the charges. While prior research has shown a correlation between pretrial detention and unfavorable case outcomes, it did not show that the relationship was causal.³ Those detained differ from those released in ways that are both observable and unobservable to the researcher; they tend to be facing more serious charges and have longer criminal histories, and they may also have stronger evidence against them. They are expected to have worse case outcomes regardless of detention status. Isolating the causal effect of pretrial detention

¹The number of state and federal prisoners whose most serious offense was drug-related is found in Minton and Zeng (2015). The most recent information on the percentage of convicted jail inmates with a drug sentence is from James (2004).

²Supreme Court ruling in United States v. Salerno, 1987

³See Ares et al. (1963); Rankin (1964); Goldkamp (1980); Williams (2003); Phillips (2007, 2008); Tartaro and Sedelmaier (2009); Sacks and Ackerman (2012); Lowenkamp et al. (2013); Oleson et al. (2014)

requires an experimental research design.⁴

In this paper I present some of the first quasi-experimental evidence that pretrial detention increases the likelihood of being convicted, pleading guilty, receiving lengthy incarceration sentences, and being required to pay hundreds of dollars in court fees. The research design takes advantage of the fact that defendants randomly receive bail magistrates who vary widely in their propensity to set bail at affordable levels. Those who receive a strict magistrate are statistically identical to those who receive a more lenient magistrate except in their likelihood of being detained pretrial. If those who receive a strict magistrate are also more likely to be convicted or receive unfavorable sentences we can infer that this is due to differences in detention rates and not some other unseen difference in defendant or case characteristics.

The data used in this analysis covers all criminal cases originated in Philadelphia between September 2006 and February 2013, with a total sample size of 331,971 cases. The rotating work schedule of the bail magistrates creates random variation in which magistrate is on duty; each magistrate works an equal number of night shifts, weekend shifts, etc. The duties of the bail magistrate are very limited and there are few plausible alternative channels through which they could affect case outcomes. After the bail hearing, the magistrates do not interact with the defendant or make any other decisions related to her case, nor does the schedule of the magistrates align with that of the judges or any other actors in the criminal justice proceedings. The institutional features of Philadelphia's pretrial process provide a particularly clean natural experiment with which to estimate the impacts of pretrial detention.

For each defendant, I build an instrument for pretrial detention which consists of the average detention rates of *other* defendants who had bail set by the same magistrate. Using this measure of magistrate leniency as an instrument, I estimate that pretrial detention leads to a 6.2 percentage point increase in the likelihood of being convicted on at least one charge, over a mean 49% conviction rate. The effect on conviction (being found guilty either through plea or at trial) is largely explained by a 4.7 percentage point increase in the likelihood of pleading guilty among those who would otherwise have been acquitted, diverted, or had their charges dropped. Those detained will be liable for \$129 more in non-bail court fees (a 41% increase over the mean), and will be sentenced to an additional 124 days of incarceration (a 42% increase over the mean).

The adverse effect that pretrial detention has on case outcomes raises concerns about socio-economic disparities in pretrial detention, particularly since detention status depends partly on the ability to post bail. The Department of Justice recently

⁴Ares et al. (1963) used an experimental method to look at the impact of pretrial detention on case outcomes but did not present the results in a manner that allows for causal interpretation. Goldkamp (1980) and Abrams and Rohlfs (2011) used a randomized experiment to look at how the bail amount affects crime, flight, and the likelihood of posting bail, but did not evaluate the impacts on case outcomes.

released a statement saying that money bail that doesn't take ability to pay into account is in violation of the Equal Protection Clause of the Fourteenth Amendment.⁵ Nonetheless, I find no evidence that bail is set proportionally to the ability to pay in Philadelphia. The bail amount of defendants from low-income zip codes is statistically indistinguishable from bail set for defendants from wealthier neighborhoods, after controlling for a wide range of variables describing the charge, criminal history and other demographic characteristics. Despite equivalent bail amounts, those from low-income zip codes are less able to afford bail, and are 7% more likely to be detained. Bail amounts are only slightly higher for African-Americans than for non-black defendants facing the same charge and with the same criminal history, however they are 10% more likely to be detained.⁶ Median household income for African-Americans is less than 2/3 that of white households in Philadelphia (Ingram, 2007).

Socio-economic disparities in detention have ripple-out effects on sentencing. Even after controlling for a very detailed set of variables describing the current charges and criminal history, the average incarceration sentence of African-Americans and people from low income neighborhoods are longer than those for wealthier, non-black defendants. Adding controls for detention status reduces the race and income sentence differentials by 40% and 16% respectively.

The results of this paper speak to several important policy issues. First, the downstream criminal justice consequences of pretrial detention underline the importance of eliminating socio-economic disparities in detention rates. This could be achieved by eliminating the use of money bail, or implementing procedures to ensure that the bail amount is proportional to defendants' financial resources. Race-and-wealth-neutral risk assessment tools can be helpful in determining which defendants can be released under minimal conditions.⁷ Second, the results of this paper show that the bail hearing is a critical stage in the criminal procedure and should be treated accordingly. Currently, bail hearings in Philadelphia – as in many jurisdictions – last only about a minute, occur over videoconference, and without legal representation for the defendants. Defendants should have the right to counsel at the bail hearing, and jurisdictions should provide increased training and guidance to the magistrates to reduce the idiosyncratic variance in detention.

⁵From a Department of Justice amicus brief in Walker v. Calhoun, August 2016.

⁶A 2004 literature review of racial disparities in bail finds mixed results Free. An interesting prior paper shows that bail bondsmen charge lower rates for blacks than whites, suggesting that blacks pose a lower risk than whites at the same bail amount (Ayres and Waldfogel, 1994).

⁷Caution is warranted, however, since risk assessment tools which include race and income proxies, like zip code, may perpetuate socio-economic disparities in detention.

8 Socio-economic disparities

The results shown in the previous two sections demonstrate that pretrial detention has serious consequences beyond simply the loss of freedom during the pretrial period. This is particularly concerning if poor people and minorities are detained at a disproportionate rate. The Department of Justice recently filed an amicus brief stating that money bail which does not take ability to pay into account violates the Equal Protection Clause of the Fourteenth Amendment.²⁸ If magistrates were taking ability to pay into account as they set bail we would expect bail to be lower for low-income defendants. To the contrary, I find that defendants from low-income neighborhoods have bail set at the same level as those from wealthier neighborhoods with similar charges and criminal history. Despite similar levels of bail, they are detained at higher rates. The evidence suggests that the current usage of money bail to determine release generates socio-economic disparities in pretrial detention, which are carried forward into disparities in conviction and incarceration.

Column 1 of Table 8 tests for socio-economic disparities in the amount of bail set. The log of the bail amount (plus one) is regressed on a dummy which is equal to one if the average income of the defendant's zip code is in the poorest quintile, and a dummy for being African-American. Zip code information is missing for some defendants, these are omitted from the sample. Detailed controls for offense, criminal history, age and gender are included in the OLS regression. There is no evidence that those from low-income neighborhoods have bail set any differently from those from wealthier neighborhoods, once offense and criminal history have been accounted for. While African-Americans have bail set a little higher than other races, the difference is relatively small: about three percent. A three percent increase in the bail amount predicts only a .18% increase in the likelihood of being detained pretrial.²⁹ Columns 2-4 regress a dummy for being detained pretrial on the indicator for living in low-income neighborhood and being African-American. African-Americans are about 4 percentage points more likely to be detained pretrial. This is a vastly larger difference in the detention rate than is predicted by the slight increase in the bail amount.³⁰ Since the average detention rate is 41%, this translates into a 10% increase over the mean. Those from low income neighborhoods are 2.7 percentage points more likely to be detained, a 7% increase over the mean.

These results suggest that the use of money bail increases the rate at which African-Americans and the poor are detained pretrial. While those from low-income zip codes

²⁸Walker v. Calhoun, 2016

 $^{^{29}}$ A regression of pretrial detention on the log bail amount yields a coefficient of 0.06, which is stable to the inclusion of controls. Thus an increase of .03 in the log bail amount would predict a 0.0018 increase in detention.

 $^{^{30}}$ Controlling for the bail amount brings the race disparities down to 3.6%.

have bail set at the same rate as wealthier defendants, they are 7% more likely to be detained than those from wealthier neighborhoods, presumably because they are less likely to be able to afford the amount of bail that's been set. While African-Americans have bail set only slightly higher than other races, they are 10% more likely to be detained, again likely because, on average, they have lower income and wealth.

Upstream disparities in an influential stage of the criminal justice proceeding will result in downstream disparities in conviction, plea bargaining, court fees and incarceration. Disparities in incarceration pose a particular concern, both because of the high cost to society and the high personal costs. The results presented in Table 4 show that pretrial detention results in a 124 day (42%) increase in the maximum incarceration sentence. The final two columns of Table 8 shed light on the extent to which disparities in detention rates affect disparities in the length of the incarceration sentence.

Column 5 of Table 8 regresses the maximum days of the incarceration sentence on the dummies for being African American and living in a low-income zip code. Detailed controls for offense, criminal history, age, gender and time are included. After accounting for all these factors, differences in sentences remain. Those from low income zip codes receive sentences that are 19 days longer and African-Americans receive sentences that are 14 days longer. Again, these average differences in sentence length include zeros for people who did not get incarceration sentences, pulling the estimates lower than they would be if they included only those who received an incarceration sentence. Conditional on receiving an incarceration sentence, the sentence premium is about 60 more days for African Americans and 36 more days for those from low-income zip codes. I focus on the unconditional difference in sentence length since this estimates the joint impact that race has on the likelihood of being convicted and on the length of the sentence, conditional on being convicted.

Column 6 of Table 8 is identical to Column 5, except that controls for pretrial detention status are added. The sentence differentials decline to 16 days for those from low income zip codes and 8.5 days for African Americans. That's equivalent to a 16% decrease in the sentence differential across neighborhood income, and a 40% decrease in the sentence differential across race. While racial bias may explain some of the sentence differential, a money bail system combined with unequal distribution of wealth explains a considerable fraction of the race gap in sentence lengths.

9 Conclusion

Right now there is a wave of momentum in bail reform that dwarfs any seen in decades. In the last several years, pretrial reform has been committed to or implemented in New Jersey, Kentucky, Colorado, Maryland, New Mexico, Connecticut, Chicago and New York City. 26 cities are implementing new pretrial risk assessment regimes in partnership with the Laura and John Arnold Foundation and 20 cities are developing pretrial reform proposals with a \$75 million fund from the MacArthur Foundation. Yet despite all this activity, research on the pretrial period is limited.

Using a natural experiment in Philadelphia where the likelihood of being detained pretrial is exogenously affected by the magistrate who presides over the bail hearing, I find that pretrial detention leads to an increase in the likelihood of being convicted, mostly by increasing the likelihood that defendants, who otherwise would have been acquitted or had their charges dropped, plead guilty. Pretrial detainees will owe more in court fees and receive longer incarceration sentences than similarly situated releasees.

I find no evidence that ability to pay is taken into account in the setting of bail, despite the constitutional requirements of Equal Protection. Those from low income neighborhoods have bail set at the exact same amount as those from wealthier neighborhoods with the same charge and criminal history. Yet those from low income neighborhoods are more likely to be detained, presumably because they are less able to afford that bail. African Americans are also more likely to be detained than non-black defendants with the same charge and criminal history, despite bail amounts which differ only trivially. These disparities in detention rates translate into disparities in conviction rates, courtroom debt, and incarceration.

The results from this paper suggest that Philadelphia should reform its pretrial system to reduce socio-economic disparities in detention. This could be accomplished through a reduced reliance on money bail, increased income verification, increased use of risk assessment instruments, and increased training for the magistrates. While effect sizes may differ across jurisdictions, there is no reason to believe that the impact pretrial detention has on case outcomes is unique to Philadelphia. Other jurisdictions that use money bail to determine who is released or detained pretrial are likely to promulgate socio-economic disparities in case outcomes as well.

Second, given the downstream consequences of pretrial detention, greater care should be given to the process of determining who is released and who is detained. Bail hearings that last a minute long, occur over videoconference, and have no lawyers present are unlikely to be effective in determining which defendants pose a high risk to society, and which can be safely released. Currently, there is no guaranteed right to representation at the bail hearing, and jurisdictions differ as to whether a defender is provided. Given the high stakes of the bail decision, a defendant should have the right to counsel in this critical juncture.³¹

³¹Philadelphia is currently implementing reforms to provide a public defender to confer with the client before the bail hearing, and to present any mitigating evidence to the magistrate.