



Melissa Gayton  
Research Assistant  
Austin 009  
1515 Massachusetts Avenue  
Cambridge, MA 02138  
(617) 496-0917  
melissagayton@college.harvard.edu

**To:** Jim Greiner  
**From:** Melissa Gayton  
**RE:** David Abrams & Chris Rohlfs, *Optimal bail and the value of freedom: evidence from the Philadelphia bail experiment*, 49 *Economic Inquiry* 750 (2011).  
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**Title:** Optimal bail and the value of freedom: evidence from the Philadelphia bail experiment  
**Authors:** David Abrams & Chris Rohlfs  
**Location:** N/A  
**Sample:** N/A  
**Timeline:** N/A  
**Target group:** Felony defendants  
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**Partners:** N/A

### **Abstract**

Because a number of criminologists were criticizing the bail system as arbitrary and unfair, the authors were interested in researching how to make bail decisions fairer and more systematic. This report used data from the Philadelphia Bail Experiment, data on the decision to post bail, estimates of the cost of detention to the defendant and to the justice system, the costs of rearrests, and the cost of crime to victims in order to calculate the socially optimal level of bail. The researchers arrived at an estimate of roughly \$17,700 of bail for the typical defendant, which is close to the level of bail judges assigned in the absence of guidelines.

### ***I. Policy Issue***

In the early and mid-1900s, a number of criminologists criticized the bail system as arbitrary and unfair in determining which defendants the justice system released and which it detained. Of the 2.1 million persons incarcerated in the U.S. in mid-year 2000, the authors estimated that 300,000 had not yet been tried, while 700,000 felony defendants were free and awaiting trial. For those released, crime and flight were not

uncommon, with 16 percent of released defendants rearrested and 22 percent failing to appear. Given the social costs of bail – including new crimes, failure to appear at scheduled hearings (FTAs), and costs of detention – the researchers aimed to calculate the socially optimal level of bail, minimizing cost to society and cost to potentially innocent defendants. What was the socially optimal level of bail for felony defendants?

## ***II. Context of Evaluation***

This study used data from Philadelphia, PA where bail procedure was similar to many other large cities. Bail hearings typically lasted a few minutes and occurred within 24 hours of arrest. Defendants deposited 10 percent of the bail amount for pretrial release, of which the court returned 7 percent upon completion of trial unless the defendant violated terms of release. If the defendant violated the terms of release, they were liable for the entirety of bail, but often the court was not able to extract the full amount.

## ***III. Details***

The authors developed a conceptual framework for estimating optimal bail amounts that minimized the costs of bail and pre-trial detention by balancing costs to the defendant, assuming they value freedom at some amount above the amount they were willing to pay for bail, against the costs of bail to the justice system and society, accounting for administrative, food, and housing costs of jailing as well as the potential of flight or new crimes.

Next, the authors analyzed the Philadelphia Bail Experiment in order to verify that the treatment affected bail levels and that the randomization was effective. They verified that the treatment resulted in significantly lower bail levels and that the randomization was indeed effective. They also found that there were significant differences between the treatment and control groups in terms of release and rearrest ( $p < 0.05$ ) as well as FTAs ( $p < 0.1$ ). This analysis of the data estimated posting, flight, and additional crime probabilities at different bail levels.

## ***IV. Results and Policy Lessons***

Using cross-sectional regression and instrumental variables regression, the authors found a negative and significant relationship between bail and both rearrests and FTAs, meaning that increased levels of bail were significantly correlated with lower rates of rearrests and FTAs. They also found that there was a substantially greater elasticity of rearrests with respect to bail when using instrumental variables regression than a cross-sectional regression. The authors hypothesized that this may have indicated omitted variables correlated with the judge's bail decisions that predict release and rearrest variables but not flight ones. Using the non-confounded Philadelphia experiment data allowed them to reach unbiased estimates.

Using instrumental variables probit estimates, the authors calculated that defendants at medium and high levels of dangerousness value freedom at \$800 and \$971 respectively, both was significantly different from zero. The average defendant valued freedom at \$1,050, which was marginally significantly different from zero at 10 percent. These

values were based on a sample of defendants with a mean weekly income of about \$73, meaning that a defendant misses an average of \$949 during 90 days of detainment.

Finally, the authors put together these probit estimates with estimates of the cost of jailing, flight, and new crimes to calculate the socially optimal bail amount. The authors used other studies to estimate the cost of jailing and new crimes, while they estimated the cost of flight through interviews with industry experts since no well-known studies that include estimates of these costs. The estimate of socially optimal levels of bail that they arrived at was imprecise – for defendants with high levels of dangerousness their estimate was infinity and for low and medium level dangerousness defendants the 95 percent confidence interval included infinity. An estimate of infinity means that there was no finite amount of bail that produces lower estimates social costs than detention. For the average defendant, the estimated socially optimal level of bail was \$17,700, while the optimal level of bail for defendants with low, medium, and high levels of dangerousness were \$12,400, \$15,600, and infinity respectively. These estimates were similar to observed levels of bail for defendants in the control group of the Philadelphia experiment.

#### ***V. Quality of the Study***

While the econometric model used may be sound, it is important to note that not all of the data used resulted from randomized control trials and therefore may be inaccurate. For example, the estimates of flight costs are from interviews with experts since no well-known studies estimated this cost.

Additionally, data taken from randomized control trials may be accurate only insofar as the RCT they are from are well-designed, implemented, and analyzed. The authors analyze the Philadelphia Bail Experiment in order to demonstrate the statistical significance of the results reported, but they do not analyze the experimental design, nor do they analyze the studies used to estimate the cost of jailing and new crimes.