

The marginal effect of bail decisions on failure to appear, imprisonment and crime

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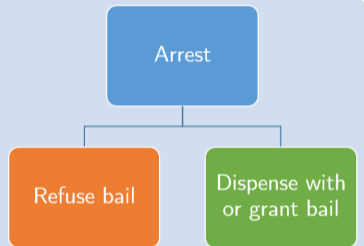


NSW Bureau of Crime
Statistics and Research

Introduction

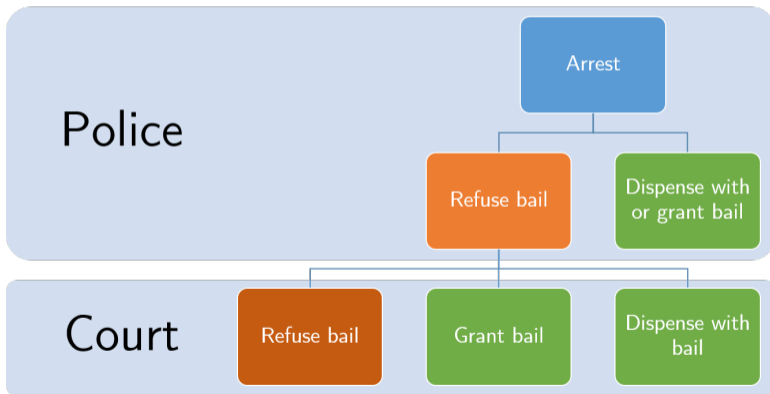
How does bail work in NSW?

Police



Introduction

How does bail work in NSW?



Introduction

Why do bail decisions matter?

Risks of granting bail:

- Defendant not appearing in court
- Defendant committing crime
- Interfering with witnesses/evidence

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Risks of granting bail:

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Costs of refusing bail:

- Costs of housing the offender in prison
- Personal costs for the defendant
- Potential signal of their criminality

Introduction

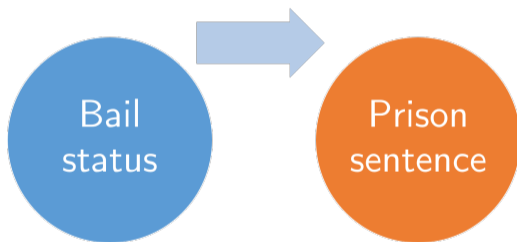
The research question

We want to know:

- What is the **incapacitation** effect of bail decisions on:
 - Failure to appear
 - Offending on bail
- What is the **signaling** effect of bail decisions on prison sentences?

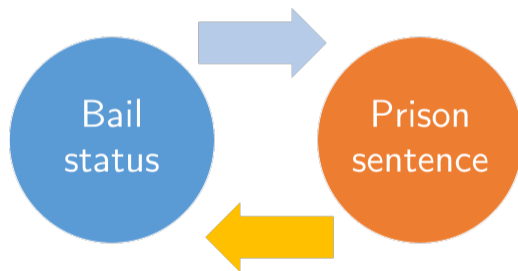
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Why is bail hard to study?



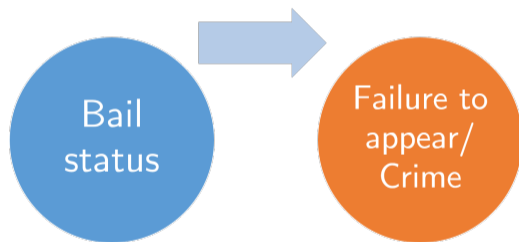
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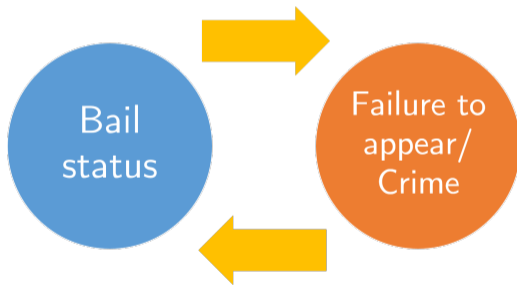
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Why is bail hard to study?



Introduction

Why is bail hard to study?



Introduction

Recent research

Gupta, Hansman, and Frenchman (2016) -
Journal of Legal Studies

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Bail refusal:

- Increased likelihood of conviction
- No effect on recidivism
- No effect on failure to appear

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Dobbie, Goldin, and Yang (2018) -
American Economic Review

Release on bail:

- Reduced likelihood of pleading guilty
- Reduced likelihood of a prison penalty
- Increased likelihood of failure to appear
- Increased likelihood of re-offending up to disposition but reduces that after disposition

Introduction

Recent research

Didwania (2018) - Working paper

**THE IMMEDIATE CONSEQUENCES OF PRETRIAL DETENTION:
EVIDENCE FROM FEDERAL CRIMINAL CASES**

STEPHANIE HOLMES DIDWANIA*

February 17, 2018

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THE IMMEDIATE CONSEQUENCES OF PRETRIAL DETENTION:
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Release on bail:

- 67 per cent reduction in sentence length (1.1 months)
- Increases probability of a below-guidelines sentence by 67.6 percentage points

Section 2

Method

Data

Dataset construction

JusticeLink database

- First bail hearings
 - Magistrate
 - Date
 - Outcomes
 - Charges

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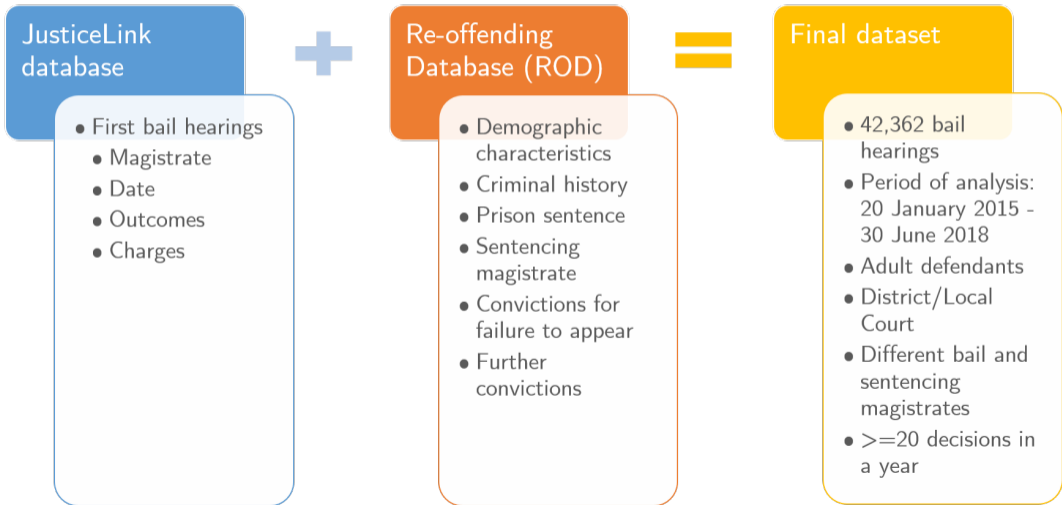


Re-offending Database (ROD)

- Demographic characteristics
- Criminal history
- Prison sentence
- Sentencing magistrate
- Convictions for failure to appear
- Further convictions

Data

Dataset construction



Data

Outcome variables

Failure to appear

Convicted of a failure to appear offence at finalisation

Offending on bail

Committed an offence between bail hearing date and finalisation

Imprisonment

Sentenced to imprisonment at finalisation

Data

Treatment variable

A dummy variable for whether a person was **granted** bail (with or without conditions) at their first court bail hearing

Data

Control variables

Demographics

Age, Indigenous status, gender, SEIFA, remoteness

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Priors

Penalties (Custodial, community orders, other)

Offences (violent, property, drug, breach, traffic, other)

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Age, Indigenous status, gender, SEIFA, remoteness

Index charge

Violent, property, drug, traffic, other

Priors

Penalties (Custodial, community orders, other)

Offences (violent, property, drug, breach, traffic, other)

Fixed effects

Principal offence, time, location (court location, jurisdiction and police area)

Method

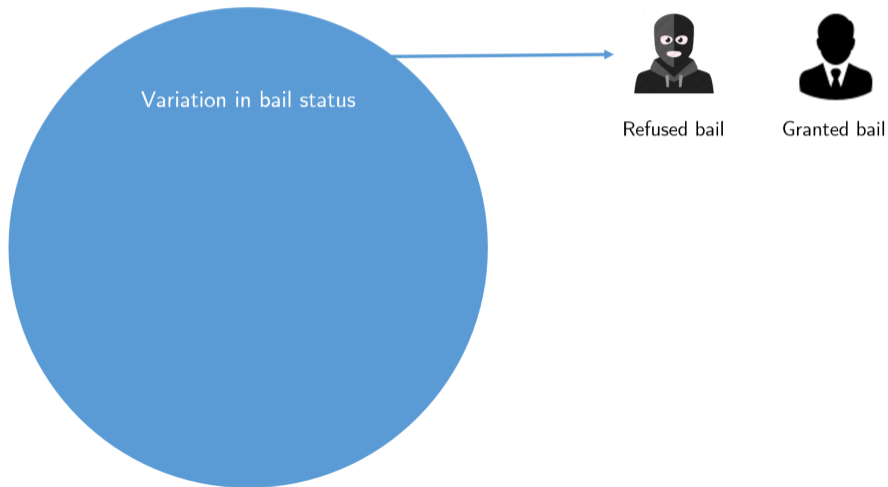
Instrumental variables estimation



Variation in bail status

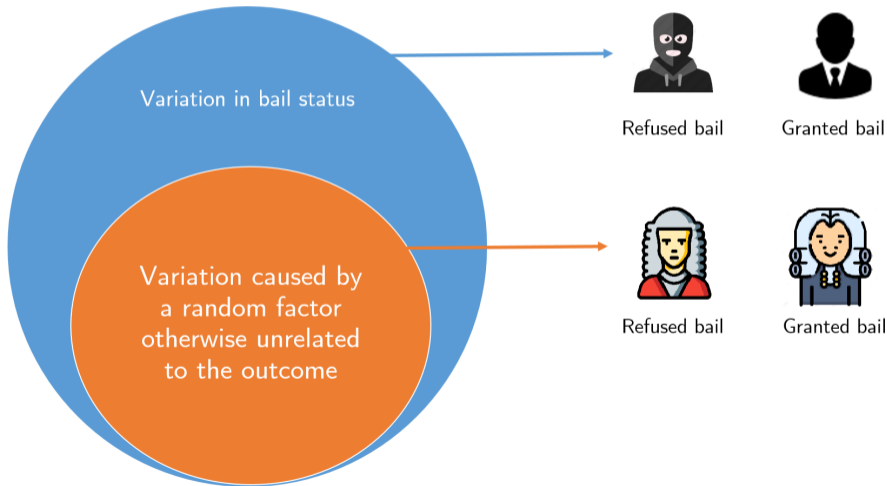
Method

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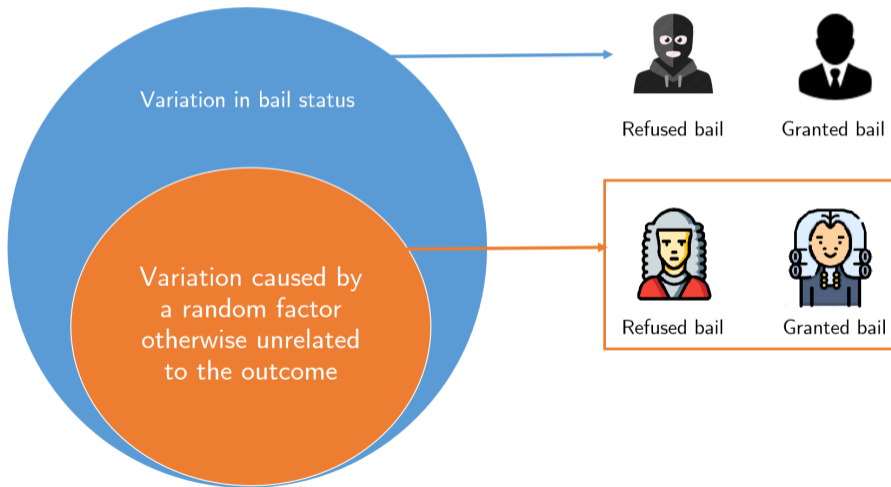
Method

Instrumental variables estimation



Method

Instrumental variable estimation



Ordinary Least Squares (OLS) estimation

Estimate the effect of **being granted bail** on the outcome

$$Y_i = \beta_0 + \beta_1 T_i + \beta X_i + \gamma + \epsilon$$

T_i = whether someone is granted bail

X_i = individual-level controls

γ = fixed effects

ϵ = error

Two-stage-least-squares (2SLS) estimation

- 1 Obtain the predicted probability of being granted bail based on judge leniency and other observed factors:

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$$Y_i = \beta_0 + \beta_1 \hat{T}_i + \beta X_i + \gamma + \epsilon \quad (2)$$

Z_i = judge leniency

\hat{T}_i = predicted probability of being granted bail

X_i = individual-level controls

γ = fixed effects

ϵ = error

Residualised leave-one-out IV

A measure of the judge's leniency relating to all other cases than the index individual, adjusted for offence, location and time fixed effects

$$IV_i^* = \frac{R_j^* - R_{ij}^*}{D_j - D_{ij}}$$

where j is a judge, i is a person, R are the sum of residuals of the decision to grant bail, D is the sum of bail decisions

Method

Tests of IV

Relevance of IV

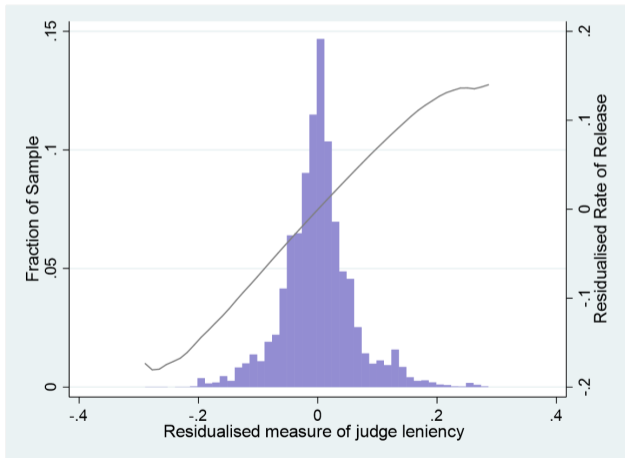
The IV should be significantly related to the likelihood of release

Method

Tests of IV

Relevance of IV

The IV should be significantly related to the likelihood of release



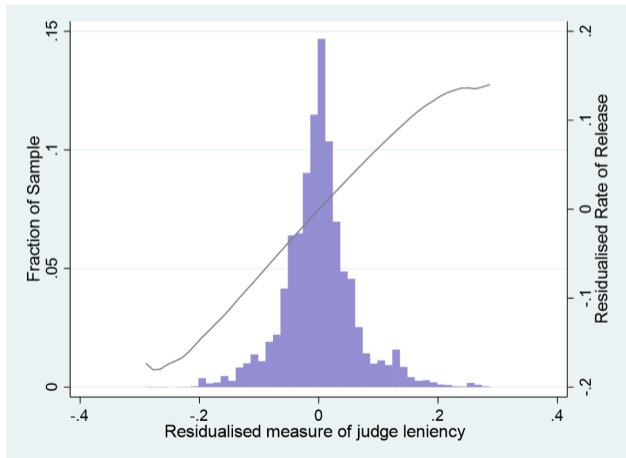
Method

Other tests of IV

Relevance of IV

The IV should be significantly related to the likelihood of release

- Positive relationship observed
- Partial F of first stage: 291.84



Randomness

The IV is unrelated to individual characteristics ($F=1.18$, $p\text{-value}=.179$)

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Monotonicity

The direction of the effect of the IV on being granted bail is consistent across subgroups

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Monotonicity

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Exclusion restriction

The IV should not affect the outcome other than through the bail decision

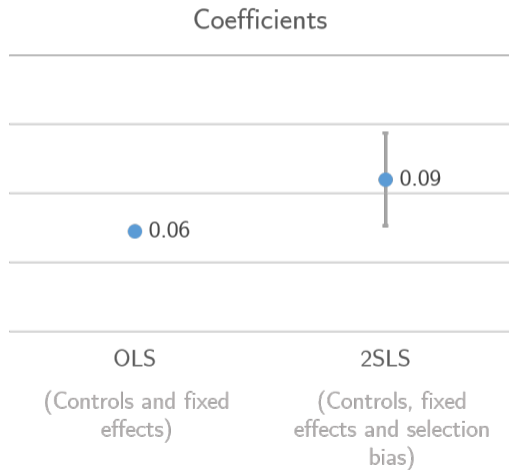
- Defendants do not choose their bail judges
- We exclude all defendants with the same bail and sentencing judge

Section 3

Results

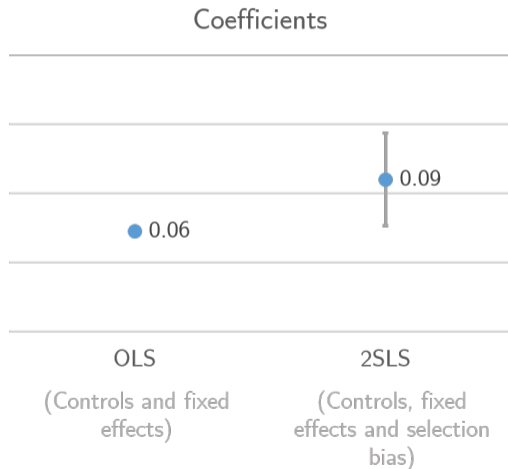
Estimation results

Failure to appear



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Failure to appear

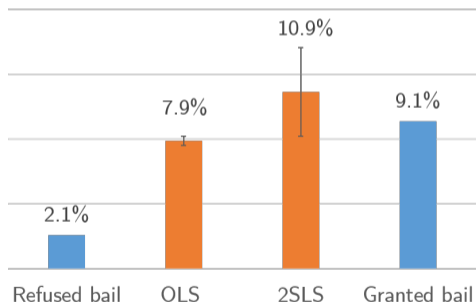


- 2SLS estimates a 9 percentage point increase in likelihood of failure to appear from granting bail

Estimation results

Failure to appear

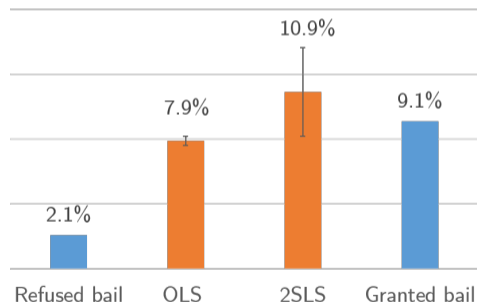
Effect of additional releases



Estimation results

Failure to appear

Effect of additional releases

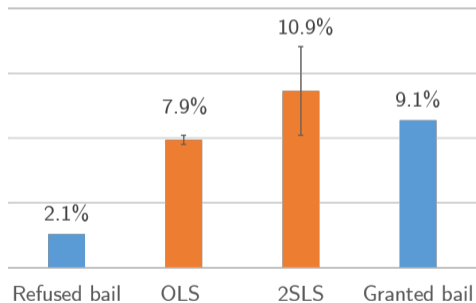


- This translates to a rate of failing to appear of 10.9% for additional releases compared to an average of 2.1% among those refused

Estimation results

Failure to appear

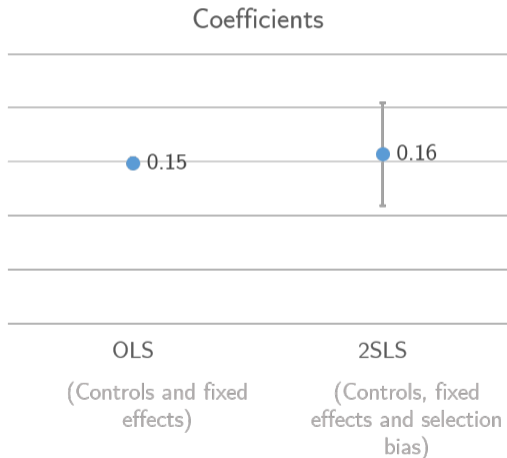
Effect of additional releases



- This translates to a rate of failing to appear of 10.9% for additional releases compared to an average of 2.1% among those refused
- There is an incapacitation effect of bail refusal on failure to appear

Estimation results

Offending on bail

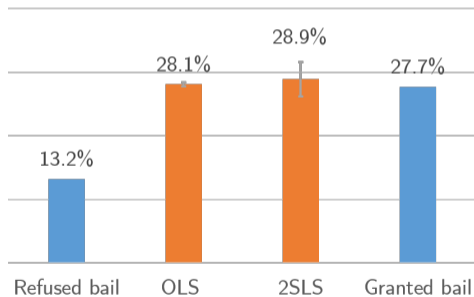


- OLS and 2SLS estimates are virtually identical

Estimation results

Offending on bail

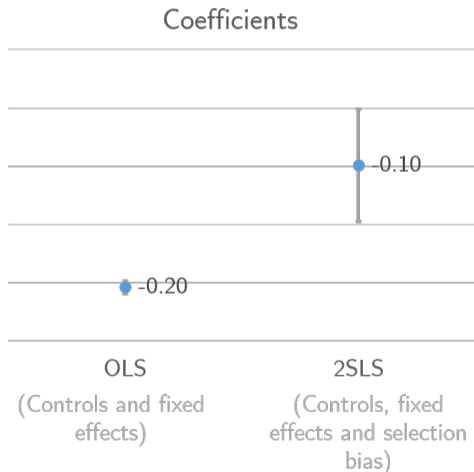
Effect of additional releases



- There is a significant effect of bail refusal on reducing crime

Estimation results

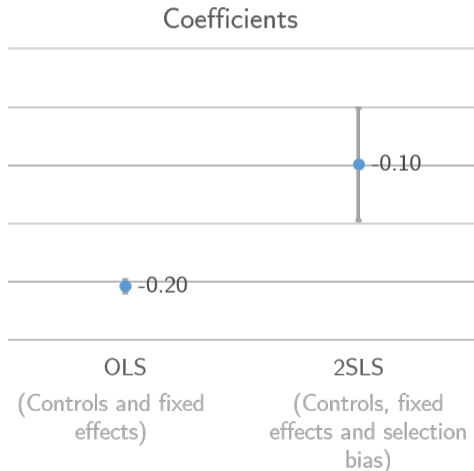
Imprisonment



- 2SLS attenuates effect of granting bail on imprisonment from 20 percentage points to 10

Estimation results

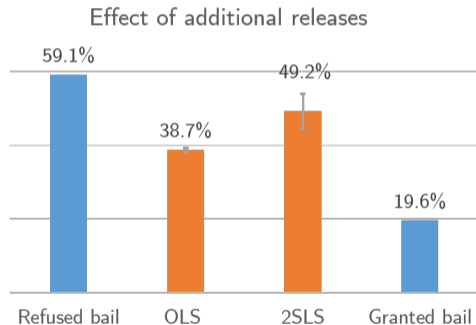
Imprisonment



- 2SLS attenuates effect of granting bail on imprisonment from 20 percentage points to 10
- Once correcting for selection bias, the signalling effect of bail refusal on prison is 10 percentage points

Estimation results

Imprisonment



- This translates to an average rate of imprisonment of 49 per cent on additional released defendants

Estimation results

Robustness checks

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Misspecification of outcome variable

Replicated analyses using probit and bivariate probit (Chiburis, Das, & Lokshin, 2012)

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Followed procedure to check complier-weighted OLS (Dahl, Kostol, & Mogstad, 2014)

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Sensitivity in IV construction

Not sensitive to changing number of minimum judge decisions to 30

Subgroup analyses

District and Local Court

Estimation results

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District and Local Court

Previous policy regime

Consistent when estimating on Pre-Bail Act 2013 data

Conclusions

- Bail refusal reduces failure to appear and offending on bail

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- Findings are consistent with previous studies

Conclusions

- Bail refusal reduces failure to appear and offending on bail
- It comes at a cost of higher imprisonment rates
 - Further work on cost implications needed to quantify value of trade-offs
- Better prediction of offending on bail is worthwhile
- Findings are consistent with previous studies
- Limitations
 - Important to keep in mind that this relates to a small subset of offenders in NSW
 - Did not study post-finalisation offending