Gender Identity and Offending Behaviour

Evidence from Linked Administrative Data in New Zealand

Maxine J. Lee (SFSU) Alex Plum (AUT)

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University of Melbourne

AUT

NEW ZEALAND POLICY RESEARCH INSTITUTE
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- **Disclaimer for Census 2023 data:** Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

Motivation

- Public discourse increasingly links gender identity and crime
- Debate often driven by anecdotal or low-quality evidence
- Almost no modern large-scale evidence exists

Research Question

- Do transgender and nonbinary individuals differ in offending behavior?
- How do outcomes compare to cisgender men and women?
- What can high-quality administrative data tell us?

Key Contribution

- First study using:
  - 2023 NZ Census (gender identity + sex at birth)
  - Linked police and court records
- Large population-based dataset
- Policy-relevant and internationally informative

Data: Integrated Data Infrastructure (IDI)

- Population-level linked administrative data
- Sources:
  - Census 2023
  - Police recorded offender
  - Court charges (MoJ)
  - NZTA and Pharmac (validation)
- Secure access and anonymised linkage

Sample

- Age 18–39
- Over 1.2 million individuals
- Key groups:
  - Cisgender men (reference)
  - Cisgender women
  - Transgender men
  - Transgender women
  - Nonbinary (AMAB / AFAB)

Descriptive Statistics (at Census 2023)

	Cis men	Cis women	Trans men	Trans women	NB AMAB	NB AFAB
Age	28.84	29.05	25.95	27.05	26.42	25.17
NZDep	5.67	5.72	5.96	6.00	5.74	5.73
NZ born	0.626	0.626	0.700	0.691	0.765	0.754
Urban area	0.723	0.730	0.776	0.794	0.813	0.828
European only	0.496	0.490	0.573	0.532	0.630	0.654
Māori only	0.054	0.057	0.052	0.071	0.045	0.034
Asian only	0.234	0.227	0.141	0.147	0.072	0.075
Unique individuals	587,598	618,234	2,211	2,736	3,798	6,213

Descriptive Patterns

- Transgender and nonbinary populations:
  - Younger
  - More urban
  - Slightly higher deprivation
- Evidence of gender affirmation:
  - Driver's license updates
  - Hormone therapy prescriptions

Outcome Measures

- Police records
- Court charges
- Categories:
  - Assault / violent offenses
  - Theft / burglary
  - Drug offenses
  - Traffic offenses

Distribution of Offence Records (at least one record at all)

	Cis men	Cis women	Trans men	Trans women	NB AMAB	NB AFAB
New Zealand Police records						
Any	0.231	0.105	0.142	0.171	0.179	0.073
Assault	0.121	0.050	0.073	0.095	0.088	0.033
Theft/Burglary	0.050	0.032	0.041	0.052	0.043	0.023
Drug	0.038	0.012	0.020	0.029	0.030	0.009
Traffic	0.101	0.038	0.056	0.060	0.062	0.015
Court action	0.165	0.063	0.094	0.120	0.117	0.033
Criminal Court records						
Any	0.161	0.060	0.080	0.103	0.101	0.026
Assault	0.080	0.020	0.034	0.053	0.045	0.008
Theft/Burglary	0.031	0.013	0.015	0.031	0.024	0.004
Drug	0.017	0.004	0.009	0.013	0.013	0.001
Traffic	0.114	0.042	0.056	0.067	0.067	0.017
Unique individuals	587,598	618,234	2,211	2,736	3,798	6,213

Conceptual Framework

- Economic model of crime:
  - Benefits vs costs
- Possible mechanisms:
  - Labour market disadvantage $\rightarrow$ higher incentives
  - Higher victimisation $\rightarrow$ higher costs
  - Mental health differences

Empirical Approach

What do we estimate?

- The likelihood that an individual appears in:
  - Police records
  - Court records
- We compare different gender identity groups to cisgender men

Method: Logistic regression

$$\frac{P(Y_i = 1)}{1 - P(Y_i = 1)} = \exp(\beta_0 + \beta_1 \text{Cis Women}_i + \beta_2 \text{Trans Men}_i + \beta_3 \text{Trans Women}_i + \beta_4 \text{NB AMAB}_i + \beta_5 \text{NB AFAB}_i + \Gamma X_i)$$

where $Y_i = 1$ indicates appearing in police or court records.

Controls

- Age
- Ethnicity
- Socio-economic deprivation (NZDep)
- Education (qualifications)
- Whether born in New Zealand
- Urban vs rural location

Interpretation:

- Results are reported as relative likelihoods (odds ratios)
- We compare individuals with similar backgrounds

How to Interpret Odds Ratios

What is an odds ratio?

- It compares how likely an outcome is between two groups
- In our study, all comparisons are relative to **cisgender men**

Key interpretation:

- Odds ratio $= 1$ $\rightarrow$ Same likelihood as reference group
- Odds ratio < 1 $\rightarrow$ Lower likelihood than reference group
- Odds ratio > 1 $\rightarrow$ Higher likelihood than reference group

Examples:

- Odds ratio $= 0.60$
  - $\rightarrow$ 40% **less likely** to appear in police or court records
- Odds ratio $= 1.50$
  - $\rightarrow$ 50% **more likely** to appear in police or court records

Important:

- These are *relative* comparisons, not absolute probabilities

Results: Police Records Regressions

	Any	Assault	Theft/Burg.	Drug	Traffic	Court action
Cisgender men			*reference*			
Cisgender women	0.354***	0.364***	0.600***	0.294***	0.322***	0.305***
Transgender men	0.548***	0.583***	0.768**	0.522***	0.557***	0.552***
Transgender women	0.598***	0.691***	0.859*	0.657***	0.509***	0.612***
NB, male at birth	0.662***	0.679***	0.724***	0.702***	0.578***	0.653***
NB, female at birth	0.265***	0.266***	0.443***	0.239***	0.165***	0.200***

Results: Court Records Regressions

	Any	Assault	Theft/Burg.	Drug	Traffic	Above fine	Family viol.
Cisgender men				*reference*			
Cisgender women	0.282***	0.208***	0.383***	0.235***	0.303***	0.274***	0.200***
Transgender men	0.513***	0.486***	0.589***	0.671*	0.536***	0.538***	0.647**
Transgender women	0.549***	0.606***	0.876	0.722*	0.512***	0.688***	0.502***
NB, male at birth	0.602***	0.588***	0.832*	0.866	0.572***	0.683***	0.507***
NB, female at birth	0.172***	0.123***	0.196***	0.076***	0.169***	0.153***	0.144***

Main Finding

Transgender and nonbinary individuals are **less likely** to appear in police and court records than cisgender men

Magnitude of Differences

- Transgender and nonbinary people assigned male at birth:
  - About **50–65% as likely** as cisgender men to appear in police or court records
- Nonbinary people assigned female at birth:
  - Even lower likelihood

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Across Crime Types

- Patterns are consistent across:
  - Violent offences
  - Property crimes
  - Drug offences
  - Traffic violations

No evidence of elevated risk in any category

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Focus on Transgender Women

- Transgender women are often the focus of public concern

Finding:

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Additional Evidence

- Compare transgender women to:
  - People in the same neighbourhood
  - Their own siblings

Result remains the same

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Gender Affirmation

- We also look at individuals who:
  - Changed their gender marker on a driver's licence
  - Received hormone therapy

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Interpretation

- Results contradict common narratives
- No evidence of elevated offending risk
- Evidence points in the opposite direction

Limitations

- Based on New Zealand context
- Cannot observe detection bias
- Limited ability to study rare crimes

Policy Relevance

- Importance of evidence-based debate
- Risks of misinformation
- Role of administrative data in informing policy

Broader Implications

- LGBTQ+ populations often underrepresented in data
- New Census enables new research frontier
- Potential applications:
  - Health
  - Labour markets
  - Criminal justice

Conclusion

- First population-level evidence for NZ
- Transgender and nonbinary individuals:
  - Less likely to appear in crime records
- Strong implications for public discourse and policy

Thank You

Questions?