Spare the Conviction, Spoil the Child: Effect of the Oranga Tamariki Act on Youth Crime and Labor Market Outcomes

Kabir Dasgupta[a], André Diegman[b], Tom Kirchmaier[c], Alexander Plum[d], & Thomas Schober[d]

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[a] Federal Reserve Board; [b] Halle Institute for Economic Research (IWH), Centre for European Economic Research (ZEW); [c] Centre for Economic Performance (CEP), London School of Economics (LSE); [d] Auckland University of Technology

Disclaimer

The results in this paper are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI) managed by Statistics New Zealand (NZ). The opinions, findings, recommendations and conclusions expressed in this paper are those of the author(s) not Statistics NZ.

Access to the anonymized data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorized by the Statistics Act 1975 are allowed to see data about a particular person, household, business or organization and the results in this [report, paper] have been confidentialized to protect these groups from identification.

Careful consideration has been given to the privacy, security and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from `www.stats.govt.nz`.

The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors.

Outline

Research preview

Research highlights

- Research objective: Analysis of the effects of New Zealand's Oranga Tamariki Act (1989) on youth well-being.
- Analysis:
  - Past criminal records hurt labor market prospects.
  - The Oranga Tamariki Act was implemented to minimize the long-term socio-economic barriers faced by juvenile offenders.
  - The legislation instituted differential treatment in the criminal justice system for young offenders (aged<17).
- Preview of key findings:
  - We observe a discrete jump in the probability of receiving a conviction at age 17.
  - No statistical significant evidence of large differences in the likelihood of recidivism, employment, and educational enrollment between young and adult offenders.

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Background

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- Social barrier: Prior criminal records hinder social reintegration and hurt employment prospects (Grogger 1992, 1995; Leasure 2019; Bhuller et. al 2020).
  - Prior convictions often "*impart a stigma that makes employers less likely to hire ex-offenders*" (Schmitt & Warner 2010).
- There have been several legislative efforts to mitigate the social barriers experienced by previously convicted individuals.
  - Some noteworthy criminal justice reforms include the Ban-the-Box policy (e.g., see Agan & Starr 2018; Doleac & Hansen, 2020, Rose, 2021), Clean Slate initiative (Dasgupta, Ghimire, & Plum 2021) and non-punitive measures for juvenile offenders (Mueller-Smith, Pyle, Walker 2022).
  - These regulations either limit employers' access to information on individuals' criminal records or allow expungement of criminal records.
  - Studies have found mixed evidence regarding the well-being implications of these policies.
- We focus on a nation-wide criminal justice reform implemented in New Zealand.
  - The regulation substantially reduces the likelihood of receiving a conviction for young offenders.

The Oranga Tamariki Act (OT act)

- The OT act, also sometimes known as the Children, Young Persons, and Their Families Act, was adopted in May 1989.
- The comprehensive regulation was specifically designed to promote well-being of vulnerable children and youth belonging to at-risk families.
- Youth justice provisions of the OT act:
  - introduced rehabilitative interventions such as the youth court and family group conference system
  - prevented juvenile offenders from being tried in adult court with a few exceptions (e.g. defined as 'specified offense')
  - led to substantial decline in the probability of receiving a formal conviction.
    - Some common examples of youth justice processes include police warnings, alternative actions, family group conferences, youth court proceedings, etc.
- The youth justice provisions were applicable to individuals aged below 17, until 2019.
  - 2019 Amendment - From July 2019, the age threshold was extended to include those aged below 18.
  - Our analysis focuses on pre-2019 era and exploits discontinuity at the age of 17.

Data & Analysis

Research question

- Research question: We investigate the effect of the OT act on a young offender's probability of re-offending, being employed in a job, and pursuing education.
  - Present a comparison between punitive and non-punitive consequences for criminal behavior.
  - We focus on the period 2009-2018.
- Integrated Data Infrastructure (IDI) administered by Statistics NZ.
  - Houses a wide range of administrative data and surveys collected from various ministries and public agencies.
  - Linkage across datasets is possible by using unique confidentialized identifiers at the individual-level.

Data in the IDI

- Key datasets used in our analysis:
  - **Recorded crime offenders** - Register of all alleged offenders recorded by NZ Police - Spine of criminal offenders.
  - **Court charges** - Ministry of Justice's administrative records of all criminal charges processed in NZ courts - Used to identify convictions and sentencing.
  - **Monthly tax records** - Inland Revenue data on employment and earnings from wages and salaries - Used to create employment indicator.
  - **Primary and secondary schools** - Ministry of Education data on school enrollment - Used to create academic indicator.
  - **Tertiary education data** - Ministry of education data on tertiary (post-school college, university) enrollment - Used to create academic indicator.
- Other datasets (to be) utilized:
  - **Personal Details** files; **Border Movements** data; and **Census 2013** data

Identification and sample selection

We exploit a regression discontinuity design (RD) and estimate:

$$y_i = \beta_1 aged17_i + \beta_2 age_i + \beta_3 age_i \times aged17_i + \gamma X_i + \epsilon_i$$

We restrict our analysis to those monthly ages above 16 (minimum driver's licensing age) and below 18 (adulthood and legal alcohol purchasing age).

Sample selection - Manipulation of the running variable:

- By design, the OT act prompts a discontinuity in convictions at age 17.
- In the absence of underlying unobserved confounders, the regulation **shouldn't** affect age-specific trends in NZ police records of criminal offenses.
- Official Information Act (1982) - Confirmation from NZ Police suggested that a criminal offense must be recorded regardless of perpetrator's age.
- However, the NZ Police proceedings may vary by offender's age (e.g. different processes for formal warnings).
- There's also possibility of differential treatments by other judicial institutions like NZ Police; differences in life situations (moving out, leaving school, etc.); and differences in youth's risk taking behavior conditional on the OT act.

Testing discontinuity in all police offences

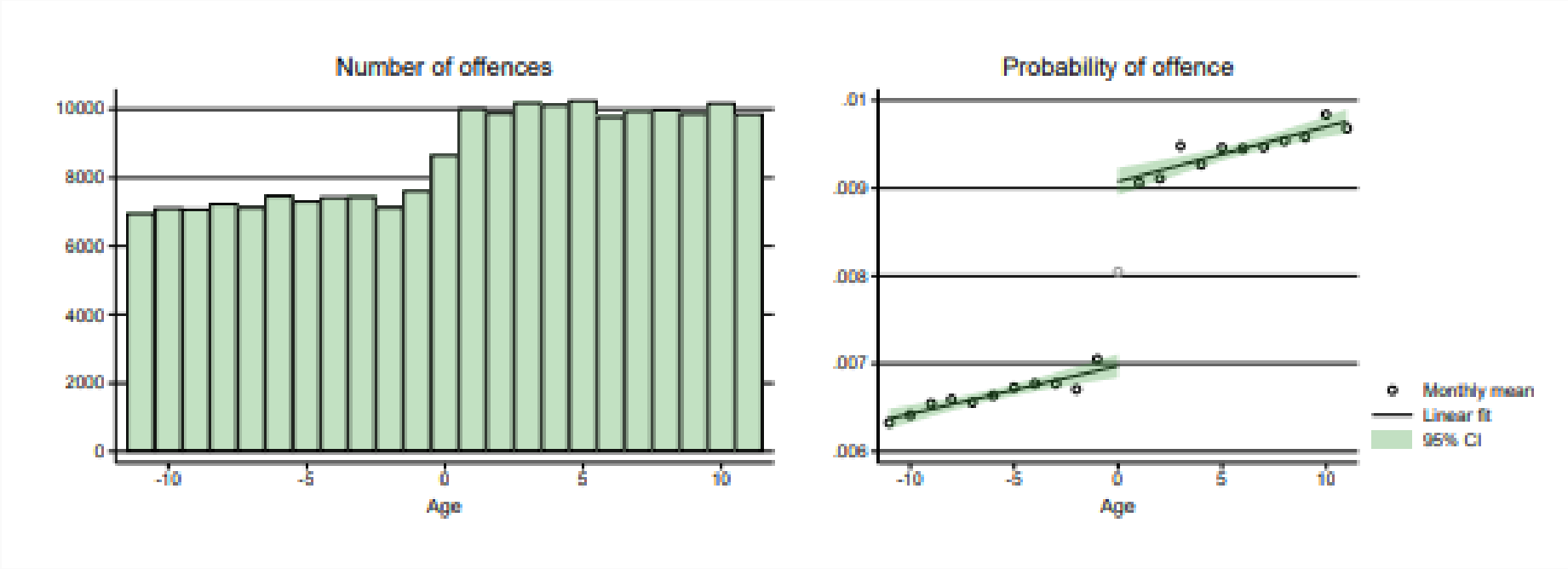

Figure 1: Distribution of offences over age. These figures show the number of offences (left) and the probability of offending (right). The horizontal axis shows age in months, centered at the 17^{th} birthday.

Selection of crime types

- ANZSOC system groups offence types into 16 different categories
- We empirically test and choose six of the 16 different crime types - homicide, abduction and harassment, robbery and extortion, fraud and deception, and miscellaneous.
- No discontinuous change in police offences when sample includes only offenders booked by NZ Police under those six offense types.

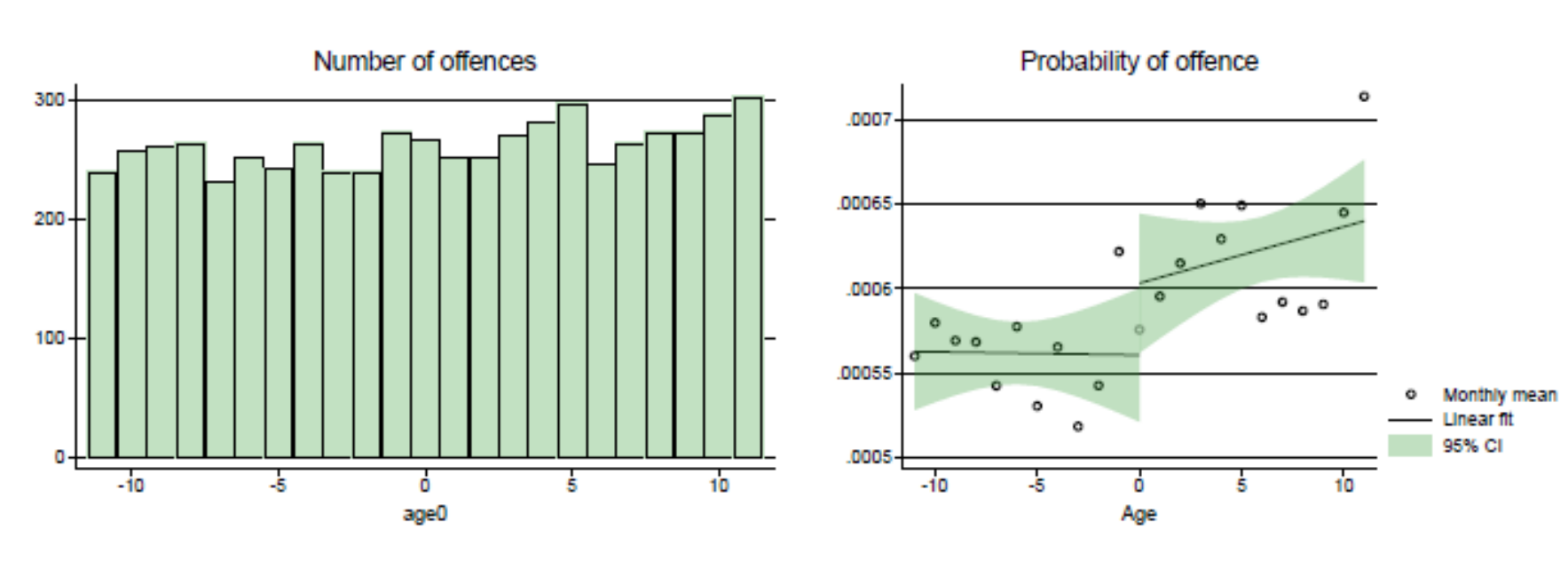

Figure 2: Distribution of offences over age. These figures show the number of offences (left) and the probability of offending (right). The horizontal axis shows age in months, centered at the 17^{th} birthday.

Discontinuity in court convictions

- Upon linking our sample of interest to court charges data, we see significant jumps in- court charges filed within one year of offence, convictions, and custodial sentences.
- There is a 18.6 pp increase in the probability of being convicted in court at the age cutoff.

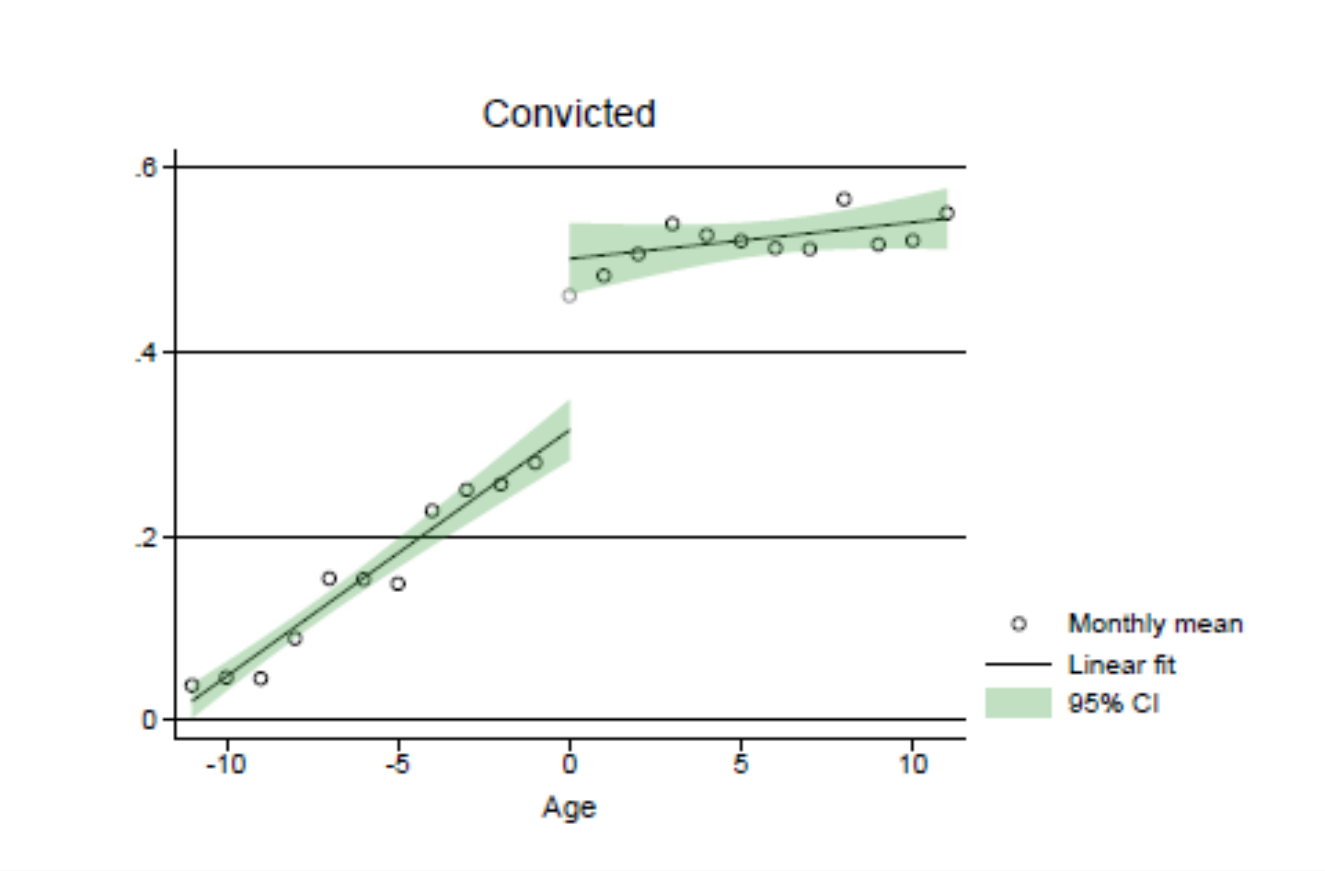

Figure 3: Share of individuals with a court conviction within 1 year. The horizontal axis shows age in months, centered at the 17^{th} birthday.

'First-stage' evidence - Justice system outcomes

	(1) Estimate	(2) Standard error	(3) p-value	(4) N	(5) Mean
Police actions					
Court action	0.137	0.026	0.000	5826	0.665
Warning	-0.003	0.028	0.903	5826	0.390
Non-court action	-0.216	0.023	0.000	5826	0.235
Referred conference	-0.079	0.015	0.000	5826	0.082
Not proceeded with	0.010	0.010	0.299	5826	0.031
Court outcomes					
Convicted	0.186	0.026	0.000	5826	0.348
Home or community detention	0.090	0.015	0.000	5826	0.073
Community work or supervision	0.104	0.021	0.000	5826	0.165
Monetary sentence	-0.011	0.020	0.589	5826	0.140
Sentenced to prison	0.041	0.013	0.001	5826	0.059
Reoffending					
Reoffence in year 1	-0.026	0.028	0.351	5826	0.561
Reoffence in year 2	-0.021	0.028	0.444	5826	0.446
Reoffence in year 3	-0.011	0.028	0.702	5826	0.392
Reoffence within 3 years	-0.013	0.025	0.599	5826	0.736

Notes: This table summarizes estimation results for the justice system outcomes. Each line shows the results from a separate regression for different outcome variables indicated on the very left. Column 1 shows the estimated coefficient for being aged 17, column 2 robust standard errors, column 3 the corresponding p-value, column 4 the number of observations in the regression, and column 5 the mean of the dependent variable.

Human capital outcomes - Employment and education

	(1) Estimate	(2) Standard error	(3) p-value	(4) N	(5) Mean
Employment					
Employed in year 1	0.013	0.028	0.645	5826	0.49
Employed in year 2	0.007	0.028	0.814	5826	0.54
Employed in year 3	-0.006	0.028	0.837	5826	0.58
Earnings					
Earnings in year 1	207.8	472.8	0.660	5826	4602.3
Earnings in year 2	203.5	653.5	0.755	5826	7264.4
Earnings in year 3	-317.8	789.3	0.687	5826	9466.0
Earnings conditional on being employed					
Earnings in year 2	233.1	966.5	0.809	3168	13359.3
Earnings in year 3	-398.4	1079.9	0.712	3384	16301.8
Earnings in year 1	162.2	789.4	0.837	2859	9378.5
Benefit payments					
Benefits in year 1	104.642	179.157	0.559	5826	1753.53
Benefits in year 2	126.548	241.380	0.600	5826	2994.06
Benefits in year 3	59.736	280.813	0.832	5826	3912.02
Enrollment in school or tertiary education					
Education enrollment in year 1	-0.040	0.025	0.115	5826	0.71
Education enrollment in year 2	0.037	0.028	0.191	5826	0.53
Education enrollment in year 3	0.014	0.029	0.623	5430	0.41
Educational achievement					
Ever achieved NCEA Level 2	0.027	0.020	0.178	5826	0.16
Ever achieved NCEA Level 3	0.020	0.013	0.121	5826	0.06

Notes: This table summarizes estimation results for the labour market and education outcomes. Each line shows the results from a separate regression for different outcome variables indicated on the very left. Column 1 shows the estimated coefficient for being aged 17, column 2 robust standard errors, column 3 the corresponding p-value, column 4 the number of observations in the regression, and column 5 the mean of the dependent variable.

Conclusion

- Main findings:
  - The OT act is effective in reducing the likelihood of receiving conviction at the age cut-off.
  - But there is no evidence of any statistically significant change in recidivism, future employment and educational enrollment.
  - Findings indicate that non-punitive or rehabilitative measures are not more effective than punitive outcomes in mitigating social costs of crime.
- Sensitivity analyses:
  - No discrete jump at age 17, in demographic characteristics or life outcomes (like moving out of parents' house or leaving school).
  - Results are robust to the inclusion of individual-level controls (sex, ethnicity, year of offense, past offense indicator, etc.) and higher order polynomials in age.
- Way forward:
  - Incorporate additional tests for sample selectivity issues.
  - Investigate important heterogeneity in the effects of the OT act such as by ethnicity and sex of offenders.

Thank You

Thank you very much for your attention!