

# The Devil is in the Details: Identifying the Unbiased Link between Access to Alcohol and Criminal Behavior

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Kabir Dasgupta ✓ & Christopher Erwin ✓ & Alexander Plum ✓

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✓ New Zealand Work Research Institute, Auckland University of Technology

# Disclaimer

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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 anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business or organisation and the results in this [report, paper] have been confidentialised 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](http://www.stats.govt.nz).

# Highlights

- We provide NZ-specific evidence on the impact of minimum legal age of purchasing alcohol (MLPA) on youth crime.
  - Focus on two distinct policy regimes - MLPA20 (Pre-1999 legislation) & MLPA18 (Post-1999 legislation).
  - Allows us to address concerns of possible confounding influences arising from “adulthood effects”.
- Empirical analysis incorporates regression discontinuity design to estimate the local average treatment effects.
  - MLPA20 (MLPA18) analysis focuses on monthly data for the years 1994-1998 (2014-2018).
  - Highly detailed data on criminal convictions in NZ.
  - We identify 211 offence types to construct alcohol-induced crime indicator (e.g. driving under influence, liquor law violations, etc.).
- Greater access to alcohol via alcohol purchasing rights does not lead to increase in incidence of alcohol-related crimes, despite an increase in consumption.
  - Data allows us to remove confounding influences of other relevant regulations such as permitted blood & breath alcohol content (BBAC) limits.

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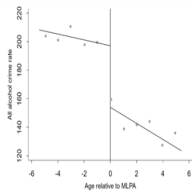
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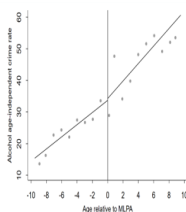
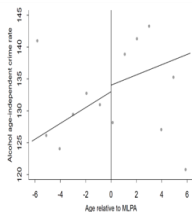
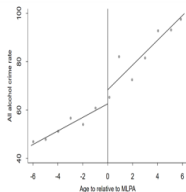
# Key findings

Linear regression discontinuity plots of alcohol-related crimes

MLPA-20 – (1994-1998 sample)



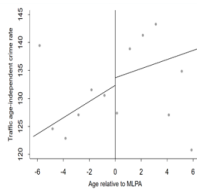
MLPA-18 – (2014-2018 sample)



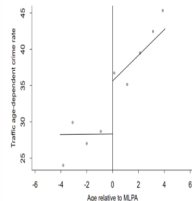
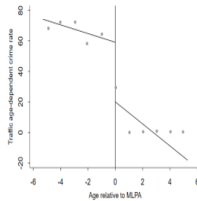
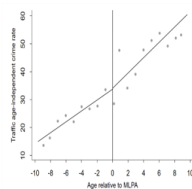
**(a)** All alcohol-related crimes

Linear regression discontinuity plots of traffic-related alcohol crimes

MLPA-20 – (1994-1998 sample)



MLPA-18 – (2014-2018 sample)



**(b)** Traffic-related alcohol crimes

# Important takeaways

- ❖ We draw causal inferences by removing confounding influence of other regulations (BBAC limits) that can affect alcohol-related convictions at MLPA thresholds.
  - Gaining alcohol purchasing rights does not prompt an increase in overall alcohol-related crimes.
  - At the MLPA of 18, we find an increase in violation of permitted BBAC limits.
  - Results are supported by alternative specifications and samples (e.g. NZ Police offence data, different sample period, etc.)
  - Among other broad offence classifications, we find consistent (at both the thresholds) increase in public order-related offences (e.g. disorderly conduct, intoxication, etc.) .
- ❖ Novel empirical contribution to the minimum drinking age (MLDA) literature.
  - NZ represents a unique legislative setting - Has an MLPA rather than MLDA.
  - Our analysis supports the presence of regional heterogeneity in the behavioral implications of having greater access to alcohol.
  - Complements the widely explored US-based evidence, which finds an increase in criminal behavior upon reaching the MLDA (Carpenter & Dobkin, 2015; Chalfin et al., 2019).

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