

1. Motivation and Research Question

The annual social cost of alcohol for England is £27.4bn. £15.3bn is from alcohol-related crime.^[1]

Government alcohol retail monopolies as a solution:

- Sole alcohol retailer
- Reduce alcohol's geographic and temporal availability

RQ: What is the effect of a government monopoly on crime?

2. Historical Context

WWI intensified temperance debate. British government introduced unprecedented restrictions on alcohol.

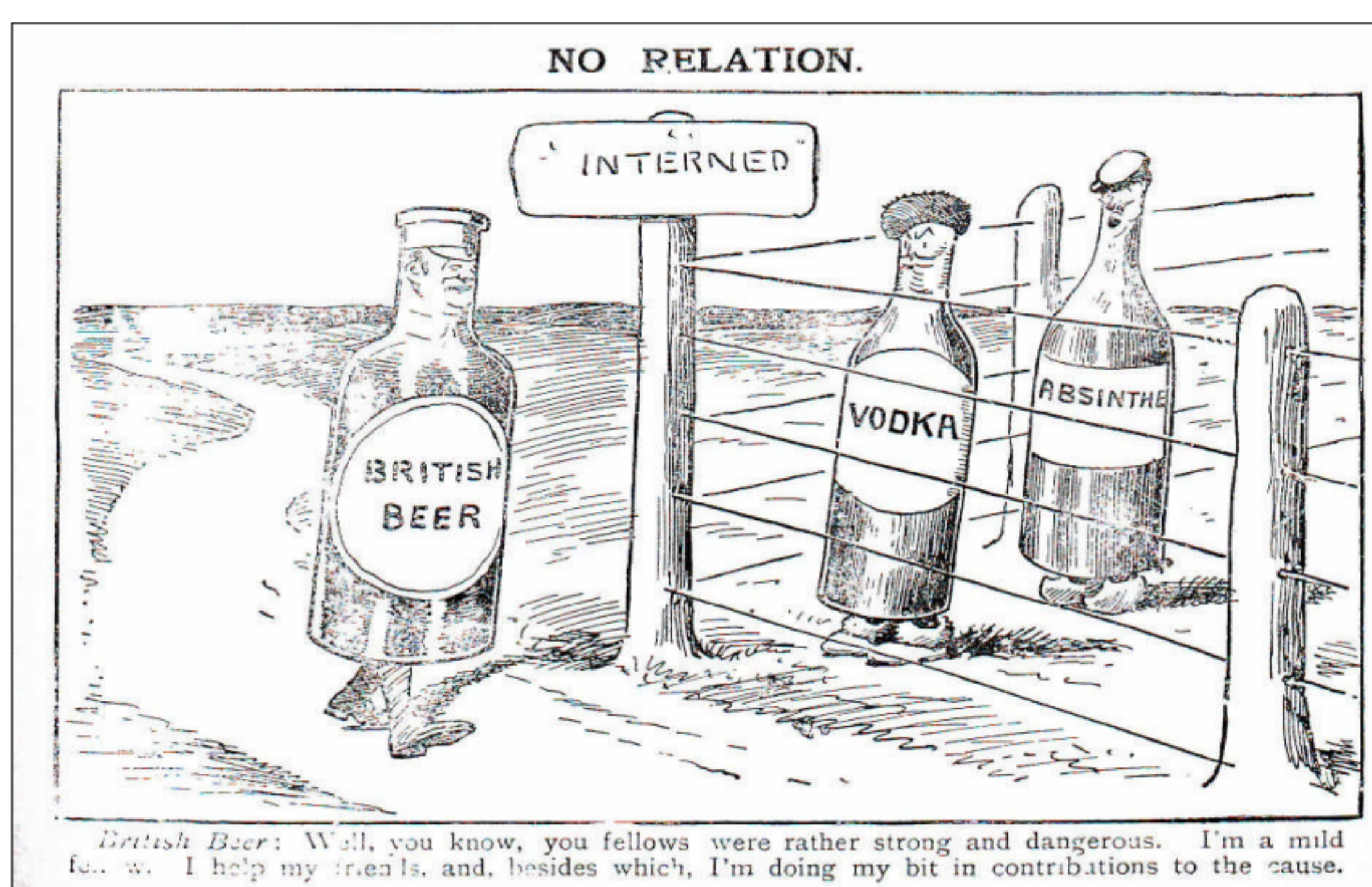


Figure 1. Wartime cartoon arguing against prohibition in Britain. Source: Brewer's Gazette

Alcohol-related crime spiked in Carlisle (Northwest England) with the construction of a nearby munitions factory (Fig 2).

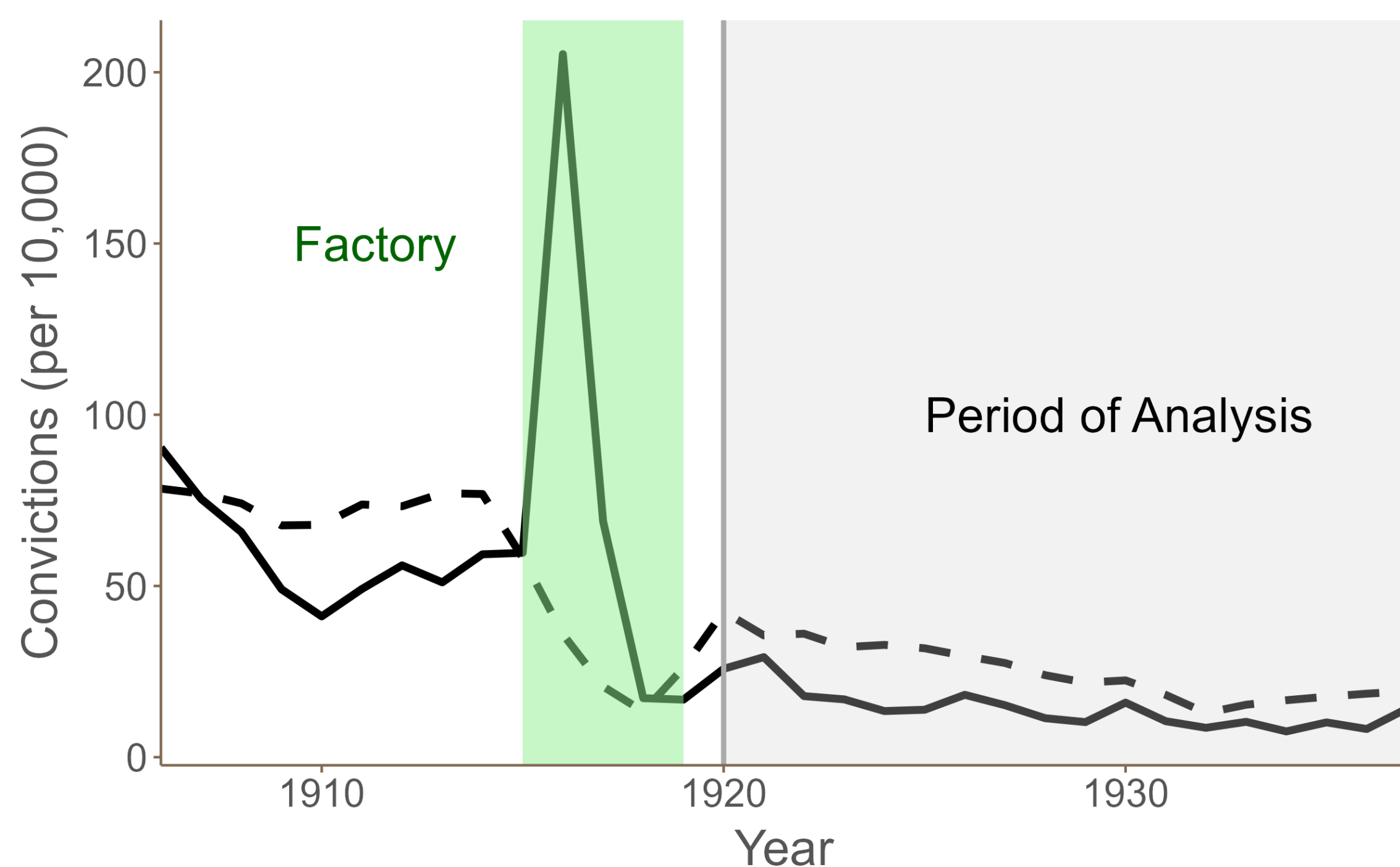


Figure 2. Male convictions for drunkenness in Carlisle (solid) and national average (dashed).

Alcohol trade nationalised in Carlisle and nearby area in 1916. Remained until 1971 as the State Management Scheme.

3. Data and Methodology

- Panel dataset of convictions of alcohol-related crime
 - Unique and hand collected
 - 54 county boroughs
- Synthetic control method^[2]
 - Synthetic Carlisle without SMS
 - Matching: pre-SMS conviction rate & town characteristics

Source	Variable	Purpose
Licensing Statistics ^[3]	Convictions	Outcome variable
	No. of on-licenses	Alcohol availability
1911 Census ^[4]	No. of males aged 18–24	Capture age distribution
	Occupation	Income/social class
	Overcrowding	Proxy for wealth
Annual Police Reports ^[5]	No. of police officers	Policing capacity

Table 1. Outcome variable and covariates used to create synthetic Carlisle

4. Identification Strategy

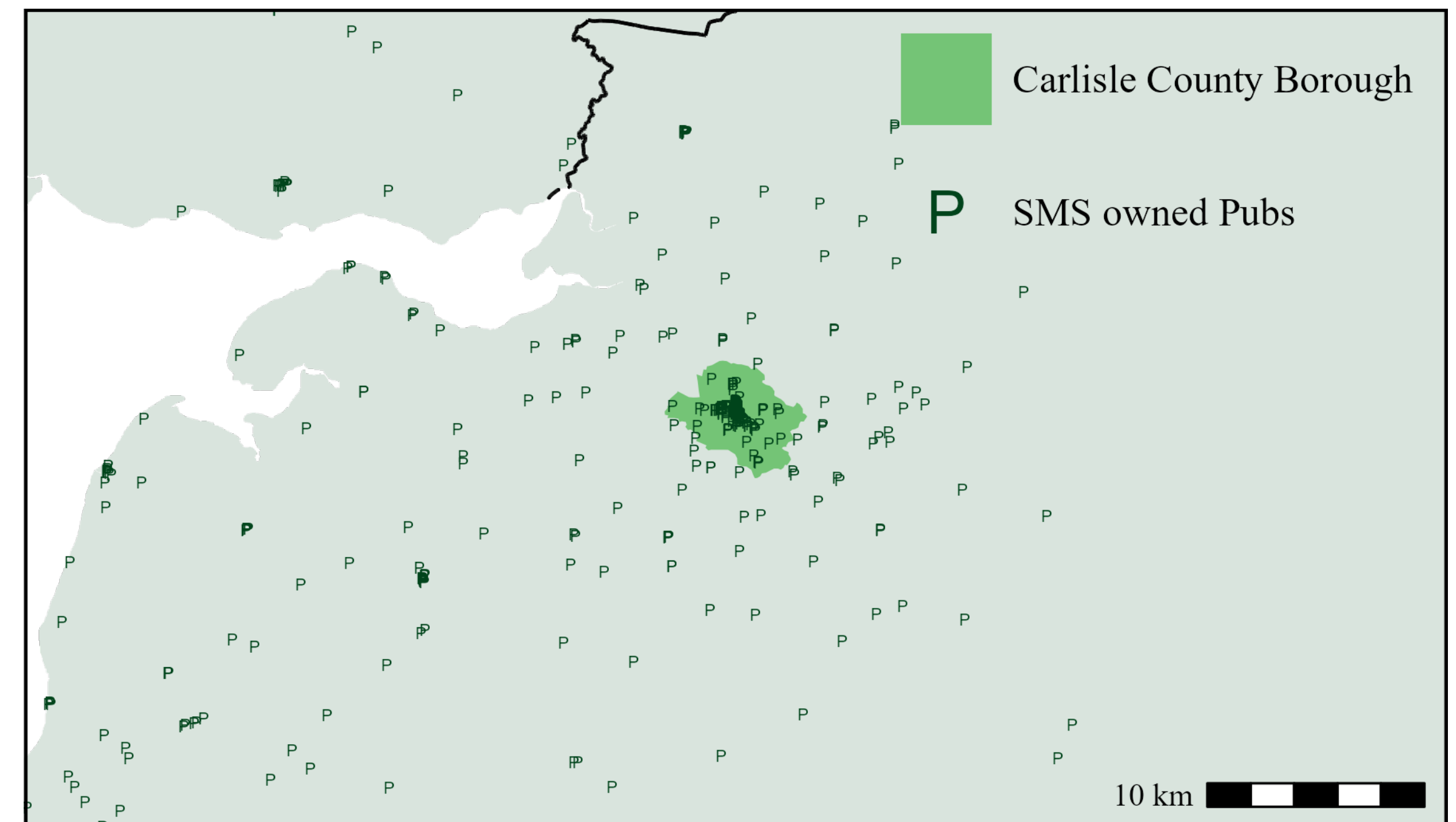


Figure 3. Public houses owned and operated by the SMS. Source: Public house location (Howard 2018)

- Exogenous shock of a short-lived munitions factory (Fig 2)
- Scale of SMS limited migration of crime (Fig 3)
- Relative isolation of Carlisle from other cities and towns

5. Main Results

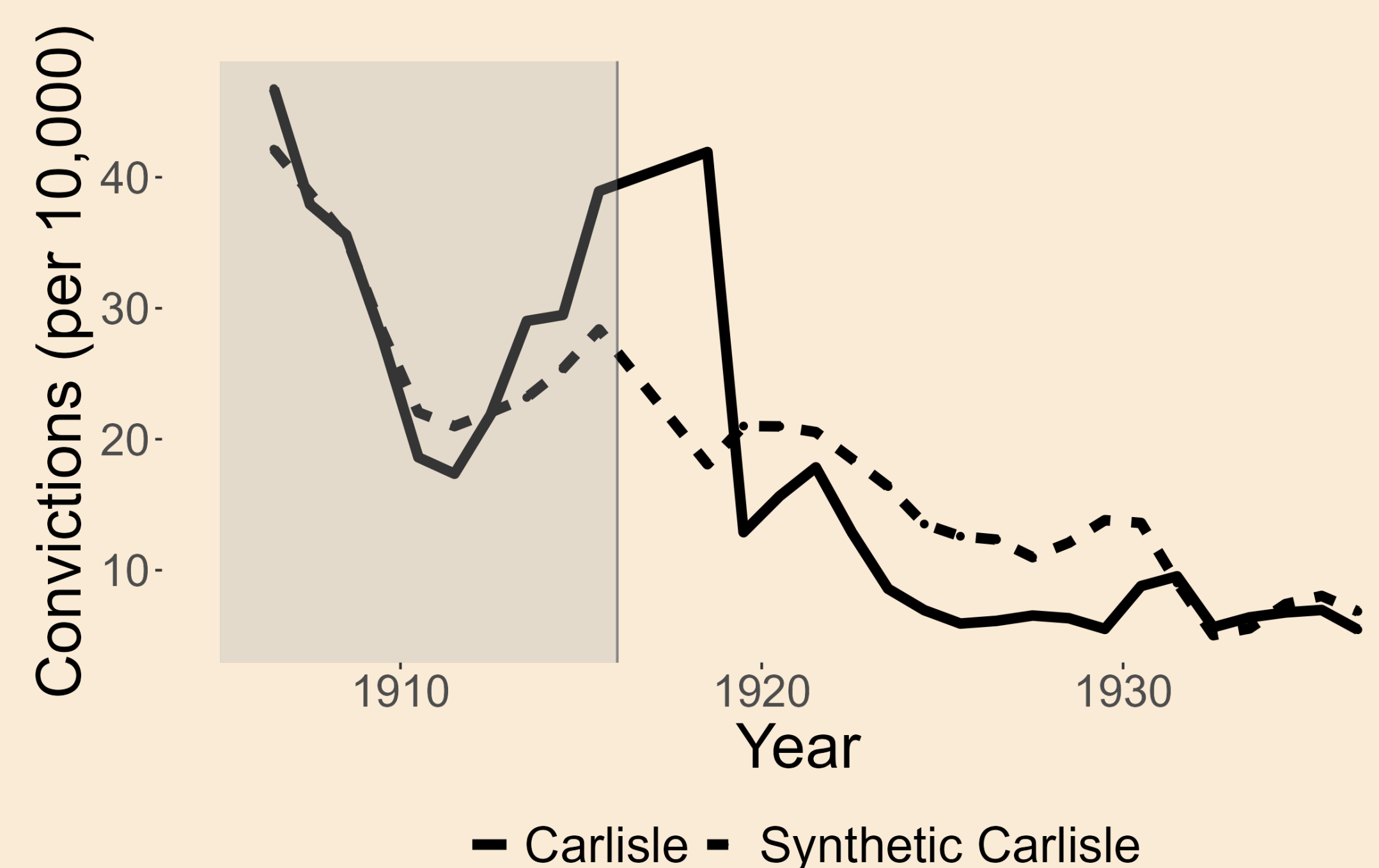


Figure 4. Carlisle (solid) vs. synthetic Carlisle (dashed) 'simple drunkenness' convictions, 1905–1937

- Reduced male simple drunkenness (-48%)

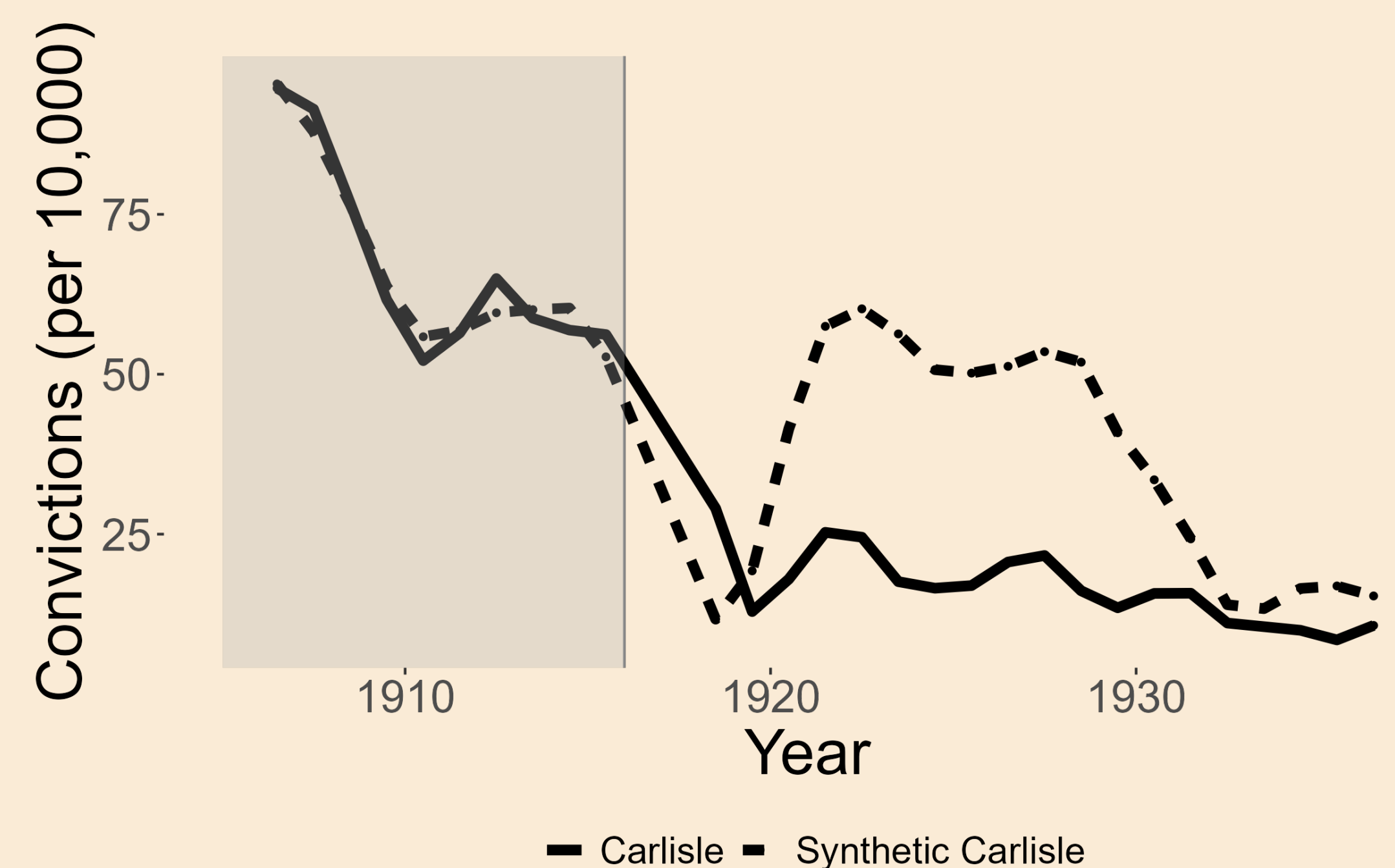


Figure 5. Convictions for drunkenness while committing minor crimes, 1905–1937

- Reduced incidence of crimes and drunkenness (-63%)

6. Contributions

- First quantitative estimate of the SMS's efficacy
- Historic parallel for regulation of harmful goods
- Government monopolies can reduce alcohol-related crime

References

- [1] Institute of Alcohol Studies (IAS). The Costs of Alcohol to Society, 2024.
- [2] Abadie et al. Synthetic control methods for comparative case studies: Estimating the effect of california's tobacco control program. *Journal of the American Statistical Association*, 105(490):493–505, 2010.
- [3] Home Office. Licensing Statistics, 1905. Command Paper Cm. 2961, Home Office, London, 1905.
- [4] Registrar General. Census of England and Wales, 1911: General Report with Appendices. Command Paper Cd. 8491, General Register Office, London, 1917.
- [5] HM Inspector of Constabulary. Police Report, England and Wales. Command Paper Cm., Home Office, London, 1912.