SERIAL REFERENDUMS ON ALCOHOL PROHIBITION:

A NEW ZEALAND INVENTION



Benoit Dostie and Ruth Dupré

Respectively Professor and Honorary Professor Department of Applied Economics HEC Montreal 3000 Côte Sainte-Catherine Montreal, Quebec Canada H3T 2A7

Corresponding author: ruth.dupre@hec.ca

Preliminary Version

To be presented at the ISNIE 2014 Conference,

June 19-21, 2014, Duke University

JEL codes: N47; D72; L51; K42; N37

Keywords: Prohibition, referendums, New Zealand

Sources for the two cover images : «The Shades, 1905» : National Library of New Zealand, images. And «Eph-D-ALCOHOL-Continuance-1920s», *Alexander Turnbull Library Pictures* In <u>http://timeframes.natlib.govt.nz</u>.

Abstract

The 1920s American prohibition of alcohol is notorious. Much less well known is that the prohibition movement was international and that many countries, in which substantial drinking and strong temperance coexisted, went through vigorous struggles over the issue of alcohol prohibition. This paper investigates the case of New Zealand where prohibitionists were not as successful as in the U.S. This is somewhat puzzling as the two countries –even if very far away- shared many socio-cultural features: both were immigrant societies with an Anglo-Saxon Protestant majority and a strong women's movement.

To explain this diverging path, we have to compare the strength and stakes of the supporters and opponents of prohibition. These strengths and stakes are clearly visible in prohibition referendums. Referendums are indeed very good indicators of a population sentiments and preferences. For economists, they might be the closest measure of demand for a public policy.

New Zealand is particularly interesting because there is no other country which set up national prohibition plebiscites at every general election for almost eight decades, from 1911 to 1987. In New Zealand whole history, 26 of the 38 referendums ever held concerned alcohol. No other moral issue was the subject of referendums. In the first referendum, prohibition obtained a majority at 56 % but not the required 60 %. Afterwards, the Drys never reached more than 49 % and after the 1920s, never more than 30 %.

This paper focuses on the first seven referendums from 1911 to 1928. Their districtlevel results present unique features such as number of votes by gender in 1911; the identification of the military votes in the two referendums of 1919; the option of prohibition with compensation in 1919; and since 1919, the addition of a state-control regime as a 3^{rd} option. These features make these referendums data a very rich and rather rare data set. We investigate how different referendum designs influenced voting patterns.

In a political economy model, the respective shares of Yes, No and Abstentions are assumed to be determined by a set of socio-cultural factors such as religious affiliation, degree of heterogeneity of the population, rate of urbanization, social class (education, income or wealth), women's participation and a set of economic interests like those of the distilling and brewing industries.

Census data are normally used to estimate the impact of these determinants. In the case of New Zealand, it is problematic as the Census data are highly disaggregated (more than 200 counties and boroughs) which makes it extremely difficult to match counties with the 68 electoral districts of the referendum votes. The Census data are also available at the provincial district level but there are only nine provinces, thus limiting the power of regression analysis. Nevertheless, it is still possible to verify and confirm important hypotheses of the historical and sociological literature on prohibition and temperance.

1. Introduction

«After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited».

Article XVIII, Section 1, Constitution of the United States.

The 18th Amendment propelled the United States into one of the most curious, colourful and controversial episode of its history. In the land of individual freedom and minimalist government, this extreme form of government intervention into regulating people behavior has always been somewhat of a paradox. The 13-year US prohibition of alcohol (1920-1933) fascinated generations of historians and yielded a substantial literature from sociology and political science. Studies and books keep coming out ever since the 1920s. One of the most recent *Last Call* by Okrent 2010 even became a best-seller.

Very little of this work has been done in a comparative and international perspective (with a few exceptions such as Schrad 2010, Tyrell 1991 or Paulson 1973). Yet, the prohibition movement was international and many other countries went through a long lasting and vigorous struggle over the issue. Some had significant episodes of prohibition: Russia/USSR (1914-1925), Finland (1917-1932), and Norway (1916-1927). Others countries like New Zealand, Canada, Great Britain, Australia, and Sweden came close to adopting prohibition but finally settled for more moderate regimes.

To understand these international differences, we can compare the strength and stakes of the supporters and opponents of prohibition across nations. These strengths and stakes are clearly visible in prohibition referendums. In all aforementioned countries with the exception of Russia and Great Britain, governments held referendums. Since alcohol was a very divisive social and political issue, referendums may have played the role of a safety valve, reassuring governments that their actions would be supported by a majority of voters, somehow like polls today. Referendums are better indicators of a population sentiments and preferences than legislators' votes as they are direct singleissue processes compared to a political party or representative platform. For economists, they might be the closest measure of demand for a public policy.

Table 1

Country	Referendums to 1993	Alcohol Referendums	Alcohol Referendums as % of Total #
Switzerland	414	9	2
Australia	44	0	0
New Zealand	32	26	81
Italy	31	0	0
Ireland	18	0	0
Denmark	16	1	6
France	13	0	0
Norway	5	2	40
Sweden	5	1	20
Iceland	4	1	25
Canada	3	1	33
Finland	1	1	100
Austria	1	0	0
Belgium	1	0	0
United Kingdom	1	0	0

National Referendums in 15 Democracies to 1993

Source: Butler and Ranney (1994) in Christoffel (2006:62)

A glance at Table 1 is enough to understand why New Zealand is a particularly interesting case. This relatively small country represented more than 60 % (26 of 42) of the total number of national referendums on alcohol. No other country set up systematic national prohibition referendums at every general election for almost eight decades from 1911 to 1987. And this was not because referendums were popular tools like in California or in Switzerland. On the contrary, in a parliamentary system such as New Zealand, referendums are atypical as they run against the fundamental principle of a

British-type representative government.¹ In New Zealand whole history, there were 38 referendums and 26 of them concerned alcohol: the 24 triennial polls on prohibition and the two special ones (in 1949 and 1967) on the extension of bars' closing time from 6 to 10 pm.² The link between parliamentary elections and liquor referendums turned out to be one of the more unusual features of New Zealand politics (Atkinson 2003:101).

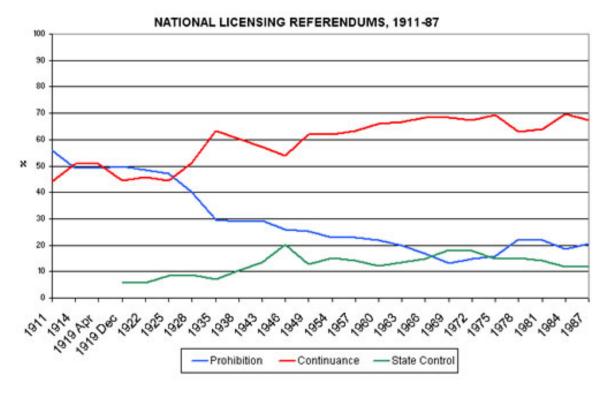
New Zealanders were asked different questions from 1911 to 1919, and then, the same question for 70 years. In 1911 and 1914, they had to choose between Continuance and Prohibition both at the national and local levels. After 1914, only the dry districts had to vote on «local option», that is whether they wish to stay dry or not. In the special referendum of April 1919, «with compensation» was added to the option of Prohibition. Then, in the regular referendum of December 1919, a 3rd option was added: State Control and Purchase. For the next seven decades, the question stayed the same: continuance; prohibition (no compensation); state control and purchase (with compensation). As Prince (1996:54) wrote: «No other democracy of this century had such an experience with reiterated questioning via regular, albeit increasingly meaningless, referendums, held for an increasingly indifferent citizenry.»

Figure 1 shows the evolution over the eight decades of the shares of the vote for the three options: prohibition; continuance (that is, the existing private system under licensing); and from 1919, state control. Only in the very first 1911 referendum did prohibition reached a majority of the vote (56 %) but since the threshold was then 60 %, prohibition was not implemented. The threshold was reduced to a 50 % majority in 1919 but prohibition was tantalizingly close with 49 % of the vote. In the 1920s, the Dry vote remained in the 40 % and after that decade, declined to 30 % or less.

¹ A principle nicely phrased by the famous British politician, Edmond Burke in 1774 : «Your representative owes you, not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion.» Quoted in Roberts (2012:1)

 $^{^2}$ The figure of 32 in table 1 concerns the period to 1993; the total of 38 comes from Roberts (2012) and covers the period until 2011.

Fi	q	u	re	91
		-		



Source: <u>http://www.nzhistory.net.nz/media/photo/prohibition-vote-1911-87</u> Ministry for Culture and Heritage, updated 18 September 2009.

This paper is concerned uniquely with the first seven referendums from 1911 to 1928. These two decades witnessed the zenith of the prohibition movement in New Zealand as in the rest of the world. The abolition of prohibition in the U.S. in 1933 was the fatal blow to the prohibition as a social experiment.

Their district-level results present unique features such as number of votes by gender in 1911; parallel voting on local and national prohibition in 1911 and 1914; the identification of the military votes in the two referendums of 1919; the option of prohibition with compensation in 1919; and since 1919, the addition of a 3rd option: a state-control regime. All these features make those referendums a very rich and rather rare data set.

The paper is organized as follows. Section 2 outlines the story of the prohibition issue in the 19th century setting New Zealand in a comparative perspective, more specifically with

North America. Section 3 pursues the story up to the end of the 1920s, focusing on that New Zealand unique feature of triennial national polls on prohibition. The outcome of the seven referendums is discussed and the way the different referendum designs influenced the votes is explored. Section 4 specifies the political economy model. Section 5 explains the special challenges of the data and Section 6 discusses the estimation results. Section 7 concludes.

2. The 19th century Historical Background: From Temperance to Prohibition

There seems to be a consensus that for much of its history, alcohol has constituted a morally and socially suspect commodity in New Zealand.³ The fight to ban it was the strongest moral crusade in the country history (Prince 1996:49). However, by the 1950s, Bollinger (1959; 1967:6-7) could write that «the triennial polls after the 1920s became an expensive farce... and New Zealand the laughing-stock of the world». And thirty years later in 1989, the Minister of Justice could declare that: «For more than a century the sale of liquor has been a very vexed question in Parliament. While the emotion that was attendant upon that subject in years gone by is somewhat less than it used to be, the subject nevertheless still excites the passions, and therefore has to be approached with care». ⁴

In the beginning in the 1840s, the New Zealand liquor legislation was -unsurprisingly for a British colony- inspired by England licensing system. Under the first Licensing Act in 1842, a licence was required for anyone wishing to sell liquor, like in Britain. In order to obtain such a licence, the publican (pub's owner) had to respect some minimal standards of moral character. The licence was renewed every year if those standards were still met. Right from the start, Maoris were treated separately, being forbidden to sell alcohol in Maori territories.

³ See Macdonald in Blocker and Tyrrell Encyclopedia (2003:453). Most New Zealand historians of the Prohibition movement: Bollinger (1959;1967); Grigg (1977); Eldred-Grigg (1984); Christoffel (2006) have been highly critical of their country's alcohol policies.

⁴ Geoffrey Palmer, Minister of Justice, May 4 1989 quoted in Prince (1996:48).

In the three decades that followed, there were amendments to this basic legislation but the breakthrough change happened in the Licensing Act of 1881, the first comprehensive regulation of the liquor trade. Intended as a political compromise, in fact it set the stage for New Zealand alcohol policy for almost a century: strict limits on the number of licenses; restriction of selling hours, places and conditions (Macdonald 2003:454). The 1881 Licensing Act gave power to the taxpayers of each electoral district to elect its own licensing committee. Those elected committees replaced the licensing courts for the control of who and how many got licenses to sell liquor. Rapidly, the election of these committees became the object of intense fighting (political, judicial and even physical) between the temperance movement and the alcohol industry.

In 1893, Liberal Prime Minister Seddon introduced the system of triennial licensing polls offering three options: (1) Continuance, (2) Reduction of 25 % of the number of existing licenses; or (3) Abolition, called «No-License». The system was very complex: it required a minimum turnout of 50 % for an option chosen to be valid; the No-License required a 60% majority while the two other options required 50 %; the number of licenses could not be increased except if the population increased by 25 %, subject to a minimum vote of 60 %. Perhaps the most peculiar feature –from 1896 to 1908- was that electors could vote for one or two of the three options. Two years later, an important feature was added: the triennial licensing poll was to take place at the same time than the general election.

As Eldred-Grigg (1984:188) pointed out, alcohol laws became bewilderingly prolix: 44 new statutes dealing with alcohol from 1880 to 1914. Table 2 lists the most important pieces of legislation. To sum up, we can say that the New Zealand legislation went from licensing to restricting the number of licenses in a given district (possibly to zero) and this, first decided by courts and then by elected committees. From the 1890s, licensing polls were systematically held, first for local bans and from 1910 for national scale prohibition.

Table 2

A Chronology of New Zealand Alcohol Legislation 1842-1918

1842	The first Licensing Ordinance: anyone wishing to sell liquor needed a license (with minimum standards of moral character); renewable annually.
1847	Sale of Spirits to Natives Ordinance: forbidding sale of liquor to Maoris.
1851	Licensing Amendment: allowing the reduction of the number of licenses at the discretion of a magistrate.
1873	Establishment of licensing districts; courts specialized in licensing; set of standards (no dancing girls, no improper conduct).
1881	Licensing Act Amendment: power transferred from courts to committees, elected by taxpayers.
1893	Alcoholic Liquor Sale Control Bill: triennial licensing polls in all districts with 3 options and many requirements.
1895	Triennial licensing polls taken at the same time than general elections.
1910	Law to set up triennial national referendum at every general election.
1918	Licensing Amendment Act: alter the options by adding a third one: state control; reduce the threshold from 60 % to simple majority of 50 %; rule out compensation payment. The 6 o'clock closing war measure made permanent.

Sources: Bollinger (1959;1967); Prince (1996); NZHistory.net.nz; New Zealand Yearbooks, various years.

This regulatory regime came about as a response of the state to temperance lobbyists. New Zealand belonged to that international movement, especially vigorous in the Anglo-Saxon world, to increase restrictions on alcohol during the late 19th and early 20th centuries. As in the U.S. and Canada, the story of the New Zealand temperance movement's struggle to suppress liquor trade went through three phases: individual abstinence pledges in the 1840s-60s; local option bans in the 1880s-90s; and finally, the drive to national level prohibition from the 1910s to the 1930s.

As long as the temperance movement advocated moderate actions in the first two phases, New Zealand -like Canada or Australia- followed a road very similar to the US. It

is only when the lobby shifted to more extreme policies such as large-scale prohibition that the countries began to diverge. Within the Anglo-saxon world, the Prohibitionists were victorious only in the U.S.. By 1911, 49 % of the American population was living in dry areas (Hayler 1913:275-294). In the 1910s, the movement intensified as 24 states turned to statewide prohibition to reach a total of 33 before the big victory of the 18th Amendment establishing national prohibition (Hersch and Netter 1989:58).

Meanwhile, the New Zealand proportion of the population living in dry districts never reached more than 16 %. Although the country came tantalizingly close to national prohibition, it never happened. After World War I, the road split into three branches: the U.S. went for total national prohibition, Canada -after some provincial experiments with sale bans- chose state ownership and New Zealand and Australia continued with their British-style licensing and regulating systems.

Taking the Pledge: The Beginnings of the Temperance Movement, 1840s-1860s.

In colonial New Zealand as in other frontier societies, heavy drinking was commonplace. In the first half of the 19th century, New Zealand society was mostly made of young single males, inclined to binge drinking after the physical exertions of gold digging and clearing the bush. In such a social setting, levels of drunkenness were high and social order was not easily maintained.⁵ Alcohol consumption, particularly in the form of spirits, outdid any other period in New Zealand history. According to the figures in the Royal Commission on the sale of liquor (1974:21-2), one in every eight Aucklanders was convicted for drunkenness in 1847.⁶ It was commonly observed that the main causes of death were «drinking, drowning, and drowning while drunk» (Atkinson 2003:101).

⁵ See Macdonald (2003:454); Christoffel (2006:15,24); Prince (1996:49). Eldred-Grigg (1984:..) reported that in the 1840s, there were 2 000 Pakehas (White settlers) vs 90 000 Maoris and that the ratio male/female of the Pakehas was 3 for 1.

⁶ Quoted in Prince 1996:49. The rate of convictions for drunkenness far surpassed that of England. It is to note that this situation changed over the second half of the 19th century with the transformation of New Zealand economy and society from a frontier society based on extractive industries to a settled down society based on agriculture and manufacturing. By the 1890s, New Zealanders were relatively moderate drinkers, consuming a third as much beer per head as their British counterparts (Christoffel 2006:15).

The temperance movement arose out of concerns that this behaviour was evil for the individual and disruptive for society. At both levels, the movement was focused on salvation. They were led by Protestant, especially the Methodist and Presbyterian denominations. The first temperance society, the Order of Rechabites (founded in England in 1835), was established in New Zealand in 1843. In the 1860s and 1870s, other temperance organizations like the Band of Hope (centered on young people), the Order of Good Templars, the Sons and Daughters of Temperance, were set up in New Zealand some ten to twenty years after their foundation in England or North America. They required their members to sign abstinence pledges. Those individual pledges were very popular but were not satisfactory for the social reformers who wished to eliminate alcohol entirely. They turned to the government and lobbied for the imposition of restrictions and even bans, first at the local level.

Campaigning for Local Liquor Bans, 1880s-1890s

In the 1880s, the temperance movement gained momentum with the establishment of branches of the (first American and by then International) Women's Christian Temperance Union (WCTU)⁷ and of the New Zealand Alliance for Total Suppression of the Liquor Trade (NZA), gathering together the numerous temperance organizations.

In the following decade, in 1893, New Zealand became the first country in the world to give the vote to women. According to the historical and sociological literature of New Zealand as well as of the U.S., there was a close relationship between the temperance issue and women's suffrage. It was believed and hoped that women, as guardians of the family and social order, would be more likely to vote *Dry*.

Two years later in 1895, Parliament ruled that licensing polls were to take place at the same time as general elections. This invigorated the temperance movement which was increasingly turning into a prohibitionist movement. As Bollinger (1967:38) argues, from this point on, Prohibitionists became a real political force and liquor a political issue dwarfing almost all others, including the parliamentary elections themselves. Both sides,

⁷ What Tyrell (2010) called the cultural Americanization of the world with the U.S. exporting moral reformers such as the WCTU, the YMCA and YWCA and missionaries to save the world.

the Prohibitionists under the New Zealand Alliance and the liquor trade under the National Council of New Zealand, spent large amounts of resources in campaigning, advertising, demonstrations, speeches, and the like.

What was happening in New Zealand is quite similar to what was happening in the U.S. with the creation of the Prohibition Party in 1869, the notorious women's temperance crusades of 1873-4 in which thousands of women kneeled, sang and prayed in front of saloons, the formation of the WCTU in 1874 and the establishment of the Anti-Saloon League in 1895. Thus, even if the ultimate goal of the temperance organizations in all those countries was nationwide prohibition, the main policy they fought for and obtained in that second wave were *local option* bills banning sales of alcoholic beverages in a given district following a poll taken at given intervals. They were widespread in the Anglo-Saxon world.⁸

In New Zealand, the no-licence vote at the *local option* polls reached a majority nationally in 1905 and 1908 (Grigg 1983: 164). However, this did not translate into a large number of dry districts as the three-fifths majority was attained in only 12 of the 68 districts.⁹ Table 3 and Figure 2 provide a portrait of these 12 districts. They did not constitute a homogenous group: three of them were urban; five of them rural and the other four, mixed, that is about half of the population urban. Geographically, the earliest to go dry were all situated in the South Island, more specifically in the Scottish Otago region. From 1905, there was a northward movement: the last five were located in the North Island. Globally, there was never more than 16 % of New Zealand population living in a dry district.

⁸ In the U.S., almost all states had local option laws (we found only two states without such local option laws by 1912: New Jersey and Nevada).

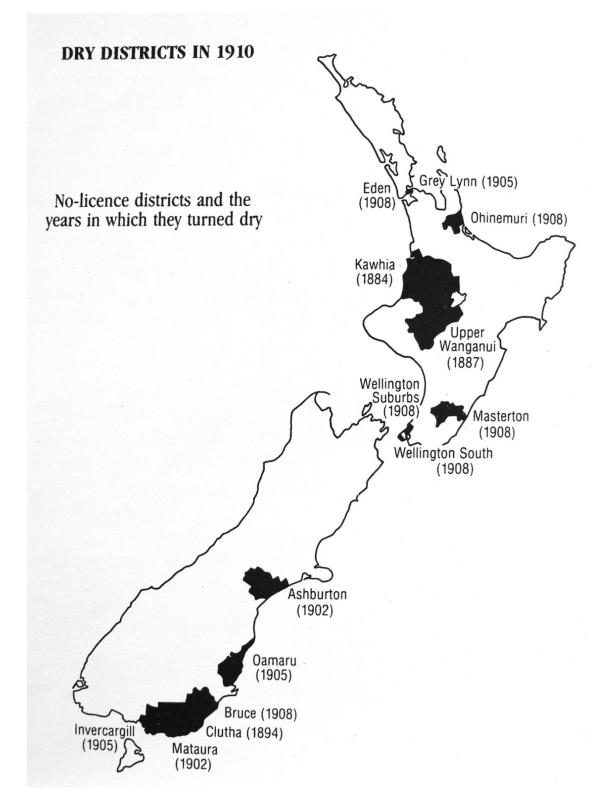
⁹ This three-fifths majority was crucial: if the rule has been a simple majority, the number of districts would have been 50. See Newman (1975:54).

Year of adoption	Licensing District	No-Licence Vote as % of valid votes	Turnout (valid votes as % of registered votes)	% Urban Population	South or North Island
1894	Clutha	66.3	60.2	0	S
1902	Mataura	60.9	79.7	26	S
1902	Ashburton	62.1	74.7	22	S
1905	Invercargill	60.1	87.6	56	S
1905	Oamaru	63.0	84.7	48	S
1905	Grey Lynn	63.3	78.5	36	Ν
1908	Bruce	61.0	81.7	0	S
1908	Wellington South	63.5	76.8	100	N
1908	Wellington Suburbs	63.0	79.7	94	Ν
1908	Masterton	60.7	76.9	42	Ν
1908	Ohinemuri	61.8	78.0	48	Ν
1908	Eden	63.1	78.6	74	Ν

Table 3A Portrait of the 12 Dry Districts in New Zealand

Sources: «The no-licence era –NZ temperance movement» Ministry for Culture and Heritage, updated 18-Nov-2009 URL: <u>http://www.NZHistory.net.nz/politics/temperance-movement/</u>; McRobie (1989) for % urban population.

Figure 2



Source: Eldred-Grigg (1984: 218). Note: Compared to Table 3, this map shows two other dry districts: Kawhia (1884) and Upper Wanganui (1887); they were Maori districts, not included in the discussion because there were not subject to polling.

Fighting for Nationwide Prohibition, early 20th century

In the first decade of the 20th century, the New Zealand temperance movement shifted its political action from local to national level, trying to push prohibition through nationwide referendums. This was also happening in the U.S. at the state level where more than 60 referendums in 37 states were held between 1880 and 1918 and to a lesser extent in Canada with its national referendum of 1898 and a dozen provincial referendums. Everywhere, direct democracy was an important tool for the temperance movement.¹⁰ Since alcohol was a very divisive social and political issue, referendums may have played the role of a safety valve reassuring governments that their actions would be supported by a majority of voters, somehow like polls today.

In New Zealand, it was certainly the case. In 1910, the *New Zealand Alliance* finally obtained from the government a law allowing national ¹¹prohibition plebiscites at every general election but not with a simple majority. The threshold was set up at 60 %, a «vexatious handicap» for the *Alliance*. To use Prince (1996:50) terms, the Liberal government showed «great strategic cunning» by responding positively to the prohibitionists demand for referendums while making sure that they would be quite difficult to win. On the liquor issue, the Liberal government (in power from 1891 to 1912) strategy seems to have been that a concession given to one side was balanced by a move to assist the other.

Next section carries on the story, with a closer look at the first seven of these national referendums on liquor in the crucial decades of the 1910s and 1920s.

¹⁰ That was not the case in Australia however. It will be only in the late 1920s that the Australian temperance movement would finally be able to get some state referendums on total prohibition: Western Australia in 1925, New South Wales in 1928, Victoria in 1930. All were sharply defeated.

¹¹ An important difference with the prior local bans (on liquor sale only) was that the national prohibition would have banned production and importation as well as sale.

3. A referendum on alcohol every three years : a New Zealand institution

New Zealanders were asked different questions from 1911 to 1919, and then, the same question for 21 next referendums in the following 70 years. In 1911 and 1914, they had to choose between Continuance and Prohibition both at the national and local levels.¹² In the special referendum of April 1919, the Prohibition option was modified to be «with compensation». Then, in the regular referendum of December 1919, a 3rd option was added: State Control and Purchase. The questions remained the same hereafter: continuance; prohibition (without compensation); state control and purchase (with compensation).

New Zealand presents a really unique case with this astonishing number of 24 government-initiated and binding referendums on whether or not to prohibit the manufacture, importation and sale of alcohol. Until the 1990s, only three other issues were subject to a national referendum in New Zealand: conscription, racehorse betting, and the extension of the parliamentary term. (Christoffel 2006:61)

Why did the government adopt this strategy of systematic triennial polls? There is a consensus among New Zealand political scientists and historians that the main reason was to keep the very sensitive issue of alcohol out of party politics.¹³ There were sharp divisions within the Liberal Party, the first New Zealand political party in power from 1891 to 1912. Prime Ministers Richard Seddon in the 1890s and later on, Sir Joseph Ward in the 1900s had the same objective of trying to remove the question from the arena of parliamentary politics. The way they did this was to put liquor issues to the vote of *«the people»*.

This desire to preserve party unity explains also in part why the triennial polls lasted so long, becoming a kind of national institution. This extreme case of political inertia was likewise due to the fact that the systematic polls were a regular reminder of the strength

¹² After 1914, only the dry districts had to vote on «local option», that is whether they wished to stay dry or not.

¹³ See for instance Christoffel (2006:238) and Prince (1996:50-5).

of the prohibitionist movement to politicians afraid to displease them. Hence, as late as 1983, one could read in a Justice Department memo to its minister that «the referendum is retained only because governments prefer to let sleeping dogs lie and avoid the violent protest that the anti-liquor force would certainly mount in the short term».¹⁴

Women voted in all those referendums. In the 1911 referendum –and in all general elections until 1954-, the number of registered electors and recorded votes were reported by gender.¹⁵ It is not obvious why men and women's voting rates should have been recorded since it was not the case in most other countries. New Zealand having been the first country in the world to give women the right to vote in 1893, its government may have wished to know if they used it. Whatever the reasons, New Zealand data provide a good opportunity to investigate women's participation in the first national poll on prohibition. And this is important as women are assumed to be crucial actors of the *Dry* camp. Moreover, military overseas or on returning ships voted separately in the two immediate post-war referendums of 1919. As we will see below, in the first poll of April 1919, their 40 000 ballots had a dramatic *wet* effect on the outcome, shifting it from Prohibition to Continuance. Finally, Maoris did not vote as they were not allowed to vote on liquor licensing before 1949 (Roberts 2012).

Table 4 presents the summary statistics of the Dry, the Wet and the State votes and the Abstentions for the first seven referendums. The first thing to note is the turnout rate. At 80 % or more, it was very high and quite unusual for that type of referendums. For instance, the Canadian 1898 referendum on prohibition had a turnout rate of 45% and according to Butler and Ranney (1978:16-17) referendums typically have much lower turnout rates than general elections.¹⁶ One might thus think that it was precisely the

¹⁴ Cited in Stace (1988:193). We find the same argument in Christoffel (2006 and 2008:169-170) and in Bollinger (1959).

¹⁵ In Moore (2004:46-47); in her thorough research for her thesis, she did not find anything on the rationale behind this statistical reporting.

¹⁶ In Dostie and Dupré (2012:503) and there are many other examples: Smith (2001:702) reported a mean turn out of 48% (with a standard deviation of 10%) for 648 state referendums over the period 1972-1996. Filer and Kenny (1980:580) reported 39 % for the referendums in

reason why the referendums were set up the same day of general elections. It was indeed the case that before 1895, the turnout for the local prohibition polls was very low: a mere 16 % in 1890 and 33 % in 1894, and still far from the 50 % threshold required (Christoffel 2006:68). However, Prince (1996:62) and others argue that it was the other way around. That is, the liquor poll in the 1910s aroused more interest than the electoral campaign, more money, more advertising, more action from the two camps: temperance groups and the liquor trade. Turnout remained high until the end in 1987 even though the issue had lost most of its salience and the liquor polls became anachronistic.

New York City and 51% in its suburbs between 1949-76, and Dinan and Heckelman (2005) showed 50% for the 1930 Oregon anticigarette referendum.

		Table 4:	Summary statis	tics			
Proportion of dry votes	1911	1914	1919 (avr.)	1919 (dec.)	1922	1925	1928
Mean	56.1	49.2	51.7	50.0	48.5	46.9	40.0
Standard Deviation	4.7	5.1	6.7	6.0	5.6	5.4	5.4
Minimum	46.9	39.4	31.9	31.7	33.2	32.8	23.9
Maximum	70.7	63.4	72.3	67.4	65.2	60.6	51.3
Proportion of wet votes	1911	1914	1919 (avr.)	1919 (dec.)	1922	1925	1928
Mean	43.8	50.8	49.1	44.1	46.2	45.0	51.4
Standard Deviation	4.7	5.2	7.2	5.2	6.2	5.4	5.4
Minimum	29.3	36.6	35.1	28.5	29.0	31.3	41.2
Maximum	53.1	60.6	79.4	59.7	60.9	57.9	66.4
Proportion of state option votes	1911	1914	1919 (avr.)	1919 (dec.)	1922	1925	1928
Mean				5.9	5.3	8.1	8.6
Standard Deviation				2.0	2.2	1.8	2.4
Minimum				2.5	1.6	4.1	4.3
Maximum				13.3	10.4	12.6	16.3
Proportion of abstention	1911	1914	1919 (avr.)	1919 (dec.)	1922	1925	1928
Mean	20.8	18.0	23.7	20.6	11.7	10.3	13.1
Standard Deviation	3.8	2.9	5.7	4.1	2.7	1.8	3.0
Minimum	13.7	11.6	14.2	13.2	6.4	7.0	7.0
Maximum	32.6	34.1	47.1	31.3	20.5	20.2	21.9
Number of districts	68	68	68	68	68	68	76

The second thing to note is that Prohibitionists obtained a majority of the vote (56 %) for the first and the last time in 1911. Unfortunately for them, this majority did not produce a prohibition regime as the threshold of 60 % under the *local option* polls Act of 1893 was

retained for the national polls.¹⁷ After this result in 1911, the *Alliance* continued to put an enormous pressure on the government to reduce that 60% requirement to a simple majority. The government finally caved to that demand in 1919 but in all the other referendums, the dry vote never reached more than 49%. As the 1910s was the richest period in political experiments regarding prohibition polls, we take a closer look below at the first four referendums which took place in that decade and explore how the different designs influence the vote.

The Licensing Act Amendment of 1910 was the result of an intense and long lasting bargaining, often behind closed doors, between the Prohibitionist *Alliance*, the *Licensed Victuallers' Association* and the Liberal Prime Minister, Sir Joseph Ward, a shrewd politician.¹⁸ The local option poll system was used as a basis to build up the national poll design. First, the liquor trade proposed to substitute national prohibition for the least popular of the three local options, reduction of licenses. The choice would have been between continuance, local no-license, or national prohibition. The prohibitionists' counterproposal was to have two options only: continuance or local no-license, with national prohibition if a majority was reached by adding up the no-license votes in all districts. But the more radical within the Drys wished nothing but total prohibition and were in favor of eliminating the local option. The final result was a compromise: two separate ballots: no-license (banning sales in a given district) and national prohibition (of sale, manufacture, importation) and a threshold set at 60 %. Like Newman (1975:58) nicely put it, «now only the three-fifths majority stood between the brewers and extinction».

Results of the 1911 referendum were astounding: 55,8 % in favor of national prohibition. Without the 60 % threshold, New Zealand would have become the first prohibitionist

¹⁷ As Newman (1975:54) explains, the rationale behind the 60 % was that «a high vote was needed to override a deeply-engrained social habit and to prevent a district from swinging back and forth between no-license and restoration».

¹⁸ Newman (1975:55), following contemporary commentators, described Ward as a «suave, intricate, confusing with his subtlety, a politician who relished manoeuvre for its own sake.» The political saga behind the agreement on the 1910 Act is thoroughly narrated in Newman (1975:54-57).

nation in the world, eight years before the U.S. and three before Russia. As can be seen in figure 3, national prohibition got even more support than local no-license and this, in the two referendums of 1911 and 1914 where people could vote on separate ballots for local and national prohibition. At first sight, this is surprising as it would seem to be easier to live in a dry district knowing that there are wet districts around.¹⁹ And in a country as geographically isolated as New Zealand, national prohibition would have really meant Dry as it would have been much less difficult to enforce than in a country such as the U.S. sharing enormous borders with Wet neighbors like Canada and Mexico.

One potential explanation is that the Dry voters were not satisfied with half measures and wanted all or nothing. (Christoffel 2008:158; Prince 1996:52) For Newman (1975:60), this was an entirely logical development, given the Alliance's propaganda against alcohol *per se*, the serious problems of enforcement in and around the dry districts and the steady growth of the no-licensing votes in the previous polls, particularly in the 1900s.

¹⁹ Bollinger for instance (1967:43) wrote that it was natural that voters who were quite willing to see bars closed in the neighborhood of their own homes would not be nearly so delighted at the prospect of National Prohibition.

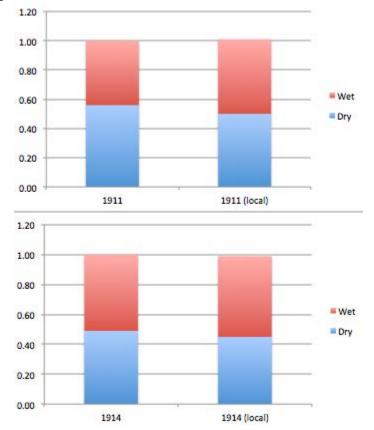


Figure 3 Prohibitionist: National vs Local in 1911 and 1914

The second national referendum of December 1914 took place a few months after the outbreak of First World War. The vote for nationwide prohibition dropped a few points from 55,8 to 49 % and remained slightly higher than the cumulative vote for local nolicensing. The 1917 licensing poll and general election were suspended during the war. In New Zealand as well as in the U.S., Canada or Europe, the war encouraged the prohibition cause as temperance became a patriotic behavior, saving resources and increasing efficiency. New Zealand prohibitionists and even the business community pushed for liquor sales ban as a war measure in the interests of «national efficiency». (Christoffel 2008:157). The government instead chose the 6 o'clock closing of bars. In 1918, the measure was made permanent and remained in effect until 1967.

At the end of the war, the liquor issue returned to the forefront with the adoption in 1918 of the Licensing Amendment Act. The 1918 Act brought several major changes to the

1910 Act regarding the national liquor polls.²⁰ Here again, like its predecessors in 1893 and in 1910, the government's strategy seems to have been that a concession given to one side was balanced by a move to assist the other. For the Drys, the most important concession was the lowering of the majority requirement from 60 % to 50 %, a big political victory removing what they had for decades regarded as their most substantial obstacle.

In the other camp, the Wets could find four features of interest for them, especially the special provision for taking the votes of the Expeditionary Force soldiers, abroad or on returning troopships and the addition of the clause of «compensation to all those engaged in the industry» in the event of prohibition being voted in the special poll of April 1919 (held outside General Election). The abolition of the nationwide ballot on local nolicense -except for the 12 dry districts- reduced risk for the liquor trade. Finally, the addition of a third proposal, State purchase and control, to be submitted to the electors at all regular polls from December 1919 could have played in their favor.

The special liquor poll of April 1919, like the first national poll of 1911, had a quite dramatic outcome. The Dry vote had obtained a majority 51,5 % -sufficient to impose prohibition under the new rule of simple majority- until the military ballots came in. Their 40 0000 votes, 80 % of which were –unsurprisingly- against prohibition, tipped the balance to a Dry majority of 49 %, barely 2 000 votes short of victory. Those were extremely frustrating results for the prohibitionists but they became almost mythical in New Zealand historiography. In his classic general history (continuously re-edited since 1959), Sinclair (2000:246) stated that: «Only the votes of the Servicemen overseas/../saved the New Zealanders from that unlawful thirst which tantalized the Americans in the twenties».²¹

²⁰ In New Zealand Official Yearbook (1919:299)

²¹ One can read in Christoffel (2008:154) that since Sinclair first wrote this in 1959, this has been repeated by many historians. This is the objective of his article to challenge that conventional wisdom, hence its title «Prohibition and the Myth of 1919». For Christoffel, the prohibition movement and issue in New Zealand did not fade away after 1919 but remained vigorous throughout the 1920s.

In that April 1919 poll, for the first and only time, the choice was between prohibition with compensation or continuance. This idea of a compensation to be paid to the liquor industry in the event of its extinction had been recommended in 1917 by the National Efficiency Board, a wartime committee of five businessmen, three of whom were prohibitionists. Christoffel (2008:156; 2006:17). This compensation has been estimated at £4.5 million (Prince (1996:56).

This unique feature gives an opportunity to explore the influence of the compensation on voting. We compare below the outcome of the option «prohibition with compensation» with the closest referendum proposing «prohibition without compensation» in 1914.²² Figure 4 shows that compensation does seem to raise the Dry vote (dramatically making it bury the Continuance vote). However, Figure 5 shows that the shares of both the Dry and Wet votes fell when taking into account abstention. One interpretation is that a fraction of voters did not understand what compensation meant and did not bother to vote.

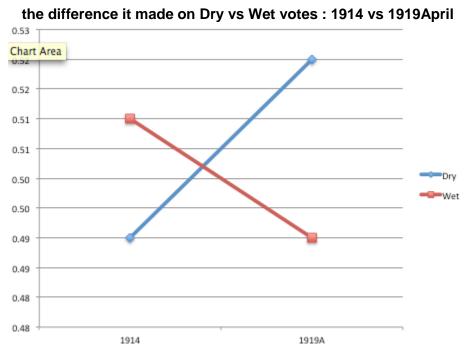


Figure 4 With or Without compensation :

²² The closest is December 1919 but the question was different: there were the 3 options.

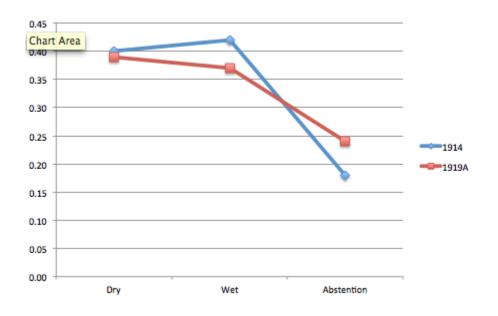


Figure 5 : With or Without compensation : The difference it made on vote options and abstentions: 1914 vs 1919April

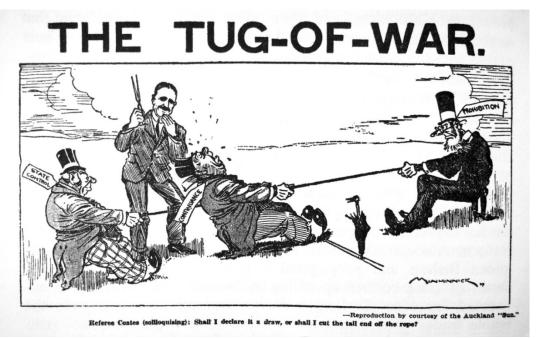
Eight months later, in December 1919, a second poll was held in conjunction with the general election. Compensation in the event of prohibition had been abolished and a third option: State purchase and control (with compensation) added. Once again, Prohibition obtained a score of 49,7 %, extremely close to a majority. The State option obtained a meagre 6 %. This time, the military vote had no impact at all because there were less than 2 000 of them (on half a million valid votes).²³

The government decision to add the option of state control is somewhat intriguing as there was apparently no significant movement in New Zealand pressing for this solution. According to Prince (1996:53-54), this was another strategic choice by the government favoring the status quo against the prohibitionists. He compares this to the introduction of a minor party between two major ones, preventing either from gaining a majority. It is important to note that as opposed to prohibition, state purchase was intended to be with

²³ When the military votes were counted in, the Dry majority only lost 0,1 percentage point from 49,8 % to 49,7 %. Actually, in the December 1919 poll, the real difference between military and civil voters concerned the third option of State control: 33 % of soldiers chose it compared to a little less than 6 % of the civils.

compensation in the case of nationalization of the liquor trade. In the first referendum of December 1919, a provision of £10 million was set up.²⁴

What is clear is that hard line Drys deeply disliked this solution because that meant that the government endorsed the liquor trade. They were outraged by the moral legitimization given to this evil product by a state sale system, somewhat like the actual debate over the legalization of drugs. The Wets seemed more ambivalent. On the one hand, the liquor trade was lukewarm to a state takeover of its business even if the option came with a compensation clause. On the other hand, the liquor lobby expected the state control option to capture votes from the moderate Drys, thereby splitting the vote for Prohibition, making it less likely to succeed. (Christoffel 2008:159). In both camps, those with socialist feelings in the newly created Labor Party might have found a voting outlet. (Prince 1996:56)



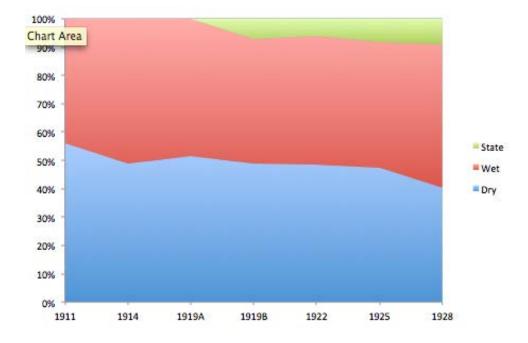
Cartoon of 1927 (Turnbull Library, reproduction by courtesy of the Auckland Sun) in Bollinger (1967:86). This cartoon illustrates the dilemma the government faced. As Bollinger wrote, the cartoon «comments on his failure to accede to prohibitionist pressure to remove the «State Control» alternative from the licensing ballot-paper—and also indicates the actual effect of

Control alternative from retaining it !»

²⁴ In 1974 the Royal Commission on alcohol sales (Coates Commission) estimated that the payment would be colossal, a conservative estimate at \$400 million. In Prince (1996:57).

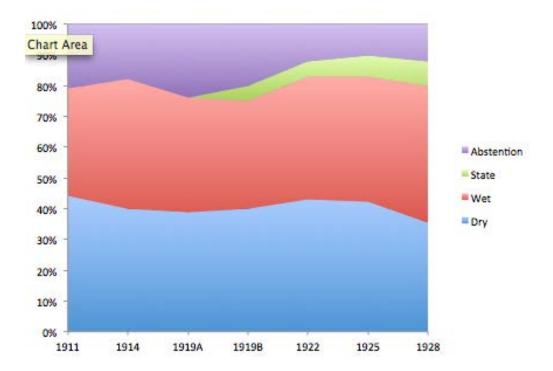
Figures 6 and 7 show that in the 1920s the addition of this 3rd option did not seem to significantly modify the shares of dry and wet votes but did increase participation (or decrease the share of abstentions in Figure 7). We might conjecture that the 3rd option attracted some citizens rather indifferent about the liquor issue who did not vote before. They might have found State control a kind of moderate solution corresponding to a common sense view of drinking.

Figure 6



Shares of the valid votes between the different options, 7 referendums

Figure 7 Shares of the registered electors: 3 options and abstentions, 7 referendums



The fact is that State control always remained a marginal choice as Figure 1 in the Introduction showed. The shares of votes for State control did not reach more than 8 % during the 1920s and stayed under 20 % afterwards. In spite of this marginality, historians of liquor policies such as Bollinger (1959;1967) and lately Christoffel (2008) claimed that the 3rd option played a major role in the 1920s in preventing prohibition to happen.²⁵

One thing is sure: prohibition did not disappear from the political battlefield after the two dramatic referendums of 1919. As figure 6 shows, in the 1922 and 1925 polls, Prohibitionists still attracted 48,6 % and 47,3 % of the votes, quite close to a majority. The American adoption of prohibition in 1919 provided in its earliest stage a boost to the prohibitionist movement around the world, making it a reality and no longer only a

²⁵ Bollinger (1967:86) stated that «there is little doubt that the existence of the third alternative saved the trade during the 1920s». More recently, Christoffel (2008:167) claimed the same: «thus it was not the troops in April 1919 who saved the country from prohibition; it was those who voted for state control in the 1920s».

theoretical concept. In the 1920s, the New Zealand Parliament rejected five legislative attempts to amend the triennial polls to make them less frequent or to raise the threshold back to 60 % in order to provide greater stability to the liquor industry. As Christoffel (2008:161) wrote, «the threat that prohibition would be imposed, with no compensation to the industry, remained a very real one».

It was only in the late 1920s that the Prohibition movement began its decline. In the referendum of 1928, the Dry vote sharply fell to 40 %. It was the beginning of the end as it never reached 30 % afterwards (see Figure 1 in Section 1). Ironically the American Prohibition experience by the late 1920s played in favor of the anti-prohibitionists around the world: to the evils of drink, one could oppose the evils of ban. But the end of the prohibitionists dream came with the Great Depression of the 1930s and of course, with the abolition of the prohibition in the U.S. in 1933.

4. THE POLITICAL ECONOMY OF PROHIBITION: THE DRYS VS THE WETS

The New Zealand unique series of referendums can be seen as an indication of the preferences of its population for different alcohol regimes, and especially for its most extreme form of control, prohibition. In order to explain the results of these referendums, we have to investigate who were the protagonists of the two camps: Dry and Wet and what were the factors behind their respective strength. From that discussion, we can infer what are the important explanatory variables to take into account in a model of the determination of the voting shares of the Drys, Wets, and Abstentions.

The Drys

What can determine the strength of the prohibitionist movement? A number of potential factors to explore can be drawn from the very substantial historical and sociological literature on American prohibition. Unsurprisingly, as the temperance and prohibition movements were international in scope, especially vigorous within the Anglo-Saxon world, we found that the New Zealand literature on alcohol control was very similar to the American one (the best examples being the two doctoral theses by Grigg 1978 and Christoffel 2006).

The first factor is religion. In New Zealand as well as in the U.S., the temperance movement was Protestant-based, especially of evangelical denominations. Presbyterians, Methodists, Baptists, and Congregationalists were the churches most involved in the New Zealand prohibitionist movement.²⁶ Putting aside the considerable controversy with respect to their sources of motivation, the consensus is that these religious groups were the spearhead of the temperance fight against drinking.²⁷ In New Zealand, the adherents of these four churches represented in the 1911 Census 35.6 % of the population, a smaller proportion than the 46 % in the U.S.²⁸

There is a consensus in the literature that religion played a crucial role in the political struggle over prohibition in New Zealand. The most recent study by Christoffel (2006:39, 40) is categorical: «an important reason for the success of Prohibitionism in New Zealand is its close association with religion, particularly pietist non-conformist churches.» «Reflecting its strongly religious basis, the anti-alcohol campaign was

²⁶ The same denominations than in North America. To these four, on should also add some more marginal groups such as the Church of Christ, the Salvation Army and the Seventh Day Adventists. See Grigg 1981:135. Strictly speaking, the only unanimously Prohibitionist enthusiasts were the Methodists and these marginal faiths. There was no unanimity within the Presbyterian Church but the great majority stood firmly behind prohibition as Cocker and Murray pointed out in their survey of churches and temperance in New Zealand (1930:16). As evidence to this phenomenon, we note that the first no-licence electorates and half of the total number (Clutha, Bruce, Mataura, Invercargill, Oamaru, later Otago) were all districts where the Presbyterian Church was predominant.

²⁷ The members of the American temperance movement have been perceived as people anxious to save souls or to save their middle-class status (following Gusfield (1963)). Some historians (Hofstadter (1955)) saw them as conservatives unable to confront modernity; others (Timberlake (1963) or Tyrrell (1991) as progressive fighting to transform modern society. The jury is still out. For New Zealand, the most influent work on that issue supports the Gusfield-Hofstadter thesis. For Grigg (1978; 1981:149, 154), the temperance movement was essentially based on a Puritan middle-class, fundamentally conservative. He argued that the social gospel in New Zealand never attempted to attack and change the capitalist social order, contrarily to the US.

²⁸ However, one has to be careful about the comparison. In New Zealand, this information is provided by the Census, thus it is self-reported and covers non-practising as well as practising individuals. In the U.S., the question is not asked in the Census but comes from churches about their membership. The 1906 Census of Religions provides denominations for 33 million people (from a total population of 72 million in 1900). Of these 33 millions, 46% were of Evangelical denominations.

pursued with evangelical fervor, with songs, poems,... deeply convinced that their cause was of God.» In an earlier study of the first national liquor poll in 1911, Newman (1975:59) argued the same: «a significant feature of the 1911 campaign was the lively participation of the churches. The support of the Salvation Army and Baptists could be taken for granted but the Methodists and Presbyterians threw themselves into the struggle with equal vigor.²⁹ The sample of the temperance leaders during the period 1894-1914 conducted by Grigg (1978:58) provides useful information to support this hypothesis. On a total of 403 leaders, he found that 238 of them (59%) were ministers of religion. Of this figure, only 7% were Anglicans or Roman Catholics. This data confirms the American findings about a clear opposition between two religious views of the world: ritualistic (or episcopalian) and evangelical (or pietistic).

According to specialists of religious history such as Vandermeer (1981:16-18), these two religious views of the world led to differing perspectives on the nature of the church, society and the proper role of the state. The Evangelicals sought to redeem the world and to bring the kingdom of God to earth. This is how they were to achieve salvation. In doing this, they were concerned with everybody, not only the members of their congregation. They thus needed government intervention to coerce everyone into getting rid of bad moral behavior (such as drinking, gambling or smoking).³⁰ By contrast, in ritualistic religions -exemplified by the Roman Catholic Church, the Church of England and Orthodox Judaism-, in order to achieve salvation individuals were expected to conform to the specific body of doctrines and sacraments of their religion as well as to its hierarchical structure. In this type of religion, it was the role of the Church (rather than the state) to regulate the behavior of its members –and not of outsiders- based on the belief that its views were unique and were the only correct ones.

²⁹ We can find similar statements in Cocker and Murray (1930), Grigg (1981), Eldred-Grigg (1984).

³⁰: This excerpt from Methodist L.M. Isitt, one of the most renowned New Zealander Prohibitionist, is eloquent: «traffic stands condemned as the most corrupting, destructive and Goddishonouring factor in our social system. It is one of the chief foes to the best interests of the Church, the home and the individual.» in Cocker and Murray (1930:15).

In New Zealand, the same contrast could be found between its four Evangelical/pietist denominations (Methodists, Presbyterians, Baptists Congregationalists) and its two Ritualistic/episcopal churches (Church of England and Roman Catholic). As Eldred-Grigg (1984:186) wrote: «While most episcopal clergymen appear to have agreed that «Prohibition is not Christian», pietist ministers were inclined to believe the opposite, arguing that nothing showed Christian faith more clearly than an active involvement in the war against drink.» ³¹ Grigg (1981:141) pointed out that this difference in outlook stemmed from fundamental differences in biblical interpretation and religious doctrine. The anti-prohibitionists argued that both the Old and the New Testaments supported the use of wine («a gift from God») in moderation but condemned its abuse. The prohibitionists responded that the New Testament forbade provision for carnal appetite. As Grigg (1981:142) concluded, this type of debate had no resolution but its effect was important in the fight over prohibition.

The second factor is women. In all the countries with a temperance movement, women were on the forefront of the movement. Intemperance was generally a male problem and more specifically a husband problem. Behind the fight for prohibition was an intense concern to protect home and family from the destructive influences –economic, physical or moral- of drink. Because women were the homemakers, childbearers and often moral guardians, they were assumed to have a special interest in prohibition. (Grigg 1983:144-145)³² It was believed and hoped that they would be more likely to vote Dry, in the triennial local option polls and later on, in the national polls on prohibition.

As Grimshaw (1987:21) stated, the temperance movement indeed played a vital role in the feminist development of New Zealand women. When women's suffrage came before the legislature in 1893, the temperance forces threw their weight behind it in the

³¹ That is, to sacrifice themselves for the sake of others. This was the argument used by the *Alliance* to convince the «non-abstainers» moderate drinkers to vote for prohibition. (Newman 1975:53)

³² Hence, Bollinger (1967:19) title of his chapter «The lady with a green umbrella» in which he argued that the temperance movement was essentially feminine, adding that «this lady was on the war path from the last century until, in the first quarter of the present century, she came very close to achieving the absolute prohibition of alcohol from New Zealand.»

expectation that women voters would support their cause. This was not only the case in New Zealand, the temperance cause has been linked to women's suffrage in many other countries.³³ However, New Zealand women did not seem to vote as dry as prohibitionists had hoped. As early as 1898, contemporary analysts such as William Reeves noticed that «They [women voters] clearly favour temperance reform, but are by no means unanimous for total prohibition. On the whole, the most marked feature of their use of the franchise is their tendency to agree with their menkind.»³⁴ This disappointed some: «it has been a surprise that the No-Licence movement has not commanded from New Zealand women a far wider and more vigorous support than it had done» and pleased others: «...women, whose block vote was relied upon as certain to be cast for Prohibition, proved wiser than their «spiritual guides» and loyal to their conjugalities as well as sensible».³⁵

Since then, three historical studies addressed the issue: Newman 1975, Grigg 1983 and Moore 2004. First, let's note that unfortunately, the actual figures for the number of male and female votes supporting prohibition do not exist. More precisely, they existed since the ballots were counted separately but the results by gender were not published. Thus, there is only indirect or suggestive available evidence, literary and quantitative. Three indicators have been used.

The first concerns their absence from the leadership of the movement. That women as a group were no more involved in the prohibition movement than were men is perhaps nowhere more starkly revealed for Grigg (1983:152) than in an examination of the leadership of the movement. He calculated that in a sample of 844 committee members

³³ See for instance Paulson (1973) comparison of six countries: U.S., England, Australia, New Zealand, Sweden and Norway; Grimshaw (1972;1987) for New Zealand; Bordin (1981) for the U.S. To note that in the U.S., of the 15 states which adopted universal suffrage prior to 1917, only two (California and New York) did not have state prohibition (Hersch and Netter, 1989:68).

³⁴ William Reeves was a reputed statesman and historian of Australasian social legislation (in the two volumes of *State Experiments*). The quote from *The Long White Cloud* 1898:379 is in Paulson 1973:129, note 16.

³⁵ Both citations are in Grigg (1983: 157 and 155). The first was published in the *Vanguard* (a Temperance periodical) November 7 1908 and the second as editorial of the newspaper *Evening News*, December 29 1896.

of local and national prohibitionist organizations (including the WCTU), only 144 (17 %) were women. Similarly out of 69 people listed as vice-presidents of the *New Zealand Alliance* (a lifelong appointment) in 1910, only three (4,3 %) were women. Eldred-Grigg 1984:187 reiterated: «large numbers of the rank and file members in the prohibition movement were women, and prohibition was undoubtedly the first major excursion by women into public life in New Zealand but leadership of the movement was dominated by men. The most powerful group of female prohibitionists were the members of the WCTU, but they had only one representative to sit on the executive of the *New Zealand Alliance*. From 1886 to 1915 a total of 127 people served as presidents or vice-presidents of the *Alliance*, only two of whom were women».

The second indicator concerns the WCTU (Women Christian Temperance Union), the only female organization fighting for temperance and other social welfare issues. Throughout the period from 1893 to 1915, the data from Grigg (1983:153) indicated that it represented a very small minority of less than 1 % of New Zealand adult women. Grigg (1983:152) explained this women's absence by the fact that they were restricted in their activities outside the home, while their education regarding public affairs was largely dependent on the opinions of their husband or father. For him, it would thus not be surprising that the female vote at the liquor poll would not differ much from the male vote.

The third indicator is based on the available data on voting patterns by gender. Newman (1975) argued that women did not 'disproportionately' support prohibition options in 1911, based on the fact that while the global turnout was in the 80 %, the female participation rate was slightly less (4 %) than the male one. Grigg (1983:160-164) went a little further by calculating correlation coefficients for the polls held in the period 1894-1914, first between the % of registered women and the % of voting women. Obtaining R-squared coefficients at 0,95 or more made him claimed that women did not participate in the polls «disproportionally». He also tested for correlation between the % of Dry votes and the % of women on total voters in electorate districts over 1894-914 and found close to zero correlation. Grigg then concluded that there was «nothing in the available figures that suggests any strong connection between the female vote and prohibition as against the male vote.»

More recently, Moore (2004) returned to that question of gender counts in general elections and in some liquor polls. Using more sophisticated statistical methods, she concluded that her overall results suggest that women were statistically significantly, but not substantially, more likely to support prohibition, and that men were significantly, but not substantially more likely to support continuance. (Moore 2004:242)

The third factor is rural-urban opposition. For a long time following Hofstadter (1955), the temperance movement was seen as rural grassroots America's ultimate attack on the big cities that were full of sin and foreigners. In New Zealand, it is true that the first no-licence districts were in rural South Island but after the turn of the century, some urban districts joined them in becoming dry. Newman (1975) who examined the 1911 Poll by dividing the districts in five categories: two rural (backcountry and settled farming); two urban (cities and suburbs) and one special (mining and logging) did not find clear evidence that the rural electorates were more prohibitionist. But he found that the poorer inner cities of Auckland and Wellington were more Wet and the suburbs and the well established farming areas more Dry.

In the U.S., the fact that rural areas were more supportive of prohibition may reflect in part the difference in the homogeneity of the population between rural and urban settings. American immigrants tended to be concentrated in large cities, making them much more heterogeneous. There is a consensus in the literature that the largely WASP [White-Anglo-Saxon-Protestant] middle-class prohibitionist movement was deeply suspicious and hostile towards the «Un-American low class, low race» new immigrants filling the large cities (Timberlake, 1963; Gusfield, 1963; Blocker 1976).

There is a crucial difference here between the U.S. and New Zealand. Although both were immigrant societies with respectively 15 and 30 % of their population being foreignborn at the turn of the century, the diversity of the immigrants' origins was much lower in New Zealand than in the U.S. According to the 1900 U.S. Census, the proportion of foreign-born inhabitants coming from Anglo-Saxon countries –defined as England, Scotland, Ireland and English-Canada- (which is to say less «alien» in terms of their cultural and linguistic backgrounds) was 34% of the total number of foreign-born people. Thus, 2/3 of the 10.5 million immigrants came from other countries. The equivalent group for New Zealand –defined as those born in England, Scotland, Ireland, Australia and the U.S.- represents 93 % of foreign-born inhabitants. This must be why many writers declared that New Zealand was until recently «more English than England».³⁶ As Fischer (2012:220;224) wrote, in New Zealand, the predominance of British stock was very large, more so than in Canada, Australia, the US and other English-speaking settler societies./.../Through many generations in New Zealand, major efforts were made to maintain the homogeneity of the immigrant population and the hegemony of British stock.» This is why we believe that the heterogeneity factor did not play a role in New Zealand.

Finally, in the U.S., the business support of the movement seems to have been a critical factor. Scientific management and large *Chandlerian* enterprises reinforced the case against drinking. John Rockefeller, Henry Ford and many others contributed money, speeches and interventions to the prohibitionist cause.³⁷ We found in Christoffel thesis (2006:17) evidence about some business involvement in the dry movement in New Zealand, where it was argued that prohibition could be linked to national efficiency concerns. Alcohol was depicted as wasteful, not only to the individual who consumed it but also to national resources, especially during wartime. Hence, the government created in 1917 the National Efficiency Board and its five members had a business background, three of whom were prohibitionists. Thus, some businessmen supported the cause of prohibition but most certainly not to the same extent than in the U.S.

However, what seems to be the case everywhere -in Africa and Europe as well as in America and Australasia- is that upper classes were trying to impose values and restrictions upon lower classes because they considered them to be unable to control themselves. In New Zealand less rigid class society, this statement has to be nuanced. It seems like the upper class was rather hostile to prohibition. For the landed gentry,

³⁶ For instance, Fischer (2012: preface) who adds that one could say that for the 19th century but no longer nowadays. He also notes that a significant proportion of the immigrants were assisted and thus selected, a kind of «social filtration». (Fischer 2012:221).

³⁷ Rumbarger (1989) is the author who argued most forcefully that «men of power and substance defined, directed, and controlled the movement for drink reform.

such a movement wishing to impose the rule of the majority to dictate what to drink was vulgar.(Eldred-Grigg 1984:184). It was rather a Puritan middle class desire to impose its values of purity, sobriety, thrift upon the working class and the poor. (Grigg 1981:151-2).

The Wets

As we saw above, the Church of England and the Roman Catholic Church found prohibition too extremist of a measure to limit alcohol consumption.³⁸ They both favored moderation over prohibition and mostly stayed away from prohibitionist movements, disliking their «fanaticism». Although there were some divisions within the Church of England on the best method to deal with the social problem of drinking, the position of the great majority and of the most prominent of its members was against prohibition. (Eldred-Grigg 1984:186,188; Cocker and Murray 1930:2,6). In New Zealand, these two churches represented a majority of the population with 40 % of the population being Anglicans and another 14 % Roman Catholics (Census of 1911).

Based on the economic interest rationale, we would expect all segments of the alcohol industry (producers, wholesalers, publicans) to be combative *Wets*. In the period of our concern, beer was by far the main drink consumed by New Zealanders and the only one domestically produced (see Table 5). Thus, the anti-prohibition lobby was dominated by the beer industry: brewers, hotels/pubs owners and managers who were the ones with the most at stake, to whom we may add the spirit and wine merchants and importers.

³⁸ As illustrated by this thunderous declaration in *Tablet* -a Catholic periodical- cited in Eldred-Grigg (1984:186) that prohibition was: «...contrary to Scripture and to the example of Christ; contrary to logic and common sense; fatal to liberty and a real tyranny; an extreme that would cause disorder, hypocrisy, lawlessness, and moral ruin; calculated to abolish the Ten Commandments; a menace to our Holy Religion, an insult, an outrage, an indignity, a prying interference with our altars and our priests»

Table 5

Alcohol Consumption, Domestic Production and Importation In New Zealand for the period 1880-1915

Panel A

Estimated Annual available quantity (litres) for consumption of beer, spirits, wine

	Beer	Spirits	Wine
Per person	37,88	3,71	0,83
Per adult	59,83	6,26	1,32
Per man	132,48	12,96	3,16

Panel B

Share of Imports vs Domestic Production for each category.

	Beer	Spirits	Wine
Domestic Production	96 %	0 % *	86 %
Imports	4 %	100 %	14 %

Source: Calculated from decennal data in Eldred-Grigg (1984:283-284) for the period 1880-1915. Note: * this 0 % does not take into account moonshining production, seemingly quite important. Eldred-Grigg reported a police spokesman estimate for 1888 at 860 000 litres, that is almost half of the official imports of that year.

Until the 1920s, the New Zealand beer industry was characterized by a large number of small-sized breweries and thousands of pubs/hotels which typically were «tied» to a brewery by an exclusive dealing agreement. This considerable number of agents made it very arduous to organize to present a united front in the 1890s and early 1900s. During the war, they succeeded in forming an organization representing the three groups: brewers, pub's owners, spirits and wine merchants (Bollinger 1967:61): the *National Council of the Licensed Trade of New Zealand*. Its mission was to fight for the abolition of the triennial polls as they generated much uncertainty especially in the 1910s and 1920s. Failing this goal, the liquor lobby continued to campaign hard for the Continuance (that is, wet) vote at the triennial polls.

Finally, what about the consumers of alcohol ? They certainly were against prohibition but were likely to be a typical Olson (1965) latent, unorganized group without much political power.

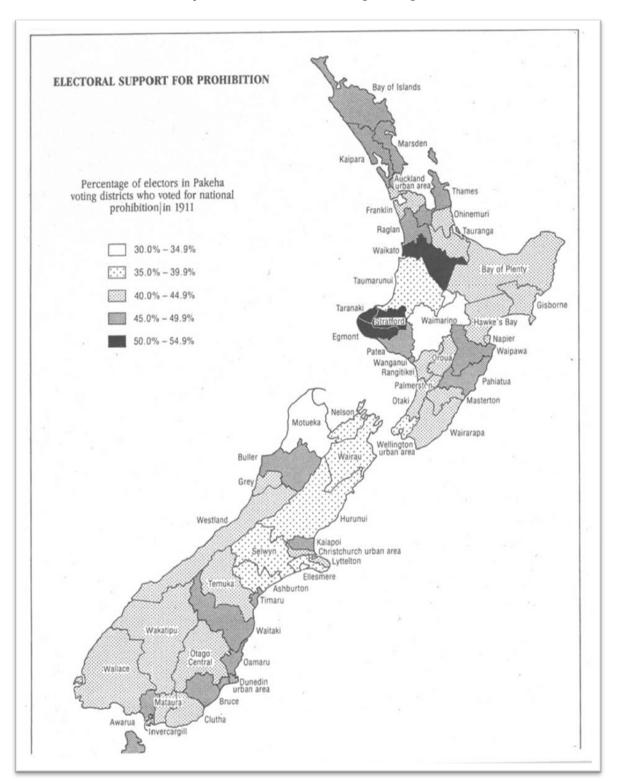
These were thus the main actors in this confrontation over the proper role of the state with respect to alcohol regulation. The prohibitionist camp was largely made up of Evangelical Protestant middle-class men and women, to whom may be added a portion of the big business community concerned with efficiency. The adversaries to prohibition were found in the biggest cities working class, among Anglicans and Catholics, and in the brewing industry.

5. Data Issues and Limitations

Ideally, we would like to estimate the political economy model outlined in the previous section. In this model, we assume that the shares of the vote for Prohibition, Continuance, State Control and the Abstentions were determined by four sets of factors: religious [Evangelical, Anglican or Catholic affiliation]; demographic [the degree of urbanization and of heterogeneity of the population]; social [women's role, wealth and education]; and economic [the interests of the liquor industry].

However, the nature of the New Zealand data seriously stands in the way. The main obstacle is the two very different levels of observation for the two sides of our equation. Referendum results -the dependent variable- are reported for the electoral districts (from 68 and 76) while almost all potential explanatory variables (religion, proportion of foreign born, beer production, education, occupation) are reported in the Censuses for some 230 districts (120 counties and 110 boroughs and urban areas). As «a picture is worth a thousand words», we present below maps of New Zealand in 1911 : the first (Map A) of the 68 electoral districts and the two others (Map B in two sections: North and South Island) of the more than 200 Census districts. They show well the extreme difficulty of the task to reconcile or match them.³⁹ Thus, the only variables available to us at the electoral district level are the urban proportion of the population and the number of voters by gender.

³⁹ To our knowledge, the matching of the administrative boundaries of the census to the electoral boundaries has not been attempted for New Zealand. This is what New Zealand political scientists (such as Miles Fairburn and Neil Atkinson) replied to us ten years ago. We did not find any reference to such work since then.



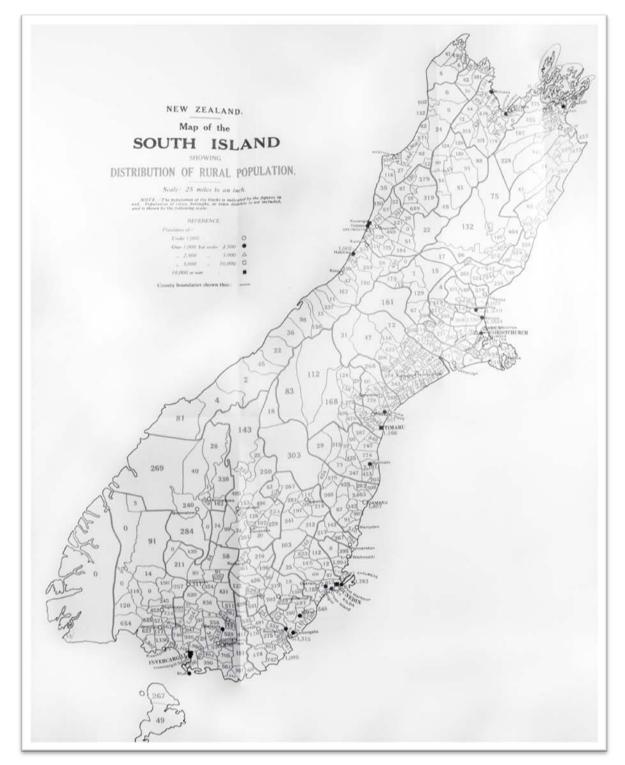
Map A - Electoral Districts [N = 68]

Source: Eldred-Grigg (1984:194)

Map B – Section North Island



Map B – section South Island



Source: New Zealand Census 1911

Census data is also presented at the much more aggregated level of «provincial districts», a legacy of the 19th century short-lived experience of New Zealand as a federation. The first six provinces were created in 1852; four others were added from 1858 and all were abolished in 1876. After their abolition, the «provincial districts» remained in use for statistical purposes because the boundaries of the provinces remained the same thereafter.⁴⁰ Map C shows the actual 12 provincial districts; in the period of our concern, there were nine of them. It is thus possible to match the 68 electoral districts into each province to take into account province-level variables in regression analysis. We can also use repeated observations on these nine provinces over our 20-year period as a way to gain some statistical power in our regression analysis.



Map C - Provincial Districts [N = 12]

Source: <u>http://flagspot.net/misc/nz(.gif</u>

⁴⁰ See the Te Ara Encyclopedia of New Zealand article by McLintock (1966; web page 2009) who claimed that while provincial districts never had administrative functions of any sort, they still have strong sentimental and historical associations.

Unfortunately for us, in the New Zealand political system, a Representation Commission redistributes the electoral districts systematically every five years (taking into account new Census population data) in order to maintain their comparability in terms of population. ⁴¹ Our seven referendums fall into four different electoral maps: the first three referendums (1911, 1914 and April 1919) were under the Redistribution of 1911; the referendum of December 1919 under the Redistribution of 1918; the next two in 1922 and 1925 under the Redistribution of 1922; and finally, the 1928 referendum was under the Redistribution of 1927 (McRobie 1989). Almost all districts kept their original names but a significant number of them had different borders. To make things even worse, the redistribution was somehow endogenous to the liquor issue as in addition to numerical equality, the Representation Commission wished to avoid disturbing the balance between dry and wet licensing districts (which were identical to electoral districts).⁴² We did some work trying to match the four electoral maps but the results were very tentative and not used here.

6. Empirical Analysis

Following Deacon and Shapiro (1975), a large number of quantitative analysis have been conducted on American state or local referendums held on a variety of policy issues: environmental (Kahn and Matsusaka 1997; Kotchen and Powers 2006), health (Costa 1995), education (Romer, Rosenthal and Munley 1992), and fiscal behavior (Matsusaka 1995).

Much less has been done for referendums on alcohol prohibition. Although there were close to 100 American state-wide referendums and more than 20 outside the U.S. during

⁴¹ Of course, the redistribution was laudable for democratic reasons but quite a logistical «nightmare» for users of these historical statistics.

⁴² See Atkinson (:102) who wrote that «the link between licensing districts and parliamentary electorates became a crucial factor in the deliberations of Representation Commissions» adding that «all too often, public objections to proposed boundaries focused not on their suitability for parliamentary representation but on the distribution of liquor licences.»

the 1880-1930 period, we found only six American econometric studies, three of them on a single state: Wasserman (1989 and 1990) on Missouri and California in 1918; Dinan and Heckelman (2005) on Oregon in 1933 and a comprehensive one by Lewis (2008) integrating 30 referendums in 25 states over the period 1907-1919 to which we can add Dostie and Dupré (2012) on the Canadian referendum of 1898.

Outcomes of referendums are typically modeled using simple linear regression models with the dependent variable defined as the share of Yes or No votes. More sophisticated models take into account the fact that vote shares are between 0 and 1 and that the sum of the shares is equal to 1 (see, for example, Katz and King (1999), or Tomz et al. (2002)). It is possible to estimate such a model here but, given the previously stated data limitations, for most voting behavior determinants, results do not have enough statistical power to delimit its the exact role.

In this section, we focus on the two most important determinants of voting behavior in prohibition referendums: women and religion and examine whether it is still helpful to use regression analysis to shed light on how some important determinants of voting behavior played their role in the context of the New Zealand referendums.

Women and Prohibition:

The conventional wisdom is that women tended to be much more prohibitionist than men and the temperance cause has been linked by many authors to women's suffrage. In all the New Zealand liquor polls, women voted but unfortunately we do not have much information in the official statistics. If we use information on gender ratios at the provincial level available from the 1911 and 1921 census and match it to results from the 1911 and 1922 referendums, we are able to show in Figure 8 below evidence of a weak relationship between the share of women in the province and the share of the dry vote. It is clear from Figure 8 that shares of votes for the dry option went down in all provinces. It also looks like the relationship between women and prohibition became steeper in 1922.

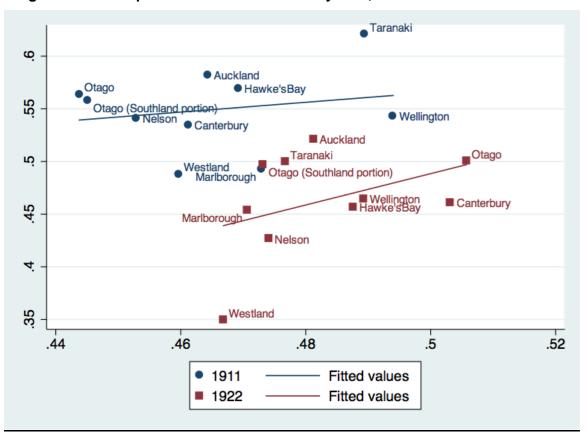


Figure 8 Gender provincial ratios and the Dry vote, 1911 and 1922 referendums

We can investigate the relationship between women and the strength of the dry vote further for the 1911 referendum for which we have detailed demographic data at the district level: for each district, we have information on the proportion of women among the total number of votes. Ideally, it would be better to have this information for eligible voters to have a better understanding of the preferences of women. For example, the interpretation of this variable would be particularly difficult for example if there were constraints to voting participation or if abstentions vary according to preferences with respect to alcohol prohibition.

With this limit in mind, Table 6 presents coefficient estimates of a regression in which the dependent variable is the proportion of dry votes and the explanatory variable is the share of voters who were women for two different specifications. Results below are obtained from a typical linear regression model. The coefficient from the first column ('OLS') is positive as expected (and as seen from the previous figure). For all practical

purposes, the impact of women on the dry vote is statistically significant at the conventional 5% level and positive. The model implies that increasing the share of women voters from 43% to 53% would raise the share of the dry vote by 1.4 percentage point.

Proportion of dry votes (1911)				
OLS	FE			
0.135**	0.188**			
(0.062)	(0.090)			
0.502	0.479			
(0.035)	(0.040)			
11	11			
68	68			
	OLS 0.135** (0.062) 0.502 (0.035) 11			

Table 6

** indicates statistical significance at 5%

Robust standard errors in parenthesis

It is foolhardy to interpret this estimate causally. Many factors also have an impact on the dry vote like ethnicity, religion or economic interests (Dostie and Dupré (2012)). However we go one step further. Column 2 ('FE') shows results from estimating the same model with province fixed effects.

The impact of women on dry vote remains statistically significant and positive, even taking into account all unobserved factors specific to the province that could have an impact on the dry vote. Overall, the regression results presented here offer new evidence that women did indeed play a role in explaining the strength of the dry movement in New Zealand.

Religion and Prohibition

According to the literature on temperance and prohibition, the most important explanatory variable is the religious denomination of the district's constituents. Particularly interesting is the proportion of Evangelicals (that is, Methodists + Presbyterians + Baptists + Congregationalists), the group at the spearhead of the temperance movement.

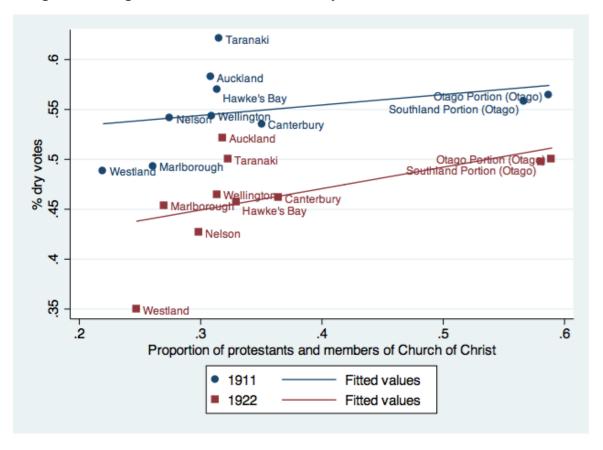


Figure 9 Evangelical Protestants and the Dry vote, 1911 and 1922 referendums

Attempts to assess the strength of the Protestants influence on the dry vote using religion information from the Census matched to our referendums results at the province level were unsuccessful. Although the relationship from a regression analysis is not statistically significant, it is comforting to note that New Zealand follows the same pattern as other countries with respect to the influence of Evangelical Protestantism and prohibition: the relationship remains positive for both 1911 and 1922. Figure 9 shows

that religion played the expected role in explaining the proportion of the dry votes although doubts remain about the strength of that influence.

7. Conclusion

Direct democracy was a fundamental feature of the Progressive Era in the U.S. It was then perceived as a tool for returning power to the people. The prohibitionist movement was a keen supporter of direct democracy, as it was perceived as the best political weapon to fight the liquor interests. This paper shows that the same can be said of New Zealand. Not only were the prohibitionists pushing for direct democracy, so was the government. Prime Minister Seddon and later on, Ward wished to get that «hot potato» issue out of the parliamentary arena.

However, prohibitionists were not as successful in New Zealand as in the U.S., although they came extremely close to victory in the 1910s and this, in three separate referendums. If the majority threshold had been 50 % instead of 60 % in 1911, New Zealand would have been the first in the world to adopt nationwide prohibition of production, sale, and importation of alcohol, eight years before the U.S. It may not be so surprising as the two countries —even if very far away- shared many socio-cultural features: Anglo-Saxon and Protestant with a strong women's movement.

We still have much empirical analysis to do to test but the preliminary results presented in the previous section are encouraging. They provide some support for two of the most important variables in the literature on prohibition: women and religion. The conventional wisdom is that women tended to be much more prohibitionist than men. We present new evidence that women did indeed play a role in explaining the strength of the dry movement in New Zealand. We also find –for both 1911 and 1922 referendums- that New Zealand followed the same pattern as other countries with respect to the positive relationship between Evangelical Protestantism and prohibition.

References

Atkinson, N. (2003), Adventures in democracy. A history of the vote in New Zealand. University of Otago Press.

Blocker, J.S. (1976). *Retreat from reform: The prohibition movement in the United States, 1890-1913.* Westport, Connecticut: Greenwood Press.

Bollinger, C. (1967 2nd ed.; 1959), *Grog's own country. The story of liquor licensing in New Zealand.* Auckland: Minerva.

Bordin, R. (1981). *Woman and temperance. The quest for power and liberty, 1873-1900.* Rutgers University Press.

Butler, D. and Ranney A. ed., (1978; 1994). *Referendums around the world. The growing use of direct democracy.* Washington: the American Enterprise Institute.

Cocker Rev. J. and Murray J.M. (1930). *Temperance and prohibition in New Zealand*. London: the Epworth Press. Reproduced in NZETC (New Zealand Electronic Text Centre), pages 1-20.

Christoffel, P.J. (2006) *Removing temptation: New Zealand's alcohol restrictions, 1881-2005* PhD thesis, Victoria University of Wellington.

Christoffel, P.J. (2008) Prohibition and the Myth of 1919, *New Zealand Journal of History*, 42 (2), 154-174.

Costa, D. L. (1995) The political economy of state provided health insurance in the Progressive era: evidence from California. NBER Working Paper Series, W5328.

Deacon, R. and Shapiro, P. (1975) Private preferences for collective goods revealed through voting on referendum, *American Economic Review*, 65, 943-955.

Dinan, J. and Heckelman, J.C., (2005) The anti-tobacco movement in the Progressive era: a case study of direct democracy in Oregon, *Explorations in Economic History*, 42, 529-546.

Dostie, B. And Dupré, R. (2012) «The people's will»: Canadians and the 1898 referendum on alcohol prohibition», *Explorations in Economic History*, 49, 498-515.

Eldred-Grigg, S. (1984) *Pleasures of the flesh.* Sex and drugs in Colonial New Zealand, 1840-1915. Reed Publishing.

Filer J. E. and Kenny, L. W. (1980). Voter turnout and the benefits of voting, *Public Choice*, 35, 575-585.

Fischer, D. H. (2012) Fairness and freedom. A history of two open societies: New Zealand and the United States. Oxford University Press.

Grigg, A. R. (1977) The attack on citadels of liquordom: A study of the prohibition movement in New Zealand 1894-1914 PhD thesis, University of Otago.

Grigg, A.R. (1981) Prohibition: the Church and Labor – a program for social reform 1890-1914, *New Zealand Journal of History*, 15(2).

Grigg, A.R. (1983) Prohibition and women: the preservation of an ideal and a myth, *New Zealand Journal of History*, 17(2).

Grimshaw, P. (1972; 1987) Women's suffrage in New Zealand. Auckland University Press.

Gusfield, J. (1963). *Symbolic crusade: status politics and the American temperance movement*. Urbana: University of Illinois Press.

Hayler, Guy (1913), *Prohibition advance in all lands. A study of the worldwide character of the drink question.* London: International Prohibition Confederation.

Hersch, P.L. and Netter J.M. (1989), State prohibition of alcohol: an application of diffusion analysis to regulation», *Research in Law and Economics* (12), 55-70.

Hofstadter, R. (1955). The age of reform: from Bryan to F.D.R. New York: McGraw Hill.

Kahn, M.E. and Matsusaka, J. G. (1997). Demand for environmental goods: evidence from voting patterns on California initiatives, *Journal of Law & Economics*, 40, 137-73.

Katz, J. N. and King, G. (1999). A statistical model for multiparty electoral data, *The American Political Science Review* 93, 15-32.

Kotchen, M.J. and Powers, S.M. (2006) Explaining the appearance and success of voter referenda for open-space conservation, *Journal of Environmental Economics and Management*, 52, 373-390.

Lewis, M. (2008) Access to saloons, wet voter turnout and statewide prohibition referenda, 1907-1919, *Social Science History* 32 (3), Fall, 373-404.

Macdonald, C. in Blocker J.S. and Tyrrell I.R. (2003), *Alcohol and temperance in modern history: an international Encyclopedia*. Santa Barbara, California: ABC-CLIO. Article on New Zealand (453-456),

Matsusaka, J.G. (1995) Fiscal effects of the voter initiative: evidence from the last 30 years, *Journal of Political Economy*, 103, 587-623.

McRobie, A. (1989) New Zealand electoral Atlas. Wellington.

Moore, L.M.G. (2004) Gender counts: men, women and electoral politics 1893-1919 M.A. Thesis in history, University of Canterbury.

Newman, R. (1975) New Zealand's vote for prohibition in 1911, New Zealand Journal of History 9 (1), 52-67.

Okrent, D. (2010), Last call: the rise and fall of prohibition. New York: Scribner.

Olson, M. (1965). *The logic of collective action. Public goods and the theory of groups.* Boston: Harvard Economic Studies.

Paulson, R. E. (1973) *Women's suffrage and prohibition: a comparative study of equality and social control.* Illinois: Scott and Foresm.

Prince, J.D. (1996) Look back in amber: the general licensing poll in New Zealand 1919-87», *Political Science* (48), 48-72.

Romer, T., Rosenthal, H. and Munley, V.G. (1992) Economic incentives and political institutions: spending and voting in school budget referenda, *Journal of Public Economics*, 49, 1-33.

Rumbarger, J.J. (1989). *Profits, power and prohibition: alcohol reform and the industrializing of America, 1800-1930.* Albany: SUNY Press.

Schrad, Mark Lawrence (2010), *The political power of bad ideas.* Networks, institutions and the global prohibition wave. Oxford University Press.

Sinclair, K (2000) A history of New Zealand. Revised edition, Auckland.

Smith, M. A. (2001). The contingent effects of ballot initiatives and candidate races on turnout, *American Journal of Political Science*, July, 700-706.

Stace, M. (1988) A history of the liquor legislation in New Zealand, Wellington.

Timberlake, J. (1963). *Prohibition and the Progressive movement 1900-1920*. Harvard University Press.

Tomz, M., Tucker, J. and Wittenberg, J. (2002). An easy and accurate regression model for multiparty electoral data, *Political Analysis* 10, 66-83.

Tyrrell, I.R. (1991), *Woman's world/woman's empire: The Women Christian Temperance Union in international perspective*. Chapel Hill: University of North Carolina Press.

Tyrrell, I.R. (2010) *Reforming the world.* The creation of America's moral empire. Princeton University Press.

Vandermeer, P.R., 1981. Religion, society and politics: a classification of American religious groups, *Social Science History* 5, 3-24.

Wasserman, I.M. (1989) The Missouri prohibition referendum of 1918, Social Science Quarterly, 70, 886-901.

Wasserman, I.M. (1990) Status politics and economic class interests: the 1918 prohibition referendum in California, *Sociological Quarterly* 31, 475-484

Governmental Documents and Websites

New Zealand, Census 1911, 1921 and Yearbooks, various years.

McLintock, A.H. «Provincial Districts», Te Ara- the Encyclopedia of New Zealand, updated 22-Apr-09

URL: http://www.TeAra.govt.nz/en/1966/provinces-and-provincial-districts/5

Ministry for Culture and Heritage, updated 18-Nov-2009 URL: http://www.NZHistory.net.nz/politics/temperance-movement/

Roberts, Nigel. «Referendums - Representative democracy and referendums», Te Ara - the Encyclopedia of New Zealand, updated 13-Jul-12 URL: <u>http://www.TeAra.govt.nz/en/referendums/</u>