NBER WORKING PAPER SERIES ON HISTORICAL FACTORS IN LONG RUN GROWTH

SOCIAL REFORMERS AND REGULATION: THE PROHIBITION OF CIGARETTES IN THE U.S. AND CANADA

Lee J. Alston Ruth Dupré Tomas Nonnenmacher

Historical Paper 131

NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 November 2000

For comments on an earlier draft we thank George Emery, Herb Emery, Price Fishback, Brian Gaines, John Golden, Gary Libecap, Marvin McInnis, Richard Sicotte, Tom Ulen, and participants at a seminar at the University of Calgary and at a session of American Economic Association 1998 Annual Meeting. We thank Eric Alston, Emilia Gabriele, Olivier Kiet, and Paul Leclair for research assistance. The views expressed herein are those of the authors and not necessarily those of the National Bureau of Economic Research.

© 2000 by Lee J. Alston, Ruth Dupré, and Tomas Nonnenmacher. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Social Reformers and Regulation: The Prohibition of Cigarettes in the U.S. and Canada Lee J. Alston, Ruth Dupré, and Tomas Nonnenmacher NBER Historical Paper No. 131
November 2000
Development of the American Economy

ABSTRACT

The apogee of anti-smoking legislation in North America was reached early in the last century. In 1903, the Canadian Parliament passed a resolution prohibiting the manufacture, importation, and sale of cigarettes. Around the same time, fifteen states in the United States banned the sale of cigarettes and thirty-five states considered prohibitory legislation. In both the United States and Canada, prohibition was part of a broad political, economic, and social coalition termed the Progressive Movement. Cigarette prohibition was special interest regulation, though not of the usual narrow neoclassical genre; it was the means by which a group of crusaders sought to alter the behavior of a much larger segment of the population. The opponents of cigarette regulation were cigarette smokers and the more organized cigarette lobby. An active Progressive Movement was the necessary condition for generating interest in prohibition, while the anti-prohibition forces played a more significant role later in the legislative process. The "moral reformers" succeeded when they faced little opposition because few constituents smoked and/or no jobs were at stake because there was no cigarette industry. In other words, reform is easy when you are preaching to the converted.

Lee J. Alston
Department of Economics
225 H David Kinley Hall
University of Illinois
1407 West Gregory Drive
Urbana, IL 61801
and NBER
l-alston@uiuc.edu

Tomas Nonnenmacher Department of Economics Allegheny College Meadville, PA 16335 Ruth Dupré
Ecole des Hautes Etudes Commerciales
3000 Cote Sainte Catherine
Montreal, Quebec
Canada H3T 2A7

I. Introduction

Although smoking has become a stigmatized activity in recent years, the apogee of antismoking legislation in North America was reached early in the last century. In 1903, the Canadian Parliament passed a resolution prohibiting the manufacture, importation, and sale of cigarettes. Around the same time, fifteen states in the United States banned the sale of cigarettes and thirty-five states considered prohibitory legislation. In both the United States and Canada, prohibition was part of a broad political, economic, and social coalition termed the Progressive Movement. The movement aimed at reform broadly conceived but was not tightly orchestrated, nor was there a consensus among the adherents as to priorities. Activities that fall under the rubric of reform included trust busting, democratization of the political system (e.g. women's suffrage and direct primaries), improving work conditions (e.g. workers' compensation and minimum wages for women and children), and prohibiting perceived immoral behavior (e.g. drinking, smoking, and gambling).

Cigarette prohibition was special interest regulation, though not of the usual narrow neoclassical genre; it was the means by which a group of crusaders sought to alter the behavior of a much larger segment of the population. The catalysts behind regulation were the temperance organizations, largely consisting of Protestant women, and their allies, who included anti-trust adherents and other progressives. The opponents of cigarette regulation were cigarette smokers and the more organized cigarette lobby. Both the temperance movement and the cigarette lobby operated at a national level, yet they had varying and predictable degrees of success across states (in the United States) and provinces (in Canada). An active Progressive Movement was the necessary condition for generating interest in prohibition, while the anti-prohibition forces played a more significant role later in the legislative process.

The lesson of this regulatory episode is that for legislation with strong moral content, such as alcohol and cigarette prohibition, pornography regulation, and environmental protection,

the concept of "special interest" has to be broadened beyond the standard economic interests to include crusading organizations. Robert Fogel's recent work on egalitarianism in the United States indicates the extent to which the country's legislative agenda has been set by moral reformers. Mancur Olson provides insight into why a relatively small group with no common economic interest can have such a large political effect. Part of the strength of a moral reform movement is that it be relatively large while still overcome the collective action problem cited by Olson. Reform groups appeal to a "higher cause," or in Fogel's words, focus on the distribution of "spiritual" rather than "material" assets.²

II. History of Cigarette Prohibition in Canada and the U.S.

(a) History of Cigarettes

Tobacco has had a long history of regulation since its introduction by Columbus. King James I, wrote in his treatise "Counterblast to Tobacco" in 1604:

"A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs and in the black stinking fume thereof, resembling the horrible Stygian smoke of the pit that is bottomless."

Under his reign, England prohibited the use of tobacco. So did many other countries and cities during the 17th century, including Japan, the Ottoman Empire, the Moghol Empire, Russia, China, Naples, Sicily, Sweden, and Denmark. The penalties for smoking could be spectacular and included sliced noses in Russia, beheadings elsewhere, and excommunication under Pope Urban VIII.⁴

² Though Olson was one of the first to clearly articulate the free rider problem, he also recognized the ability of religious organizations to influence legislation. See Olson, *Logic*, pp. 159-162.

¹ Fogel, Fourth Great Awakening.

³ Cited in Sobel, *They Satisfy*, pp. 50-51.

⁴ There are many accounts of this first wave of prohibitions and spectacular penalties around the world. For instance, see Bouant, *Le Tabac*; Brecher, *Licit and Illicit Drugs*, pp. 209-213; Wagner, *Cigarette*, pp. 3-13; or the fascinating history of Kierman, *Tobacco*.

In 19th century America, almost all men used tobacco, but the form differed according to social position. Affluent businessmen and politicians smoked cigars. Urban dandies fond of European manners utilized dry snuff. Country men and poor workingmen chewed tobacco.

Traditionalists puffed on pipes.⁵

Cigarettes, at first made from cigar scraps in Sevilla, spread to other European countries in the second half of the 19th century. British soldiers began to smoke them during the Crimean War. From Britain, cigarettes made their American debut in New York City and remained for some time an exotic and mostly urban novelty. The status of the product changed circa 1880. The increase in cigarette consumption was partly a response to public health measures against chewing and the accompanying cuspidor. More importantly though was the relative price effect: the mechanization of the rolling process and lower taxes reduced the price to consumers. It is hard to imagine a product more typical of a modern industrialized 20th century than the cigarette. It was quickly consumed, mass produced, cheap, and uniform across social classes.

Figure 1 shows the meteoric rise in the per capita consumption of cigarettes from the 1890s. This rise scared reform and religious groups, who viewed cigarette smoking (along with alcohol) as evil and destructive of the physical and moral fiber of society. These groups pressured the various levels of government to put an end to it through regulation, though there were countervailing forces at work as well.

(b) Prohibition in Canada

In Canada, the provincial governments of New Brunswick (1890), Ontario (1892), and Nova Scotia (1901) adopted the first restrictions on cigarette smoking.⁶ These provincial laws aimed at forbidding the use of tobacco by minors (under 16 or 18 years old). They imposed fines

⁵ Sobel, *They Satisfy*, pp. 5-6.

⁶ A bill came very close to be adopted in Quebec, so close in fact that some federal deputies a decade later referred to Quebec as having such a law. Through our research, we found out that a bill went through three readings, was passed in the Legislative Assembly and sent to the Legislative Council in

on people supplying tobacco to the young. According to all commentators, these laws were practically a dead letter as they provided for little or no enforcement. The failure in the enforcement of the provincial policies led to pressures on the federal government to step in and to ban the manufacture and importation of cigarettes. The first move was made on April 1st 1903 by Bickerdike (Montreal St-Laurent) when he introduced the following resolution:

"That the object of good government is to promote the general welfare of the people by a careful encouragement and protection of whatever makes for the public good; and by equally careful discouragement and suppression of whatever tends to the public disadvantage.

That the smoking of cigarettes has been proved by overwhelming testimony to be productive of serious physical and moral injury to young people; impairing health, arresting development, weakening intellectual power, and thus constituting a social and national evil.

The legislation licensing and restricting the sale of cigarettes has not proven sufficient to prevent these evils, which will continue while the public sale of the cause of the mischief is permitted to go on.

That this House is of the opinion, for the reasons hereinbefore set forth, that the right and most effectual legislative remedy for these evils is to be found in the enactment and enforcement of a law prohibiting the importation, manufacture, and sale of cigarettes."⁷

The resolution was adopted by a majority of 103 yes to 48 no.⁸ However, a month later it was withdrawn on the ground that it had not been introduced according to the rules. Despite never being implemented, we will test for the vote behavior on this bill in section III.⁹

Almost exactly a year after Bickerdike's first resolution, Maclaren (Huntingdon, Que.) reintroduced the same bill but this time within the rules of the art. Maclaren's bill

February 1893. It seemingly never became a law as a similar bill by the same deputy was introduced again later in 1893, in 1894, and in 1895, all to no avail.

⁷ House of Commons Debates [hereafter HCD], April 1 1903, p. 820. Born in Kingston, Robert Bickerdike, the Liberal deputy of Montreal St-Laurent, was a prosperous Montreal livestock merchant involved in many commercial and social organizations including the Anti-Alcoholic League. Source Morgan, *Canadian Men*, p. 98.

⁸ A little anecdote here: when asked by deputy Sproule, a prohibitionist, when the Prime Minister Laurier intends to carry out these instructions from the House, Wilfrid Laurier replied: "I shall have to give up smoking." HCD April 1, 1903, p. 847.

⁹ The votes on this bill reflect the preferences of legislators before the tobacco lobby became involved. The fact that the bill was repeatedly reintroduced indicates that the temperance interests favoring passage continued their pressure on the legislature.

did not go further than the second reading. There followed two years of total silence on the question. In January 1907, Blain (Peel, Ont.) asked the Prime Minister a question - which became an annual one - as to when and what the government intended to do with the Bickerdike resolution. Laurier's reply was that the government had not come to the conclusion that this should be pursued, but that it was open to Blain to introduce such legislation as he sees fit. Blain responded to the PM's invitation a few months later in March 1907 when he moved the same resolution with the same results. Tenacious, Blain tried again a year later in March 1908, and once again, after a very long debate, the bill died on the floor.

In May 1908, the government, via the Minister of Justice Aylesworth, finally initiated a much-watered down version of the original Bickerdike resolution. The legislation, Bill 173, forbade the use of tobacco by young persons (that is, under 16 years). By then, both tobacco and temperance interests accepted it as a compromise solution. The bill passed both houses (almost unanimously) and became a law in July 1908. In addition to penalties for the seller or supplier of cigarettes, the bill imposed a slight penalty on the person caught smoking (reprimand on first offense and a \$1 fine on the second offense). There was also a provision prohibiting automatic machines.¹¹

(c) Prohibition in the United States

Beginning in the late 1890s, cities and states in the U.S. passed acts to prohibit the sale, manufacture and use of cigarettes (but not pipes or cigars). Cigarette laws took five forms. In order of prevalence were laws restricting use by minors, restricting sales, restricting manufacture, prohibiting giving away cigarettes, and regulating use by the general public. The earliest cigarette laws prohibited sales to minors. By 1890, twenty-six states prohibited sales to minors, and in

¹⁰ In HCD January 21, 1907, p. 1801.

¹¹ This clause was resurrected a few years ago in Canada.

1940 all states except Texas had such laws. 12 These laws came in a variety of forms. Some merely prohibited the sale of cigarettes, while others included an outright prohibition on cigarette use.

For instance, the 1907 Illinois law concerning minors read:

"Every person under the age of eighteen (18) years and over the age of seven years, who shall smoke or use cigarettes, on any public road, street, alley or park or other lands used for public purposes ... shall be guilty of a misdemeanor." (Laws of Illinois, 1907, p. 203.)

By 1922, fifteen states had passed laws prohibiting the sale of cigarettes, while another twentyone state legislatures had considered such laws. 13

Table 1: The Adoption and Repeal of Cigarette Prohibition

| | Enacted | Repealed | |
|--------------|---------|-------------------|--|
| Arkansas | 1907 | 1921 | |
| Idaho | 1921 | 1921 | |
| Illinois | 1907 | 1907 ^a | |
| Indiana | 1905 | 1909 | |
| Iowa | 1896 | 1921 | |
| Kansas | 1909 | 1927 | |
| Minnesota | 1909 | 1913 | |
| Nebraska | 1905 | 1919 | |
| North Dakota | 1895 | 1925 | |
| Oklahoma | 1901 | 1915 | |
| South Dakota | 1909 | 1917 | |
| Tennessee | 1897 | 1921 | |
| Utah | 1921 | 1923 | |
| Washington | 1909 | 1911 | |
| Wisconsin | 1905 | 1915 | |
| | | | |

Source: Gottsegen, p. 154.

Again, the Illinois law of 1907 states:

That every person who shall manufacture, sell or give away any cigarette containing any substance deleterious to health, including tobacco, shall be punished by a fine not

a. The Illinois Supreme Court declared the statute unconstitutional.

¹² Gottsegen, *Tobacco*, p. 155.

¹³ West Virginia taxed cigarettes so steeply that they were de facto prohibited. In our regression, we consider West Virginia as having prohibited cigarette sales but our results are insensitive to this classification. The states that considered prohibition legislation are listed in Tate, Cigarette, p. 160.

exceeding one hundred dollars (\$100), or by imprisonment in the county jail for a period not to exceed thirty (30) days. (Laws of Illinois, 1907, p. 203.)

As was the case in Canada, even in cases where laws were in effect, enforcement was lax. ¹⁴ A review of methods used to circumvent the laws states, "Tobacco manufacturers sent cigarette papers through the mails; retail dealers sold matches for twenty cents or so and gave cigarettes away." ¹⁵ A Wisconsin study showed that, "the law is flagrantly violated," and that, "local officials will not enforce a law in the face of a popular demand." ¹⁶

The turning point in the legislative war against cigarettes came during World War I.

During the war, the YMCA, Salvation Army and Red Cross distributed billions of cigarettes to soldiers fighting in Europe, and the federal government supplied 425 million cigarettes a month to soldiers fighting in France. Patriotic organizations in Kansas sent cartons of cigarettes to the front, even though their sale was illegal in that state. Anyone who questioned these shipments was deemed unpatriotic. Soldiers returning from World War I made cigarette smoking common and more respectable with the result that by 1920, seven states had repealed their anti-smoking laws. By 1927, all laws, except those regarding minors, had been abrogated.

III. The Political Economy of Smoking

In this section we examine the forces behind the legislative battles concerning the prohibition of cigarette sales in Canada and the U.S. For Canada we focus on the 1903 bill,

¹⁴ Andrew Seltzer, *Causes*, finds that another piece of the progressive agenda, minimum wage legislation, also had weak enforcement capabilities.

¹⁵ Warfield, *Lost Cause*, p. 246.

¹⁶ G.H.A. Jenner, "Unenforced Legislation in Wisconsin," quoted in Tate, Cigarette, p. 61.

¹⁷ Tate, *Cigarette*, pp. 75-82.

¹⁸ Warfield, *Lost Cause*, p. 247. Only a few years earlier, Kansas was so strongly anticigarette that a traveling Chautauqua company staging Bizet's opera Carmen presented a cast against a backdrop showing a dairy rather than a cigarette factory, and Carmen herself walked on stage carrying a milk pail. Reported by Wagner, *Cigarette*, p. 41.

which, though passing by a vote of 103 yes to 48 no, was never put into practice because it was not introduced properly. For the U.S. we use the information on whether a state considered or passed prohibition. The important players surrounding cigarette prohibition include social reformers, the cigarette lobbies, and cigarette smokers. We begin by describing these three groups of actors and then turn to a statistical analysis of the voting patterns.

(a) The Social Reformers

Social reform was part of the thriving Evangelical movements of the latter 19th and early 20th centuries. Robert Fogel has described the development of these movements and their political effects. ¹⁹ Cigarette prohibition falls squarely into the political phase of the "Second Great Awakening" (SGA), which focused on the struggle against personal sin and whose unifying goal was conversion to Christianity. ²⁰ Some proponents of prohibition also derived their ideology from the "Third Great Awakening" (TGA), which overlapped with the SGA during the first twenty years of the 20th century. The TGA focused more on "social sin," with its modernist branch believing that "the value and truth of religion were shown by the capacity to create God's kingdom on earth rather than in the hereafter. The essence of religion became the elimination of poverty and inequality."²¹

The philosophy of the SGA dominated abolitionism, women's suffrage and prohibition (both alcohol and cigarettes), while the TGA had its greatest political effect in the New Deal. However, there was considerable overlap and mixing of these ideologies during the period of cigarette prohibition. Many evangelist communities believed in societal as well as personal salvation.²² In order to achieve this social order based on Christian and family values, they

¹⁹ Fogel, Fourth Great Awakening.

²⁰ Proponents of the SGA were mostly pietists who demanded that "government remove the major obstacle to the purification of society through revivalistic Christianity, institutionalized immorality." Jensen, *Winning*, p. 67.

²¹ Fogel, Fourth Great Awakening, p. 121.

²² Cook, *Through Sunshine*, p. 10.

condemned and fought "frivolous" activities such as dancing, drinking, smoking, and gambling. Therefore, smoking prohibition was an issue for both those reformers wanting to stamp out "personal sin" and those reformers hoping to "improve health, safety and family life."

One political manifestation of Evangelicalism was the Progressive Movement. Its adherents took to reforming the economic, political and moral arenas. The heyday of the Progressive Movement roughly fell between two wars – the Spanish American War of 1898 and the entry of the U.S. into World War I in 1917, the period in which most cigarette prohibition was considered in Canada and the United States. Progressivism both "spawned and then undercut" opposition to cigarettes. ²⁴ Opposition was spawned because cigarettes clashed with the progressives" "admiration for rational control," and was undercut because bigger, and in some sense conflicting, priorities arose for the movement during World War I. ²⁵

The Woman's Christian Temperance Unions (WCTU), as its name indicates, was a reform organization of Christian women that was firmly grounded in the religious morals of the SGA and the political reforms of the progressives. It, and its splinter organizations, were the requisite forces behind the initial cigarette prohibition movement in both the United States and Canada. The influence of the WCTU in Canada clearly stands out in the frequent references to the organization in the Canadian House Debates and in the *Canadian Cigar and Tobacco Journal*, a monthly periodical devoted to the interests of the tobacco trade. One can hardly be more explicit than Maclaren, the initiator of the second Canadian prohibitionist bill in 1904, when he stated:

I do not see why the women of the WCTU asked me to take charge of the Bill this year; but they did and I at once consented. I am not the maker of the Bill. It was framed at the request of those promoting it, by a firm of solicitors in this city. ²⁶

²⁵ According to Tate, *Cigarette*, p. 72, "The new priority was to "make the world safe for democracy," and to do so with an army that was clear-eyed and undebauched—the first military force in history to be swept clean of alcohol and prostitution."

²³ Cooper, *Pivotal Decades*, pp. 128-129.

²⁴ Tate, *Cigarette*, p. 8.

²⁶ Maclaren in HCD June 20 1904, p. 5143 and 5146.

The first local Canadian union was set up in Picton, Ontario in 1874. In the period of our concern, the Canadian WCTU had some 400 local branches and 12,000 members, more than half of whom, and seemingly the most active, came from Ontario. Although multi-denominational, the majority of the members were Methodist middle-class women in small town and rural areas. They literally besieged the Parliament with petitions, letters, and delegations to press for prohibition of cigarettes. Unfortunately we do not have WCTU data at the riding level. To capture the evangelical movement in Canada and the impact of the WCTU lobbying, we use as a proxy variable the proportion of Protestants in the population of the riding. In Canada, Protestants were much more homogeneous than in the U.S. and therefore reflect reasonably well the forces that we are trying to proxy.

In the United States in 1909, the WCTU, with 137,000 members, was considerably larger in absolute terms than in Canada but roughly equal in per capita terms. The WCTU was the first to sponsor a national petition to outlaw cigarettes and encouraged the passage of anti-cigarette laws. However, cigarette prohibition was never more than a secondary issue for the WCTU in the United States. The larger issues of alcohol prohibition and suffrage were much more important. The most outspoken proponent of cigarette prohibition was Lucy Page Gaston. Gaston was born to a reform-oriented family in 1860 and was influenced as a youth by WCTU leader Frances Willard, a family friend. As a schoolteacher, Gaston became aware of a symptom of smoking among the boys called "cigarette face." She had found her cause.

Gaston was a member of the WCTU and operated within that organization for a number of years. In 1899, she formed the Chicago Anti-Cigarette League, which quickly grew into the National Anti-Cigarette League and finally, in 1911, was renamed the Anti-Cigarette League of

²⁷ Cook, *Through Sunshine*, p. 61 for the statistics; and pp. 7 and 218, for the religious composition.

²⁸ Tate, Cigarette, p. 13; and Report, p. 358.

America in order to include Canadian members. Besides publishing a monthly anti-cigarette magazine titled "The Boy," Gaston petitioned states and cities to pass strict anti-cigarette laws. As the title of her publication indicates, her goal was to reduce the use of cigarettes among youth. However, she believed that the only way to achieve this result was to ban adults from setting bad examples. Unfortunately, we do not have membership data for the Anti-Cigarette League. In the regression analysis we capture the reform movement with the vote for the Progressive Party in 1912.²⁹

As indicated earlier, the Progressive Movement was a loose coalition of reformers. Reforms spread across economic, political and social areas. Yet, not all reformers supported reforms in all areas. For example one of the most well-known Progressives in the U.S. was Robert La Follete from Wisconsin. La Follette was a staunch supporter of railroad regulation and a driving force behind popular participation in government but he shied away from supporting the regulation of social behavior. La Follete's strong stand against alcohol prohibition was seen by some "as a bow to his notoriously 'wet'" Wisconsin constituents.³⁰

Similarly in Canada, the French Canadians appeared much less likely to favor regulating social behavior than their English counterparts, a difference that seems to still exist today. For example, there is a sharp ethnic divide between Quebec and English Canada regarding tolerance towards personal behavior: abortion, media censorship, smoking, drinking, and pornography. The most famous historical example of French-English differences is perhaps the 1898 plebiscite on alcohol prohibition under Wilfrid Laurier. The participation rate was quite low (less than 50%) and the outcome very close: 51% in favor, with the yes votes predominantly from the English-

²⁹ We also use an alternative measure of the strength of the progressive sentiment within states, designed by Fishback and Kantor, *Adoption*. Using this measure yields similar results to those reported in the next section.

³⁰ Cooper, *Pivotal Decades*, p. 129.

speaking provinces and the no votes from Quebec.³¹ Alcohol policies also differed sharply between Ontario and Quebec: in Ontario, the Act of 1919 allowed the prohibition of alcohol while Quebec chose to nationalize the alcohol business in 1921, creating the first public liquor board in a dry North America. In the first round of the debates in 1903, Tarte (Montreal-Ste-Marie) told his colleagues:

Prohibition has not been very popular with us in Quebec. Not because we drink more than the people of the other provinces, but because we believe in freedom.³²

The cause of the difference in attitudes between Quebec and elsewhere in Canada towards regulating personal behavior may be as much religious as ethnic. In Canada, ethnicity and religion are highly colinear, i.e., the French Canadians tend to be Catholic. One can argue that in general Catholics are less prone to use the state to regulate personal behavior because the Roman Catholic Church with its centralized, hierarchical structure is more authoritarian than most Protestant denominations. In Quebec at that time, it was even more the case for historical reasons. Moreover, a movement led by Protestants, whatever its intrinsic merits, had very little chance of getting the cooperation of the Catholic Church and the Catholic French-Canadian population in the sociopolitical context of the period. Our measure of the influence of Protestants as a special interest group is most likely also capturing the propensity of legislators to

³¹ Our information on this comes from Rumilly, *Histoire*, p. 77; and Cook, *Through Sunshine*, p. 116.

³² Tarte in HCD, April 1 1903, p. 842.

³³ There seems to be unanimity over this. For instance see Harvey, *L'église*, p. 36; Norman, *Conscience*, p. 69; and Voisine, *Histoire*, pp. 12-13. In a retrospective of the 20th century just published, Simard, "Ce siècle," p. 47, writes that like in Ireland or Poland, the Catholic Church took in charge the civil society of the dominated group.

³⁴ As the Bishop of Rimouski wrote in a letter to one of his priests a few days before the 1898 Plebistice on alcohol: "Total prohibition of alcohol is an essentially protestant and sectarian doctrine, entirely opposed to the natural law and the spirit of the Church [Catholic]. A prohibition law would be an attack to natural freedom because it would forbid the use of a good *per se* licit, a good created by God. It is not the use of alcohol beverages that should be restricted, but its abuse [...] Satan hides behind this mask of virtue [...] People should make it their duty to go to the polls and vote against prohibition." Quoted in Voisine, *Histoire*, p. 198. Translation from French is our own.

regulate personal behavior. To the extent that it is religion, we will be capturing the effect with our measure of percent Protestant. If there are additional ethnic factors, we will try to capture them with a dummy variable indicating whether the MP had a "French-sounding" name.³⁵

(b) The Cigarette Producer Interests

Cigarette production and consumption was growing rapidly in the United States and Canada during the early 20th century. In 1900, cigarette production per capita in the United States was approximately 49, while in Canada it was 22. The United States exported cigarettes valued at \$2,290,876 in 1900, while cigarette exports in Canada were negligible. In both countries, trusts appeared that promoted and defended manufacturers' interests on the national level.

In Canada, the presence of the tobacco lobby was much less conspicuous in the debates than the WCTU. We found only one reference to the cigarette lobby in 1904 when Clarke (Toronto West) said that he had the honor of introducing a deputation of men engaged in the tobacco trade to the Minister of Justice the year before. He added that they were not opposed to legislation prohibiting the sale of cigarettes to minors but that they felt that the 1903 bill would have been a great injustice to them.³⁶

In her study of the WCTU in Ontario, Cook reports that the militants of the WCTU felt that they had been defeated by the Tobacco Trust of Montreal who put, according to them, some \$20,000 in the fight.³⁷ The *Canadian Cigar and Tobacco Journal* published some eighteen articles on the anti-cigarette campaign during our period of concern. At first, they were very condescending and treated Bickerdike's resolution as a "little grand-stand play for the benefit of the ladies of the WCTU and as such is, we hope, perfectly harmless." From 1908, the tone changed. They seem to be much more worried because of the success that the temperance

³⁵ We relied on Ruth Dupré for making the judgments.

³⁶ Clarke in HCD, June 20 1904, p. 5130.

³⁷ Cook, *Through Sunshine*, p. 115.

movement was beginning to have with alcohol. In the September 1909 issue, there is information on a new association, the National Allied Tobacco Trades Association, whose objective is to protect the tobacco trade in general and in particular, against all sumptuary legislation. The article ends with, "It is useless to begin to lock the stable doors after the enemy has emptied all the stalls."

For our econometric analysis we would ideally like a measure of the expenditures by tobacco/cigarette interests across ridings and states. Unfortunately we do not have such data. Instead we measure the influence of interests of tobacco growers in Canada by the per capita production of tobacco in the electoral district. In the late 19th century, the province of Quebec was by far the most important producer of tobacco in Canada (4 millions of pounds in 1891 vs. 300 thousands of pounds in Ontario). In both provinces, the production of tobacco was concentrated in a few districts: Joliette, l'Assomption in Quebec and Kent, Essex and Norfolk in Ontario. Tobacco production is not synonymous with cigarette production. In Canada almost all production of cigarettes took place in Montreal (between 94 and 98% from 1890 to 1918).

Cigarette production was more widespread in the United States than in Canada. In 1910, twenty-two of the forty-eight states produced cigarettes, although production was concentrated in New York and Virginia. James "Buck" Duke's American Tobacco Company dominated cigarette production until 1911, when it was dissolved under the Sherman Act. Only one state that had significant cigarette production, Illinois, passed a prohibitory statute. This was Lucy Page Gaston's home state and she lobbied for twelve years before the law was passed. The Illinois

³⁸ Canadian Cigar and Tobacco Journal, April 1903, p. 14.

³⁹ Canadian Cigar and Tobacco Journal, September 1909, p. 23.

⁴⁰ The Report of Inland Revenues provides these data by province. In his study of the industry in 1850-1918, Lewis, *Productive and Spatial Strategies*, tells us that the whole provincial data refer to Montreal. Of the four districts in Montreal, two voted for prohibition and two against. Of the two that voted for prohibition, St. Laurent was Bickerdike's riding.

⁴¹ In 1910, the Tobacco Trust controlled 86.1% of the market share in cigarettes. McGowan, *Business*, p. 15.

Supreme Court immediately struck down her anti-cigarette laws twice, for which Gaston held the cigarette industry responsible.

American Tobacco's efforts at lobbying were national in scope. Although the company was headquartered in North Carolina, its efforts at combating the anti-smoking movement spanned the country on both the legislative and legal fronts. The American Tobacco's chief counsel filed "dozens of lawsuits" challenging statutes prohibiting the sale of cigarettes. ⁴² Duke was active in state legislatures, bribing legislators to vote against anti-cigarette bills. ⁴³ Finally, he gave generously to charity, most importantly the Methodist Episcopal Church South and Trinity College (now Duke University), hoping to improve the company's public image.

In neither country was the influence of the cigarette lobby limited to the locales in which cigarettes were produced. Although we use data on tobacco and cigarette production in our econometric tests, that data only represent the strength of the industry in terms of employment within a region, not in terms of its lobbying efforts. A more accurate measure of the industry's influence would be dollars spent on lobbying, but this data is unavailable.

(c) The Cigarette Consumers

Throughout the literature on the history of tobacco, cigarettes are characterized as the epitome of the modern 20th century industrialized world. As Wagner wrote, this was a product "attuned to a nervous urban civilization", Contemporary commentators agreed. Hence in W.A. Penn's 1901 book The Soverane Herb:

The puffing of cigarettes differs from smoking; such can scarcely be considered. It is a form of slight excitement; ... It is more like, in its effects and practice, the smoking of opium than of tobacco; the cigarette is a variety of the craving for absinthe and morphia. Its popularity is a sign of the national craving for brevity, weakness and mild excitement, and of dislike for all that is solid and substantial, whether it be in food, literature, religion or amusement. Indeed, the cigarette emphasizes in one aspect, the most striking phase of modern life and thought.

_

⁴² Tate, *Cigarette*, p. 33.

⁴³ Several attempts that became public, including bribing legislators in Indiana, New York, Tennessee, and Washington, are recounted in Tate, *Cigarette*, pp. 33-35.

⁴⁴ Wagner, *Cigarette*, p. 34.

Ideally, we would like to have data on cigarette use across states and ridings for the early part of twentieth century. Because the data are not available, we will have to rely on some proxy measures. One is urbanization and the other is cigarette consumption per capita by state for a later time period. For the association between urbanization and cigarette use there is considerable anecdotal evidence. For both Canada and the U.S. we measure the interests of urban consumers by the percentage of the population in the riding (Canada) and state (U.S.) that is urban.⁴⁵

Use of urbanization as a proxy for the demand for cigarettes can be supported statistically using data from a later time period. A regression of the log of the percentage of the state living in urban areas on the log of cigarette use in 1951 indicates that a one percent increase in the urban percentage leads to a .41 percent increase in cigarette consumption per capita. ⁴⁶ Because of its potential ability to better capture cigarette consumers than urbanization, we will also use cigarette consumption per capita in 1951.

(d) Regression Results

Table 2 contains a summary of the regression variables that we will use in our econometrics and Tables 3 and 4 contain our regression results. For the Canadian side the variables are self-explanatory. For the U.S., we use two separate measures for our dependent variable: whether a state voted on a bill to prohibit the sale of cigarettes; and whether a state

-

⁴⁵ To the extent that cigarette consumption was considered rebellious, one might argue that young urban males dominated the consumption of cigarettes. To test this possibility in the econometric work that follows, we ran separate regressions for the U.S. substituting urban males ages 18-30 as a percentage of the population for urban as a percentage of the population. Our results were almost identical, including the calculated marginal effects. Furthermore, the substitution does not influence the coefficients of the other variables in the regression. For this reason and for the comparability with Canada we only discuss the results with our broader urban measure in the regression.

⁴⁶ Specifically, the equation is Lcig = 4.945 + 0.41 Lurban; where Lcig is the log of the cigarette consumption per capita in 1951 and Lurban is the log of the percentage of a state that is urbanized in 1950. Lurban has a t-statistic of 3.6, and the regression's $R^2 = .25$. The data is from Licari and Meier (1997).

passed a law to prohibit cigarettes. For our independent variables we have two measures for cigarette consumption: urbanization in 1910 and cigarette consumption per capita 1951.

Table 2: Regression Variables

| Canada | United States | | |
|---|---|--|--|
| Dependent Variable: VOTE1903= 1 if the MP | Dependent Variables: LawC = 1 if the state | | |
| voted for the prohibition of cigarettes in 1903 | voted on an anti-smoking law aimed at adults | | |
| | between 1895 and 1922; and LawP = 1 if the | | |
| | state passed an anti-smoking law aimed at | | |
| | adults between 1895 and 1922. | | |
| 1. Percent Protestant in 1900 | 1. Percentage of the 1912 presidential vote for | | |
| | the Progressive Party | | |
| 2. Tobacco production per capita in pounds in | 2. Cigarette production in 1910: = 1 if the state | | |
| 1900: | had any cigarette production in that year, 0 | | |
| | otherwise. | | |
| 3. Percent urbanization in 1900 | 3 Percent urbanization in 1910 | | |
| 4. French MP: FRMP = 1 if MP has a "French- | 4. Cigarette Use per capita in 1951 | | |
| sounding" name, zero otherwise. | | | |

Sources: Vote data from Canada from the House of Commons Debates; Canadian urbanization, religion and tobacco production data from Canadian Census, 1901; Vote data from the United States was obtained from Gottsegen, *Tobacco*, p. 154; cigarette use in 1951 was collected by Licari and Meier, *Regulatory Policy*; progressive presidential election results and urbanization data are contained in *Historical Abstract*; and Cigarette production per capita is from *Annual Report of the Commissioner of Internal Revenue*, 1911.

Table 3
Marginal Effects of Changes in Variables on the Probability of Voting on the 1903 Vote on Prohibition of Cigarettes in the House of Commons

| in the freeze of commons | | | | | | | |
|--------------------------|-----------|-----------|--|--|--|--|--|
| | Mean (SD) | (1) | | | | | |
| | | 1903 Vote | | | | | |
| Baseline Probability | | 75.28% | | | | | |
| Percentage | 54.95 | 13.61* | | | | | |
| Protestant in 1900 | (35.03) | (2.98) | | | | | |
| Tobacco Production | 3.16 | -36.38 | | | | | |
| in 1900 | (19.83) | (-0.76) | | | | | |
| Urbanization in | 32.51 | -10.39* | | | | | |
| 1900 | (28.75) | (-2.40) | | | | | |
| French MP | 24 | -30.18* | | | | | |
| | (42.85) | (-2.12) | | | | | |
| Observations | | 150 | | | | | |
| LR Statistic | | 58.52 | | | | | |
| % correct | | 78.67% | | | | | |

^{*} Statistically significant at the 5 percent level.

Note: Estimated probabilities were computed from probit regression results. To compute the baseline probability, all variables are set at their mean, except French MP, which was set to zero. The marginal effect reported is the impact of a one standard deviation increase in the independent

variable on the probability of voting for prohibition except French MP, which is the effect of moving from zero to one. Z-statistics in parentheses.

Table 4
Marginal Effects of Changes in Variables on the Probability
of Considering a Law (a) and Passing a Law (b) to Prohibit the Sale of Cigarettes

| | Mean | (1a) | (1b) | (2a) | (2b) |
|-----------------|------------|------------|-------------|------------|-------------|
| | (Standard | Laws | Laws Passed | Laws | Laws Passed |
| | Deviation) | Considered | | Considered | |
| Baseline | | 85.94% | 53.12% | 89.06% | 54.13% |
| Probability | | | | | |
| Progressive | 25.06 | 7.76* | 9.35 | 5.71 | 16.99** |
| Vote in 1912 | (9.73) | (1.96) | (1.15) | (1.63) | (1.82) |
| Urbanization in | 41.49 | -4.12 | -3.24 | | |
| 1910 | (21.60) | (-0.72) | (-0.31) | | |
| Cigarette Prod. | 0.48 | -12.35 | -43.62* | -15.21 | -40.89* |
| in 1910 | (0.50) | (-0.98) | (-2.75) | (-1.21) | (-2.82) |
| Cigarette Use | 111.56 | | | -3.52 | -27.40* |
| in 1951 | (27.72) | | | (-0.69) | (-2.09) |
| LR Statistic | | 5.9 | 13.20 | 4.96 | 16.63 |
| % predicted | | 77.08% | 70.83% | 80% | 70% |
| correctly | | | | | |
| Observations | | 48 | 48 | 40 | 40 |

** Statistically significant at the 10 percent level; * statistically significant at the 5 percent level. Note: Estimated probabilities were computed from probit regression results. To compute the baseline probability, all variables are set at their mean, except cigarette production, which is set to zero. The marginal effect reported is the impact of a one standard deviation increase in the independent variable on the probability of adopting or considering prohibition, except cigarette production, which is the effect of moving from zero to one. Z-statistics in parentheses.

The econometric results should be viewed as a package with the narrative. Alone, they are not completely convincing because of the nature of our data. For Canada, our measure of the influence of cigarette consumers and progressives are imperfect proxies. For the U.S., our most serious econometric problem is that our dependent variable covers a span of twenty-five years and yet our independent variables come from data around 1910. This is not as bad as it may seem at first because nine of our fifteen states that passed legislation did so between 1905 and 1910. In addition we tried some alternative temporal measures for our independent variables, e.g., urbanization in 1900 and cigarette production in 1905, and our results are substantively the same. Furthermore we have not attempted to measure changing "supply" side influences as causal

factors, e.g., changes in political party in either house or the party of the governor. But, we have looked at these issues and there is remarkable stability in the dominance of one party within states.

Our results for Canada are consistent with our narrative. Urbanization, our proxy for cigarette consumption, increases the probability of an MP voting against prohibition: a one standard deviation in urbanization in the riding of an MP increases the probability of voting against the 1903 bill by 10% points. Given that the tobacco lobby was national in scope we did not have high expectations for the impact of our proxy. Though the coefficient on our tobacco measure is negative it is not reliably different from zero. Our two measures for the pro and con forces for moral reform produced the predicted results: a one standard deviation change in the percent protestant in the riding of an MP increases the probability of voting for the prohibition by 14% points, while MPs with a French name had a 30% point lower probability of voting for prohibition.

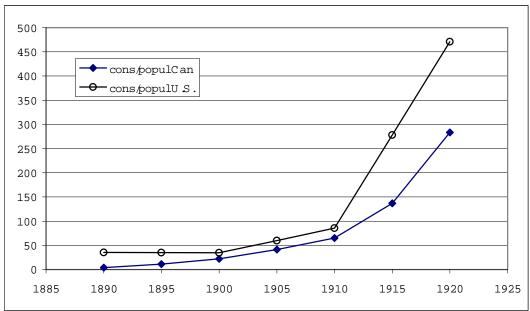
Our results for the U. S. are more nuanced than for Canada because we ran separate tests for whether a state considered legislation and whether it passed legislation, and because we have two separate measures for cigarette consumption. Looking first at the results in Columns 1a and 2a: our results for consideration of legislation indicate that the progressive movement was important in getting a bill to the floor. In regression 1a, the coefficient on Progressive is the only one reliably different from zero, increasing the likelihood of consideration by 8%. Put another way, neither the cigarette consumers nor the cigarette lobby was instrumental in blocking legislation at its conception. But to pass a bill into law was another story. Here the consumers and producers of cigarettes mattered. In regression 1b, where we proxy demand by urbanization, only producers mattered, reducing the likelihood of passage by 44% points in states with cigarette production. In regression 2b with our more specific measure of cigarette consumption, all forces mattered a lot. Assuming a one standard deviation change in the Progressive vote and cigarette use and switching from zero to positive production of cigarettes had the following impacts; the

Progressive vote increased the likelihood of passage by 17% points; consumers of cigarettes decreased the likelihood of passage by 27% points; and the presence a cigarette industry decreased the likelihood of passage by 41% points.

IV. Conclusion

In this paper we provided a descriptive and quantitative history of the regulation concerning cigarettes in the late 19th and early 20th centuries in Canada and the U.S. The qualitative evidence and its supporting statistical analysis led us to reach the following conclusions for this regulatory episode. Cigarette prohibition was an element of the broader social reform movement of the Progressive Era, which in turn was spawned by the religious awakenings of the late 19th and early 20th centuries. Social reformers were a necessary condition for getting prohibition on the legislative agenda, but once on the floor, the advocates of consumers and producers made their voices heard. For Canada, the voices of producers were slow off the mark and did not articulate their opposition until after the initial passage. But after the procedural dismissal of the vote, the coalition of anti-prohibition forces consistently won the day. For the U.S., 36 states considered legislation to prohibit the sale of cigarettes, but in the end only 15 states adopted legislation. This suggests that consumers and producers did not articulate sufficient opposition at the conception of a bill but in the end won the battle in most states. The "moral reformers" succeeded when they faced little opposition because few constituents smoked and/or no jobs were at stake because there was no cigarette industry. In other words, reform is easy when you are preaching to the converted.

Figure 1 Cigarette Consumption per capita in Canada and the United States



Sources: For the U.S.: Gottsegen, *Tobacco*; and for Canada:

BIBLIOGRAPHY

Annual Report of the Commissioner of Internal Revenue. Washington D.C.: Government Printing Office, 1910.

Bouant, Emile. Le Tabac. Paris: J. B. Bailliere et fils, 1901.

Brecher, Edward M. and the editors of Consumer Reports. *Licit and Illicit Drugs*. Boston: Little Brown and Co, 1972

Cook, S. A. "Through Sunshine and Shadow." The WCTU, Evangelicalism, and Reform in Ontario 1874-1930. McGill-Queen's University Press, 1995

Cooper, Jr. and John Milton. *Pivotal Decades: The United States, 1900-1920.* New York: W.W. Norton & Company, 1990.

Doron, Gideon. *The Smoking Paradox. Public Regulation in the Cigarette Industry*. Cambridge, Mass.: Abt Books, 1979.

Gottsegen, Jack. *Tobacco: A Study of Its Consumption in the United States*. New York: Pitman, 1940.

Fishback, Price and Shawn Kantor. "The Adoption of Workers' Compensation in the United States, 1900-1930." *Journal of Law and Economics*. 41 (1998): 305-341.

Fogel, Robert. *The Fourth Great Awakening and the Future of Egalitarianism*. Chicago: The University of Chicago Press, 2000.

Harvey, R.P.Vincent. L'église et le Québec. Montreal: Editions du Jour, 1961.

Jensen, Richard. The Winning of the Midwest. Chicago, The University of Chicago Press, 1971.

Kierman, Victor Gordon. Tobacco. A History. London: Hutchinson Radius, 1991.

Lewis, R.D. "Productive and Spatial Strategies in the Montreal Tobacco Industry, 1850-1918." *Economic Geography*, (October, 1994): 370-389.

Licari, Michael and Kenneth Meier. "Regulatory Policy when Behavior is Addictive: Smoking, Cigarette Taxes and Bootlegging." *Political Research Quarterly* (1997): 5-24.

McGowan, Richard. *Business, Politics, and Cigarettes: Multiple Levels, Multiple Agendas.* Westport: Quorum Books, 1995.

Morgan, H.J. The Canadian Men and Women of the Time, 1912.

Norman, E.R. *The Conscience of the State in North America*. Cambridge: Cambridge University Press, 1968.

Olson, Mancur. The Logic of Collective Action. Cambridge: Harvard University Press, 1965.

Report of the National Woman's Christian Temperance Union, Thirty-Sixth Annual Convention. 1909.

Rumilly, R. Histoire de la Province de Quebec. Vol IX. Montreal: Ed. B. Valiquette, 1944

Seltzer, Andrew. Causes and Consequences of American Minimum Wage Legislation. PhD Dissertation. University of Illinois, 1993.

Simard, Jean-Jacques "Ce siècle où le Québec est venu au monde." *Québec 2000. Rétrospective du 20^e siècle.* Montreal: Fides, 1999: 17-77.

Sobel, Robert. *They Satisfy. The Cigarette in American Life*. New York: Anchor Press/Doubleday, 1978.

Tate, Cassandra. Cigarette Wars: The Triumph of "The Little White Slaver." New York: Oxford University Press, 1999.

Tennant, Richard B. The American Tobacco Industry. New Haven: Yale University Press, 1950.

Troyer, Ronald and Gerald Markle. *Cigarettes: the Battle over Smoking*. New Brunswick: Rutgers University Press, 1983.

Voisine, Nive; Jean Hamelin and Nicole Gagnon. *Histoire du catholicisme québécois. Le 20^e siècle: tome I, 1898-1940.* Montreal: Boreal Express, 1984.

Warfield, Frances. "Lost Cause, A Portrait of Lucy Page Gaston," *Outlook and Independent*, (1930): 244-247, 275-76.

Wagner, Susan. Cigarette Country, Tobacco in American History and Politics. New York: Praeger, 1971.