

Intergenerational Progress in Educational Attainment When
Institutional Change Really Matters: A Case Study of
Franco-Americans vs. French-Speaking Quebeckers¹

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"Laissez-les partir, c'est la racaille qui s'en va" (Let them leave: It's the rabble who are leaving) George-Etienne Cartier (Co-Father of Confederation commenting on the exodus of French-Canadians to New England in 19th Century)

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Abstract

Using U.S. and Canadian census data I exploit the massive out migration of approximately 1 million French-Canadians who moved mainly to New England between 1865 and 1930 to look at how the educational attainment and enrollment patterns of their descendants compare with those of same aged French-speaking Quebecers. Data from the 1971 (1970) Canadian (U.S.) censuses reveal that New England born residents who had French as their mother tongue enjoyed a considerable advantage in terms of educational attainment. I attribute this large discrepancy to their exposure to the U.S. public school system which had no equivalent in Quebec until the late sixties. This result is even more remarkable given the alleged negative selection out of Quebec and the fact that Franco-Americans were fairly successful in replicating the same educational institutions as the ones existing in Quebec. Turning to the 2001 (2000) Canadian (U.S.) censuses, I find strong signs that the gap has subsided for the younger aged individuals. In fact, contrary to 30 years earlier, young Quebecers in 2001 had roughly the same number of years of schooling and were at least as likely to have some post-secondary education. However, they still trail when it comes to having at least a B.A. degree. This partial reversal reflects the impact of the "reverse treatment" by which Quebec made profound changes to its educational institutions, particularly in the post-secondary system, in the mid-to-late 60's. Given the speed at which this partial catch-up occurred, it would appear that the magnitude of the intergenerational externalities that can be associated with education is at best fairly modest.

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1 Introduction

Approximately 1 million French-Canadians migrated from Quebec to the United States, more particularly New England, between 1865 and 1930. As was the case for most U.S. immigrants who left Europe in those years, they left primarily to seek better economic fortunes south of the border. Quebec was rapidly running out of arable land, especially considering the high fertility rate of French-Canadians at that time. Thus, the choice was either to move to the cities, in particular Montreal, from the rural areas or to simply emigrate to the United States.

The objective of this paper is threefold. First I want to document the impact in terms of educational attainment that migrating to the U.S. has had on the descendants of French-speaking Quebeckers. However, whereas most papers looking at the impact of immigration make comparisons relative to the native population of the receiving country, I instead compare Americans of French-Canadian origin to the same age individuals living in Quebec in 1971. A primary motivation for doing this is that while the schooling system in Quebec stayed virtually unchanged until the late 1960's, emigrants, and especially their children, were exposed to the much more accessible U.S. public school system, including its post-secondary component. As I describe below, post-elementary educational institutions in Quebec, which were copied from pre-revolutionary French institutions, were until the mid to late 1960's inherently elitist with access to education beyond grade 9 reserved for children (to a very large extent males) of well-off families.

Second, I perform the same exercise of comparing the educational attainment of Americans of French-Canadian origins to that of their distant cousins in 2000/2001, exploiting the "reverse treatment" by which younger generations of Quebeckers had access by the late 1960s to a publicly funded schooling system while the U.S system was left unchanged. I am then able to see whether this sudden relaxation of the access constraint in Quebec was accompanied by a rapid closing of the gap between Quebeckers and their American cousins.

The findings are the following. Data from the 1971 (1970) Canadian (U.S.) censuses reveal that New England born residents who had French as their mother tongue enjoyed a considerable advantage in terms of educational attainment. In particular, they were more likely to be enrolled in a post-secondary institution, especially in the case of females. The educational attainment advantage is the largest for those individuals whose parents were themselves born in the U.S., and is smallest for the first generation immigrants. I attribute this large discrepancy in educational attainment between Franco-Americans and Quebeckers to the exposure to the U.S. public school system which had no equivalent in Quebec until the late sixties. This result is even more remarkable given the alleged negative selection out of Quebec and the fact that Franco-Americans were fairly successful in

replicating the same educational institutions as the ones in Quebec. Turning to the last 30 years of the 20th Century, I find evidence that the gap has subsided for the younger aged individuals. In fact, contrary to 30 years earlier, young Quebeckers in 2001 had more years of schooling and were more likely to have some post-secondary education, although they still trail considerably when it comes to having at least a B.A. degree. I view this partial reversal as reflecting the impact of the "reverse treatment" by which Quebec made profound changes to its educational institutions, particularly in the post-secondary system, in the mid-to-late 60's.

The third objective pursued in this paper is to assess the significance of the results in terms of how to interpret the correlation between parent education and child education. As is well known such a correlation, while pervasive across countries and time, is not straightforward to interpret. On the one hand, it could truly reflect the causal effect of education in the sense that parents with more education change as a result of having received more education. They then transmit values to their children that make them more likely to become more educated themselves. On the other hand, the correlation in the educational attainment of the parent and the child could be spurious: parents who push their children to have more education simply happen to have more education themselves. In the former case, education would generate substantial intergenerational externalities while in the latter case it generates no such externalities. Which one is a more accurate description has implications in terms of the magnitude of the social benefits of education.

The results in this paper can potentially illuminate how educational institutions interact with those two possible mechanisms. If all of the intergenerational correlation is due to intergenerational externalities, by which more educated parents have more educated children themselves because of education, suddenly opening up access to secondary and post-secondary schooling should not result in a fast catch-up process. If instead we observe large shifts in educational attainment from one generation to another across a broad spectrum of parental educational backgrounds as access constraints fall, then we should see a sharp drop in the correlation coefficient relating the education of the parents (whose access was restricted) to that of their offspring, who benefited from the opening up of the schooling system.

The results in this paper are strongly suggestive that a large part of the parent-child correlation in educational attainment is due in large part to institutional factors. This is particularly true when examining the radical change which occurred between the early 1970's and the early 2000's. Although it is still true that Quebeckers are much less likely to have at least a B.A. degree than their American counterparts, the fact that they are now at least as likely to have some form of post-secondary education is quite striking given the considerable educational attainment deficit observed as late as 1970.

To provide complementary evidence on the extent to which the parent-child correlation in education reflects either family background, educational externalities, or institutional effects, I use the 1994 International Adult Literacy Survey. More particularly, I compute the correlation between the educational attainment of the fathers and their sons by age groups and for English-speaking Canadians living outside Quebec and French-Canadians in Quebec. The results are striking. While French-speaking Quebecers aged over 45—those who would have faced the old elitist schooling system—have the largest correlation coefficient, that correlation is dramatically reduced for the respondents aged 16-35, exactly those whose fathers would have been educated under the old system while they would have benefited from the schooling institutions we know today. Thus it would appear that the magnitude of the intergenerational externalities that can be associated with education is at best fairly modest. Instead, I view those results as supportive of the hypothesis that institutional constraints matter a great deal and that when those constraints are relaxed, people of fairly diverse backgrounds in terms of parental education derive large benefits.

An important point to be made is that this conclusion is based on quite a different “experiment” than the ones examined in Black et al. (2005) for Norway and also in Oreopoulos et al. (2006) in the case of the U.S. Both papers use changes in compulsory schooling age laws in the two countries to instrument parental education. Forcing people to go to school through compulsory schooling is likely not to affect the same type of people compared to those who are affected by a sudden relaxation of the access constraint. In the latter case, people who wanted more schooling in the past but could not due to the elitist nature of the Quebec post-elementary education system were able to do so after the reforms in Quebec or, analogously, after they migrated to the U.S. Consequently our results should be seen as complementing those in papers exploiting different sources of variation in educational attainment.

2 The Emigration Movement

The basic reason why such a large number of people chose to emigrate to the U.S. has its root in the rapid growth of the population in Quebec between 1760 and 1850, which increased from roughly 60,000 to 670,000 (Brault (1986)). Coupled with the tradition in rural areas to split the property between sons if there was more than one becoming a farmer, Quebec more or less ran out of arable land and there was no choice but to go either into towns to find (mostly manufacturing) jobs or to leave for the US.¹

¹Other areas of the province, such as Abitibi-Temiscamingue, were also developed for farming, but the combination of rugged weather and poor soil quality made that alternative relatively unattractive. Clearly, the best farmland was

While George-Etienne Cartier's statement is strongly suggestive that emigrants were negatively selected, in reality it is not entirely clear that such was the case. A vast majority of the French speaking population of the province in the mid-to-late 19th Century was rural and many among them were illiterate. So it is far from clear that the group which elected to stay was "better". In any event, I do not view selectivity as being a serious issue in this paper. In fact, I think that the identification of Franco-Americans in the U.S. Census through a language (and birthplace) question until 1970 results in *understating* any advantage in terms of educational attainment for Franco-Americans, as the ones who became linguistically assimilated (and thus would not be identified in the U.S. Census) are very likely to be even more educated. Indeed, one very important feature of the French-Canadian emigration is their concerted effort at replicating Quebec society in New England, including the schooling system. This reluctance to assimilate into US society was a major source of tensions.² So while a significant number of Franco-American children attended U.S. public schools, an even larger number attended parochial schools in the early 20th Century in cities where the presence of Franco-Americans was substantial (see Appendix Table 1). Consequently, one can view Franco-Americans as being simultaneously held back by their own institutions as well as being pulled up by the availability of the public school system.

We can see in Figure 1 that a large number chose to emigrate, with the peak occurring between 1880 and 1910. Originally, as described in Brault (1986), many had in mind that their stay in the U.S. would be temporary, a short-term money earning opportunity that would allow them to buy their own farm back in Quebec. Indeed, there was considerable movement back and forth-both of people and money-for a few decades. This lack of attachment to their new country which, exemplified by the low take-up rate of U.S. citizenship, irritated many of their fellow U.S. citizens. Eventually, though, the vast majority who emigrated to the U.S. took roots. As we can see in Figure 1, the flows decreased starting around 1915 and all emigration stopped when the border was closed in 1930 following the onset of the Depression.³

located in the St. Lawrence Valley between Montreal and Quebec City, as well as in the Eastern Townships.

²See MacKinnon and Parent (2007) for more evidence on the backlash generated by this resistance to assimilate.

³Given that the flow of emigration stopped in 1930, it is remarkable that in 1970 roughly 10% of the population aged 25 and over in New England reported having French as their mother tongue.

3 Background on Educational Institutions in Quebec and New England⁴

As was the case in the mother country, the provision of elementary education in New France was left largely at the discretion of the religious authorities. The same was true for post-elementary education. Indeed, the first so-called "collège classique" (which will be described in more details below) was created by the Jesuits in 1635, thus giving rise to a tradition of emphasizing classics in the Quebec French-language education system which lasted until the mid 1960's.

Following the transition from the French to the British regime, no major change occurred until considerably later as the idea of a public schooling system was as foreign in England as it was in France at that time. The British basically left the responsibility of primary education to the Anglican church.

The first schooling law which created primary schools under the authority of the Governor was voted in 1801, but those schools were essentially boycotted by French-Canadians as there was a perception among them that the intention of the authorities was at least partly to assimilate them. The first elements of the system that developed later and existed until the mid 60's came into existence with the "Loi des écoles de fabriques" (or parochial schools) voted in 1824. As the name of the law suggests, the intention was to grant to local religious authorities the power to use a quarter of the parish's budget to set up and maintain schools. However, due in part to popular apathy and in part to inadequate revenues, relatively few parish schools were ultimately created, as only 68 were enumerated in 1830. As a consequence, illiteracy was still widespread at that time.⁵

Although the attempt to organize the provision of basic education through the law on parochial schools largely failed, the idea of decentralizing the school system at the parish level did survive. New legislation which led to the creation of the first school boards was voted in 1845, and with it the financing of primary schools through municipalities. Secondary and post-secondary schooling, which took place in classical colleges, was under the control of the Catholic Church and would stay that way until the mid-60's. With the British North American Act of 1867, education was placed under the jurisdiction of the provinces, and over the next few decades, the primary school system

⁴This section draws heavily from Volume 1 of the report of the Commission royale d'enquête sur l'enseignement dans la province de Québec (1963), commonly called the "Rapport Parent" at the time.

⁵English-speaking settlers were doing somewhat better insofar as they tended to be located in towns where Scottish and English teachers made a more concerted effort at providing basic literacy skills. To give an idea of the level of illiteracy among francophones, 78,000 of the 87,000 individuals who signed a petition denouncing the corruption and favouritism associated with the regime of Governor Dalhousie in 1827 did so by drawing a cross on the document (Commission royale d'enquête sur l'enseignement dans la province de Québec (1963)).

grew in importance as basic education became fairly widespread, though of short duration in most cases.

The college classique system continued to develop as well as vocational institutions ("école de métiers"), which were considered a substitute to collèges classiques. Classical colleges were responsible for what we now consider to be high school level education, as well as for post-secondary schooling. The four years of high school would be made of "éléments", "syntaxe", "méthode", and "versification", while the four-year post-secondary component of collèges classiques would involve "belles-lettres", "rhétorique", and two years of "philosophie", for a total of up to eight years of schooling following the completion of the seventh grade. Successful completion was rewarded with a "baccalauréat"-a Bachelor of Arts-, which would then open the door for further, university level studies in e.g. medicine, law, and science.

Quebec had to wait until 1943 for its first compulsory schooling age law, which made school attendance mandatory from the ages of 6 to 14. Still, it was fairly common in rural areas to be exempted from attending schools. Teachers were not paid very high salaries as teaching itself was still largely considered a "vocation". Female instructors, whether they belonged to a religious order or not, were paid much less than their male counterparts. To give an idea of the quality of the education system at that time, 70% of all primary schools in 1951 had only one classroom, 60% had no electricity and 40% no washrooms (Québec Department of Education). By the end of the 1950's only 63% of all children entering primary school finished their 7th grade.

The Quiet Revolution brought with it a strong desire to make substantial changes to the schooling system and "democratize" education. A Royal commission was set up in 1961 and following its report, major legislation was enacted in 1964 which created the Department of Education and which resulted in the Catholic church ceding its control over secondary and post-secondary education in 1965. All phases of schooling became publicly funded as the second half of the 1960's saw the creation of CEGEPS (1966) and of the University of Quebec network (1968). The minimum school leaving age was also raised to 15 years-old (later to 16 years-old in the 80's). This system has basically been left unchanged for the past forty years. CEGEPS charge no tuition and until the 1990's university tuition fees were very low. While Quebec university tuition fees are still the lowest in Canada, they were fairly rapidly raised in the mid 1990's.

3.1 Franco-American Education in New England

Much the same institutional apparatus which existed in Québec in the mid to late 19th Century at the time emigration to the United States took off, was gradually implemented in the New England

towns where French-Canadians settled in significant numbers. Just as in Québec, it was not as customary for Franco-Americans to attend high school or college compared to other immigrant groups in the United States (MacKinnon and Parent (2007)). Initially, the options for post-primary education were U.S. public schools, English language Catholic institutions, or (in Canada) convent boarding schools for girls or church-run collèges classiques for boys. With increased demand by Franco-Americans for post-elementary but not secular schooling in New England, several convents began to offer schooling for teenage girls. The first U.S. Classical College, Assumption College, was established in Worcester, MA, in 1904. By the late 1930s instruction at Assumption was bilingual (Brault (1986), p. 98).

Franco-Americans tried hard to re-create the educational institutions of French Canada. Three main differences in the educational environment made the New England "flavour" different and played key roles in the eventual absorption of Franco-Americans into mainstream society. First, except in the very early years, all the U.S. schools provided substantial instruction in English.⁶ Second, all children were eligible to enroll in the public school system. Franco-Americans were subject to pressures from native Americans to enroll their children in the public schools at the same time that their priests preached the importance of sending the children to the parochial school.⁷ Although parents in urban Quebec could in principle enroll their children in English-speaking Catholic schools, in practice few did. Finally, compulsory schooling age laws were more binding in the U.S. While in New England manufacturing towns it may have been fairly easy for children just below the school-leaving age to evade compulsory schooling laws, by the early twentieth century there was strong external pressure to ensure attendance for seven or eight years.

4 Data

4.1 U.S. Census Data

I use the IPUMS of the United States Census for most 20th Century census years as well as the 2000 Census to create samples of New England born individuals of French Canadian origin and of first-generation French-Canadian immigrants living in New England. I focus on New England born individuals as the concentration of French Canadians was highest there and the institutions necessary

⁶Typically, instruction was in French for the following topics: language, bible study, art, Canadian history. English would be the language of instruction for the remaining subjects: reading, writing, arithmetics, American history, civics, geography (Brault (1986), p. 95).

⁷An English-language parochial school might also exist. In Newburyport MA in the early 1930s, only a quarter of elementary school age French Canadian children attended the French parochial school (Warner and Srole (1945), p.233).

to permit the maintenance of a separate identity flourished. In a sense this can be considered a "lower-bound" scenario: finding, as I do, a substantial difference in educational attainment when comparing French-Canadians to New England born Franco Americans-the group most likely to be held back by their self-created educational institutions-is strongly indicative of the effectiveness of the U.S. public school system to help accelerate the catching up process of immigrants in terms of educational attainment.

Strong emphasis is put on the 1970 and 2000 U.S. Censuses. The Form 2 samples of the 1970 Census contain information about birthplace and mother tongue for respondents and both their parents.⁸ The 2000 U.S. Census is less appropriate for the purpose of evaluating intergenerational progress because they contain only the self-reported first and possibly second ancestry of the respondent. The absence of information about parental birthplace precludes looking at convergence across generations. By 2000, few Franco-Americans under 70 had been born in Canada. Hence it is very likely that some third (or even higher) generation descendants of immigrants are picked up with the "ancestry" response, but it is not possible to separate generations. However, this census does allow respondents who never spoke French to identify with the French Canadian ethnic group and thus one can look at the school enrollment rates of the youngest among them as well as the educational attainment across age groups for those aged at least twenty five.

The 1900, 1910, 1920, and 1930 Census IPUMS are used to assess literacy and school enrollment. The 1940 Census includes most of the relevant variables also in the 1970 Census. I use those censuses to look at the evolution of school enrollment rates in the first half of the 20th century. The sample size in the 1940 Census is restricted because only "sample-line" members (one per household) were asked questions on mother tongue and parents' birthplace. I added observations to the sample-line member sample by looking at each household member's relationship to the head of the household and to the sample-line individual. For example, if a non sample line member is the son of the head of household and the head's wife is the sample-line individual, and her mother tongue is French, then the son is considered to be a Franco-American.⁹

⁸Are excluded both respondents who report French as their mother tongue but birthplace in any French-speaking country other than Canada and those reporting parental birthplace in a French-speaking country other than Canada. Few observations were deleted-to be francophone in New England virtually always was to be of French Canadian descent.

⁹When the sample line individual in the household is a non-relative, one cannot infer anything about ethnic origins, unless someone in the family group was born in French Canada.

4.2 Canadian Census Data

The primary sources of data are the 1971 and 2000 Censuses. In each census I form samples of french-speaking Quebeckers born in Quebec (so as to exclude french-speaking immigrants). The choice of 1971 (as opposed to, say, the 1981 census) is guided by one crucial consideration. Since very few individuals aged 25 and over would have benefited from the newly reformed secondary and post-secondary education system in Quebec, one is able to look at how those individuals fare relative to their New England born cousins at a point in time when the latter group would have been exposed to the public school system for a long time while the former group would have faced serious access constraints. For individuals aged less than 25, one would also expect school enrollment patterns to differ at the post-secondary level given that many would have left school by the time they reached the normal age when one enters post-secondary schooling.

Note that one can identify "returning" migrants in the 1971 Census as being French-speaking individuals born in the U.S. but living in Quebec at the time of the census. Not surprisingly given that the flow of emigration more or less stopped in 1930 (emigration resumed in much smaller numbers after World War II), the fraction of U.S. born residents of Quebec is larger for older individuals. Whereas less than one half of one percent of Quebec residents aged under 50 were born in the U.S. in 1971, 2.1% of those aged over 50 were born in the U.S. (3.8% for 60 and over). Those individuals are dropped from the sample as the focus is on comparing of the descendants of emigrants to the U.S. with Quebec born non-emigrants.¹⁰

One potential problem is to obtain comparable levels of educational attainment for both Americans and Quebeckers. The 1970 U.S. Census asks directly the number of years completed schooling whereas schooling is reported in categories in the Canadian Census. I create a measure of completed years of schooling in Quebec by using the mid-points of the reported categories. Although there is no way to verify it, I may be overstating or understating the level of educational attainment relative to the true level. In the latter case, any differential between Franco-Americans and Quebeckers would be magnified while the reverse would happen in the former case. Both to check the robustness of our results and to analyze educational attainment differentials at different margins of schooling choices, I also look at whether individuals have some form of post-secondary education or as well whether they have at least a B.A. degree, which can perhaps be viewed as being more uniformly defined schooling categories in both the U.S. and Quebec.¹¹

¹⁰As one would perhaps expect, those born in the U.S. tend to have somewhat more education than Quebec born French-speaking Quebeckers, reflecting the partial or complete exposure to the U.S. public school system.

¹¹While it is true that a high school diploma can be obtained with 11 years of schooling in Quebec (6 years of elementary plus 5 years of secondary schooling), compared with 12 for their American counterparts, there used to

5 Empirical Analysis

5.1 Literacy and School Enrollment

Figures 2a and 2b show school attendance rates for two groups of New England-born individuals in 1910, as well as for Quebec francophones in 1901.¹² French-speaking children were more likely to attend school in New England than had been the case a decade earlier in Quebec, but as soon as they were considered able to work, almost all left school. In fact, there is basically no difference between Franco-Americans and French-Canadians in Quebec past the age of 14. A broadly similar age pattern is observed for girls, but with both a perceptible drop at around the age of 10 for Franco-Americans and with somewhat more girls than boys continuing at school into their mid-teens. Both French-speaking groups were much less likely to attend school past their early teenage years than English-speaking Americans. As Figure 2b shows, Franco-American girls started school at the same age as English-speaking native born girls. French speaking boys, however, not only left school earlier than the English-speaking natives, they also started later, with near-universal attendance reached at age 9. One does not see this contrast in Quebec where few young children of either sex were at school.

The New England school attendance patterns in 1910 do not reflect the relative literacy rates of the two groups of francophones, as Figures 2c and 2d show. In 1910, the literacy rate of French-speaking adults in New England was similar to that of adults in rural Quebec a decade earlier. On both sides of the border, French-speaking men were less likely to be able to read and write than their wives and sisters. In 1910, even among young males, close to 20 percent were illiterate, with the ability to read and write falling sharply for men born before about 1860.

Figures 3a and 3b compare school attendance rates in 1940/41 to show the progress made by second generation Franco-Americans relative to their Quebec cousins. The first thing to note is that second generation Franco-American children basically attended school full-time until they reached the age of 14 or so, after which the attendance rate dropped but much less precipitously than it did 30 years before. Secondly, the difference in school attendance rates between Franco-Americans and urban Quebecers is not very large: children in Trois-Rivières or Québec City were almost as

be a 7th year of elementary schooling in Quebec but it was dropped in the early 70's, that is after the 1971 Census. Hence, the comparability issue surrounding the meaning of having "some post-secondary" in Quebec in 1971 may not be so severe. It is true, though, that it is an issue for the comparisons using the later censuses. More on that below.

¹²The currently available IPUMS 1 in 200 sample from the US 1900 census does not include enough French-speaking children in New England for it to be useful. No sample of the 1911 Canadian census is yet available. At least in rural areas, school attendance rates would have been little higher in 1911 than in 1901. The resulting sample has 26,973 (New England) and 24,956 (Quebec) observations of individuals aged 5 to 21.

likely to be attending school as their American cousins. For children living in rural areas, though, the drop in the attendance rate is quite sharp past the age of 13.

Although children living in urban areas in Quebec were attending school at roughly the same rate as their American counterparts, it should be stressed that children in rural areas are more relevant as a comparison group to evaluate the degree of relative progress enjoyed by Franco-Americans. As shown in Figures 2c-d, literacy rates in New England and rural Quebec were very similar in the early 20th Century. This is not a surprise as the vast majority of Quebec emigrants going to the U.S. came for rural areas. That the children of those emigrants were as likely to attend school as urban Quebec children in 1940 provides clear evidence of the substantial progress made by Franco-Americans. This progress is even more remarkable given the explicit resistance to assimilation exemplified by the extensive parochial elementary school system and the pressure put on families by the Catholic clergy to send their children to those schools. It seems quite plausible that second generation Franco-Americans would have had higher school enrollment rates than urban Quebecers by 1940 in the absence of this attachment to their home country institutions.

Turning to school enrollment in 1970/71, it should be noted that the Quebec public school system as we know it today was basically set, including its post-secondary institutions.¹³ Looking at Figures 4a and 4b we can see that apart from the very early schooling ages, French-speaking Quebecers' enrollment pattern was roughly similar to that of their American cousins.

In fact there is no evidence of a lower rate of school attendance in Quebec for those aged 18 or more. Those individuals would have represented the first generation of Quebecers who could access public post-secondary education institutions. However, the picture is made more complicated by the fact that attending school in 1971 in Quebec when aged 18 or more did not necessarily imply that those individuals were attending a post-secondary institution. It is possible that some of those individuals could have taken advantage of the new educational opportunities and came back to e.g. finish their secondary schooling. Indeed, there is strong evidence that this is what happened, as we can see in Figures 4c and 4d which plot the fraction of individuals aged 18 to 25 with less than completed high school education attending school.¹⁴ Whereas very few Franco-Americans with less than high school education were enrolled in school into their 20's, a substantial fraction of Quebecers

¹³The only change occurring after 1970 was the elimination of the seventh grade of elementary school after the 1971-72 school year, hence the fact that having a high school diploma in Quebec means having eleven years of completed schooling instead of the usual twelve.

¹⁴Although the U.S. Census allows one to know exactly whether high school is completed, such is not the case in the 1971 Canadian Census: we only know the highest grade attended by the respondent. To be conservative I classify as not having completed high school someone in either the U.S or in Canada who reports having 11 years or less of education.

were. Although not shown here, multiplying the enrollment rate figures shown in Figures 4a-b by one minus those reported for Quebecers in Figures 4c-d results in a "true" post-secondary enrollment rate that is still below that of Franco-Americans.

If we now look at enrollment rates in 2000/2001, we can see in Figures 5a and 5b that for both males and females, children of French-Canadian ancestry are now less likely to be enrolled at the ages corresponding to post-secondary education. And in 2001, contrary to thirty years earlier, Quebecers of post-secondary schooling age are no more likely than their American counterparts to attend school if they have not completed high school, especially those attending full-time.¹⁵ What is remarkable is the fact that the population of Franco-American school age individuals in 1970 was identified through a question on mother tongue. This automatically eliminated those who had been linguistically assimilated through the years. By contrast, the much looser ethnicity question in the 2000 U.S. Census would include many of those individuals. Under the plausible assumption that self-reported Franco-Americans in 1970 would be more likely to have remained attached to their parochial schooling institutions and would have relatively less schooling than the overall population of all the descendants of French-Canadians, this would tend to make Americans of French-Canadian ancestry look better relative to Quebecers than it did in 1970.

5.2 Educational Attainment

5.2.1 1970 U.S. Census and 1971 Canadian Census Data

Table 2 reports the results for regression models of educational attainment measured as years of completed schooling in which our sample of Franco-Americans is made of those born in New England. All models include an unrestricted set of dummies for age. We can see in Table 2 that for both males or females the educational attainment of the former was on average considerably lower than for Franco-Americans. Perhaps not surprisingly, the difference in educational attainment is smallest in the case of first generation immigrants into the U.S. There is even evidence that the younger male migrants-but not females-living in New England have less schooling than the same aged individuals in Quebec.

Looking across generations, we can see that the gap is larger for individuals born in the U.S. from Canadian-born parents and even larger for those born from U.S. born parents. This is true for all age groups and for both males and females. It is clear that the further removed the individuals are from their ancestors birthplace, the wider is the gap with their Quebec cousins. I view this increasingly larger discrepancy as being generated from two likely sources. The first one stems

¹⁵The U.S. Census makes no distinction between full-time and part-time attendance.

form the fact that U.S. born Franco-Americans were less likely to send their children to parochial schools than were Canadian-born ones, thus exposing a non-negligible fraction of the children to the more "normal" stream. Evidence on this can be seen in Appendix Table 1 where I show the fraction of children of various ethnic groups attending parochial schools in 1908. We can see that although a large percentage of Franco-American children attended parochial schools, it was not the whole population of school age children who did. Attending public schools would have had the effect of accelerating the integration into mainstream American society. A second factor favouring contributing intergenerational catch-up is simply that the norm in terms of educational attainment evolved over time in the United States at a much faster pace than it did in Quebec.

If we turn to Panels A and B of Table 3 where the focus is on the incidence of having at least some post-secondary education, we can see again that the intergenerational effect is quite large: individuals born of U.S. born parents show a much greater incidence of having some form of post-secondary education. This is perhaps easier to see when looking at the proportional differential between Quebec French speakers and Franco-Americans. Clearly, in spite of the strong attachment of the early immigrants to French-Canadian institutions, the fact that sending children to public schools was always an available option played a major role.

Interestingly, females seem to have particularly benefited from exposure to public schools relative to males. The proportional differences between Franco-American and Quebec females are in general larger for most age groups, sometimes much larger. A surprising finding in the case of females is the fact that even first generation emigrants to the U.S. are much more educated than Quebec females. This is true for all age groups, except perhaps the oldest one. The percentage differentials for first-immigrant males are of more modest magnitudes. In fact, the youngest emigrant males tend to be less likely to have some post-secondary education than males in Quebec.

The magnitude of the educational attainment advantage of the first-generation female emigrants is somewhat of a puzzle. On the one hand it is possible that many of those females migrated to the U.S. before or at the time they were of school age. With compulsory schooling age laws biting a lot more in the U.S. than in Quebec, this could rationalize the large positive difference favouring Franco-Americans. On the other hand, such a large difference would require that a large fraction of first-generation immigrants left Quebec at an early age. Unfortunately direct evidence on this cannot be provided using the 1970 Census "Form 2's" as they do not include years since migrating to the U.S., which would allow to back out the age at which they left Quebec. One can, though, use the earlier (1900-1930) censuses to do that. Using only the individuals who migrated to the U.S. during the main period of emigration (between 1865 and 1920), we can see in Figure 6 that a large fraction of Franco-Americans did arrive at an early age. This provides evidence that the large proportional

differences in terms of educational attainment between Quebecers and Franco-Americans reported in Table 3 may be the result of the effect of compulsory schooling. Still, compulsory schooling mainly affects having at least some secondary schooling, not post-secondary schooling. Naturally, one must keep in mind that with such a small fraction of Quebec women getting some post-secondary schooling, even a modest percentage point difference will translate into a large proportional effect.

One additional reason which could explain why first-generation emigrants to the U.S. have for the most part substantially more education than Quebecers is simply that contrary to what George-Etienne Cartier said, selection out of Quebec was not negative, at least not for the emigrants surveyed in the 1970 U.S. Census. Note that for individuals aged 65+ the difference is not nearly as large as for the younger emigrants. Although not shown here, looking at even older individuals, say 80 year-olds and over, there is basically no difference in educational attainment between Quebecers and first-generation Franco-Americans. This is true for both males and females. So while it is still the case that it provides little evidence for negative selection out of Quebec, it does suggest that earlier emigrants were not that different from the average Quebecer.¹⁶

If instead of looking at the incidence of having at least some post-secondary schooling one refines the definition of post-secondary education to having a B.A. degree or more, a somewhat different impression emerges. Focusing on males first (Panel B of Table 3), although there is clear evidence that Franco-Americans surpassed their Quebec cousins over time, the process appears less straightforward. Having such a level of educational attainment was not common for either of these two populations, at least in the early 70's. In fact, it is interesting to note that only for third generation Franco-Americans (as well as for those in the "other" category) do we consistently see a substantial advantage. This suggests quite strongly that one does not erase the impact of coming from a low socio-economic background overnight or within a generation. While considerable progress was made by Franco-Americans in the decades following their arrival, the jump from having minimal education to having at least a B.A. degree took a couple of generations. Even then, as shown in MacKinnon and Parent (2007), they still trailed native English-speaking New Englanders by a substantial margin in 1970.

Yet, characterizing the progress of all Franco-Americans as a process taking a few generations to produce tangible results in terms of achieving high levels of educational attainment is not quite accurate. If we look at Panel D, which reports the results for females, we can see that their rate of intergenerational progress was quite rapid relative to males. Except for the youngest age group,

¹⁶Of course, Cartier made his remark from the perspective of a member of the elite. Clearly the civil elite, as opposed to some members of the clergy, did not leave Quebec, so from their perspective those who left had inferior social status, much like the rest of the population.

Franco-American females of the second generation already display significant progress. Note that this is also true when one looks at having at least some post-secondary schooling. Examining the results reported in Table 3, it seems as though females benefited most from their forebears having migrated to the U.S. They upgraded their educational attainment relative to females in Quebec at a faster rate than the males.

It is worth noting again that the 1970 U.S. Census identifies Franco-Americans by language and birthplace. Thus it is not possible to identify the descendants of French-Canadian immigrants who became linguistically assimilated. A related problem arises in the context of the assimilation of Mexican-Americans. As shown by Duncan and Trejo (2006), the reportedly slow assimilation process of third generation Mexican-Americans is partly the result of compositional effects: those of Mexican origin who have assimilated through exogamous marriages are actually not that far behind non Hispanic Whites in terms of educational attainment. Similarly in this case, those who have become assimilated may be more likely to have higher educational attainment. However, this would result in *understating* the estimates of the educational attainment deficit of Quebecers relative to their U.S. cousins reported in Tables 2 and 3. I verify this conjecture below when I look at data from the 2000 U.S. Census where ethnicity is not defined by language but by a more loosely defined ancestry question.¹⁷

In summary, comparing those still identifying themselves as New England born native French-speakers in 1970 and their Quebec cousins, it is difficult not to see the important role played by the availability of public schools in helping Franco-Americans increase their level of educational attainment relative to same-aged individuals living in Quebec.

A caveat worth mentioning is that it is possible that Franco-Americans would have increased their schooling level even if none attended U.S. public schools. This would be the case if Franco-Americans were influenced by the different social norm, or simply different labour market requirements, regarding educational attainment in the United States relative to Quebec. As seen in Figures 3a and 3b, even as early as 1940 over 30% of English-speaking Americans had at least a high school diploma. To the extent that integration into the labour force is facilitated by having higher educational attainment, Franco-Americans could have felt a more pressing need for educational upgrading than would their Quebec cousins. In any event, the evidence shows that a substantial fraction of Franco-Americans did enroll in public schools.

¹⁷In MacKinnon and Parent (2007), we show that World War II was an important event that affected a variety of outcomes: a) it precipitated the migration of Franco-Americans out of New England; b) it helped male veterans acquire more education through the G.I. Bill; and c) it increased the likelihood of marrying outside the ethnic group. All three of those outcomes would be expected to accelerate language assimilation, if not for the veterans themselves, at least for their children and grand-children.

5.3 Evidence from the 2000 U.S. and 2001 Canadian Censuses

As mentioned earlier, the 2000 U.S. census no longer allows identifying the various generations of Americans of French-Canadian ancestry, except for the first one. On the other hand, they are self-identified from a considerably looser question than in 1970 where one has to use mother tongue. Although in principle it is possible to use a question on which language is spoken at home to identify a group of Franco-Americans similar to the one identified in the 1970 Census, in reality a lot of those who reported French as their mother tongue in 1970 were not using it at home. In any case, it is possible to indirectly infer whether the self-identification of Franco-Americans based on mother tongue in 1970 may have made them look "worse" relative to Quebeckers than the average descendants of French-Canadian emigrants by looking at the older individuals in 2000 and see if the educational attainment advantage they enjoy relative to Quebeckers is comparable to what it was 30 years earlier, when measured using the 1970 Census.

If we first look at Table 4, which reports the difference in years of completed schooling between Americans of French-Canadian first or second ancestry and Quebeckers, we can see that for both males (Panel A) and females (Panel B), there is no evidence that Quebeckers trail. In fact it would appear that the opposite is true, especially for women, who have about one-half a year more schooling in Quebec than in the U.S. If I look at the difference across different groups of Americans of French Canadian ancestry, those born in New England tend to be more educated than the average. Interestingly, the advantage of around 2 years enjoyed by those aged 55 to 64 corresponds quite closely to the educational attainment advantage that third generation Franco-Americans, those born of U.S. born parents, had in 1970 when they were aged 25 to 34 (see Table 2). Given that it is unlikely that individuals on either side of the border would have acquired any additional education, we would expect those numbers to be similar if the two samples of individuals of the same birth cohorts are equally representative. The evidence shown in tables 2 and in Table 4 suggests that the group of Franco-Americans identified through mother tongue in 1970 is fairly representative of the whole population of the more loosely defined group of Americans of French-Canadian ancestry.

An important caveat with using years of completed schooling as a marker of educational attainment is that in both countries one needs to partly create that measure from the available information in both censuses. For example, Quebeckers having between 14 and 17 years of schooling are in the same group, as are those with at least 18 years of schooling. The same is true at the other end of the schooling distribution: one category for those with less than 5 years of schooling and another for those having between 5 and 8 years.

As it turns out, the results in Table 4 do show some sensitivity to the way years of schooling

are computed. How I assign educational attainment for those having between 14 and 17 years of schooling matters for the youngest age groups. Hence if instead of assigning the midpoint of 15.5 years for females in Quebec, I assign them 15 years of schooling, their educational attainment advantage relative to the Americans drops to .23 years down from .44. It drops to zero if I assign 14.5 years of schooling to those reporting having between 14 and 17 years and becomes slightly negative if I become even more conservative and simply assign the lower bound of 14 years of schooling. Not surprisingly, such adjustments have no influence on the relative educational attainment advantage for the older groups, given that so few of them reached that level in Quebec. On the other hand, if I change the assignment rule at the bottom of the schooling distribution then it has a big effect on the relative advantage of the older Americans, but none for the youngest. Interestingly, how I assign educational attainment to those Quebecers with at least 18 years of schooling does not matter a great deal for any of the age groups. In any event, the evidence reported in Table 4 is suggestive of a major catch-up in educational attainment having occurred in Quebec between 1971 and 2001.

If I now look instead at educational attainment defined in terms of either having at least some post-secondary or at least having a B.A., interesting contrasting evidence emerges. Turning first to Panels A, B of Table 5, we can see again that while Americans of French-Canadian ancestry aged 35 or more are more likely to have at least some post secondary education, there is virtually no differences for individuals in the youngest age group.

One disturbing feature of Table 5 is the fact that the fraction of Quebecers reporting to have at least some post secondary education is quite higher in 2001 for the same cohorts than in 1971. For example, 36.8% of males aged 55 to 64 in Quebec in 2001 report having some post-secondary education. However, only 15.7% of the same cohort of individuals, aged 25 to 34 in 1971, report such a level of educational attainment. While it is difficult to explain how educational attainment can increase so much for a group of individuals, one factor that could partially explain such a change is the fact that attrition due to death may affect less educated individuals more than it affects the more educated ones (Lleras-Muney (2005)). A reassuring indicator, however, is that whatever factor contributed to the increase in the fraction of individuals reporting having at least some post secondary education, it seems to have worked the same way on both sides of the border. This can be inferred from the fact that the percentage point differentials between Americans of French-Canadian ancestry and French-speaking Quebecers in 2001 are fairly comparable for the same cohort of individuals examined in 1971, at least when I focus on third generation Franco-Americans and the ones with mixed parentage.

Again, consistent with what is in Table 4, the parity achieved by the youngest age group of Quebecers in 2001 is strongly suggestive that Quebec managed in a thirty year interval to substantially

upgrade the level of education of its population.

If one considers instead the relative incidence of individuals with at least a B.A. degree (Panels C and D of Table 5), the picture is quite different than in either Table 4, or Panels A and B of Table 5. We can see that Quebeckers are still trailing considerably in 2001 across all age groups. Although this is true for both males and females, the results for males actually look worse. Taking the cohort of Quebec individuals aged 55-64 in 2001 as the "base" in terms of representing the last cohort of males having grown up at the time of the old elitist education system in Quebec, one would expect some relative improvement across age groups, from the oldest to the youngest. Indeed, there was improvement as the proportional advantage of Franco-Americans declined from about 79.4% to 60.2% (looking at the comparison made using those born in New England). However, for females the relative improvement was much more substantial, the relative advantage of New Englanders dropping from 123% to 45%.

What the results in Table 5 suggest quite strongly, is that while the reforms in the education institutions in Quebec allowed Quebeckers to catch up relative to their U.S. cousins, this catch up was limited to reaching a level of education below that of a B.A. degree. In other words, it seems as though much of the catch up occurred at a level of schooling corresponding to CEGEP's, and not nearly as much to universities. Thus the effect of the "reverse treatment" by which Quebeckers suddenly had access to a public education system roughly modelled along the same lines as elsewhere in North America, while the system stayed the same in New England, did allow a partial catch up. But it is far from complete at the top of the educational attainment distribution.

5.4 Complementary Evidence from the 1994 International Adult Literacy Survey

Three main conclusions emerge from the preceding subsections. The first one is that Franco-Americans of the second generation quickly surpassed their Quebec cousins from rural areas in terms of school enrollment. Secondly, the educational attainment of second and subsequent generation Franco-Americans in 1970 was much higher than that of same aged people in Quebec. Third, Quebeckers caught up with Americans of French-Canadian ancestry between 1970 and 2000 on all dimensions of schooling except having at least a B.A. degree.

As mentioned in the introduction these results are suggestive of the importance of institutional constraints that, in relative terms, left families of less favoured economic backgrounds excluded from the post-secondary educational system. To gain additional insight on that aspect, Table 6 reports the correlation coefficient of fathers and sons computed using the 1994 International Adult Liter-

acy Survey (IALS). The computations are performed using Canadian-born English-speakers living outside Quebec and Quebec-born French-speakers living in Quebec. The age groups are selected specifically to clearly separate the generations of Quebeckers who faced the old elitist schooling system from the newer ones.¹⁸

The results are striking. While French-speaking Quebeckers aged over 45—those who would have faced the old elitist schooling system—have the largest correlation coefficient, that correlation is dramatically reduced for the respondents aged 16-35, exactly those whose fathers would have been educated under the old system while they would have benefited from the schooling institutions we know today. Note that the computations are done excluding those still attending school. If I include those, the results are qualitatively the same for the English-speakers and for the older group of French-speakers. However, for the younger French-speakers the correlation coefficient drops to 0.016, making the change across generations even more striking.

6 Conclusion

The fact that Quebec (partially) caught up in the span of just one generation is suggestive that the externality mechanism plays a limited role in generating a positive correlation between the educational attainments of the parents and children. If children become more educated because their parents received more education themselves, we should not have observed such a dramatic drop in the correlation between fathers' and sons' schooling levels, as reported directly using the IALS or indirectly through the different experiences of two groups which initially belonged to the same population. On the other hand, the fact that Quebec still lags in terms of having a B.A. degree or more relative to the descendants of French-Canadians who emigrated to the United States is consistent with two possible explanations. The first one is that while, as found in this paper, institutional constraints matter a lot, unmeasured family characteristics influencing educational attainment play a role too. The second one is simply that the social norm of achieving higher levels of schooling in the United States has forced everyone to keep up with those ever increasing expectations. It would seem very difficult to disentangle those two explanations as family “values” are no doubt shaped in large part by the entire society in which those families live.

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¹⁸The public-use file of the IALS only includes age brackets.

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Figure 1. Year of Arrival in New England: French-Speakers Born in Canada
Source: Combined 1900-1930 U.S. Censuses

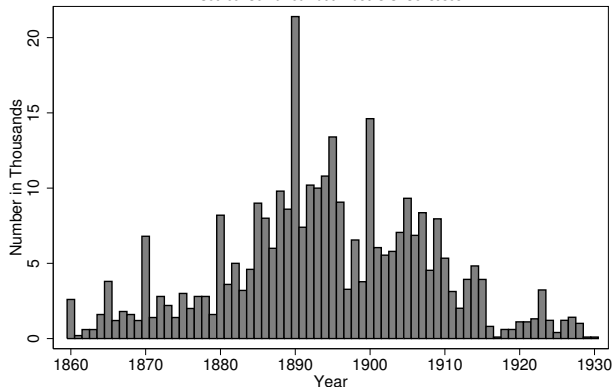


Figure 2a. School Attendance Rates in New England and Quebec by Age: Males
Source: 1910 U.S. and 1901 Canadian Censuses

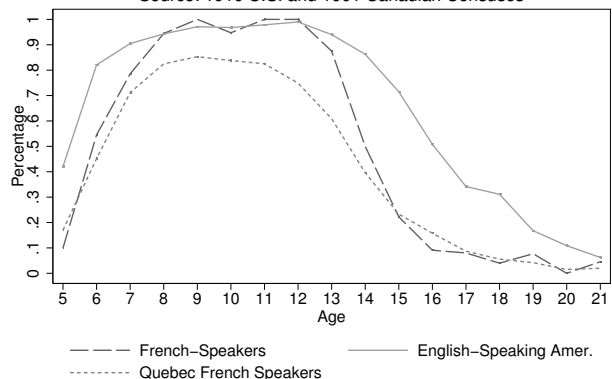


Figure 2b. School Attendance Rates in New England and Quebec by Age: Females
Source: 1910 U.S. and 1901 Canadian Censuses

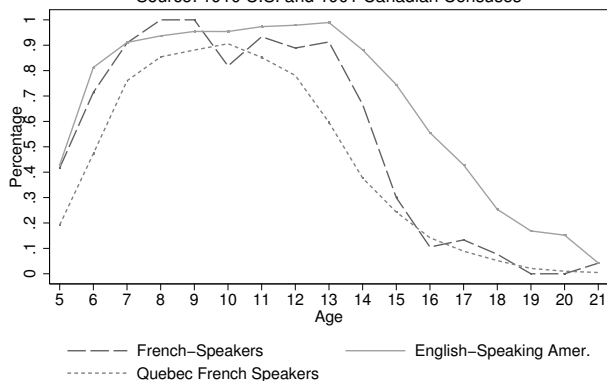


Figure 2c. Literacy Rates in New England and Quebec by Age: Males
Source: 1910 U.S. and 1901 Canadian Censuses

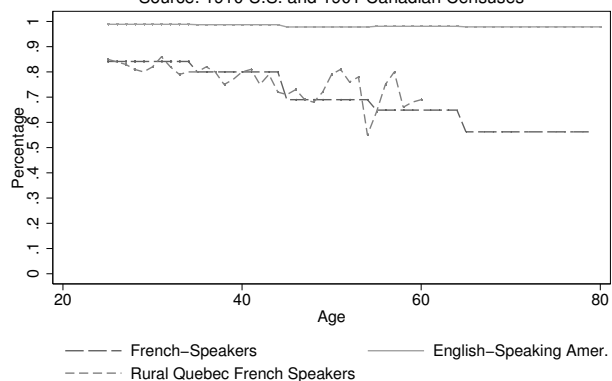


Figure 2d. Literacy Rates in New England and Quebec by Age: Females
Source: 1910 U.S. and 1901 Canadian Censuses

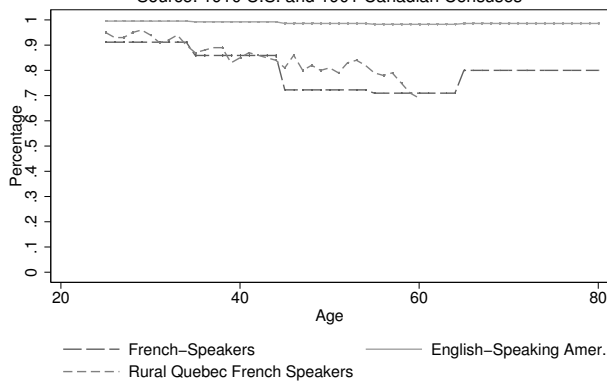
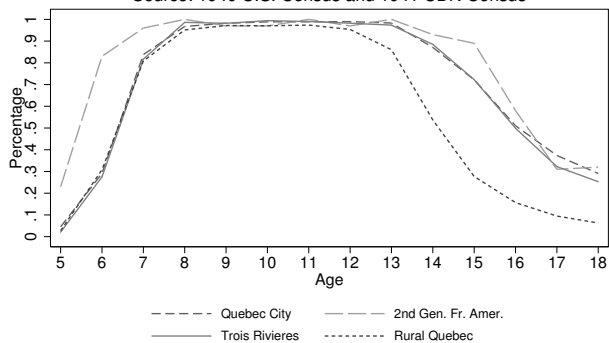
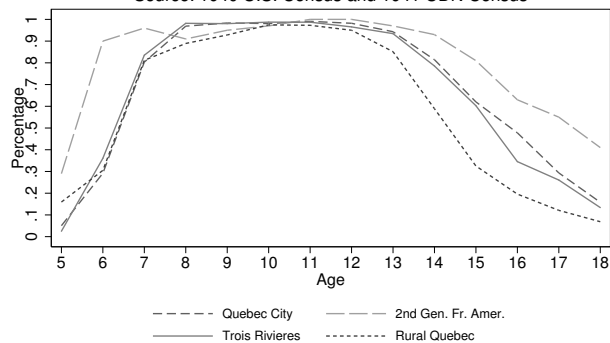


Figure 3a. School Attendance Rates in New England and Quebec by Age: Males
Source: 1940 U.S. Census and 1941 CDN Census



2nd generation defined as: head of family born in French Canada for French Canadians (with child born in the U.S.)

Figure 3b. School Attendance Rates in New England and Quebec by Age: Females
Source: 1940 U.S. Census and 1941 CDN Census



2nd generation defined as: head of family born in French Canada for French Canadians (with child born in the U.S.)

Figure 4a. Male School Attendance Rates: New England Born vs. Quebec by Age
Source: 1970 U.S. and 1971 Canadian Censuses

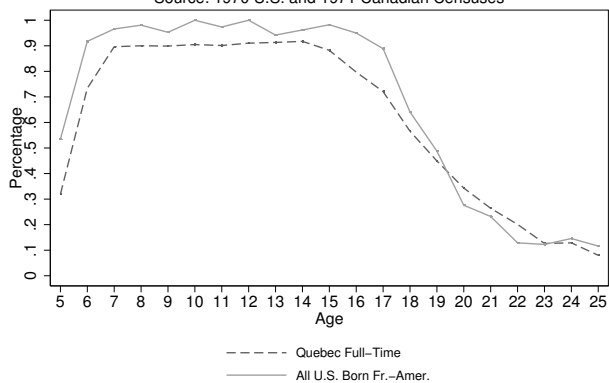


Figure 4b. Female School Attendance Rates: New England Born vs. Quebec by Age
Source: 1970 U.S. and 1971 Canadian Censuses

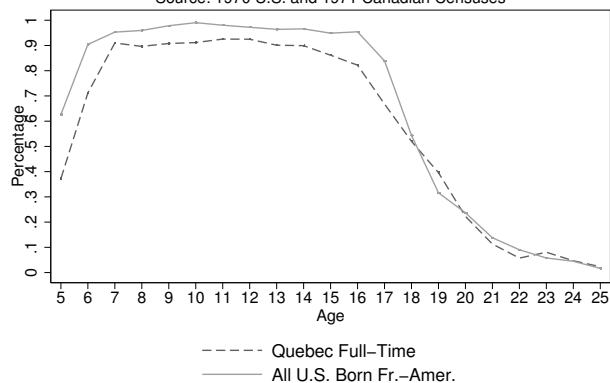


Figure 4c. Attendance Rates By Individuals With Less Than High School: Males
Source: 1970 U.S. and 1971 Canadian Censuses

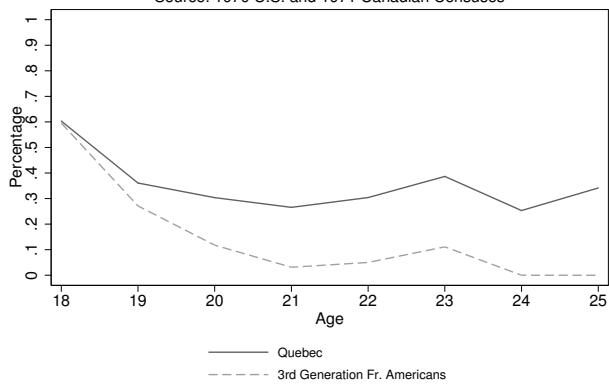


Figure 4d. Attendance Rates By Individuals With Less Than High School: Females
Source: 1970 U.S. and 1971 Canadian Censuses

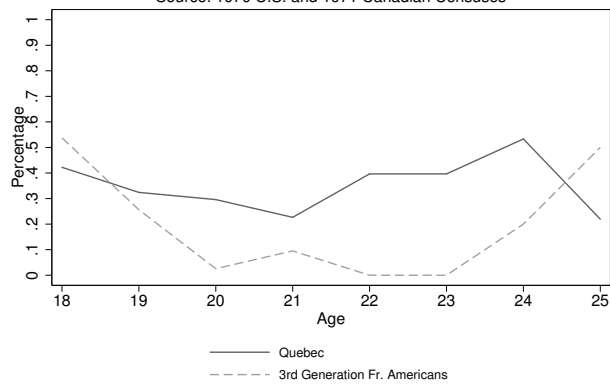


Figure 5a. School Attendance Rates in New England and Quebec by Age: Males
 Source: 2000 U.S. and 2001 Canadian Censuses

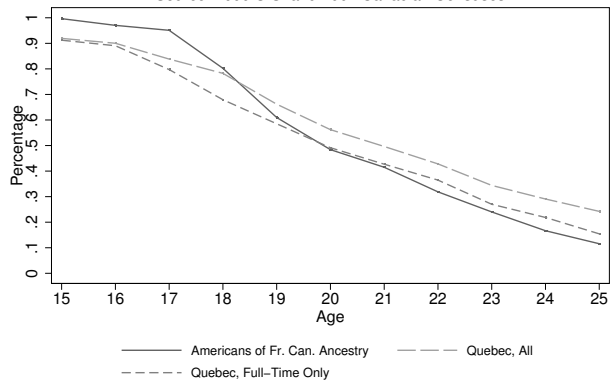


Figure 5b. School Attendance Rates in New England and Quebec by Age: Females
 Source: 2000 U.S. and 2001 Canadian Censuses

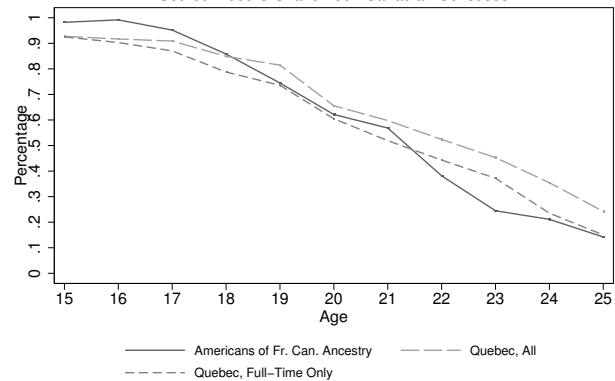


Figure 6. Distribution of Age at Arrival in the U.S.
 Source: 1900-1930 U.S. Censuses

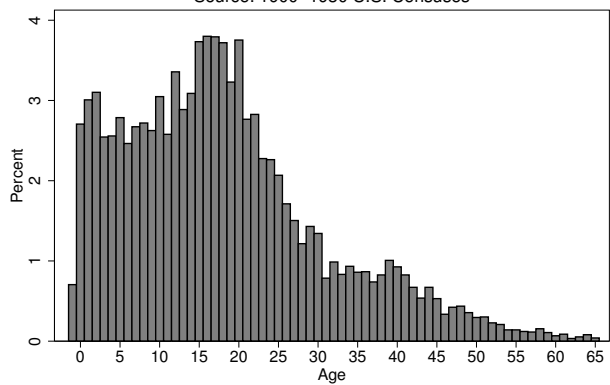


Table 2. Educational Attainment of Franco-Americans in 1970 Born in New England vs French-Canadians in 1971 Living in Quebec

Panel A: Men

Age Group	All	25-34	35-44	45-54	55-64	65+
First-Generation Immigrants	1.08 (0.08)	0.14 (0.19)	0.89 (0.22)	1.59 (0.18)	1.36 (0.19)	1.11 (0.17)
U.S. Born with Canadian-Born Parents	1.71 (0.08)	1.78 (0.24)	1.81 (0.18)	1.82 (0.16)	1.66 (0.17)	1.63 (0.18)
U.S. Born with U.S. Born Parents	2.16 (0.06)	1.99 (0.11)	2.14 (0.12)	2.55 (0.14)	2.19 (0.19)	1.73 (0.24)
Other Franco-Americans	2.36 (0.08)	2.35 (0.18)	2.31 (0.16)	2.61 (0.15)	2.28 (0.19)	2.28 (0.23)
Adjusted R-Squared	0.18	0.09	0.09	0.12	0.08	0.08
N	20351	5139	4689	4390	3254	2879

Notes. The reported estimates represent the difference in years of completed schooling between Franco-Americans and French-speaking Quebec-born residents. All models include unrestricted age dummies.

(Table 2. cont.)

Panel B: Women

Age Group	All	25-34	35-44	45-54	55-64	65+
First-Generation Immigrants	1.35 (0.06)	0.95 (0.16)	1.54 (0.17)	2.12 (0.14)	1.53 (0.14)	0.68 (0.12)
U.S. Born with Canadian-Born Parents	1.76 (0.06)	1.68 (0.21)	1.95 (0.15)	2.16 (0.13)	1.76 (0.14)	1.22 (0.13)
U.S. Born with U.S. Born Parents	2.26 (0.05)	2.10 (0.10)	2.43 (0.10)	2.74 (0.11)	2.23 (0.16)	1.46 (0.18)
Other Franco-Americans	2.13 (0.06)	2.15 (0.15)	2.17 (0.13)	2.55 (0.13)	2.10 (0.16)	1.42 (0.18)
Adjusted R-Squared	0.19	0.11	0.14	0.17	0.10	0.05
N	22585	5251	4822	4790	3692	4030

Notes. The reported estimates represent the difference in years of completed schooling between Franco-Americans and French-speaking Quebec-born residents. All models include unrestricted age dummies.

Table 3. Probability of Having at Least Some Post-Secondary Education: Franco Americans in New England in 1970 vs French-Canadians in Quebec in 1971

Panel A: Men Born in New England

Dep. Var.: Some Post Secondary Education	All				
	25-34	35-44	45-54	55-64	65+
	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential
First-Generation Immigrants	0.023 (0.009)	0.034 (0.026)	0.051 (0.020)	0.018 (0.016)	0.010 (0.012)
U.S. Born with Canadian-Born Parents	0.039 (0.032)	0.050 (0.022)	0.020 (0.016)	0.000 (0.014)	0.001 (0.013)
U.S. Born with U.S. Born Parents	0.076 (0.015)	0.088 (0.015)	0.059 (0.015)	0.044 (0.019)	0.022 (0.019)
Other Franco-Americans	0.114 (0.026)	0.097 (0.020)	0.093 (0.019)	0.036 (0.018)	0.015 (0.018)
Fraction of Quebec Males With Some Post-Sec. Educ.	0.157	0.098	0.072	0.068	0.044
N	5139	4689	4390	3254	2699

Note. The implied percentage differential is equal to the marginal probability effect divided by the fraction of Quebecers with at least some post secondary education. All models include unrestricted age dummies. Sample sizes may differ from those used in Table 2A due to some age categories being perfect predictors.

(Table 3, cont.).

Panel B: Women Born in New England

Dep. Var.: Some Post Secondary Education	All					
	25-34	35-44	45-54	55-64	65+	
	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	
First-Generation Immigrants	0.053 (0.008)	0.077 (0.023)	0.095 (0.024)	0.080 (0.018)	0.050 (0.016)	0.008 (0.008)
U.S. Born with Canadian-Born Parents	0.035 (0.007)	0.013 (0.026)	0.010 (0.017)	0.039 (0.015)	0.034 (0.014)	0.039 (0.011)
U.S. Born with U.S. Born Parents	0.065 (0.006)	0.075 (0.013)	0.065 (0.013)	0.074 (0.014)	0.080 (0.020)	0.047 (0.017)
Other Franco-Americans	0.064 (0.008)	0.071 (0.021)	0.068 (0.017)	0.061 (0.016)	0.076 (0.019)	0.053 (0.018)
Fraction of Quebec Females With Some Post-Sec. Educ.	0.049	0.082	0.054	0.033	0.028	0.021
N	22527	5251	4822	4790	3692	3972

Note. The implied percentage differential is equal to the marginal probability effect divided by the fraction of Quebecers with at least some post secondary education. All models include unrestricted age dummies. Sample sizes may differ from those used in Table 2B due to some age categories being perfect predictors.

(Table 3, cont.).

Panel C: Men Born in New England

	Dep. Var.: B.A. Degree or More					
	All	25-34	35-44	45-54	55-64	65+
	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential
First-Generation Immigrants	0.004 (0.007)	-0.026 (0.017)	0.022 (0.020)	0.008 (0.012)	0.007 (0.012)	0.002 (0.009)
U.S. Born with Canadian-Born Parents	-0.004 (0.006)	-0.015 (0.022)	0.031 (0.017)	-0.024 (0.009)	-0.007 (0.009)	0.001 (0.009)
U.S. Born with U.S. Born Parents	0.020 (0.005)	0.023 (0.012)	0.041 (0.011)	0.006 (0.095)	0.012 (0.013)	0.010 (0.014)
Other Franco-Americans	0.019 (0.007)	0.047 (0.020)	0.026 (0.015)	0.020 (0.012)	-0.007 (0.010)	0.010 (0.013)
Fraction of Quebec Males With Some Post-Sec. Educ.	0.063	0.096	0.060	0.050	0.044	0.025
N	20171	5139	4689	4390	3254	2679

Note. The implied percentage differential is equal to the marginal probability effect divided by the fraction of Quebecers with at least some post secondary education. All models include unrestricted age dummies. Sample sizes may differ from those used in Table 2A due to some age categories being perfect predictors.

(Table 3, cont.).

Panel D: Women Born in New England

	Dep. Var.: B.A. Degree or More						
	All	25-34	35-44	45-54	55-64	65+	
	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	
First-Generation Immigrants	0.008 (0.004)	-0.019 (0.009)	0.016 (0.014)	0.025 (0.011)	0.018 (0.010)	0.001 (0.005)	10.1%
U.S. Born with Canadian-Born Parents	0.009 (0.004)	-0.005 (0.014)	0.011 (0.012)	0.002 (0.008)	0.018 (0.009)	0.010 (0.007)	103.0%
U.S. Born with U.S. Born Parents	0.020 (0.004)	0.016 (0.008)	0.030 (0.009)	0.019 (0.008)	0.024 (0.012)	0.017 (0.011)	174.7%
Other Franco-Americans	0.011 (0.004)	0.006 (0.011)	0.017 (0.010)	0.014 (0.009)	0.015 (0.011)	0.007 (0.009)	65.7%
Fraction of Quebec Females With Some Post-Sec. Educ.	0.023	0.039	0.024	0.015	0.014	0.010	
N	22287	5251	4822	4790	3692	3972	

Note. The implied percentage differential is equal to the marginal probability effect divided by the fraction of Quebecers with at least some post secondary education. All models include unrestricted age dummies. Sample sizes may differ from those used in Table 2B due to some age categories being perfect predictors.

Table 4. Educational Attainment of Americans French-Canadian Ancestry in 2000 vs French-Canadians in 2001 Living in Quebec
(Standard Errors in Parentheses)

Panel A: Men

Subsample of U.S. Respondents of French-Canadian Ancestry	Dep. Var.: Years of Schooling						
	All	25-34	35-44	45-54	55-64	65-74	75+
Born in New England	1.04 (0.03)	-0.16 (0.06)	0.14 (0.05)	1.00 (0.06)	1.97 (0.08)	2.76 (0.10)	2.83 (0.14)
N	69569	12472	18310	16435	10990	7339	4023
Living in New England	0.80 (0.03)	-0.27 (0.07)	0.04 (0.06)	0.84 (0.06)	1.69 (0.10)	2.40 (0.11)	2.29 (0.17)
N	65200	11875	17407	15446	10226	6654	3592
All Living in the U.S.	0.88 (0.02)	-0.27 (0.10)	0.06 (0.04)	0.83 (0.04)	1.86 (0.06)	2.74 (0.07)	2.93 (0.11)
N	96037	17533	26063	22660	14760	9685	5336

Notes. Sources: 1970 U.S. Census and 1971 Canadian Census. Dummies for age and labour force status are included.

(Table 4. cont.)

Panel B: Women

	Dep. Var.: Years of Schooling						
	All	25-34	35-44	45-54	55-64	65-74	75+
Subsample of U.S. Respondents of French-Canadian Ancestry							
Born in New England	1.00 (0.03) 74764	-0.44 (0.06) 13017	0.12 (0.05) 18544	1.00 (0.06) 16830	2.12 (0.07) 11426	2.60 (0.08) 8562	2.51 (0.11) 6385
Living in New England	0.88 (0.03) 70740	-0.49 (0.06) 12527	0.10 (0.05) 17716	0.91 (0.06) 15886	2.01 (0.09) 10697	2.47 (0.10) 7975	2.39 (0.12) 5939
All Living in the U.S.	0.82 (0.02) 102198	-0.64 (0.04) 18719	-0.03 (0.03) 26507	0.82 (0.04) 22865	2.01 (0.05) 14907	2.67 (0.06) 10904	2.64 (0.08) 8296

Notes. Sources: 1970 U.S. Census and 1971 Canadian Census. Dummies for age and labour force status are included.

Table 5. Probability of Having at Least Some Post-Secondary Education: Americans of French-Canadian Ancestry in 2000 vs French-Canadians in Quebec in 2001

Panel A: Men

		Dep. Var.: Some Post-Secondary Education									
		All	25-34	35-44	45-54	55-64	65-74	75+			
Subsample of U.S. Respondents of French-Canadian Ancestry	N	Implied %	Implied %	Implied %	Implied %	Implied %	Implied %	Implied %	Implied %	Implied %	Implied %
		Differential	Differential	Differential	Differential	Differential	Differential	Differential	Differential	Differential	Differential
Born in New England		0.114 (0.004) 69569	0.012 (0.010) 12472	0.066 (0.008) 18310	0.172 (0.009) 16435	0.137 (0.011) 10990	0.174 (0.012) 7339	0.130 (0.015) 4023	0.130 (0.015) 4023	0.130 (0.015) 4023	0.130 (0.015) 4023
Living in New England		0.073 (0.005) 65200	-0.018 (0.011) 11875	0.039 (0.009) 17407	0.142 (0.010) 15446	0.087 (0.012) 10226	0.117 (0.013) 6654	0.053 (0.016) 3592	0.053 (0.016) 3592	0.053 (0.016) 3592	0.053 (0.016) 3592
All Individuals of French-Canadian Ancestry		0.105 (0.003) 96037	0.014 (0.007) 17533	0.065 (0.006) 26063	0.156 (0.007) 22660	0.121 (0.008) 14760	0.172 (0.009) 9685	0.137 (0.012) 5336	0.137 (0.012) 5336	0.137 (0.012) 5336	0.137 (0.012) 5336
% with some postsecondary in Quebec		0.448	0.618	0.505	0.464	0.368	0.221	0.173	0.173	0.173	0.173

(Table 5, cont.).

Panel B: Women

		Dep. Var.: Some Post Secondary Education									
		All	25-34	35-44	45-54	55-64	65-74	75+			
Subsample of U.S. Respondents of French-Canadian Ancestry	N	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential
		Born in New England	0.137 (0.004) 74764	0.023 (0.009) 13017	0.132 (0.008) 18544	0.190 (0.009) 16830	0.149 (0.011) 11426	0.125 (0.011) 8562	0.069 (0.011) 6385	57.5%	
Living in New England	0.117 (0.005) 70740	0.019 (0.009) 12527	0.125 (0.009) 17716	0.171 (0.010) 15886	0.120 (0.012) 10697	0.095 (0.012) 7975	0.038 (0.012) 5939	31.7%			
All Individuals of French- Canadian Ancestry	0.121 (0.003) 102198	0.008 (0.007) 18719	0.112 (0.006) 26507	0.169 (0.007) 22865	0.138 (0.008) 14907	0.130 (0.008) 10904	0.090 (0.009) 8296	75.0%			
% with some postsecondary in Quebec	0.438	0.720	0.540	0.444	0.310	0.179	0.120				

(Table 5, cont.).

Panel C: Men

		Dep. Var.: B.A. Degree or More									
		All	25-34	35-44	45-54	55-64	65-74	75+			
Subsample of U.S. Respondents of French-Canadian Ancestry		Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential
Born in New England		0.119 (0.004) 69569	0.113 (0.009) 12472	0.111 (0.007) 18310	0.158 (0.008) 16435	0.106 (0.009) 10990	0.110 (0.009) 7339	0.053 (0.011) 4023	75.8%		
N											
Living in New England		0.097 (0.004) 65200	0.094 (0.010) 11875	0.097 (0.008) 17407	0.134 (0.008) 15446	0.082 (0.010) 10226	0.082 (0.010) 6654	0.015 (0.011) 3592	20.8%		
N											
All Individuals of French-Canadian Ancestry		0.097 (0.003) 96037	0.089 (0.006) 17533	0.090 (0.005) 26063	0.123 (0.005) 22660	0.084 (0.006) 14760	0.101 (0.007) 9685	0.066 (0.009) 5336	93.4%		
N											
% with some postsecondary in Quebec		0.146	0.187	0.154	0.157	0.134	0.081	0.070			

(Table 5, cont.).

Panel D: Women

		Dep. Var.: B.A. Degree or More									
		All	25-34	35-44	45-54	55-64	65-74	75+			
Subsample of U.S. Respondents of French-Canadian Ancestry		Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential	Implied % Differential
Born in New England		0.110 (0.003)	0.114 (0.009)	0.117 (0.007)	0.147 (0.007)	0.101 (0.008)	0.081 (0.007)	0.033 (0.006)	0.081 (0.007)	0.032 (0.007)	0.033 (0.006)
N		74725	13017	18544	16830	11426	8562	6346	8562	5907	6346
Living in New England		0.104 (0.004)	0.103 (0.010)	0.118 (0.008)	0.139 (0.008)	0.087 (0.009)	0.083 (0.008)	0.032 (0.007)	0.083 (0.008)	0.032 (0.007)	0.032 (0.007)
N		70708	12527	17716	15886	10697	7975	5907	7975	5907	5907
All Individuals of French-Canadian Ancestry		0.087 (0.002)	0.076 (0.007)	0.093 (0.005)	0.112 (0.005)	0.081 (0.005)	0.071 (0.005)	0.042 (0.005)	0.071 (0.005)	0.042 (0.005)	0.042 (0.005)
N		102198	18719	26507	22865	14907	10904	8296	10904	8296	8296
% with some postsecondary in Quebec		0.134	0.253	0.165	0.131	0.082	0.036	0.026	0.036	0.026	0.026

Table 6. Correlation Between Son's and Father's Education.
Source: INTERNATIONAL ADULT LITERACY SURVEY (1994)

Age Group of Sons	Canadian Born English-Speakers	Quebec-Born French Speakers
16-35	0.407 (N=450)	0.138 (N=100)
46-65	0.373 (N=264)	0.739 (N=66)

Notes. The entries represent the raw coefficient of correlation between sons' and fathers' educational attainment. Educational attainment in the IALS is coded as: 1. primary not completed; 2. completed primary; 3. some secondary; 4. completed secondary; 5. completed non-university post-secondary; 6. completed university.

Appendix Table 1. Proportion of Schoolchildren Attending Parochial Schools, 1908

Father's Race	Boston	Fall River	Lowell	Manchester	Providence
French-Canadian [N]	19 [912]	66 [5,016]	68 [3,412]	61 [1,525]	42 [1,072]
Polish [N]			40 [222]	93 [193]	
South Italian [N]	12 [6,013]				2 [1,033]
Portuguese [N]					

Notes. Source: The Children of Immigrants in Schools, Vols. 30-32 of the Immigration Commission reports. The Immigration Commission collected information on school attendance for a day in December, 1908, for several cities, for children aged 3 to 20 at public or parochial schools. We show proportions of schoolchildren attending parochial schools. As many parochial schools offered only grades 1-8, this measure understates the proportion of children with French Canadian fathers who were attending parochial schools. The total number of children attending either public or parochial schools is shown in brackets. It is not possible to separate out which children were attending bilingual schools from those attending English language parochial schools.