# *The Geographical Origins and Destinations of Medical Graduates in Quebec, 1834-1939*

George Weisz*

*An analysis of the recruitment markets of Quebec's medical schools during the 19th and 20th centuries indicates that each institution was unique in fulfilling the needs of its particular constituency. In comparing and contrasting the various schools, Professor Weisz emphasizes the roles assumed by McGill as part of the network of elite North American Universities and that of Laval as the supplier of doctors for general practice in rural Quebec.*

*Une analyse des marchés du recrutement des écoles médicales du Québec aux XIX^e^ et XX^e^ siècles indique que chaque institution était unique parce qu'elle répondait aux besoins de son environnement particulier. En faisant une analyse comparative des différentes écoles, le professeur Weisz met l'accent sur les rôles qu'assumaient McGill dans le réseau d'élite des universités en Amérique du Nord tandis que Laval fournissait les médecins pour la pratique générale dans les régions rurales du Québec.*

If it is to survive, any institution of education must carve out for itself a stable market of recruitment — a set of geographical and social spaces from which to draw students in search of credentials and to which these can eventually return. Numbers of students, their geographical and social origins, educational backgrounds and eventual career trajectories will have a major bearing on the teaching which an institution can provide, on the resources at its disposal and on its image and influence in society.

In the following essay, I should like to analyze the markets of recruitment developed by institutions of medical education in Quebec during the 19th and 20th centuries, with a special focus on size and geographical specificity. In emphasizing geography I do not mean to imply that this level of reality is in any way historically determinant or that it enjoys special epistemological status. It is manifestly only a single strand in a complex history of medical education that goes well beyond the framework of a single paper.[1] If it is by no means the

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1. The social origins of students is undoubtedly a far more central strand. Unfortunately, medical schools seem to have had little interest in the family background of students. Consequently, I have decided to reserve the immensely time-consuming task of resconstructing social origins for a population that is at once smaller and better documented — professors of medicine. A brief presentation of the preliminary results of this latter

"whole" story, the geographical dimension, nonetheless, opens up a variety of new perspectives that are not usually developed by historians of educational institutions.

Although much of this paper consists of the results of a large empirical enquiry,[2] some of the results and anomalies lend themselves to more speculative interpretations and hypotheses which, at this stage, are intended primarily as stimuli to future research. Perhaps the most important is the very notion of a recruitment "market." In utilizing this loaded term, I mean to suggest firstly, that educational recruitment has aggregate regularities that cannot be reduced to the level of individual decisions; and secondly, that medical education is in certain respects a commodity which institutions offer to consumers. This market for diplomas is itself influenced by (though not reducible to) a second market more remote from institutional activities — the market of medical services or, in other terms, the recourse to medical services by the population of a specific region which sets the value of a medical diploma.

While there are striking differences between the anglophone and francophone sectors taken as a whole, I will suggest that the major lines of demarcation separated individual medical schools, at least partly, as a result of the demographic environment to which each has constantly had to adapt. In some respects, particularly the overwhelmingly out-of-province student body, McGill was unique among medical schools in Quebec and Canada; this uniqueness has prompted me to devote rather more space to it than to other institutions. In other respects, however, Laval was equally distinctive insofar as it maintained the predominantly rural character of its recruitment. Although the varied educational and scientific features of each institution cannot be reduced to the nature of their recruitment, the latter, nevertheless, impinged on certain facets of institutional activity, as we shall suggest in the conclusion.

## I — THE INSTITUTIONAL BACKGROUND

Before 1850, the majority of doctors practicing in Quebec were trained by apprenticeship. From 1842 to 1847, of 187 practitioners granted licenses in Canada East, 52 had obtained formal medical diplomas with another 37 spending at least some time at a medical school. Of the 52 degree-holders, only 24 had graduated from an institution in Quebec (McGill); the remainder received their diplomas in the U.S. or Europe.[3] With the constitution of a vigorous system of medical schools in the 1840s, the pattern began to change. By the 1880s nearly 90 percent of those admitted to practice in Quebec were trained in a local medical school.[4]

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survey has been made by Jacques Ferland, "Biographie Collective des Professeurs des Facultés de Médecine au Québec, de 1840 à 1930," paper presented to the Congrès Annuel de la Société d'Histoire de l'Amérique Française, October 1984.

2. The primary sources for this survey have been the printed annual calendars of the institutions under consideration which all list students and their geographical place of origin. Comparisons with the manuscript registers of McGill reveal them to be fairly accurate; small anomalies in any given year disappear when the 3-year moving average is calculated. The destinations of graduates have been determined from lists of alumni published by McGill and Bishop's and from the licensing registers of the Collège des Médecins et Chirurgiens for the francophone institutions. The limitations of this last source is discussed in section five.

3. These figures are from a paper by Barbara Tunis presented in 1983 to the Séminaire inter-universitaire sur l'histoire de la médecine au Québec.

4. See Figure 5 in this paper. Also see J. Bernier, "Les practiciens de la santé au Québec, 1871-1921: quelques données statistiques," *Recherches sociographiques*, 20 (1979), pp. 41-58.

Six institutions of medical education existed at one time or another in this province.[5] One of them, the St. Lawrence Medical School in Montreal, had an ephemeral existence, disappearing soon after its creation in 1851. It will not be considered in this paper. Of the remaining schools, the oldest was the Montreal Medical Institution founded in 1823 as an offshoot of the Montreal General Hospital (f. 1819). In 1829 it became the Faculty of Medicine of McGill University, granting its first medical diploma in 1833. A school of medicine in Quebec City grew out of courses at the Marine Hospital and was incorporated in 1847. According to the provisions of the Medical Act of 1847, it could not grant diplomas because it was not associated with an accredited university. This was resolved in 1852 when it became the Faculty of Medicine of Laval University.

Montreal's second medical school appeared in 1843 when a mixed group of francophone and anglophone doctors founded the Ecole de Médecine et de Chirurgie (EMC). Several years later, the most prominent anglophones moved to McGill, leaving the EMC as a francophone institution. Not affiliated with a university, its diplomas, unlike those of McGill and Laval, did not permit the practice of medicine in Quebec; its graduates were thus forced to take the provincial licensing examination. Only in 1867, when it became affiliated with Victoria University in Cobourg, Ontario, did its diploma achieve parity with those of the university medical schools.

During the 1870s, two other medical schools appeared in Montreal. In 1871 a group of anglophone doctors established a medical school affiliated with Bishop's College of Lennoxville. Enrollment was never high and the school disappeared in 1905 when it was absorbed by McGill. In 1877, after a futile effort to incorporate EMC within Laval University, the church hierarchy established a Montreal branch of the Medical Faculty of Laval. (Its staff was largely made up of professors who abandoned the EMC.) Laval at Montreal and EMC battled each other for 13 years before finally merging as the EMC in 1890. This became the Medical Faculty of the Université de Montreal in 1919. (For the sake of clarity, we shall continue to refer to it here, even after 1919, as EMC.)

It is worth noting that medical schools did not have full autonomy in admitting students. The Medical Act of 1876 gave the Collège des Médecins et Chirurgiens (f. 1847) considerable authority over medical education including the right to examine prospective medical students. Although the Hall law of 1890 exempted bachelors of arts, medicine and science from this exam, it continued to be required of all other students wishing to study medicine. Jacques Bernier[6] has recently argued that the Collège was in fact able to impose a certain degree of standardization on medical students and medical education during the last decades of the 19th century. This was almost certainly the case; however, this educational standardization left room for considerable variation among the different schools; not the least of these differences had to do with their recruitment.

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5. On the general histories of individual institutions see C.-M. Boissonnault, *Histoire de la Faculté de Médecine de Laval* (Quebec: Presses universitaires Laval, 1953); L.D. Mignault, "Histoire de l'École de Médecine et de Chirurgie de Montréal," *L'Union médicale du Canada*, 55 (1926); M. Abbott, "The Faculty of Medicine of McGill University," *Surgery, Gynecology & Obstetrics*, 60 (1935), pp. 242-53; S.B. Frost, *McGill University: For the Advancement of Learning* I, 1801-1895, (Montreal: McGill-Queen's University Press, 1980); II, 1895-1971, (Montreal: McGill-Queen's University Press, 1984); E.H. Bensley, "Bishop's Medical College," *The Canadian Medical Association Journal*, 72 (1955), pp. 463- 65; A. Lavallée, *Quebec contre Montréal: la querelle universitaire 1876- 1891*, (Montreal: Presses de l'Université de Montréal, 1974) and the relevant chapters of J.J. Heagerty, *Four Centuries of Medical History in Canada*, (Bristol, J. Wright and Sons, Ltd., 1928).

6. J. Bernier, "La standardisation des études médicales et la consolidation de la profession dans la deuxième moitié du XIX[e] siècle," *Revue d'histoire de l'Amérique française*, 37 (1983), pp. 51-65.

## II — GRADUATES IN ANGLOPHONE AND FRANCOPHONE SECTORS

Figure 1 shows the number of medical graduates in Quebec. One sees a regular rise in absolute numbers throughout the 19th century. As in other countries, the numbers of medical graduates, like those of higher education in general, increased with particular vigour during the later 1890s. The number of graduates began to decline before 1914, for reasons having to do with reform of medical education introduced in 1909 by the Collège des Médecins et Chirurgiens which extended the medical curriculum from four to five years. The war caused an even sharper drop. After 1918, the number of graduates gradually returned to and then surpassed pre-war levels. There was again a drop in the mid-1920s due to rising entrance requirements before enrollments stabilized. Although there are dramatic fluctuations in the number of graduates from year to year, the overall tendency towards increasing numbers of medical graduates is fairly striking. This contrasts with the pattern in Europe in which periods of rapid rise were punctuated by periods of stagnation and even decline, as a result of action taken by educational authorities or because students were temporarily avoiding a profession which appeared to be overcrowded.[8] Only in 1909, and less dramatically in the mid-1920s, do similarly effective restrictive measures appear to have been taken in Quebec. Nor does one see the decline in the number of medical graduates characteristic of the United States in the early 20th century as a result of the disappearance of nearly half of that nation's medical schools between 1900 and 1920.[9] Since the unbridled freedom to establish degree-granting institutions which characterized the 19th century U.S. was never possible in Quebec, no such wholesale restructuring ever took place.

Overall, the ratio of graduates to total population changed very little. During the 1870s there were annually 6.8 graduates per 100,000 population in Quebec; in the 1920s there were 7.3. The proportion of graduates to population is high in comparison to European nations, but it is comparable to other parts of North America.[10] More surprising is the fact that the rising numbers of graduates does not appear to have significantly affected the ratio of doctors to population. In 1871 there was one doctor per 1,527 population; in 1921 there was one per 1,070. In Ontario in the latter year the figure was one per 848, and medical density was even higher in the major American states.[11] We shall return to this question at a later point in our discussion.

It is worth mentioning at this stage that when we speak of medical graduates we are referring predominantly to men. Quebec, unlike Ontario, did not develop medical schools for women while established institutions were slow to admit women. Like other small and marginal institutions in the U.S. and Canada, Bishop's College Medical School was a

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7. A similar reform of medical education in France introduced at almost exactly the same time also reduced the number of graduating physicians.

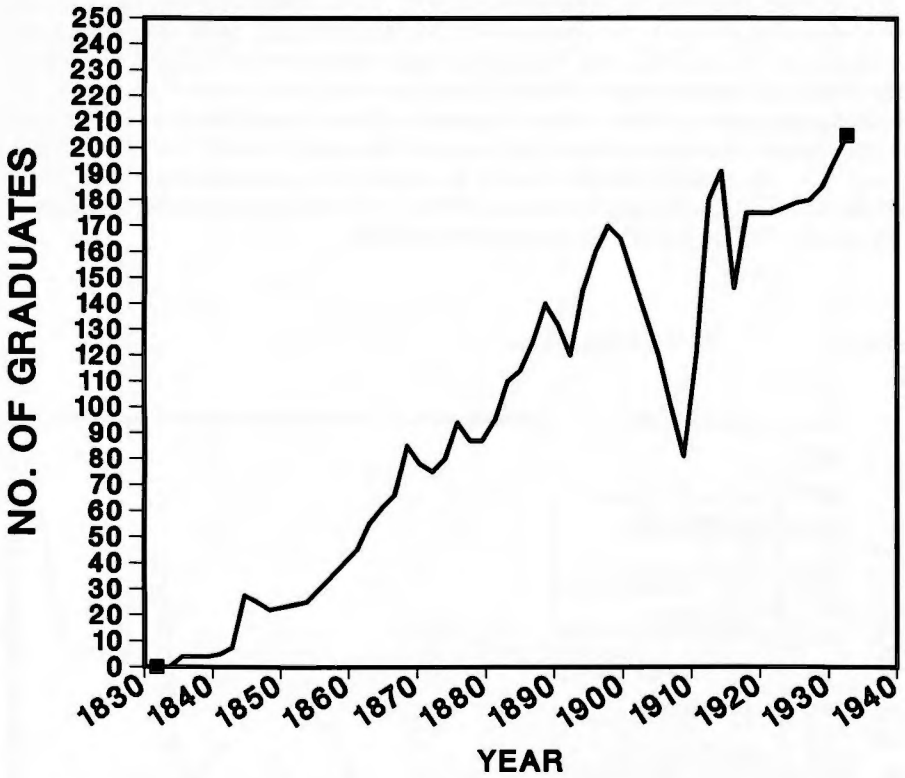
8. For the case of France see G. Weisz, "Reform and Conflict in French Medical Education 1870-1914," in R. Fox and G. Weisz (eds.), *The Organization of Science & Technology in France, 1808-1914*, (Cambridge: Cambridge University Press, 1980), pp. 62-64.

9. W.G. Rothstein, *American Physicians in the Nineteenth Century: From Sects to Science*, (Baltimore: Johns Hopkins University Press, 1972), p. 287. This phenomenon will be discussed at length later in the essay.

10. In France there were 2.3 graduates per 100,000 population around 1910. In Ontario, Massachusetts, and Pennsylvania there were from 6 to 8 graduates per 100,000.

11. In 1910, for instance, the ratio of physicians to population was 1:636 in Pennsylvania, 1:617 in New York, 1:567 in Massachusetts, 1:658 in Maryland and 1:740 in Connecticut. See the report on these states in Abraham Flexner, *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching*, (New York: Carnegie Foundation for the Advancement of Teaching, 1910), pp. 199, 234, 239, 265 and 293.

**Figure 1** **Moving 3-Year Average**




pioneer in this respect, graduating its first woman doctor in 1891. Before its incorporation into the McGill Medical Faculty in 1904, ten more women graduated. In the years that followed, women were excluded from Quebec medical schools since McGill waited until 1917-18 before admitting its first four women. (The University of Toronto, in contrast, admitted its first woman to medical studies in 1906.) Progress remained slow and by 1930-31 only eight women were studying medicine at McGill. EMC admitted its first woman student in 1925; she graduated at the head of her class in 1930. For most of the 1930s there were one or two women students listed in the EMC calendar; but by 1938-39 there were eight. The first two women at Laval were admitted in 1936.

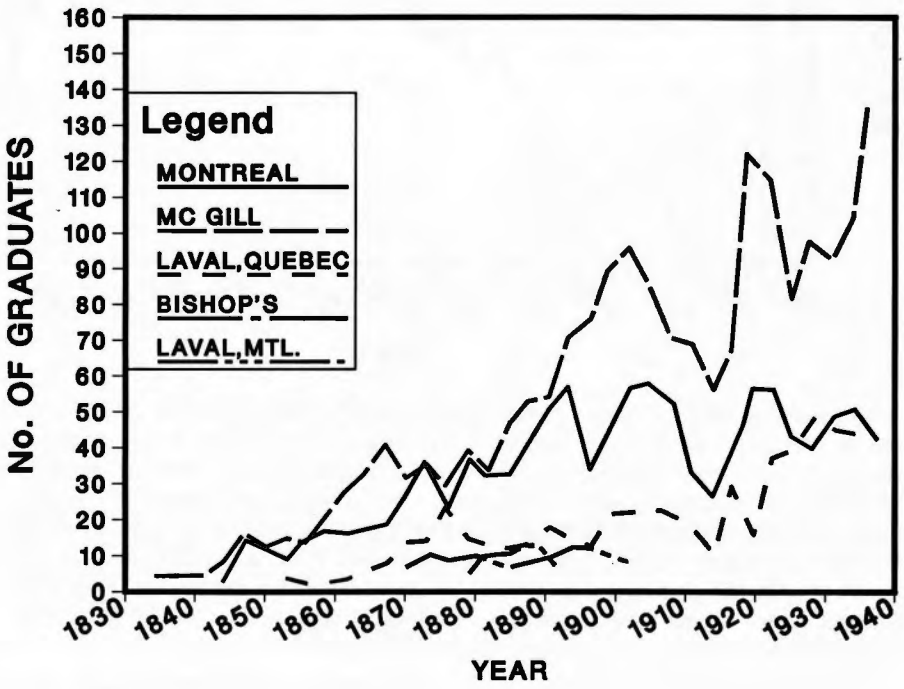
Figure 2 presents a detailed breakdown of the number of medical graduates from each institution. McGill was by far the largest producer of medical graduates in Quebec.[12]

12. Even McGill was not particularly large by North American standards as suggested by the following figures on the average annual numbers of graduates at selected medical schools from the relevant annual volumes of the *Journal of the American Association* (hereafter cited as *JAMA*).

| | John Hopkins | Harvard | Columbia | Penn | Toronto | McGill | EMC | Laval |
|---|---|---|---|---|---|---|---|---|
| 1881-83 | n.a. | 70 | 120 | 114 | n.a. | 32 | 26 | 10 |
| 1901-03 | 75 | 132 | 154 | 141 | 62 | 92 | 40 | 22 |
| 1930-32 | 71 | 134 | 102 | 132 | 127 | 95 | 36 | 44 |

During the 1870s the number of graduates stagnated. In its later stages, this stagnation may have reflected the economic depression of 1873-79. But its immediate cause seems to have been new competition — the opening of Bishop's in 1871 and, more significantly, the affiliation in 1867 of EMC with Victoria University which, we shall see, led to a drop in the number of francophones at McGill. Enrollment rose during most of the 1880s, accelerating dramatically during the next two decades, before a precipitous decline set in due to the war and educational reform. By the turn of the century, McGill had begun to pull away from other institutions in terms of the number of graduates trained. With only 41 percent of all medical graduates from 1870 to 1879, McGill produced approximately 55 percent of all Quebec graduates from 1900 to 1939.

**Figure 2** **Moving 3-Year Average**

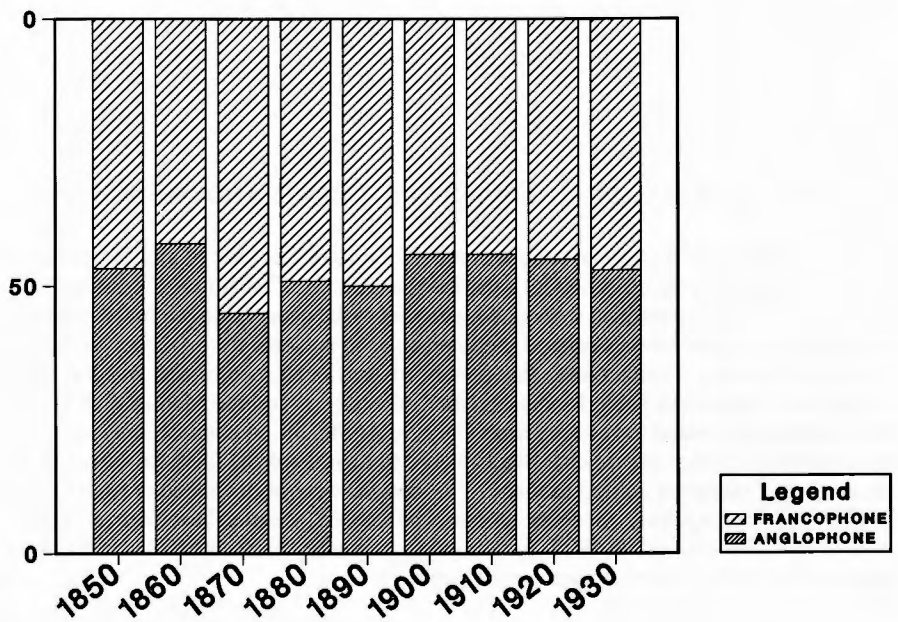



The Ecole de Médecine et de Chirurgie was the largest francophone producer of doctors. Its growth stalled during the late 1870s as a result of its conflict with Laval at Quebec and in the early 1880s due presumably to the competition of the Montreal branch of Laval. Surprisingly, the unification of the two schools in 1893, did not result in significant expansion. The reform of 1909 and the war, then changing recruitment standards in the 1920s and 30s, seem to have nipped expansion in the bud. Overall, fluctuations were far more pronounced at EMC than at McGill suggesting that the former was more dependent on the vagaries of a local recruitment market. Much the same seems true at Laval at Québec.

One might attribute the small size of Laval to the relatively small population of eastern Quebec were it not for the fact that its enrollment caught up in the 1930s and passed that of EMC in the 1940s. It did so, as we shall see, because Laval did not join McGill and EMC in raising entrance standards.

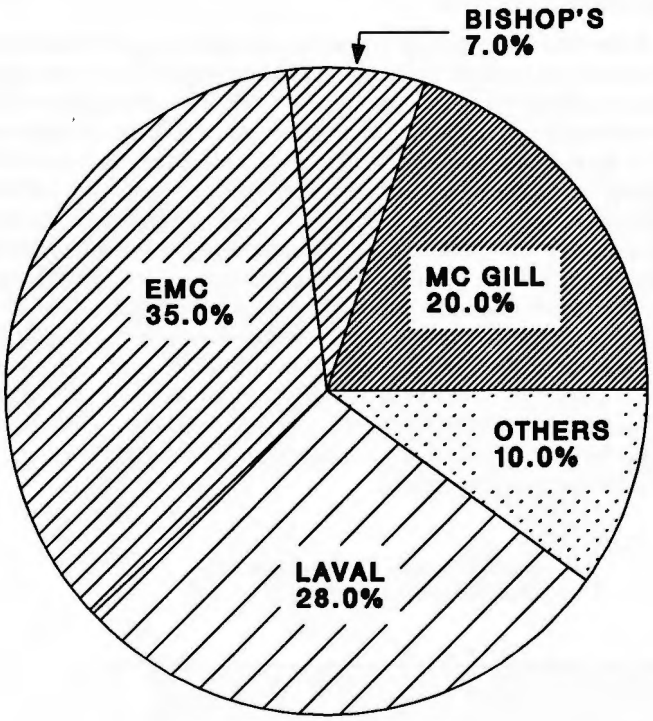
Except in the 1870s, the anglophone sector consistently produced at least half and usually a majority of the medical graduates in Quebec (Figure 3). Surprisingly, the numerical importance of anglophone graduates was not reflected in the registers of the Collège des Médecins et Chirurgiens (Figure 4). Here graduates of francophone schools made up 63 percent of all those registered from 1880 to 1889 and 68 percent from 1920 to 1929. After 1876, all doctors practicing in Quebec were obliged to register with the Collège. Not all doctors did so, and there is evidence to suggest that there are gaps in the Collège's central register. But there is no reason to believe that a significant number of anglophones practiced in Quebec without registering or that they were particularly affected by information gaps in the register. It is much more likely that failure to register meant that graduates never practiced in Quebec. If fact, according to the graduate directories of McGill University, only about 25 percent of the McGill graduates lived in Montreal a decade or so after completing their studies.[13] A similar study of Bishop's much smaller lists of graduates from 1872 to 1905 reveal that less than two-thirds remained in Quebec. These figures would certainly explain the minority status of graduates of anglophone schools in the register of the Collège des Médecins et Chirurgiens.

**Figure 3** **Percentage of Graduates by Anglophone & Francophone Sectors (by decade)**




13. Places of practice of McGill graduates are discussed more fully in section 5.

**Figure 4** **Graduates Registered with the Collège des Médecins et Chirurgiens (%)**




## III — GEOGRAPHICAL ORIGINS OF STUDENTS AND GRADUATES

Emigration on a massive scale was not the cause of this state of affairs. Rather, it reflected the peculiar nature of McGill's market of recruitment. Table 1 clearly distinguishes McGill from all other medical schools with respect to the geographic origins of students. All the francophone schools catered predominantly to students from Quebec as did anglophone Bishop's. Furthermore, this pattern of provincial recruitment was the norm throughout Canada. As Table 1 indicates, the University of Toronto Medical School was overwhelmingly geared to students from Ontario. At McGill, in contrast, only one-third of all students enrolled in medicine listed Quebec as their domicile. Over the course of the century being examined, almost as many of its students were from Ontario or from the rest of Canada as from Quebec. Medicine, it should be stressed, seems to have been an extreme case even within McGill. In 1925-26, according to Stanley Frost, over 70 percent of the student body at the University was from Quebec.[14]

14. Stanley Frost and Sheila Rosenburg, *The McGill Student Body: Past & Future Enrolment*, (Montreal, n.d.), p. 41.

**Table 1** **Geographical Origins of Medical Students**

| | | | E. & W. | | |
|---|---|---|---|---|---|
| | Que.[a] | Ont.[a] | Canada | USA | Other |
| McGill (1849-1939) | 30 | 27 | 24 | 16 | 3 |
| Bishop's (1872-1905) | 82 | 5 | 1 | 4 | 9 |
| EMC (1846-1930) | 91 | 3 | 2 | 4 | 1 |
| Laval-Q (1865-1930) | 93 | 1 | 3 | 3 | — |
| Laval-M (1880-89) | 93 | 3 | 1 | 3 | 1 |
| Univ. of Toronto (1904-05, 1921-22, 1926-27, 1931-32, 1936-37) | — | 91 | 7 | 1 | 1 |

[a] For the pre-confederation period, Canada East and Canada West are considered as Quebec and Ontario respectively.

In the case of the francophone schools, students from outside Quebec were predominantly francophones, judging from their names, from Ontario, Manitoba, the Maritimes and the New England states. But one encounters students from as far away as Montana, Louisiana, Michigan and Wisconsin. At Laval at Quebec, Americans were not nearly so well represented. Not surprisingly, students from Ontario were outnumbered by those from the Maritimes, reflecting the importance of geographic proximity in students' choice of a school. At the Montreal branch of Laval, the geographical profile of students from outside Quebec is similar to that of students at the Ecole de Médecine et de Chirurgie.

Bishop's University Medical School attracted a somewhat larger share of students from outside the province (18.4 percent of the total enrollment). The most surprising characteristic of its enrollment is the relatively high proportion of students from outside of both Canada and the United States (8.5 percent). The vast majority of these came from the Caribbean Islands.

McGill's case is unique enough to require further analysis. Figure 6 breaks down geographic origins by decade. The proportion of Quebecers at McGill's Faculty of Medicine peaked during the 1860s at nearly 50 percent of all students. From then on it fluctuated between 25 percent and 35 percent. The proportion of students from Ontario hovered around 50 percent until 1889 and then declined rapidly until 1900, and more slowly until 1929, dropping precipitously to 6 percent during the subsequent decade. The loss of Ontario as a major source of students did not harm McGill's enrollment because by then the faculty was drawing significant numbers of students first from the Maritimes and then from western Canada. In fact, the proportion of students from Ontario and the rest of English Canada when combined remained fairly stable at between 50 percent and 60 percent from 1869 to 1919. The serious influx of students from eastern and western Canada began during the 1880s, peaking in the first decade of the 20th century and remaining virtually stable until the mid-1920s, before markedly declining.

The internal composition of this contingent of students shifted somewhat. Of the 229 Canadian students from outside Quebec and Ontario who attended McGill from 1899-1906, 82 percent were from the Maritimes; of these, over two-thirds were from Nova Scotia and New Brunswick. Most of the western contingent of students came from British Columbia

which always maintained a special relationship with McGill.[15] In the years that followed, the west increased its representation at McGill. Of the students from 1909 to 1915, 55 percent were from the Maritimes; but the single largest provincial group (31 percent) came from British Columbia.

After 1925 McGill's recruitment in all these Canadian markets declined substantially as Americans flocked to the medical faculty in unprecedented numbers. From 1869 to 1899, Americans made up about 5 percent of McGill's medical student population. During the first two decades of the 20th century the proportion went up to 10 percent. After 1920, however, it rose dramatically reaching a staggering 44 percent of all enrollments during the 1930s.

The majority of American students, not surprisingly, came from the nearby New England and mid-Atlantic states (51 percent from 1880 to 1889; 64 percent from 1930 to 1935). Some students, however, travelled considerable distances to study in Montreal. During the period 1880-89, a surprising 46 percent of all Americans at the medical faculty were from the central states. From 1930 to 1935, students from the Pacific and mountain states made up 25 percent of the American medical student population at McGill.

## IV — THE CASE OF MCGILL

How is one to interpret this data on geographical origins of students? One must begin by rejecting two possible interpretations. Firstly, there is no evidence to suggest that McGill was indifferent to its Quebec market. On the contrary, the Quebec market remained very stable after 1870. Secondly, it is not sufficient to suggest that francophone medical schools functioned on a provincial level whereas McGill functioned on a national and even international level; that just as Montreal was the commercial centre of Canada so it was an educational centre until the 1930s. Such a statement would not be completely false, but it does not do justice to the complexity of the data. Nor does it do justice to the uniqueness of McGill within the larger Canadian context. At the very least, it requires considerable qualification.

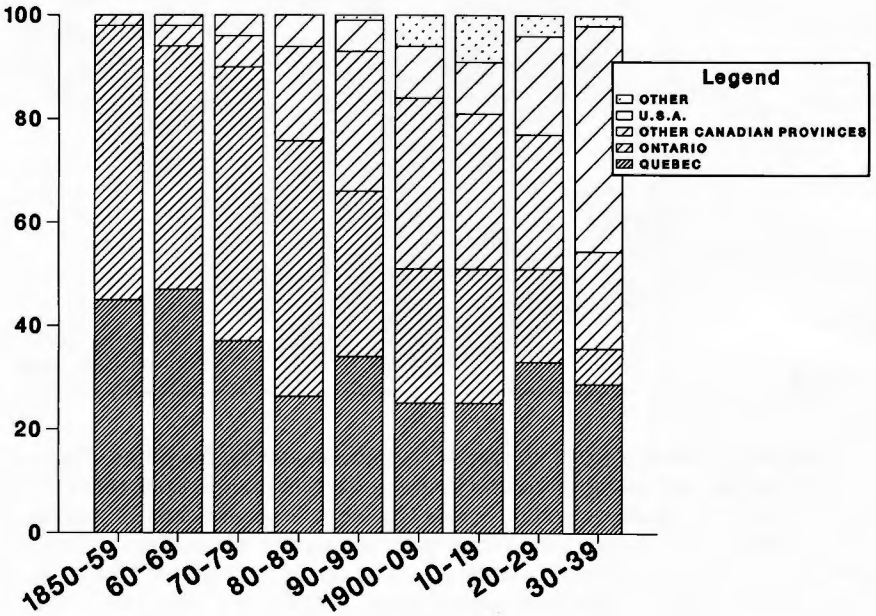
One must begin with the determination of its administration throughout its existence to make McGill the equal of leading North American medical schools. At a time when student fees comprised nearly all of its operating budget, such aspirations depended at least in part on the size of enrollments. Even after 1880 or so, when university and private funding were introduced, relatively large enrollments were needed to justify financial investments for major improvements and to stimulate interest on the part of private donors. However, the anglophone population of Quebec was too small to support such aspirations. Population trends during the course of the 19th century did not help matters, as anglophones represented a decreasing proportion of the population throughout the province.[16] One possibility was to extend its enrollment base to the francophone sectors of the population, as McGill appears

15. From 1906 to 1915 McGill had a branch school in the province, the McGill University College of British Columbia, where students could pursue the first two years of arts and science. The President of the University of British Columbia during the 1920s was a medical graduate of McGill.

16. See the Appendix. The faculty never appears to have seriously considered orienting itself to serve the francophone community. This is hardly surprising in view of the existence of adequate francophone education and, more importantly, the structural separation of the anglophone elite from the francophone majority. In taking this separation as given *for the purposes of this paper*, I do not mean to imply that it should be taken for granted and not seen as an historical problem of major proportions.

to have done from 1855 to roughly 1870 when 10 percent to 13 percent of the total student population and nearly one-quarter of all Quebec students had francophone names — our only means, however unsatisfactory, of identifying francophones.[17] The sudden abandonment of McGill by francophones[18] after 1870 was largely responsible for the decline in the proportion of Quebecers evident in Figure 5. The chronology of this shift suggests its own explanation. Before this date, McGill's diploma was the only university medical degree granted in Montreal. Because EMC lacked a university affiliation its graduates were forced to take the licensing examination of the Collège des Médecins et Chirurgiens until 1867 when EMC affiliated with Victoria. Subsequently, McGill lost the competitive advantage that had stimulated certain francophones to cross linguistic and religious barriers.[19]

**Figure 5** **Geographical Origins of Students at McGill (%)**




17. Only those students who had *both* family names and surnames (when these were given) that were recognizably French were considered francophones in this context. The same is true of those with English names at francophone universities, to be discussed below.

18. The number of francophones at McGill annually from 1861-65 was 17; from 1871-76 it declined to 4. By 1910-14 there were 7 francophones annually (2% of the total students and 11% of the Quebecers). There was also a growing number of francophones from other provinces and the U.S. By the 1880s these outnumbered the francophone Quebecers.

19. On the opposition of the Catholic Church to Catholic attendance at McGill, see Lavallée, p. 13 and Boissonnault, p. 212.

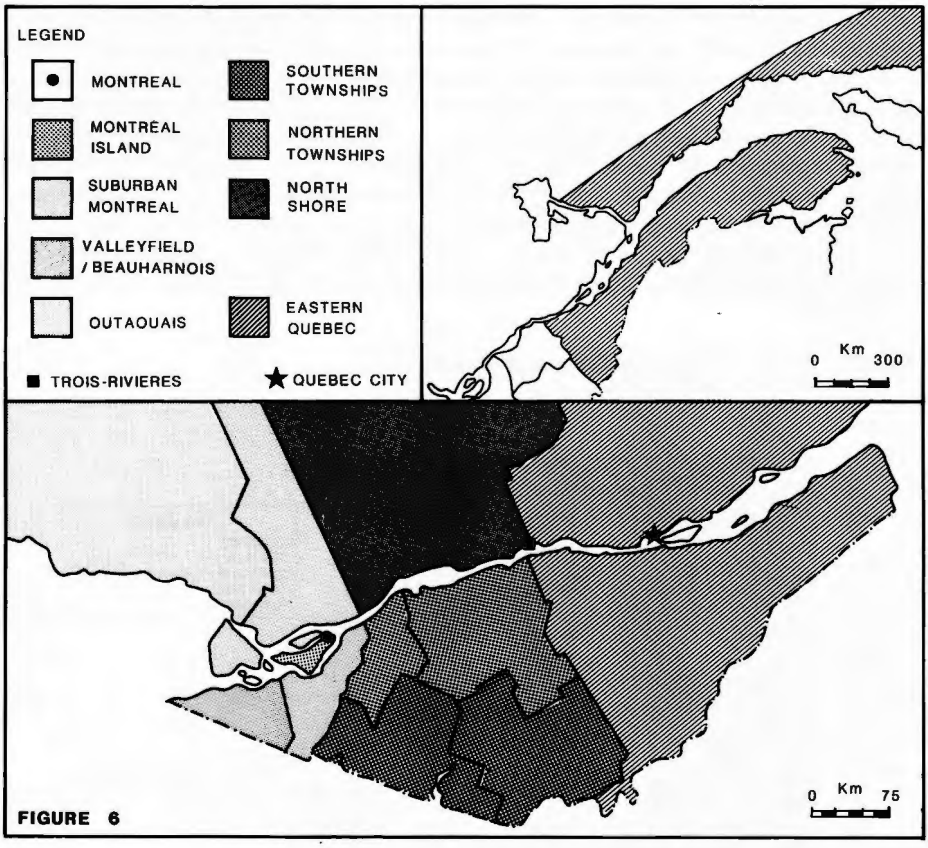



FIGURE 6

Surprisingly, Bishop's kept its share of francophones during this period. The proportion of francophones among all students there was about 16 percent during both the late 1870s and 1880s, while the proportion among Quebec students rose from 18 percent to 29 percent during these two periods. Whatever the reasons for this situation (and actual numbers are very small), Bishop's was the exception. In the francophone schools, as at McGill, greater linguistic exclusiveness seems to have been the rule. From 1860 to 1865, 19 percent of all students at Laval were anglophone (or had anglophone names); this figure declined to approximately 4 percent after 1880. During the late 1850s, nearly 9 percent of EMC students were anglophones. In subsequent decades the proportion fluctuated between 2 percent and 5 percent.

In any event, this growing linguistic exclusiveness probably made only a marginal difference to McGill's enrollment. Certainly, the faculty fought vigorously to maintain its local enrollment in the face of competition from EMC, the St. Lawrence school and then Bishop's.[20] But it also looked outside of Quebec. From the beginning, Ontario was a major

20. For a partisan view of McGill's efforts to keep EMC from obtaining a charter to deliver M.D. degrees, see Mignault, p. 619. On McGill efforts to keep Bishop's professors out of senior positions at the Montreal General Hospital, see the regular editorials in the *Montreal Medical Record* throughout the 1880s.

source of students. From 1840 to 1867, of course, Canada East and West were not separated politically. But even after Confederation, it seems likely that they remained parts of a single geographical unit for English Canadians. Even more fundamentally, medical education comparable to that offered by McGill did not exist in Ontario. Certainly there were medical schools, but these were proprietary institutions not at all or only loosely associated with universities and often without adequate hospital teaching facilities.[21] Consequently, despite the competition, McGill could claim to be a unique institution in English Canada, providing university medical education comparable to that available in Boston, New York or Philadelphia. McGill loomed so large in Ontario medicine that the Medical Act of 1869 imposing licensing examinations on all practitioners in the province was aimed in part at stemming the flow of McGill graduates into the province.[22] However, this situation changed in 1887 with the organization of the University of Toronto Medical School which ended McGill's monopoly of university medical education. After this date, the proportion of students from Ontario declined considerably, suggesting once again that McGill's power of attraction depended on its ability to monopolize a particular regional market. Gradually, McGill and Toronto divided medical education in anglophone central Canada among themselves (much as the two francophone schools did in Quebec). Ontario continued to send significant numbers of students to McGill until the late 1920s, but these constituted a declining proportion of both the McGill student population and the total number of Ontario students pursuing medical training.[23]

Enrollments, however, continued to grow as McGill students from the Maritimes and later western Canada took up the slack. The university encouraged this clientèle by offering its matriculation examinations throughout Canada.[24] In the case of the west, enormous population expansion surely explains the increasing supply of students. In the Maritimes, however, population growth was modest.[25] More determinant, I suspect, were the completion of a railroad between Montreal and Saint John in 1890, and even more fundamentally, the gradual incorporation of the Maritimes into the economic orbit of Montreal during this period.[26] By 1898 there were more than twice as many Maritimers at McGill as there had been in 1890. Railroad construction seems to have integrated the Maritimes not only within the economic markets of central Canada but also within its educational markets. Scattered anecdotal information on doctors in New Brunswick suggest that before 1890 doctors in that province were likely to obtain medical diplomas in the northeastern United States.[27] Transportation facilities undoubtedly made travel southward

21. See for instance, G. W. Sprague, "Trinity Medical College," *Ontario History*, 58 (1966), pp. 63-98; R.D. Gidney and W.P.J. Millar, "The Origins of Organized Medicine in Ontario 1850-1869," in C.G. Roland, (ed.), *Health, Disease & Medicine: Essays in Canadian History*, (Toronto: Hannah Institute for the History of Medicine, 1984), pp. 65-95.

22. Gidney and Millar, pp. 82-84.

23. In 1887-88 the number of Ontario residents at all six of the medical schools in that province was 3 ½ times as large as the number of Ontario residents at McGill. In 1931-32 the number of Ontario residents at only the University of Toronto was 20 times as large as the number at McGill.

24. Frost, p.73.

25. See R. Beaujot and K. McQuillan, *Growth and Dualism: The Demographic Development of Canadian Society*, (Toronto: Gage, 1982).

26. L.D. McCann, "Metropolitanism, Branch Firms and Canadian Urban Development, 1867-1929; the Case of the Maritimes," *Acadiensis*, 13 (1983), pp. 112-125, convincingly shows how Montreal in the 1890s and early 1900s replaced Halifax and Saint John as the dominating metropolitan influence in the Maritimes, only to lose this position to Toronto in the decades after the war. I am grateful to Brian Young for calling this article to my attention.

27. W.B. Stewart, *Medicine in New Brunswick*, (St. John: New Brunswick Medical Society, 1974).

more natural than movement eastward. The subsequent opening of the railroad and the new economic predominance of Montreal business in the region made McGill a more natural centre for medical students.

The sharp drop in the number of students from eastern and western Canada in the late 1920s resembles the decline in the number of Ontario residents 40 years before. In both cases, it seems to have been due to the provision of adequate medical education in regions which had previously lacked it. Before and after World War I, major educational changes took place throughout Canada. Existing medical schools at Dalhousie and Western were fully integrated into their local universities in 1911 and 1912 respectively and subsequently improved significantly. Medical schools were established in Alberta in 1913 and Saskatchewan in 1926.[28] By the 1930s British Columbia was the only province without a medical school.

These changes may explain how McGill lost its power of attraction over Canadian students, but they cannot explain the American invasion after 1925. To understand fully the latter phenomenon, we must recognize that the situation extending to 1920 that we have described is one of market-dominated enrollment. That is to say, McGill sought to expand and may even have recruited actively; but the regional distribution of students was essentially the result of student choices which reflected the availability of medical education in various regions. The only artificial barriers to entry were imposed not by McGill but by the Collège des Médecins et Chirurgiens which required either a high school matriculation or successful completion of an examination which tested general knowledge and was administered by the Collège. This requirement was not particularly onerous and applied to all medical students in Quebec.

After 1920 the situation at McGill changed, reflecting the application of higher standards of medical education — part of a general trend throughout North America. Briefly stated, after 1880 a powerful reform movement began gradually to transform medical education in the U.S. Its goals were powerfully articulated by the famous Flexner Report of 1910[29] and essentially realized by 1930. It sought to impose something approaching a complete undergraduate university education for all prospective students of medicine; to eliminate proprietary medical schools, to reduce the number of medical graduates, to introduce laboratory science into medical studies and to associate medical schools with large hospitals in order to extend clinical training. All these changes necessitated the integration of medical schools into universities and the accumulation of endowment income which would both increase resources and free institutions from reliance on student fees.

The motives for and results of these changes have been hotly debated by historians of American medicine, but what concerns us here are the consequences for McGill. Whereas McGill's entrance standards in the early 20th century were relatively high in the North American context, it had to scramble during the post-war period to keep up with changing norms. It was forced to do so because so many of its students were ending up

28. Heagerty, *Four Centuries of Medical History in Canada*.

29. See Flexner, *Medical Education in the United States and Canada*. The study of these reforms has become a cottage industry. Two recent studies which have generated considerable controversy are E.R. Brown, *Rockefeller Medicine Men: Medical Care & Capitalism in America*, (Berkeley: University of California Press, 1979) and P. Starr, *The Social Transformation of American Medicine*, (New York: Basic Books, 1982), Chapter 3 (Book One), pp. 79-144.

in the United States where they had to conform to state licensing requirements.[30] Throughout the 1920s ever more stringent entrance requirements were imposed. First one year of university education was required, then two and finally in 1929, three years including substantial training in the sciences, with a BA or BSc, were considered the optimal background for entry to medical studies.[31] Simultaneously, the medical faculty limited its entering class to 100 students and set up an admissions' committee to evaluate candidates. It could afford to do this because, from the 1880s on, the faculty received significant private donations and some university funding so that student fees became an increasingly smaller part of the institutional budget.[32]

According to its dean, the faculty received an average of 600 applications annually from 1925 to 1930[33], and over 1,000 in subsequent years. For the first time in its history, the faculty was actively choosing its students. Educational credentials became a primary consideration in the choice of students. By 1938, 77 percent of its 103 graduates had obtained an undergraduate degree compared to only 27 percent at the University of Toronto.[34] Increased religious homogeneity seems to have been another goal. University documents make it clear that the medical faculty, like the university as a whole, gave preference to anglo-saxon protestants. The number of Catholics admitted declined modestly while the number of Jews was dramatically reduced. In 1925-26, 24 percent of all medical students were Jews; by 1936-37, the proportion was 10 percent. Among all university students the proportion of Jews declined from 26 percent to 12 percent. In this as in many other matters, McGill followed the example of the elite universities in the United States.[35]

Religious criteria, however, did not favour Americans. On the contrary, American Jews were singled out as targets of McGill's exclusionary policies.[36] Furthermore, administrative documents make it clear that the increasing numbers of Americans caused some embarrassment. In a major report to the Faculty in 1930, Dean Charles Martin expressed anxiety about the erosion of McGill's traditional influence within Canada. Canadians, he declared, were not applying to McGill as they had in the past; consequently, Canadian medical elites were now being trained elsewhere. The solution proposed was that McGill attain recognized international standards of excellence, not in order to attract foreign students

30. The requirements of state boards was specifically cited as the reason for introducing a new six-year program in the McGill calendar of 1919-20.

31. Changing requirements are clearly outlined in the annual calendars of the McGill Faculty of Medicine during this period.

32. Capital expenditures were almost exclusively funded by private gifts and university subsidies. The proportion of more routine annual budgets covered by fees declined from 57 percent in 1910 to only 32 percent in 1932. See the McGill University *Annual Report* for these years. The finances of the faculty were taken over completely by the university in 1905. Frost, p. 50.

33. "Survey of the Medical Faculty 1920-1930," by C. Martin on behalf of a survey committee, in McGill Archives: 38/30/2. Figures for the 1930s are from statistics in the McGill Registrar's Office.

34. *JAMA*, 97 (1939), pp. 611-45.

35. These figures are from reports prepared by and stored in the McGill's Registrar's Office. Frost, p. 128, gives different figures based on student registers, but the Registrar's figures appear to be more accurate. On similar exclusionary measures in American universities during this period, see Jerome Karabel, "Status - Group Struggle, Organizational Interests, and the Limits of Institutional Autonomy," *Theory and Society*, 13 (1984), pp. 1-39.

36. This is clearly stated in a letter from the Associate Dean of the Medical Faculty to the Principal of the University dated January 14, 1938, McGill Archives, RG.2, c.48 which explained that, of 8 to 10 places each year given to Jews, preference was given to Canadians, making admission of American Jews rare. The letter added that the only other discrimination against Americans practised by the Faculty was against negroes.

but to attract the most ambitious Canadians to pursue an education vastly superior to anything available locally.[37]

Martin suggested that McGill's difficulty in attracting Canadian applicants stemmed from the development of quality medical education in nearly all provinces. This is not an unreasonable explanation as I have already suggested. But Martin seems to have been unaware that the parallel rise in recruitment standards further restricted the potential market, especially in view of the fact that the University of Toronto, closer to the western provinces, was considerably slower in requiring a full undergraduate education as a prerequisite for entry. The full effects of these requirements on McGill can be gauged if we remember that in 1920 there were only 1,109 graduates of Canadian universities with a BA or its equivalent. If we restrict ourselves to university education in McGill's major recruitment regions in Canada (anglophone Quebec, the Maritimes and British Columbia), there were only 253 graduates in 1920.[38] Many undoubtedly had no wish to enter any medical school, let alone McGill. Since the entering class at the McGill Medical Faculty fluctuated at around 100, we can see the reasons for the declining proportion of Canadians.

In contrast, the American university market was bursting at the seams. Here enrollment at all institutions of higher education rose from 355,000 in 1910 to 1,174,400 in 1928. Colleges and universities were primarily responsible for the increase.[39] Consequently, even with rising standards in medical schools, the number of eligible candidates grew rapidly. One would also guess that the rising status of medicine during this period and the disappearance of traditional career alternatives during the depression motivated a higher proportion of eligible candidates to apply to medical schools.

Yet, at the same time as the potential pool of American candidates was increasing, medical education in the U.S. was becoming less accessible. The application of higher standards reduced the number of medical schools in the U.S. from 162 in 1906 to 85 in 1920; the number of medical students declined from over 25,000 to only 14,000.[40] One can easily imagine the kind of pressures which led large numbers of Americans to apply to foreign medical schools. By 1930, in fact, the annual report on medical education published by the American Medical Association was expressing concern about the growing number of Americans studying medicine abroad (and presumably returning to the U.S. to practise).[41] In that year the largest group was in Great Britain (321), particularly at the Scottish universities. The next largest contingent (277) was in Canada; 75 percent of these students were at McGill. By 1937 the number of Americans in Canada had climbed to 487 with well over half at McGill.[42]

McGill must have seemed particularly attractive to the many qualified American students unable to enter Harvard, Hopkins, *et. al.* It was nearby; its reputation was equal to that of the best American schools (with the probable exception of Hopkins); fees were

37. See Martin's "Survey of the Medical Faculty 1920-1930." An even stronger statement is in "Memorandum on Proposed Four-year Medical Course," January 2, 1935 in McGill Archives, RG.12, c.71.

38. Figures are calculated from R.S. Harris, *A History of Higher Education in Canada 1663-1960*, (Toronto: University of Toronto Press, 1976), p. 612.

39. C.B. Burke, "The Expansion of American Higher Education," in K. Jarausch, ed., *The Transformation of Higher Learning*, (Chicago: University of Chicago Press, 1983), p. 112.

40. See Rothstein.

41. *JAMA*, 97 (1931), pp. 625-26.

42. *JAMA*, 113 (1939), p. 772.

considerably lower than those at the major American schools[43]; and it was having difficulty attracting Canadian candidates in sufficient numbers. The influx of Americans thus appears to be as much the result of such institutional pressures as of international prestige; for the University of Toronto which certainly equalled McGill in prestige admitted only a handful of Americans during this period (10 in 1930, 12 in 1937). A relatively immense regional market together with a refusal to raise bruskly admissions standards guaranteed Toronto sufficient numbers of Canadians.[44]

One final point is worth making. The two francophone schools changed dramatically in the 1920s and 1930s, financed by the provincial government and by private sources like the Rockefeller Foundation. Laboratories, new buildings, expanded programs, professors recruited from abroad were some of the results of these changes. But both Laval and EMC did not attempt to impose the kinds of entrance requirements demanded by McGill. In 1920 EMC, enticed by the promise of an annual $25,000 subsidy from the Rockefeller Foundation, followed a model introduced by medical schools in France in 1893 by instituting a year of pre-medical science studies for all entrants; only those who could pass the examination sanctioning this year — whatever their previous training — could continue into the first year of medical studies. But EMC did not request a complete undergraduate training with significant science requirements. Laval did not even introduce a preliminary scientific year during this period in spite of a faculty vote in 1931 to do so. It continued to admit all graduates of *collèges classiques*.[45] A graduate of a *collège classique* was certainly better educated than a Canadian or American matriculant, even though Laval's consistent identification in its calendars and the statistics it sent to the Journal of the AMA, of the *baccalauréat classique* with the B.A. or B.Sc. was undoubtedly exaggerated.[46] Furthermore, both francophone schools were firmly oriented in their educational policy toward France rather than the U.S.A., the former having invented the model of a premedical year of science. It is also true, however, that recruitment strategies reflected the limits of their available markets. Without recourse to a virtually unlimited American market, McGill would have been depopulated by its new admissions criteria. This is precisely the fate which would have awaited francophone schools.

Thanks to the expansion of Montreal, EMC was in a position to introduce a premedical year. It is probable that this decision was not unrelated to the decline in the number of graduates towards the end of 1920s. Located in a much less urbanized region, Laval was not in a position to introduce this reform. It is equally probable that the stability of

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43. The annual fee at McGill in 1930 was about $310. At Johns Hopkins it was $610, at Harvard $400, at Columbia $525, and at Pennsylvania $510. *JAMA*, 97 (1931), pp. 638-45.

44. One sees similar recruitment distinctions among medical schools in the U.S. with respect to out-of-state enrollments. Institutions like Columbia and Pennsylvania, with very large local populations, recruited primarily from within the state. Johns Hopkins and Yale, in states with smaller populations, recruited from 75 to 85 percent of their students out-of-state. Harvard was unique in recruiting largely from outside of Massachusetts despite a large local state population. But Harvard, we know, was an institution actively seeking to train a national rather than local elite. (Based on the annual reports on medical education published in *JAMA* during the 1920s and 1930s).

45. Entrance requirements are outlined in the annuaires of EMC and Laval. But see especially the dossier D35/672 12.11.2 ("Conditions d'admissions- inscriptions, 1889-1948") in Archives de l'Université de Montréal; also Boissonnault, pp. 372-73.

46. The reputation of Laval in the decades before and after the turn of the century was in fact rather low. For the opinions of a Belgian doctor who surveyed North American medical schools, see O. Laurent, *Les universités des Etats-Unis et du Canada et spécialement leurs institutions médicales*, (Brussels: H. Lamertin, 1894), pp. 297-99. Also see Flexner, p. 325 and Boissonnault, p. 394.

Laval's recruitment criteria played a part in the major rise of its enrollment in the 1920s and 30s.

## V – RECRUITMENT WITHIN QUEBEC

In order to analyze recruitment patterns in the francophone schools one must examine more closely regional origins within Quebec. For the purposes of analysis, Quebec was divided into eleven regions described in Appendix 1. Recruitment from each region for the three major institutions is summarized in Table 2. Two general trends are readily apparent: recruitment of Quebec students at all three institutions became increasingly localized; it also became increasingly urbanized everywhere but at Laval.

**Table 2** **Recruitment Within Quebec**

| | Percentages | | Index of Representativeness[a] | |
|---|---|---|---|---|
| | 1870-79 | 1919-29 | 1870-79 | 1919-29 |
| **EMC** | | | | |
| 1. Montreal | 21 | 50 | 3.39 | 2.20 |
| 2. Mtl. Is. | 3 | 3 | 0.91 | 2.20 |
| 3. Mtl. env. | 23 | 14 | 1.50 | 1.49 |
| 7. N. Townships | 14 | 7 | 0.92 | 0.93 |
| 9. North Shore | 15 | 9 | 1.55 | 1.05 |
| 11. E. Que. | 13 | 3 | 0.38 | 0.10 |
| Other | 6 | 13 | 0.38 | 0.68 |
| U.K. | 5 | 1 | — | — |
| **Laval** | | | | |
| 3. Mtl. env. | 6 | 5 | 0.39 | 0.53 |
| 7. N. Townships | 10 | 7 | 0.66 | 0.93 |
| 9. North Shore | 6 | 6 | 0.62 | 0.70 |
| 10. Quebec City | 32 | 25 | [b] | [b] |
| 11. E. Que. | 40 | 50 | 1.17 | 1.59 |
| 11a. Que. env. | 6 | 8 | — | — |
| 11b. E. Que. (rural) | 35 | 42 | — | — |
| **McGill** | | | | |
| 1. Montreal | 49 | 71 | 2.27 | 1.42 |
| 2. Mtl. Is. | 3 | 13 | 1.25 | 1.42 |
| 3. Mtl. env. | 6 | 2 | 1.07 | 0.42 |
| 5. West. Que. | 14 | 5 | 1.01 | 0.63 |
| 6. S. Townships | 15 | 6 | 0.64 | 0.48 |
| Other | 13 | 3 | 0.39 | 0.19 |

[a] Proportion of students from a region at an institution — by regional anglo/franco population as a proportion of provincial anglo/franco population.

[b] The number of students from the region is too small to yield useful ratios.

The most striking characteristic of recruitment at EMC and Laval is its local nature. The two institutions seem to have increasingly divided up the province for recruitment purposes. This appears to have occurred even before *collèges classiques* became

systematically affiliated with either Laval or Université de Montreal.[47] During the 1870s, EMC recruited 24 percent of its students from the city of Montreal and another 26 percent from communities on the island and surrounding region. The remainder of its students were mainly from the Northern Townships, the North Shore and eastern Quebec. The last was significantly under-represented as compared to its proportion of the province's francophone population (index of representativeness .38) By the 1920s, it no longer functioned as a significant source of students; greater Montreal now accounted for 67 percent of all students. Simultaneously, the nature of this recruitment changed. In the 1870s the EMC drew heavily from rural Quebec (58 percent). This pattern reflected the province's large rural francophone population and was presumably made possible by the system of *collèges classiques* which enabled sons of less affluent families to join those of the rural bourgeoisie in obtaining a secondary education. Although many of these students opted for the priesthood, there was some spillover into medicine.[48]

Even during this early period, it is worth noting, the index of representativeness of Montreal was in fact significantly higher at EMC than at McGill (3.39 versus 2.27 during the 1870s). In other words, francophone Montrealers were even more over-represented at EMC relative to the total francophone population than were anglophone Montrealers at McGill (relative to the non-francophone population). In a largely rural society, medicine was most attractive and accessible to the sons of urban dwellers (presumably of the middle class). In subsequent years the number of Montrealers at the EMC rose dramatically. By the 1920s, 50 percent of EMC students came from the city with another 27 percent from other urban centres. EMC had become a predominantly urban institution reflecting the movement of francophone population toward Montreal and the development of other urban centres throughout Quebec. The actual concentration of Montrealers at the EMC was less than at McGill (50 percent versus 71 percent during the 1920s); but the over-representation of Montreal relative to the provincial population was considerably higher (2.20 at EMC vs. 1.42 at McGill). The index of representativeness of Montreal which had declined for half a century (due to the city's population increases) reached a low of 1.77 in the 1910s. During the next decade it rose to 2.2 despite population growth. Furthermore, the same pattern of increasing over-representation of Montrealers occurred at McGill. At EMC, at least, it would seem that increasingly stringent educational standards in medicine during this decade favoured Montrealers who had greater access to educational opportunities and perhaps financial resources as well.[49]

In striking contrast to the EMC, the main Quebec branch of Laval medical school recruited its students primarily from Quebec City and eastern Quebec (72 percent in the 1870s and 75 percent in the 1920s). The only other significant regions of recruitment were the Northern Townships, the North Shore and the areas surrounding Montreal. Only in the first two cases did the proportion of students come close to reflecting the regional percentage of the francophone population. Quebec City was dramatically over-represented in relation to its share of the francophone population, again reflecting the advantages of living in an urban centre where a medical school was located. It is also worth noting that the ratio of

47. *Collèges* were affiliated with Laval in the 19th century. But none could be affiliated with Montreal until the establishment of the Université de Montréal in 1919.

48. C. Galarneau, *Les collèges classiques au Canada français*, (Montreal: Fides, 1978), pp. 141-44.

49. During its brief existence, the Montreal branch of Laval showed similar recruitment patterns as the EMC. However, Montreal and its surrounding regions were even more predominant (71 percent of all students in the 1880s).

representativeness for Quebec City declined dramatically in the early 20th century and then rose in the 1920s just as it did for Montreal at McGill and EMC. But because Quebec City grew far less quickly than Montreal and dominated the surrounding region to a lesser extent, it actually provided Laval with a smaller percentage of its students during the 1920s (25 percent) than it had in the 1870s (32 percent). Most Laval students, in fact, came from the predominantly rural areas of eastern Quebec. Consequently, Laval is unique among medical schools in Quebec in that it continued to serve a very large rural clientèle, reflecting population trends in its major regions of recruitment. In fact, the proportion of students from rural areas of the province remained virtually unchanged from 1871 when it was 50 percent, to 1921 when it was 51 percent. Once again, the system of *collèges classiques* made possible this pattern of rural recruitment which reflected the demographic realities of Laval's catchment area.

The information on provincial recruitment patterns in the two francophone medical schools casts a rather interesting light on the changes in entrance requirements occurring in the 1920s. It is perhaps not accidental that changing requirements at EMC occurred in the context of growing urbanization and concentration within Montreal of the school's area of recruitment. At Laval the maintenance of old criteria took place in the context of a recruitment that remained largely rural. It is certainly dangerous to blindly identify rural origins and less rigorous entrance criteria with students from the less privileged classes of society. Nevertheless, it is highly probable that by the 20th century Laval's recruitment was relatively more popular than that of EMC.

The work of Claude Galarneau, for instance, suggests that the *collèges classiques* in Montreal and Quebec City were significantly more bourgeois than those elsewhere.[50] If he is correct, the growing predominance of Montreal in the recruitment of EMC should have resulted in the relative "embourgeoisement" of its student population in comparison with that of Laval.

A number of other indicators also point in the same direction. We know, for instance, that studies at Laval were considerably less expensive than at EMC, costing in 1921 $90 annually for a five-year program, whereas fees at EMC were $175 annually for a six-year program.[51] We also know that large numbers of scholarships were available to Laval students of medicine.[52] None of this evidence is conclusive, of course, and further empirical enquiry will be required to firmly demonstrate a divergence in the social basis of recruitment at the two schools. But if such a divergence can be proven to have taken place, we can more easily understand the difficulties faced by Laval in introducing new recruitment norms which would have represented a considerable economic sacrifice to students from less privileged social strata.

At McGill, as Table 2 makes clear, recruitment from within the province was centered in Montreal. From 1870 to 1879, nearly one-half of the Quebecers at McGill were from Montreal. Another 15 percent of the students came from other urban centres in the province. Only two regions outside of Montreal made a significant contribution to McGill's enrollment: western Quebec and the Southern Townships, which together made up 37 percent of the province's anglophone population. By the 1920s, 84 percent of McGill's

50. Galarneau, p. 156.

51. The annual fee at McGill was $240. In 1931 annual fees were McGill $310, EMC $235, Laval $165. See university calendars and the annual reports on medical education for 1931 in *JAMA*.

52. Laurent, p. 298.

Quebec students came from the island of Montreal with another 8 percent from other urban centres in the province. Western Quebec and the Southern Townships were no longer significant sources of medical students.

This decline was more than a reflection of general population trends. During the 1870s western Quebec's contribution to enrollments faithfully reflected its share of the anglophone population (index of representativeness = 1.01) while the Southern Townships were under-represented (index = .64). By the 1920s both were significantly under-represented. Aside from the advantages which residence in a large city gave all medical students, it may well be that this phenomenon also reflected the growing marginalization of anglophone communities outside of Montreal.

As in the francophone schools, the over-representation of Montreal decreased as the proportion of Quebec anglophones in Montreal caught up with the proportion of Montrealers at McGill. By the 1910s the index of representativeness was at 1.17. In the next decade, however, it rose substantially to 1.42. Alongside the changes in entrance requirements which favoured students from urban backgrounds, it is likely that immigration patterns also played a role in this growing over-representation of Montreal. The decline in the index of representativeness of Montreal in the second decade of the 20th century is the result of a rapid growth of the non-francophone population of Montreal due to a particularly large influx of immigrants in the early 20th century. However, most of these immigrants were not, in fact, potential candidates for McGill. It was only in the 1920s with the appearance of a better educated second generation, that a few of these immigrant groups (especially Jews) could make a substantial contribution (however unwelcome) to McGill's recruitment market, thus raising the index of representativeness.

## VI — MOBILITY OF GRADUATES

Students' places of origin constitute only one aspect of an institution's recruitment market. Regions to which it supplies physicians form an equally important component. Table 3 summarizes some information on two clusters of medical graduates, one beginning practice in the 1890s and another during the 1920s. In the case of McGill, domiciles of alumni were reported in irregularly published directories. We have consulted the directory of 1924 for the whereabouts of the graduates of the 1890s and that of 1947 for the second cluster. Francophone institutions do not appear to have kept track of their graduates, most probably because they were not considered a source of funding. We have, therefore, relied on another source, the registers of the Collège des Médecins et Chirurgiens of 1908 and 1943. They tell us where graduates practiced within Quebec; at the same time failure to appear in these registers is *prima facie* evidence that graduates never practiced in the province. This method is not foolproof since it is possible that some practitioners refused to register because of the fees involved. More seriously, registration did not preclude subsequent emigration. The number of graduates not registered with the Collège would thus constitute a minimum indicator of emigration.

Overall, one sees in Table 3 a fairly obvious explanation for the relatively low medical density which we saw as characteristic of Quebec. During the 1890s only 44 percent of the graduates of these schools remained in Quebec to practise; in the 1920s the figure rose to 53 percent. McGill was primarily responsible for this state of affairs, but Laval and EMC also trained substantial numbers of graduates who practised elsewhere. More pertinent, however, than overall proportions is what I have called the index of retention which is

**Table 3** **Medical Practice in Quebec Among Graduates, 1890-9, 1920-9**

| | | % Quebec pract. of *all* grads | | % Quebec pract. of *Que.* grads | % Quebec pract. of *non-Que.* grads | | Index of Retention of *Que.* grads[a] |
|---|---|---|---|---|---|---|---|
| | | % | No. | | % | No. | |
| McGill | 1890-9 | 25 | 142 | 62 | 8 | 29 | .77 |
| | 1920-9 | 26 | 186 | 60 | 11 | 54 | .80 |
| Laval | 1890-9 | 84 | 96 | 86 | 33 | 1 | .86 |
| | 1920-9 | 76 | 240 | 82 | 13 | 4 | .84 |
| EMC | 1890-9 | 61 | 241 | 64 | 30 | 9 | .66 |
| U de M | 1920-9 | 78 | 380 | 85 | 30 | 18 | .89 |

[a] No. of graduates practising in Quebec — by no. of graduates from Quebec.

merely the number of graduates who practised in Quebec, divided by the number of graduates from the province. This index is very similar at all three institutions (about 80 percent) if we conflate the two decades. Furthermore, the number of new practitioners per anglophone or francophone population is remarkably similar as well. McGill trained four Quebec practitioners per 10,000 non-francophone population during both the 1890s and 1920s. Together EMC and Laval trained slightly over three practitioners per 10,000 francophone population. As striking as the insignificance of the difference is the similarity between the two decades, thus confirming the stability of Quebec's capacity to absorb doctors.

Not surprisingly, considering that McGill recruited predominantly outside the province, only one-quarter of the McGill graduates in medicine ended up in Quebec. In real numbers, however, the quantity is fairly large, comparable to the numbers trained at Laval. About 60 percent of the graduates during both decades who were originally residents of Quebec remained to practise. They were joined by a number of graduates from other regions who settled after their studies. Overall, the net loss of graduates was on the order of 20 percent during both decades. Those emigrating in the 1890s were fairly evenly divided between those settling in the U.S. and those in English Canada whereas emigrants in the later decade went predominantly to the U.S. Ontario lost even more of its residents than Quebec by way of McGill. Its net loss of Ontario-resident McGill graduates of the 1920s was 38 percent. Clearly the act of leaving home in order to study in Montreal already represented a partial pulling up of roots.

At Laval approximately 80 percent of all graduates ended up in Quebec. Since there were very few students recruited from outside the province, this figure reflects the behaviour of Quebecers among whom the rate of emigration was on the order of 15 percent. The net retention of Quebec graduates was about 85 percent for both decades, only slightly higher than the comparable figure at McGill especially for the 1920s. The comparison is striking in two respects. Firstly, rates are very similar despite recruitment markets that could not be more different, the one anglophone and dominated by Montreal, the other francophone and half rural. Equally striking is the remarkable stability between two decades which were, in themselves, very different in terms of economic development and population movement.

In comparison with these two institutions EMC presents us with what is certainly the most interesting case. During the 1890s, about 60 percent of all graduates remained in Quebec. Only 64 percent of the provincial residents practiced here, virtually identical to the proportion of Quebecers at McGill who stayed. However, unlike McGill, EMC could not count on students from outside the province to partially offset the movement outward. Consequently, the net retention of graduates of the 1890s was only 66 percent, lowest of all the major medical schools. In the 1920s, however, the situation was dramatically reversed. No less than 85 percent of the Quebec residents remained in the province and were joined by a small number of students from other areas. The index of retention rose to 89 percent, highest among the three existing institutions.

This shift paralleled general emigration figures in Quebec which were very high in the 1890s and far lower in the 1920s.[53] But such appeals to demographic trends cannot explain the tremendous difference in behavior between graduates of Laval on one hand and EMC and McGill on the other. Nor does the growing restrictiveness of American immigration policies seem to have been a major factor since rates of emigration at both Laval and McGill were virtually unchanged from the 1890s to the 1920s. Without allowing us to present a definitive explanation, our data, nevertheless, permit us to clarify some aspects of the problem. They point to a number of related developments which can be summarized as follows:

First, both Montreal and Quebec City were not attractive places of residence to medical graduates of the 1890s. Second, residents of Montreal who left that city often moved out of the province altogether, whereas residents of Quebec City moved to other parts of the province. Third, both cities became far more desirable places for graduates of the 1920s to practice but the increased attractiveness of Montreal led to particularly dramatic changes of behavior among EMC graduates.

These tendencies are illustrated by Table 4 which shows the net retention of graduates by regions within Quebec which contributed significantly to recruitments. Montreal was not an especially popular place of practise among McGill graduates of the 1890s. Only 41 percent of the Montreal residents remained. The addition of graduates from outside the city still resulted in a net index of retention of 76 percent, the same as for the province as a whole. In contrast, the regions surrounding the city which contributed a modest number of graduates and the Southern Townships which was a more significant source of recruitment were relatively more attractive to graduates. By the 1920s, the number of local residents who chose to practise here rose to 50 percent; the influx of new Montrealers increased the index of retention to 94 percent or close to equilibrium. Other regions, however, were losing their power to attract McGill graduates. Consequently, McGill's provincial rate of retention remained stable as we saw earlier.

Among graduates of the EMC during the 1890s, 60 percent of the Montrealers left the city after graduation. Two-thirds of these left the province entirely. However, movement towards Montreal from other regions, especially those surrounding the city, resulted in a net retention rate for the city of 92 percent. By the 1920s, 72 percent of the local residents chose to practise in the city while movement from the rest of the province accelerated. Consequently, there was a significant surplus of practitioners over graduates (rate of

53. P.-A. Linteau, R. Durocher, J.-C. Robert, *Histoire du Québec contemporain*. (Quebec: Boréal Express, 1979), p. 42.

**Table 4** **Index of Retention of Major Recruitment Regions in Quebec**[a]

| | | McGill | |
|---|---|---|---|
| | | 1890-9 | 1920-9 |
| 1. | Montreal | .76 | .94 |
| 2 & 3. | Mtl. Is. & env. | 3.00 | 1.10 |
| 5. | West. Que. | .23 | .25 |
| 6. | S. Townships | .94 | .53 |
| | | EMC | |
| | | 1890-9 | 1920-9 |
| 1. | Montreal | .92 | 1.40 |
| 2 & 3. | Mtl. Is. & env. | .57 | .42 |
| 7. | N. Townships | .35 | .45 |
| 9. | North Shore | .39 | .27 |
| 11. | E. Que. | .76 | .33 |
| | | Laval | |
| | | 1890-9 | 1920-9 |
| 10. | Quebec City | .70 | 1.10 |
| 11a. | Que. env. | 1.25 | .35 |
| 11b. | E. Que. | .80 | .66 |

[a] Number of graduates practising in region — by number of graduates originating from region.

retention 1.40). Even Laval with only one Montrealer among its graduates during that decade contributed 16 practitioners to Montreal.

Quebec City was even less attractive than Montreal to francophone graduates of the 1890s. Less than half of the residents of the city practised there; most however did not leave the province but moved to either the region surrounding the city or eastern Quebec. Nor was there much of a migration into the city. As a result the city's net index of retention of Laval graduates was only 70 percent, lower even than Montreal's retention of McGill graduates. In contrast, the surrounding regions, including the predominantly rural areas of eastern Quebec from which a majority of graduates came, were fairly successful in attracting graduates, resulting in a fairly high provincial rate of retention.

By the 1920s Quebec City was showing a slight surplus of practitioners over graduates. It was still retaining only 57 percent of city residents, but it was attracting graduates from other nearby regions. Eastern Quebec, which was still the main supplier of students to Laval, suffered a net loss of one-third of its graduates. Still, considering the prevailing urbanization throughout the province, Laval graduates continued to gravitate in surprising numbers to rural areas. The single largest group of Laval graduates, no less than 26 percent of the total, practised in rural eastern Quebec; 24 percent ended up in Quebec City, and the same proportion left the province entirely. Measured by contemporary standards, Laval was doing a good job of providing rural areas with doctors.

In general terms, therefore, the changing rate of emigration of EMC graduates (and of Laval graduates as well) seems to have been linked to the economic and demographic developments of the major cities. Economic growth and urbanization influence the medicalization of populations (and hence the attractiveness of places for doctors) in a variety

of complex ways that have never been fully analyzed. They lead to higher educational levels, more disposable income (both of which facilitate recourse to doctors), greater density of clients and more hospitals with which to affiliate (to name just a few effects) which cumulatively help shape the career choices of young doctors.

But perhaps the simplest and most striking aspect of a city's development from the point of view of young doctors is simple demographics. From this perspective Montreal's growing attractiveness to both francophone and anglophone doctors is easy enough to explain. The city's population rose from 256,723 in 1891 to 818,577 in 1931 creating enormous opportunities for doctors. In fact, despite the growing concentration of graduates in Montreal, medical density actually decreased from 1 to 636 in 1911 to 1 to 711 in 1931 as a result of population growth.

The growth of Quebec City was far less dramatic and, in any case, the city did not monopolize either the recruitment or placement of Laval graduates. Still the evolution of its population was not without implications. Its unpopularity among graduates of the 1890s could easily have reflected a stagnating population that was only slightly larger in 1891 than it had been 20 years earlier. There was quite simply a larger clientèle available in eastern Quebec. However, from 1911 to 1931, the city's population increased by 66 percent. Simultaneously, by 1921, its unpopularity among graduates had resulted in a rather low medical density (1 per 744 as opposed to 1 per 644 in Montreal). Conceivably these two developments rendered Quebec City a fairly attractive place of practise for graduates of Laval in the 1920s. By 1931, in fact, medical density had risen to 1 per 677 even higher than that of Montreal (1 per 711). Nonetheless, Laval was still a unique institution within the provincial context in that it continued to train so many doctors for rural practice.

## CONCLUSION

This survey of the regional origins and eventual place of practice of medical graduates does not suggest any major lines of demarcation between the anglophone or francophone educational sectors. Rather, major differences exist among the individual medical schools. These are in large measure consequences of the demographic realities to which each was forced to adapt and of the type of recruitment strategies which each developed.

McGill was unique among Quebec medical schools, as well as those in the rest of Canada, in that it recruited primarily from outside its home province. This was only in part a sign of strength and an international reputation. It also reflected major areas of vulnerability, notably a small local population base and the inability to attract in sufficient numbers students from English Canada once these were presented with the option of attending comparable local institutions. After 1920, it was in the uncomfortable position of depending on the northeastern United States for a major portion of its enrollment. Recruitment from this region was assured by a massive increase in the demand for medical education occurring simultaneously with a major contraction of its availability.

For all their differences, McGill and EMC had much in common by virtue of their location in the same city. By the 20th century, both recruited primarily from urban areas, particularly Montreal, whereas Laval continued to recruit from rural areas, especially in eastern Quebec. Although graduates of Laval by then showed an increasing inclination to migrate to cities, it was still, to a significant degree, training rural practitioners. In the 19th century, moreover, large numbers of Quebecers graduating from the EMC were leaving

the province. This migration slowed down considerably in the 20th. At Laval, as at McGill, the situation was more stable during the two decades examined, but the overall retention of resident graduates was comparable. While most Laval graduates never left, Quebec graduates of McGill who migrated were in part replaced by non-resident students who settled here. Rapid population growth made Montreal particularly attractive to both anglophone and francophone graduates of the 1920s. The same was true, on a considerably smaller scale, for Quebec City among Laval graduates.

The nature of their recruitment markets, we saw, also influenced some of the educational characteristics of each institution. The fact that McGill was training large numbers of students wishing to practise in the United States forced it in the 1920s to adopt the increasingly stringent entrance criteria demanded by the AMA and state licensing boards. The francophone schools, and to a lesser extent the University of Toronto, recruiting locally, had less need to move quickly in this direction. Small enrollments at EMC and Laval, in fact, made it inadvisable for these institutions to introduce fully the new American norms. Because it was located in a city with a large population, EMC had some margin to raise standards whereas Laval did not.

Further research would undoubtedly uncover other examples of enrollment patterns helping shape the educational and research characteristics of each institution. McGill's large enrollment resulted in more ample resources from fees and later, alumni contributions to the alma mater. While its pattern of recruitment may have grown out of demographic necessity, it did contribute to the carefully-cultivated image of international excellence that attracted private donations. It would not be surprising if further research demonstrates that McGill's integration in a network of elite North American schools hastened its adoption of a variety of new policies — full-time hospital and teaching posts, the hiring of internationally-recognized figures, the central role of research and publication in academic careers — well in advance of francophone institutions. Nor would it be surprising to learn that Laval, which trained large numbers of students from rural areas for rural general practice, exhibited a variety of institutional peculiarities. Aside from having fewer financial resources, Laval was performing a unique social role. It is at least arguable that the changes taking place at McGill and the elite institutions of the U.S. were wildly inappropriate to Laval's special role and would have been counter-productive if instituted. In these as in other matters, it is less fruitful to compare institutions to an ideal type than to determine how each fulfilled the special functions demanded of it while adapting to a specific set of social conditions.

**Appendix** **Population in Quebec Regions**

| | Region | 1871 | 1901 | 1921 |
|---|---|---|---|---|
| 1. | *Montreal*: population | 107,621 | 203,068 | |
| | % prov. population | 9.1 | 12.4 | |
| | % anglo. in population | 46.8 | 43.7 | |
| 2. | *Montreal Island*: pop. | 36,589 | 147,845 | 728,210 |
| | % prov. pop | 3.1 | 9.0 | 31.1 |
| | % anglo. in pop. | 18.0 | 26.7 | 37.8 |
| 3. | *Montreal environs*: pop. | 154,812 | 204,292 | 199,027 |
| | % prov. pop. | 13.1 | 12.5 | 8.5 |
| | % anglo. in pop. | 10.1 | 9.9 | 11.1 |
| 4. | *Valleyfield/Beauharnois*: pop. | 26,394 | 51,404 | 47,537 |
| | % prov. pop. | 2.3 | 3.1 | 2.0 |
| | % anglo. in pop. | 64.2 | 33.8 | 27.7 |
| 5. | *Western Quebec*: pop. | 67,215 | 83,241 | 117,692 |
| | % prov. pop. | 5.7 | 5.1 | 5.0 |
| | % anglo. in pop. | 57.0 | 43.9 | 31.3 |
| 6. | *Southern Townships*: pop. | 123,459 | 153,516 | 196,805 |
| | % prov. pop. | 10.4 | 9.4 | 8.4 |
| | % anglo. in pop. | 52.2 | 39.9 | 29.4 |
| 7. | *Northern Townships*: pop. | 146,854 | 159,629 | 143,813 |
| | % prov. pop. | 12.4 | 9.8 | 6.1 |
| | % anglo. in pop. | 5.8 | 3.6 | 2.5 |
| 8. | *Trois-Rivières*: pop. | 8,414 | 9,984 | 22,367 |
| | % prov. pop. | 0.7 | 0.6 | 1.0 |
| | % anglo. in pop. | 8.6 | 5.1 | 6.0 |
| 9. | *North Shore*: pop. | 92,434 | 107,862 | 167,695 |
| | % prov. pop. | 7.8 | 6.6 | 7.2 |
| | % anglo. in pop. | 4.2 | 1.8 | 3.8 |
| 10. | *Quebec City*: pop. | 59,699 | 68,842 | 93,093 |
| | % prov. pop. | 5.0 | 4.2 | 4.0 |
| | % anglo. in pop. | 31.5 | 17.2 | 10.6 |
| 11. | *Eastern Quebec*[a]: pop. | 353,040 | 446,475 | 628,083 |
| | % prov. pop. | 30.0 | 27.3 | 26.8 |
| | % anglo. in pop. | 11.9 | 8.7 | 6.2 |
| | TOTAL | 1,185,166 | 1,636,168 | 2,344,322 |
| | % anglo. in pop. | 23.0 | 24.5 | 19.8 |

[a] For certain purposes we have divided this region into two parts which do not coincide with census divisions:
11a. Greater Quebec (within 25 mile radius of city)
11b. Eastern Quebec (outside of 25 mile radius)