

Children's Lives and Academic Achievement in Canada and the United States

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Since the 1960s, politicians, educators, and parents in the United States and Canada have been struggling to come to grips with the quite average performances of their children on international tests of achievement in mathematics and science. The recent results of the International Assessment of Educational Progress (IAEP), taken in 1991 by the Educational Testing Service of Princeton, New Jersey, are consistent with earlier findings. Rather than leading the world in academic achievement, children in the United States and Canada produced average scores that were quite similar to the international standard.¹ Not surprisingly, these results have provoked renewed debate about the quality and nature of schooling in North America. Why are the children of two of the richest countries in the world not at the head of the class?

In addressing this question, the IAEP results can be analyzed at a number of levels ranging from individual children and their families to classrooms, schools, countries, and, in some cases such as Canada, subnational groups. This assessment tested achievement among 175,000 children, composed of 9-year-old pupils in 14 countries and 13-year-old pupils in 20 countries. In addition to the test scores, the IAEP collected a great deal of information about the background of the sampled children and their families (such as family size and economic status) as well as information about habits and preferences both in and outside the classroom (such as television watching and reading for pleasure). Similarly, data were gathered on the size and nature of the sampled children's schools, including information on curriculum and teaching methods.

For all the countries in the IAEP survey, the background information on children and their schools does help explain why, within a given society, some children did far better than others on the tests. These explanations are valuable since the diversity among children's performances within any particular society is far greater than the differences among the sampled

I am indebted to John Modell, Harvey Graff, Lynn Hollen Lees, John Bonnett, and Pam Gaffield for their comments on an earlier version of this paper.

¹ The aggregate test results are presented in Educational Testing Service, *Learning Mathematics* (Princeton, N.J.: Educational Testing Service, 1992), and *Learning Science* (Princeton, N.J.: Educational Testing Service, 1992).

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countries. Significantly, however, the information in the IAEP tests does not adequately explain, in a statistical sense, why the average performance of children within one society is higher or lower than that in another society. Multivariate analysis of all the data reveals that no factor or set of factors consistently accounts for the relative average success or failure of children in the countries of the survey; in each country, a specific constellation of forces appears to be affecting academic achievement. In some countries, for example, higher scores are associated with doing more homework while in other countries, the reverse is true.²

But are the results truly idiosyncratic? Must the academic achievement of each society be understood only on its own terms? Is there no basis for comparative analysis? The following discussion rejects this conclusion by examining current societal differences in academic performance in the United States and Canada from a historical perspective. The focus is on the origins and development of mass schooling and on the changing lives of children.³ Fortunately, the flourishing of socio-historical research in recent decades has produced a vast literature on children and mass elementary schooling in the United States and Canada. Once treated as a linear narrative of progress through the triumph of democracy, scholars have shown that educational history includes complex processes requiring critical analysis and innovative research strategies.⁴ Although a great deal remains to be learned about the changing meaning of school for children in different settings, it is now possible to relate the IAEP results to the historical development of both mass schooling and children's lives.

As shown in table 1, the IAEP mathematics results of children in the United States are situated below the international average for 9- and 13-year-olds. In science, 9-year-old children in the United States did better than average of all the sampled countries, but their 13-year-old counterparts scored only at the international standard. Canadian children scored somewhat higher than their southern neighbors in mathematics and among 13-year-olds in science; overall, they were never very far from the world average.

² Extensive multivariate analysis of the IAEP data has been undertaken by John Modell. See his *Desire to Learn: A Comparative View of Schooling in Children's Lives* (Princeton, N.J.: Educational Testing Service, 1993).

³ For an alternative approach to understanding the results of standardized testing, see the special issue entitled "The Second International Science Study," *International Journal of Education Research* 17 (Summer-Fall 1992): 227-397. For a related discussion on the challenge of the comparative approach, see F. M. Connelly, R. K. Crocker, and H. Kass, "National Curriculum Research: Problems in the Metamethodology of Studies Concerned with State Policy and Local Variation," *Comparative Education Review* 32 (Fall 1988): 430-51.

⁴ Michael B. Katz and David Hogan, "Schools, Work, and Family: Social History," in *Historical Inquiry in Education: A Research Agenda*, ed. J. H. Best (Washington, D.C.: American Educational Research Association, 1983); and Chad Gaffield, "Coherence and Chaos in Educational History," *Interchange* 17 (Summer 1986): 112-21.

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TABLE 1
TEST RESULTS FOR THE UNITED STATES AND CANADA OF THE
INTERNATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS, 1991

	Average % Correct	
	9-Year-Olds	13-Year-Olds
Mathematics tests results:		
IAEP average	63.3	58.3
United States	58.4	55.3
Canada:	59.9	62.0
Quebec francophones	64.5	68.7
Quebec anglophones	62.5	65.7
British Columbia	61.9	66.2
Ontario anglophones	56.8	58.3
Ontario francophones	54.5	53.5
Science test results:		
IAEP average	62.1	66.9
United States	64.7	67.0
Canada:	62.8	68.8
British Columbia	65.9	72.4
Quebec francophones	62.8	71.4
Quebec anglophones	63.0	69.2
Ontario anglophones	62.5	67.0
Ontario francophones	56.3	60.3

SOURCE.—Educational Testing Service (ETS), *Learning Mathematics* (Princeton, N.J.: ETS, 1992), pp. 145, 150, and *Learning Science* (Princeton, N.J.: ETS, 1992), pp. 143, 150.

A special feature of the IAEP was that children in Canada were sampled at the subnational level and were identified in terms of the two official languages, French and English. Thus, it is possible to analyze the Canadian data at a more discrete level of aggregation than is possible in the IAEP data of other countries.⁵ Undoubtedly, the extent of diversity among different regions and language groups in the United States is at least as great as that among the Canadian provinces; however, the sampling was not sufficient to allow analysis at this level, and we are forced to treat the United States as a single society. This important limitation should be kept in mind since the Canadian example indicates that regional and linguistic differences are important, and in unexpected ways. For example, the children of Ontario, the province with the largest population and most diversified economy, often scored at the bottom of the Canadian spectrum. Ontario anglophones did better than their francophone counterparts, but both groups were significantly behind Quebec in mathematics and, to a lesser extent, in science. Quebec francophones scored above

⁵ Similarly, see Joseph Menis, Michael Connelly, Robert Crocker, and Heidi Kass, "The Canadian Science Study: Problems, Unique Methods and National Goals," *International Journal of Education Research* 17 (Summer-Fall 1992): 265-79.

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their anglophone counterparts except in science for 13-year-olds. The British Columbia results were above the international average except in mathematics for 9-year-olds. These three provinces indicate the diversity of the Canadian experience, and, as will be shown, their results offer an excellent opportunity to analyze the importance of historical context to academic achievement.

The Official Promotion of Mass Schooling

The establishment of school systems across Canada and the United States followed a strikingly similar form and chronology due to the complex and often competing ambitions of both official educators and parents. Within this similarity, however, were some notable differences related to important social, cultural, and political distinctions.

The general similarity among school systems in Canada and the United States emerged from the ambitions of educational leaders (appropriately described by historians as "school promoters") throughout the mid-nineteenth century and the willingness of many parents (though certainly not all) to send their children to school whenever material conditions made it possible. The fact that leading educators were so consistent in their ambitions is not surprising since they not only read each other's writings but also were often in touch with each other. Horace Mann, the leading figure in Massachusetts, was closely connected to his counterpart in Ontario, Egerton Ryerson, who worked in collaboration with Jean-Baptiste Meilleur in Quebec, as well as John Jessop in British Columbia.⁶ In turn, these school promoters operated in an international context. For example, Egerton Ryerson visited more than 20 countries during 1844 and 1845 when he was developing his proposals for a public school system.⁷

The characteristic conviction of the school promoters was that mass schooling could be an effective instrument for instilling appropriate modes of thought and behavior into children; in their minds, the purpose of mass schooling did not primarily involve the acquisition of academic knowledge. Significantly, though, the focus of this conviction was not identical throughout Canada and the United States. As will be discussed, the uniformity in purpose of the promoters, and the disparity of its application in North America, offer our first clues on why the performance of North American pupils has been no better than average and why children in some regions do better than others.

⁶ For example, see F. Henry Johnson, "The Ryersonian Influence on the Public School System of British Columbia," *BC Studies* 10 (Summer 1971): 26-34.

⁷ The international character of the development of mass schooling has been most recently emphasized in John W. Meyer, David H. Kamens, and Aaron Benavot, *School Knowledge for the Masses* (London: Falmer Press, 1992).

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In late eighteenth-century British North America (composed of the colonies that would form Canada in 1867), the British authorities saw schools as a way to unhinge French Canadian children from their ancestors and integrate them into the dominant British culture. This attempt failed due to the determination of the Catholic church leaders to maintain at least some authority and the reluctance of French Canadian parents to abandon their heritage.⁸

It is important to note that the opposition of Catholic leaders and French Canadian parents to the British educational project did not question the role of schools as agents of socialization. In fact, throughout the seventeenth and eighteenth centuries, the Catholic church used schools in the same way when it had been officially responsible for formal education in New France. Although the labor-intensive rural economy and the small, dispersed population made effective schooling difficult, parish priests and various male and female religious orders did their best to establish schools in order to teach catechism along with reading, writing, and arithmetic.⁹

Similarly, Catholic missionaries hoped to undermine the traditional cultures and belief systems of the native peoples by teaching their children the Catholic religion and French customs.¹⁰ Although this effort also met with minimal success, it helps to explain the unique way in which the North American view of schooling as a socializing instrument became crucial to the origins of school systems in Quebec. Unlike most other parts of Canada and the United States, mass schooling in Quebec was initially organized along denominational lines.

Elsewhere in Canada and the United States, the religious component of the school promoters' designs for reform was characteristically expressed as nondenominational Protestantism.¹¹ Specific instruction in denominational dogma was limited, but the curriculum clearly aimed to convey Christian values.¹² In this way, school systems in Ontario and Massachusetts, for example, were designed to solve a wide variety of problems ranging from crime to poverty and from idleness to vagrancy. As will be discussed, educators such as Mann and Ryerson related these potential and actual problems to three main causes: the impact of constant

⁸ Louis-Philippe Audet, "Attempts to Develop a School System for Lower Canada, 1760-1840," in *Canadian Education: A History*, ed. J. D. Wilson et al. (Scarborough, Ontario: Prentice-Hall, 1970).

⁹ Roger Magnuson, *Education in New France* (Montreal and Kingston: McGill-Queen's University Press, 1992).

¹⁰ Cornelius J. Jaenen, *Friend and Foe: Aspects of French-Amerindian Cultural Contact in the Sixteenth and Seventeenth Centuries* (Toronto: McClelland & Stewart, 1976).

¹¹ William Westfall, *Two Worlds: The Protestant Culture of Nineteenth Century Ontario* (Montreal and Kingston: McGill-Queen's University Press, 1989).

¹² Charles Leslie Glenn, *The Myth of the Common School* (Amherst: Massachusetts University Press, 1988).

and substantial immigration; the transition from agricultural to industrial capitalism; and process of state formation in which citizens came to exercise political power. While all three of these causes played key roles in the minds of school promoters across Canada and the United States, the relative importance that each educator attributed to them depended on the regional and cultural context in which the promoter functioned.

The quite equal importance of all three causes was most characteristic of school promotion in the well-established eastern border of the United States during the mid-nineteenth century.¹³ Here, concern about heavy immigration and rapid economic change (as exemplified by the rise of the textile industry) exacerbated the political anxiety of the elite who clearly remembered the American Revolution.¹⁴ Leaders in the United States, as elsewhere in North America, perceived a need to create a "public" for the proper operation of democratic politics.¹⁵ The state came to be seen by discontented groups as a real or at least potential ally in their pursuit of change.¹⁶ This view was widely shared, even in the face of quite competing demands made on the state by different groups. One realm in which these demands converged considerably was education. As will be described, the motives behind these demands were quite distinct, but there were few dissenters from the school promoters' belief that mass schooling was needed for the modern state.

In Ontario, the predominantly rural population (only broken by smaller commercial cities) meant that fears about the impact of massive economic change were based on developments elsewhere rather than immediate experience. However, massive immigration and the importance of state formation were very visible at the local level.¹⁷ Canada was not born in revolution, as was the United States, but, during the Rebellions of 1837-38, rural and village leaders in a variety of communities in central British North America took up arms in pursuit of coherent demands for political change. The various uprisings cannot be compared in size or importance to the War of Independence but, at the time, they gave considerable credence for community leaders to the argument that school sys-

¹³ Carl Kaestle, *Pillars of the Republic: Common Schools and American Society, 1760-1860* (New York: Hill & Wang, 1983).

¹⁴ Jonathan Prude, *The Coming of Industrial Order: Town and Factory Life in Rural Massachusetts, 1810-1860* (Cambridge, Mass.: Harvard University Press, 1983).

¹⁵ John Boli-Bennett and John W. Meyer, "The Ideology of Childhood and the State: Rules Distinguishing Children in National Constitutions," *American Sociological Review* 43 (December 1978): 797-812.

¹⁶ This view contrasted with the English experience; see Philip Corrigan and Derek Sayer, *The Great Arch: English State Formation as Cultural Revolution* (Oxford: Basil Blackwell, 1985).

¹⁷ Bruce Curtis, *Building the Educational State: Canada West, 1836-1871* (Sussex and London: Falmer Press and Althouse Press, 1988); Susan Houston and Alison Prentice, *Schooling and Scholars in Nineteenth Century Ontario* (Toronto: University of Toronto Press, 1988).

tems were needed to form the rising generation of citizens. One result was that school promoters in Ontario often adopted an anti-American and antirepublican stance that included opposition to the employment of teachers or textbooks from the United States; from their perspective, a society born in revolution had to be viewed cautiously.¹⁸ Instead, they imported certain components of Irish schools, most notably, the Irish readers that had been written to accommodate a Protestant and Catholic population. This strategy also made sense in that Irish immigrants formed the majority in mid-nineteenth-century Ontario.¹⁹

In Quebec, the Rebellions were even more important than they were in Ontario, and thus political concerns loomed especially large in the minds of educational leaders. Given the leadership role of the Catholic church, however, the construction of an educational state lagged behind while secular and religious leaders debated about a mutually acceptable allocation of power and responsibility. In the 1870s, the primacy of ecclesiastical power in educational matters was confirmed (until the 1960s, as will be discussed), and, thereafter, Quebec was the only province without a minister of education.²⁰ Certainly, immigrants were very visible all along the St. Lawrence River extending from the port of Quebec City, but many were passing through the province on their way to more western parts of the continent. Similarly, Quebec's economy was undergoing significant change, but only in Montreal could educators argue realistically that schools were needed to offset the negative aspects of processes such as proletarianization.

Later in the century, the relative importance of immigration, economic change, and state formation to the official projects of school building continued to reflect regional variation across Canada. On the west coast, immigration was the primary factor in shaping the mass schooling movement, but it did so in ways quite different from those on the east coast of the continent. In the case of British Columbia, the key distinction was the arrival of substantial numbers of Asians, beginning with Chinese men who worked in the mines of the Cariboo and, then, as laborers for railroad building. In the early twentieth century, Japanese immigrants

¹⁸ James H. Love, "Anti-Americanism, Local Concerns and the Response to Social Issues in Mid-19th Century Upper Canadian School Reform" (Ph.D. thesis, University of Toronto, 1978). Bruce Curtis revises Love's argument in "Schoolbooks and the Myth of Curricular Republicanism: The State and the Curriculum in Canada West, 1820-1850," *Histoire sociale/Social History* 16 (November 1983): 305-29.

¹⁹ Donald H. Akenson perceives a predominant Irish influence on Ontario schooling; see *Being Had: Historians, Evidence and the Irish in North America* (Port Credit, Ontario: P. D. Meany Publishers, 1985).

²⁰ Louis-Philippe Audet, "Education in Canada East and Quebec: 1840-1875," in *Canadian Education: A History*, ed. J. D. Wilson, R. M. Stamp, and L.-P. Audet (Scarborough, Ontario: Prentice-Hall, 1970), pp. 167-89.

became a significant group in the fishing industry and, to a lesser extent, in other forms of commerce and farming.²¹

In the context of a predominantly British-origin population, significant Asian immigration fueled fears about the future of British Columbia as a "white province" and about immediate economic competition. Anti-Asian riots and pressure by groups such as the Asiatic Exclusion League resulted by 1923 in legislation to curtail Asian immigration (including a closed door to the Chinese).²² During World War II, continued nativism led to the uprooting from coastal villages of those considered to be "Japanese," including Canadian-born residents of Japanese ancestry, and their forced relocation to internment camps.²³

In this context, schooling developed somewhat differently on the west coast than in the rest of Canada. One noteworthy difference was the emergence of a particular taste for examinations, especially the first standardized "intelligence tests" during the early twentieth century.²⁴ Somewhat more than provinces such as Ontario, and considerably more than Quebec, educators in British Columbia seized on "scientific" testing as an appropriate way to classify students. Their inspiration came largely from the United States, but their enthusiasm for this approach often surpassed that of educators to the south.²⁵ The British Columbian leaders focused considerable attention on Asian students and were careful to examine test results in terms of each student's ancestry. The consistent finding that Asian-origin students scored very well astounded educational officials and inspired them not only to concoct explanations based on the selective nature of immigration but also to continue testing in the pursuit of educational "progress" for the British-origin population of the province.²⁶

This context appears quite relevant to the test results of children in the different IAEP groups of North America, although it should be remembered that the data only permit regional analysis in the case of Canada. Considered collectively, the children of both countries have at-

²¹ Jorgen Dahlie, "The Japanese Challenge to Public Schools in British Columbia," *Journal of Ethnic Studies* 3 (Spring 1974): 10-24.

²² Peter Ward, *White Canada Forever: Popular Attitudes and Public Policy toward Orientals in British Columbia* (Montreal and Kingston: McGill-Queen's University Press, 1978).

²³ Ann Gomer Sunahara, *The Politics of Racism: The Uprooting of Japanese Canadians during the Second World War* (Toronto: Lorimer, 1981).

²⁴ The classic work on this topic is Daniel Hovey Calhoun, *The Intelligence of a People* (Princeton, N.J.: Princeton University Press, 1973).

²⁵ C. B. Conway, "Research and Testing in British Columbia," *Canadian Education* 4 (June 1949): 59-79; Dan Hawthorne, "British Columbia by Design: The Sullivan Royal Commission in Historical Perspective," *Journal of Canadian Studies* 25 (Fall 1990): 140-59; and, for comparison, see Judith R. Raftery, "Missing the Mark: Intelligence Testing in Los Angeles Public Schools, 1922-32," *History of Education Quarterly* 28 (Spring 1988): 73-93.

²⁶ Charles S. Ungerleider, "Testing: Fine Tuning the Politics of Inequality," in *Contemporary Educational Issues: The Canadian Mosaic*, ed. Leonard L. Stewin and Stewart J. H. McCann (Toronto: Copp Clark Pitman, 1987), pp. 126-36.

tended school systems primarily designed for sociocultural purposes. However, the articulation of this general design varied among the Canadian provinces in keeping with the differing levels of importance educational leaders attributed to the three major concerns of the time. A similar constellation of concerns underlay the establishment of school systems in Ontario and the United States (considered as a single society). In contrast, considerable political uncertainty in the context of strong Catholic church leadership was particularly determinant in Quebec, while a pronounced anxiety about immigration and economic change characterized the British Columbian experience.

Correspondingly, the importance of testing children on academic subjects, and the specific attention to mathematics and science differed from society to society. In keeping with the early importance of standardized testing, British Columbia displayed noteworthy interest in mathematics and science achievement. In contrast, Ontario and the United States adopted a more diffused focus, while Quebec showed almost no interest in this kind of academic performance.²⁷

Schooling and Family Reproduction

While the relative importance of specific motivations differed among school promoters in the United States and the Canadian provinces, the issues associated with the process of family reproduction were the key factors determining the attitudes of the populace toward schooling. This process has always reflected the great social, economic, and ethnic diversity of Canada and the United States, and, consequently, the role that schooling has come to play in individual children's lives has varied enormously. However, when viewed at the national or subnational level, many of the same concerns seem to have informed the reproductive decisions of families across North America.

The key element of family reproduction is its orientation toward the future. Recent research suggests that a general motivating force in all the fluid societies in Anglo North America and even in Quebec has been considerable anxiety about the direction and pace of social and economic change. This anxiety has involved a fear of downward social mobility both intra- and intergenerationally. Certainly, such fear preoccupied families before the nineteenth century and explains why land was characteristically seen as the central component of material stability and family cohesion in both New France and British America. And, during the nineteenth century, land continued to be seen as the most secure foundation for

²⁷ John O. Anderson, "Evaluation of Student Achievement: Teacher Practices and Educational Measurement," *Alberta Journal of Educational Research* 35 (June 1989): 123-33.

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family economies. However, the development of agrarian, merchant, and industrial capitalism heightened perceptions of economic insecurity. Everyone became aware that, while great fortunes could be made, they could also be lost just as quickly. The obvious insecurity of even well-paying jobs or successful businesses came to loom increasingly large in the minds of parents planning for their children as well as themselves as elders in the context of declining land availability.²⁸ One response was to have fewer children and to invest more in their education. By the mid-nineteenth century, many parents across the United States and Canada (although few in Quebec for reasons to be discussed) were practicing contraception in an attempt to raise a smaller number of higher "quality" children.²⁹

Changing parental strategies help explain why children were sent to school in increasing numbers and for longer periods during the course of the nineteenth century throughout Canada and the United States. Slowly and in complex ways, schooling came to supplement land as a key way in which families hoped to materially reproduce themselves. Compulsory attendance legislation was passed in the educational jurisdictions of the United States and Canada (except Quebec) during the later nineteenth century, but only a minority of parents were not already enrolling their children in class. It is true that resistance to schooling did develop particularly from those reluctant to pay extra taxes, from those who did not approve of the local teacher, and from those who wished to maintain the connection between formal religious instruction and mass schooling. In cities, truant officers also rounded up children (particularly from working-class and immigrant backgrounds) and sent them to residential "industrial" schools.³⁰ However, this resistance was generally focused on the form and cost rather than the need for mass schooling;³¹ thus, compro-

²⁸ Béatrice Craig, "Pour une approche comparative de l'étude des sociétés rurales nord-américaines," *Histoire sociale/Social History* 23 (May 1990): 249-70.

²⁹ Mark J. Stern, *Society and Family Strategy: Erie County, New York, 1850-1920* (Albany: State University of New York Press, 1987); Angus McLaren and Arlene Tigar McLaren, *The Bedroom and the State: The Changing Practices and Politics of Contraception and Abortion in Canada, 1880-1980* (Toronto: McClelland & Stewart, 1986); Neil J. Smelser and Sydney Halpern, "The Historical Triangulation of Family, Economy, and Education," in *Turning Points: Historical and Sociological Essays on the Family*, ed. John Demos and Sarane Spence Boocock (Chicago and London: University of Chicago Press, 1978).

³⁰ David Tyack and Michael Berkowitz, "The Man Nobody Liked: Toward a Social History of the Truant Officer, 1840-1940," *American Quarterly* 29 (January 1977): 31-54. The need to focus on opposition to official school projects is emphasized in Bruce Curtis, "Patterns of Resistance to Public Education: England, Ireland and Canada West, 1830-1890," *Comparative Education Review* 32 (August 1988): 318-33.

³¹ Michael B. Katz, *Class, Bureaucracy, and Schools: The Illusion of Educational Change in America* (New York: Praeger Publishers, 1971); Peter N. Ross, "The Free School Controversy in Toronto, 1848-1852," in *Education and Social Change: Themes from Ontario's Past*, ed. Michael B. Katz and Paul H. Mattingly (New York: New York University Press, 1975), pp. 57-80; Wendie Nelson, *The "Guerre des Éteignoirs": School Reform and Popular Resistance in Lower Canada, 1841-1850* (master's thesis, Simon Fraser University, 1989).

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mises such as the acceptance of parochial schools resolved some of the conflicts. For the most part, the attendance requirements of the compulsory laws were met well before the actual legislation was introduced. Similarly, the fact that a compulsory attendance law was only passed in Quebec in 1940 does not significantly explain the province's attendance patterns.³²

Why many parents believed that schooling would improve the prospects of their children is not yet well understood, but it is clear that this belief was primarily connected to the value attributed to academic training. Unlike the emphasis of school promoters on character formation, the shaping of values, the inculcation of political and social attitudes, and proper behavior, many parents supported schooling because they wanted their children to learn to read, write, and do arithmetic.³³

Interestingly, the value of this academic training was perceived to be diffuse and was not necessarily dependent on finishing any particular level. While some parents sent their children to school to obtain credentials, many simply sent them whenever other priorities permitted.³⁴ For example, the attendance of male teenagers declined in those communities where early industrialization resulted in greater employment opportunities for them. Similarly, children's regularity of attendance varied seasonally particularly in rural areas where family labor demands were the first priority. In this sense, the articulation of schooling with the labor market was informal and complex. There was no neat transition from school to work at any point in growing up. Rather, many children worked and attended school with changing frequencies during the year and from year to year, and, in most cases, their final departure from school was not strongly related to the acquisition of a diploma.

The increasing role of schooling within family reproduction was quite general throughout North America, but the specific expressions of this phenomenon in different areas and among different groups were not uniform. The importance of school within any specific family's reproductive process varied greatly in keeping with different material circum-

³² W. M. Landes and L. C. Solomon, "Compulsory Schooling Legislation: An Economic Analysis of Law and Social Change in the Nineteenth Century," *Journal of Economic History* 32 (Winter 1972): 54-91. Similarly, compulsory school laws had little effect in Europe; see Yasemin Nuhoglu Soysal and David Strang, "Construction of the First Mass Education Systems in Nineteenth-Century Europe," *Sociology of Education* 62 (October 1989): 277-88.

³³ William C. Gilmore, *Reading Becomes a Necessity of Life: Material and Cultural Life in Rural New England, 1780-1885* (Nashville: University of Tennessee Press, 1989); Harvey J. Graff, *The Legacies of Literacy: Continuities and Contradictions in Western Society and Culture* (Bloomington: Indiana University Press, 1987); Carl F. Kaestle, *A Social History of the American Reading Public* (New Haven, Conn.: Yale University Press, 1991).

³⁴ Randall Collins, *The Credential Society: An Historical Sociology of Education and Stratification* (New York: Academic Press, 1979).

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stances and cultural values.³⁵ Among the societies identifiable in the IAEP data, this variety was most pronounced in the United States and, to a somewhat lesser extent, in Ontario. A more uniform insistence on the importance of schooling developed in British Columbia, undoubtedly related to the province's greater focus on academic achievement in the context of Asian and British-origin settlement.

Similarly, a more uniform perspective on the role of schooling within family reproduction emerged among French Canadians both in Quebec and Ontario; however, in contrast to British Columbia, this uniformity was based on a generally weaker attachment to the importance of schooling. Although francophones did begin practicing contraception by the mid-nineteenth century, they did so with much less intensity than any other group. In the same way, francophone children increasingly attended school but to a considerably lesser extent than the average elsewhere. Literacy rates among francophones remained far below the standard throughout Canada and the United States. Overall, it seems clear that francophones generally did not seek to raise a smaller number of higher "quality" children in the same way as most other groups after 1850 and before the mid-twentieth century.

The distinct family-reproduction strategies of francophones undoubtedly were a result of many factors, but one important element was the continuing importance of child labor to familial economic activities. The articulation of schooling and the labor market was especially weak among francophones. To a somewhat greater degree than other groups, francophones continued to seek material survival and security by combining the labor of family members. This strategy was not only apparent in expanding rural areas (both in Quebec and Ontario) but also in wage labor settings. For example, the massive migration of French Canadians to the New England textile mills was at least partly based on the opportunity to gain employment for several family members, including children who worked rather than attended school.³⁶ In this sense, schooling played a somewhat different role in the process of family reproduction for francophones during the formative decades of mass schooling.³⁷ Only in the post-World War II period would a new relationship between school and society take hold among francophones.³⁸ And, as we shall see, the emerg-

³⁵ Maris A. Vinovskis, "Family and Schooling in Colonial and Nineteenth-Century America," in *Family History at the Crossroads*, ed. Tamara Hareven and Andrejs Plakans (Princeton, N.J.: Princeton University Press, 1987).

³⁶ Tamara Hareven, *Family Time and Industrial Time* (Cambridge: Cambridge University Press, 1982).

³⁷ Gérard Bouchard, "Sur la reproduction familiale en milieu rural: Systèmes ouverts et systèmes clos," *Recherches sociographiques* 28 (Fall 1987): 229-52.

³⁸ Chad Gaffield and Gérard Bouchard, "Literacy, Education and Family Reproduction in Rural Ontario and Quebec," *Historical Studies in Education* 1 (Fall 1989): 103-20.

ing relationship in Quebec evolved in a completely different way than it did in Ontario.

The importance of specific material motivations for school attendance (and therefore an interest in academic activities) did not mean, of course, that sociocultural concerns did not also play a key part in the ways in which parents viewed formal education in the nineteenth century. Many parents from majority ethnic groups viewed the school as a forum in which the accepted values of their culture would be reinforced by teachers from the same background. Parents from the majority also tended to see schooling as a means of socialization designed to offset the threat of ethnic diversity posed by minorities. For their part, minority ethnic groups often called for schooling in keeping with their own backgrounds; one result was schools where the language of instruction was not that of the majority. In the United States, this demand usually gave way to support for standard schooling within one or two generations. This process was sometimes repeated in Canada; for example, German-language schools were familiar in areas of German immigration to Ontario but they increasingly closed as support dwindled by the close of the nineteenth century.

Significantly, however, the experience of francophones in a minority position within the Canadian provincial school systems was very different from their counterparts in Quebec, or indeed any minority group in North America. One example is the striking difference between French Canadians who formed a small minority in Ontario and those who formed the vast majority in Quebec. Initially, provincial officials in Ontario approved the establishment of French-language schools, but the continued francophone enthusiasm for them (in contrast to the declining interest in German-language schools) engendered increasing opposition from those who supported an English-only school system. By the mid-1880s, when French Canadians formed about 10 percent of the Ontario population, the provincial government began systematic efforts to curtail French-language instruction.³⁹ Although the government's efforts met stiff resistance from francophone parents and community leaders who partially thwarted them, provincial policy succeeded in greatly discouraging school attendance among francophones, especially beyond the elementary level. The first French-language high school in Ontario was not opened until 1962. In this context, the role of schooling within the process of family reproduction has expanded in relatively limited ways among the Franco-Ontarians.

³⁹ Chad Gaffield, *Language, Schooling and Cultural Conflict: The Origins of the French-Language Controversy in Ontario* (Montreal and Kingston: McGill-Queen's University Press, 1987).

Conceptualizing the Institution

How could uniform school systems be designed so that they would be seen to respond to the distinct educational projects of school promoters and parents? What type of school could possibly offer the promise of enhanced material prospects for children and at the same time undertake character formation, the shaping of values, and the internalization of officially approved attitudes and behavior? The answer that attracted the most support from parents and educators was twofold: a decentralized administration for the school systems, and the structuring of actual schools and classrooms according to the metaphor of the family.

Unlike most countries, neither Canada nor the United States has a national school system or curriculum.⁴⁰ Rather, schools operate within 50 state administrations in the United States and within 10 provinces and 2 territories in Canada. Moreover, each of these jurisdictions contain community-controlled school boards governed by elected school trustees. Certainly, the state and provincial authorities establish the educational framework of these school boards and impose their will through an administrative hierarchy that has included a variety of educational officials.⁴¹ But, in comparison to many other countries, teachers and school principals in Canada and the United States enjoy considerable autonomy in terms of their implementation of formal educational policy.

Within the generally decentralized school systems of the two countries, the relationship between schools and national purpose is somewhat distinct in Canada and the United States. Although relatively weak in both countries, there is a slightly closer link between schools and national purpose in Canada than in the United States.⁴² The Canadian insistence on the collective concerns of peace, order, and good government contrasts sharply with the quite individual goals of liberty and the pursuit of happiness in the United States. One result is a more organic mentality in Canada in which state projects such as schooling are seen in terms of their overall impact on society. Not surprisingly, more public funds have traditionally been spent on school systems in Canada than in any other country. Similarly, teachers have overcome their initial low status in Can-

⁴⁰ Aaron Benavot, Yun-Kyung Cha, David Kamens, John W. Meyer, and Suk-Ying Wong, "Knowledge of the Masses: World Models and National Curricula, 1920-1986," *American Sociological Review* 56 (February 1991): 85-100.

⁴¹ Bruce Curtis, *True Government by Choice Men? Inspection, Education, and State Formation in Canada West* (Toronto: University of Toronto Press, 1992).

⁴² George S. Tomkins, *A Common Countenance: Stability and Change in the Canadian Curriculum* (Scarborough, Ontario: Prentice-Hall, 1986); J. W. Meyer et al., "Public Education as Nation-building in America: Enrollments and Bureaucratization in the American States, 1870-1930," *American Journal of Sociology* 85 (Fall 1979): 591-613; David Pratt, "Characteristics of Canadian Curricula," *Canadian Journal of Education* 14 (1989): 295-310.

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The construction of schools in keeping with the metaphor of the family began with the design of school "houses," preferably situated on a hill with a garden and surrounding fence. The ideal teacher was pictured as a loving and thoughtful older sister or sometimes a kindly grandmother. These women were thus not competition for the mothers of their pupils but rather were complementary to their efforts in child raising. One major advantage for school trustees in the nineteenth century was the availability of young women as well as widows for teaching positions; "virtuous women at half the price" as they were called. However, the characteristic elementary school teacher throughout Canada and the United States has continued to be female even after equal-pay policies were introduced during the course of the twentieth century.⁴³

Mass schooling for both boys and girls was thus established as a feminine domain.⁴⁴ In keeping with the dominant ideology of the time, elementary schools promoted and rewarded those thoughts and behaviors that were culturally promoted and rewarded within the "female" domestic environment.⁴⁵ In pursuing sociocultural agendas, schools stressed neatness, obedience, punctuality, cleanliness, patience, tolerance, collegiality, cooperation, silence, and passivity for both boys and girls. Characteristics associated with manliness and with the "public" sphere such as originality, creativity, aggressiveness, determination, independence, and stalwartness were actively discouraged for all children. Throughout the second half of the nineteenth century, the only competition that was enthusiastically encouraged by educators focused on the "feminine" priorities; medals, ribbons, and certificates were given for attendance, punctuality, obedience, and penmanship. In the twentieth century, the considerable emphasis of report cards on behavior rather than academic performance in the classroom reflects the continued importance of the metaphor of the family. The contradiction between the "masculine" qualities promoted for boys in the larger society and the "feminine" behavior demanded in class may help explain why boys constitute more than two-thirds of the pupils now identified as emotionally disturbed or learning disabled in the United States.⁴⁶

⁴³ The classic statement is by Alison Prentice in "Education and the Metaphor of the Family: The Upper Canadian Example," in Katz and Mattingly, eds. (n. 31 above).

⁴⁴ David Tyack and Elisabeth Hansot, *Learning Together* (New Haven, Conn.: Yale University Press; New York: Russell Sage Foundation, 1990).

⁴⁵ David F. Noble, *A World without Women: The Clerical Culture of Western Science* (New York: Random House, 1992). For a related discussion on views toward the death of children, see Ann Douglas, *The Feminization of American Culture* (New York: Avon Books, 1977).

⁴⁶ Differences in the ways boys and girls experience schooling continues to attract considerable media attention throughout Canada and the United States; see, e.g., "Is School Unfair to Girls?" *Time* (February 24, 1992), p. 49. The historical similarity of enrollment patterns for boys and girls

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In this sense, the quite comparable test scores at the elementary level for boys and girls in mathematics and science are understandable for Canada and the United States. Boys bring to the classroom an important advantage in these subjects as a result of the sexism of the larger cultures in Canada and the United States. For the same reason, girls arrive at school with much less cultural support for success in mathematics and science. These cultural values are certainly articulated in the classroom by teachers and textbooks but they are also undermined by the feminine domain of the classroom that works to the disadvantage of the boys and to the advantage of the girls. Nine- and 13-year-old boys are better prepared culturally to take the test (since they are encouraged to be competitive and are more identified with mathematics and science), but elementary schools in the United States and Canada give girls greater support in undertaking actual school tests such as the IAEP. These forces work against each other to produce quite similar scores for boys and girls in the short term. Not surprisingly, the larger cultural advantage for older boys in high school begins to be expressed in higher test scores as the school environment becomes more "masculine," both in terms of teachers and the content and structure of the curriculum.⁴⁷

But if elementary schools were designed to be feminine domains, how were boys expected to begin learning their culture's definition of masculinity? Where were boys to learn to be men? The answer lies mostly outside the classroom in family and community, but, within schools, the informal curriculum has also been important in separating boys and girls. While classrooms generally came to be coeducational, children learned in other ways that gender divided them. For example, boys and girls arrived at the same classroom by entering the school through separate doors. They played in segregated areas of the school yard. And, perhaps, most important, the informal curriculum often both separated boys and girls and engaged them in different activities. While girls developed more artistic talent, perhaps by singing and drawing, sports played a special role in introducing boys to the culture of masculinity.

The Curriculum and Its (Non)Academic Content

The establishment of decentralized school systems with classrooms reflecting the metaphor of the family was consistent with the primacy of attitude and behavior over academic skills in the elementary schools of Canada and the United States. As would be expected, schools in the new

at the elementary level is discussed in Patrick J. Harrigan, "The Schooling of Boys and Girls in Canada," *Journal of Social History* 23 (Summer 1990): 803-14.

⁴⁷ For example, see the special section on gender differences in achievement in *Alberta Journal of Educational Research* 37 (September 1991): 193-258.

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systems appear to have taught reading and writing less effectively than the country schools of the early nineteenth century. Moreover, these skills were taught in the new school systems as means rather than ends. Reading was taught so that children could learn the *moral* of the story. Writing was essential to learn the *discipline* of penmanship. Arithmetic was a less important subject, but it, too, had the larger goal of "mental exercise."⁴⁸ And in the mid-twentieth century, even the academic content of textbooks appears to have decreased; for example, one study in the United States revealed that the demands of elementary textbooks of the early 1960s were less than those of the mid-1940s.⁴⁹

The sociocultural goals of mass schooling help explain the rapid expansion of an informal curriculum in which a great deal of a child's school-related activity does not involve academic training. Physical exercise for children was promoted from the mid-nineteenth century, and its importance soon became one of the key arguments for establishing "consolidated," rather than one-room, schools. By the turn of the century, educators were insisting on the importance of transporting children to larger schools that could offer facilities such as gymnasia. Indeed, the quality of specific schools came to be discussed more in terms of the quality of the gymnasium than the quality of teaching or instructional resources.

The emphasis on attitudes and behavior in the developing school systems of the nineteenth century also led to the segregation of pupils according to age rather than academic achievement. Age-grading became increasingly familiar in the larger urban schools and then in the consolidated schools of the countryside. In this way, a child's progress through the school system was formally linked to physical and social development rather than academic achievement.

The increasing primacy of age over achievement in grouping children was accompanied by a changing metaphor of the child as pupil. In the mid-nineteenth century, children were pictured as clay ready to be molded by teachers. By the turn of the century, the dominant image of pupils was that of seeds in need of appropriate cultivation. In this view, children had inherent differences that had to be respected if children were to fulfill their full potentials. Just as it was not true that all seeds needed the same type of soil or the same amount of moisture, it was equally true that not all children could be taught in the same way.

⁴⁸ National Council of Teachers of Mathematics, *A History of Mathematics Education in the United States and Canada* (Washington, D.C.: National Council of Teachers of Mathematics, 1970); also see David H. Kamens and Aaron Benavot, "Elite Knowledge for the Masses: The Origins and Spread of Mathematics and Science Education in National Curricula," *American Journal of Education* 99 (February 1991): 137-80.

⁴⁹ J. S. Chall, *An Analysis of Textbooks in Relation to Declining SAT Scores* (Princeton, N.J.: College Entrance Examination Board, 1977), p. 27.

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Among older children, the new metaphor of seeds led to alternate streams of schooling at the secondary level, most notably a technical and vocational curriculum for those considered to be "weeds."⁵⁰ But at the elementary level, the child's need for "cultivation" encouraged a child-centered approach in which teachers were told to attend to each child's individual need for care and support. Discipline by intimidation was rejected in favor of strategies to help children feel good about themselves as students. By the early twentieth century, teachers increasingly focused on the affective rather than the intellectual state of their pupils in an attempt to bolster their self-esteem.⁵¹ Of course, not all teachers actually worked to help children think well of themselves, and, as in all aspects of educational history, theory and practice were not identical. For some children, schools have been places of torment despite the philosophy of cultivation.

The metaphor of children as seeds complemented the policy of age grading. The objective was to shield children from the potential trauma of failure and to encourage them to stay in school regardless of academic progress. In turn, the new ideology underlay the redefinition of children from family members who were economically useful to those who were economically useless but emotionally priceless.⁵² This redefinition became characteristic of Canada and the United States during the early twentieth century and has largely remained unquestioned since that time. The IAEP found that children in these countries have more positive feelings about themselves than do children in the other countries under study. Despite relatively poor or average performances in mathematics and science, children in Canada and the United States expressed highly positive views of their own abilities. Undoubtedly, these children's perspectives related to the school systems' low academic expectations; high self-esteem is consistent with an environment that is reluctant to provide opportunities for failure.

The Distinct Case of Quebec

Children in contemporary Quebec also think very well of their academic performance in mathematics and science, but the meaning of schooling in the lives of these children is significantly different from the pattern in other parts of Canada and the United States. This difference is partly related to

⁵⁰ Marvin Lazerson and W. Norton Grubb, *American Education and Vocationalism* (New York: Teachers College Press, 1974).

⁵¹ John Modell and Madeline Goodman offer a cross-cultural perspective on the changing social construction of childhood in "Historical Perspectives," in *At the Threshold*, ed. Shirley Feldman and Glen R. Elliott (Cambridge: Cambridge University Press, 1990), pp. 93-122.

⁵² Viviana A. Zelizer, *Pricing the Priceless Child: The Changing Social Value of Children* (New York: Basic Books, 1985).

historic forces but, to an extent unparalleled elsewhere in North America, the current situation reflects quite recent developments.

The point of departure for massive educational change was a major commission of inquiry at the start of what came to be called the Quiet Revolution in the early 1960s. In response to the resulting recommendations, the Quebec government revamped the school system in an attempt to enhance the francophone population's general educational level and to produce a better qualified labor force. Catholic church leadership was rejected in favor of government administration, and vastly increased budgets were given to school boards across the province.⁵³

The major changes to schooling in Quebec were at the heart of the Quiet Revolution. Despite the reluctance of Catholic church authorities, the Quebec government portrayed educational progress as a key strategy for becoming "*maîtres chez nous*" ("masters in our own house"). More academically focused schooling was promoted as a "national" project; this better education would lead to economic and cultural renewal, and Quebec francophones would become part of a fully modern society.

Since the power of the leaders of this revolution only extended to the provincial borders, the francophones in Quebec began calling themselves Quebecois rather than French Canadians. Indeed, within a very short time, the name "French Canadian" disappeared in favor of provincially defined groups such as the Franco-Ontarians. To some extent, "quiet revolutions" did take place among francophones in the other provinces, but since the early 1960s the differences between francophones in Quebec and elsewhere have become more pronounced.⁵⁴ Moreover, noteworthy distinctions among the francophones outside Quebec continue to reflect many factors including the specific ways in which anglophone majorities within the various provinces view the francophone minorities. These distinctions are clearly related to the role that education plays in the lives of francophones across Canada.

In keeping with the aspirations of the Quiet Revolution, the value of schooling for the Quebecois was described in two ways. First, leaders emphasized that a legacy of high illiteracy and low attendance rates had to be rejected in order to achieve an appropriate societal level of modernity. Education was promoted as an inherently valuable possession required in contemporary civilization. This view included the well-established conviction dating from the time of New France and British North America that schooling could fulfill sociocultural ambitions. The most controversial

⁵³ Norman Henchey and Donald Burgess, *Between Past and Future: Quebec Education in Transition* (Calgary, Alberta: Detselig Enterprises, 1987); Henry Milner, *The Long Road to Reform: Restructuring Public Education in Quebec* (Montreal and Kingston: McGill-Queen's University Press, 1986).

⁵⁴ Rodney A. Clifton, "Ethnic Differences in the Academic Achievement Process in Canada," *Social Science Research* 2 (1982): 67-87.

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specific strategy was the language legislation of the 1970s that insisted on French-language schooling for the children of immigrants to the province; this legislation was designed to reverse the traditional pattern in which immigrants integrated more into the anglophone than the francophone population of the province.⁵⁵

The second way in which the value of schooling was promoted concerned the need for academic skills. The revamped school system was designed to produce a modern Quebec society by ensuring economic competitiveness. Better skills in mathematics and science were particularly seen as an important strategy for overcoming British-origin oppression dating from the Conquest of 1763. The long-established emphasis on religion and the humanities in the francophone schools was not immediately abandoned, but their importance steadily eroded after the early 1960s. Increasingly, the France-like character of schooling in Quebec was best seen in the emergent use of performance in mathematics to judge academic achievement. Increasingly, and to an extent unparalleled in other parts of the United States or Canada, a child's grade in school was related to achievement in mathematics. And failing a grade dimmed considerably a child's longer-term educational prospects; in contemporary Quebec, 80 percent of high school drop-outs had failed a year in primary school.⁵⁶

Within the general context of Canada and the United States, Quebec's official support of education for academic reasons broke significantly with the past. However, certain aspects of the history of education in Quebec prepared the way for this increased emphasis on cognitive achievement. One factor was the historic association between higher education and lower levels of schooling in Quebec. Partly because of the role of the Catholic church, and partly because of the province's French origins, the form and content of elementary schooling was often integrated with that of more advanced study even though only a tiny minority of pupils would progress to higher levels. A tradition that included classical colleges and convent schooling meant that schooling for young children was conceived as part of a larger system in which progress through the levels depended on academic progress. Even in the sparse settlements of seventeenth-century New France, secondary education was begun with the opening of the Collège de Québec in 1635 while the Séminaire de Québec (which became Laval University) was founded in the 1660s. This pattern also

⁵⁵ Rene Levesque and Alf Chaiton, "Education in a Changing Society: A View from Quebec," in *Canadian Schools and Canadian Identity*, ed. Alf Chaiton and Neil McDonald (Toronto: Gage Publishing, 1977), pp. 176-83.

⁵⁶ The Quebec education minister has recently focused on the connection between early and later schooling by instituting meal plans for poor schools in keeping with the well-established programs in the United States; see "Quebec Plans School Meals to Aid Poor," *Toronto Globe and Mail* (September 7, 1991), p. A6.

emerged to some extent in the United States, beginning on the east coast during the colonial period with the founding of universities such as Harvard and Rutgers. Elsewhere, however, school systems tended to be built from the "bottom up" without direct links to higher education. The public school systems of Ontario and British Columbia, for example, were not established as extensions of higher education.

The informal curriculum in Quebec schools had also never become as important as it had in the rest of Canada and the United States. For example, the familiar image in the United States of school sports teams with cheerleaders and widespread community involvement cannot be applied to Quebec. Rather, this type of activity has primarily developed outside the context of schools. Hockey, the major sport for Quebec boys, has rarely been played competitively in school; indeed, the importance of community-based leagues has been seen as one of the contributing factors to the high drop-out rate of male teenagers. The relative weakness of the informal curriculum in Quebec meant that officials in the 1960s could focus all their attention on the formal content of schooling in carrying out educational reform. This fact helps explain the impressive speed of the Quiet Revolution as experienced in the classroom.

The promotion of educational restructuring as a national project in Quebec attracted widespread support. Indeed, since the 1960s, officials and parents in Quebec have supported higher-quality education with considerable enthusiasm despite massive tax increases to finance the changes. Parents also began embracing the ambition to raise a smaller number of children in whom greater educational investment could be made. During the course of the 1950s and early 1960s, the birth rate in Quebec dropped sharply, moving the provincial average from its traditional place at the highest level in Canada and the United States to a position at the lowest level. Interestingly, both religious and secular leaders in Quebec opposed this trend, which threatened to decrease the relative importance of the francophone population. Despite this opposition, parents continued to limit family size to an unprecedented extent as part of their changing strategies of family reproduction.

Smaller families gave francophone parents in Quebec a much greater opportunity to support schooling for their children, and, since the 1960s, they have become more interested in the details of school matters. This interest broke with tradition in that, historically, school officials in Quebec (as throughout Canada and the United States) have demanded that parents send their children to class but otherwise stay removed from school activity.⁵⁷ In francophone Quebec, religious leaders viewed schools as

⁵⁷ John D. Friesen, "Family and School: An Uneasy Partnership," in Stewin and McCann, eds. (n. 26 above), pp. 304-12.

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their own world, as did their secular counterparts in other school systems. Not surprisingly, home-and-school associations throughout Canada and the United States have characteristically been confined to dealing with nonacademic issues, and have been excluded from substantive policy debate. Parents have not been expected to follow closely their children's school activity except in terms of the informal curriculum.

The traditional separation of home and school explains the limited role that homework has played in the lives of elementary pupils not only in Canada but also elsewhere in Canada and the United States. Homework is seen as an intrusion by the school system into family life. Just as educators attempt to keep parents distant from classroom activity, parents expect teachers to confine formal education to schools. Homework is seen as negatively affecting social development and natural home life for all children, and in the case of less materially advantaged families may be viewed as incompatible with the need for children to contribute to their family economies. The only acceptable exception involves the assignment of homework for remedial purposes. Elementary pupils who have homework are those who are not succeeding at school in the expected ways.

The importance of parental involvement and support for the schooling of their children is vividly illustrated by data from Quebec that show a notable difference between the elementary and secondary levels. Among younger children, the increasing commitment of francophone parents to raising a smaller number of better-educated children has contributed to considerable equality between the academic performances of these children and that of anglophone children in the province.

However, the experience of children in Quebec's secondary schools varies enormously, as illustrated by completion rates. Overall, 64.5 percent of students complete high school in the province. However, the four highest completion rates all come from the anglophone Protestant school boards (76.2–93.2 percent). Within Montreal, only half of the children within the francophone Catholic school boards complete high school, while three-quarters of those in the Protestant boards receive diplomas. The Quebec minister of education has recently explained this difference by arguing that "parents in the francophone public network tend to follow up on their children until the end of elementary school, then afterwards rely on the high school." In contrast, he reported that educational officials "notice that anglophone parents are more constantly present in the education of their children."⁵⁸ Similarly, Joel Hartt, chairman of the anglophone-dominated Lakeshore School Board, cited positive educational values as the main reason his schools have such low drop-out rates; in

⁵⁸ Quebec Minister of Education Michel Pagé, as quoted in "Dropout Rate Higher in Catholic Schools," *Montreal Gazette* (June 26, 1992), p. 1.

his view, "there tends to be a high aspiration [among anglophones] to push toward CEGEP [Collège d'enseignement général et professionnel], university and a professional career."⁵⁹

In response, francophone parents claim that francophone educators specifically discourage parental involvement after the elementary level. Moreover, they emphasize that the structure of schools can make a major difference to drop-out rates. For example, one east-end Montreal school attended predominantly by francophones achieved a graduation rate of 80 percent after the introduction of customized and closely monitored programs for each of the 740 students.⁶⁰

The contrasting success of francophone elementary pupils and the failure of their older siblings in high school thus appears to be directly related to the role that school plays in their lives. The experience of Quebec points to the importance to educational achievement of differences in the valuation of academic activity by both parents and educators. In the same way, the contrast between educational achievement at the elementary level before and after the Quiet Revolution is undoubtedly a result of the greater emphasis placed on schooling by policymakers in redefining national purpose and by families in revising their reproductive strategies.

Continuity and Change in Twentieth-Century Schooling

The dramatic "revolution" of recent decades in Quebec has not been paralleled elsewhere in Canada and the United States although, of course, significant change has occurred over the years. In the United States, home and school have continued to be seen as quite distinct spheres with respect to the formal curriculum.⁶¹ The imposition of homework is, however, generally more accepted in the United States than in Canada (especially Quebec), although the main justification for it is still remedial. The prized student is not one who succeeds in the formal curriculum by working hard to master academic material; rather, the ideal pupil is one who appears to do well in the formal curriculum without much effort, thereby leaving plenty of time to be captain of the basketball team.⁶²

⁵⁹ Joel Hartt, as quoted in *ibid.*, p. 2. Overall, however, fewer teenagers in Canada than in the United States continue in high school. Only 72 percent of Canadian 17-year-olds are in school, while 87 percent of their southern neighbors are still receiving formal education; see "Tackling Canada's High Drop-out Rate," *Social Development Overview* 8 (Fall 1991): 7-8.

⁶⁰ "Dropout Rate Higher in Catholic Schools," *Montreal Gazette* (June 26, 1992). Also see Rebecca Barr and Robert Dreeben with Nonglak Wiratchai, *How Schools Work* (Chicago and London: University of Chicago Press, 1983).

⁶¹ Arthur Zilversmit, *Changing Schools: Progressive Education Theory and Practice, 1930-1960* (Chicago: University of Chicago Press, 1992).

⁶² James W. Stigler and Michelle Perry, "Mathematics Learning in Japanese, Chinese, and American Classrooms," in *Cultural Psychology*, ed. James Stigler, Richard Shweder, and Gilbert Merit (Cambridge: Cambridge University Press, 1990), pp. 328-53.

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Moreover, the academic content of schooling is only part of the definition of "education" as it has evolved in the United States during the twentieth century. "Book learning," for example, is distinct from "street smarts" and sometimes has a lower status. Those with considerable formal education may be criticized as "ivory-tower types" or "east coast intellectuals." As children, they may have been called "eggheads" or, more recently, "nerds."⁶³

The ideal of the "self-made man" who uses ingenuity and entrepreneurship to achieve material success continues to loom large in the consciousness of many United States parents and educators.⁶⁴ In this sense, families in the United States engage education in a general way more than they engage formal instruction in school; in other words, support and interest in learning is more widespread than the specific attention devoted to academic achievement in school tests. Thus, children in the United States do better in science, which they might learn in a variety of nonschool contexts, including watching television at home, than in mathematics, which they would be more unlikely to learn outside school. This pattern is quite unique among the countries tested in the IAEP. Moreover, the most striking relative decline in test scores from 9-year-olds to 13-year-olds occurred in the science results of children in the United States. In comparison to those in other societies, these children do not appear to be learning much science in school, and whatever science they are learning in other contexts (such as from television) is less and less able to allow them to keep pace with those children who are actively learning this material in school.

The competing and equivocal images of academic achievement as illustrated by the expressions "egghead" and "nerds" suggest that different families have very different valuations of formal education within the United States. In fact, formal education has come to include a vast range of schools often linked to differences of class and race. For elites, magnet schools and special honors programs have come to

⁶³ For a helpful discussion of how cultures have differed "in the way intelligent behaviour was defined and in the value placed on particular displays of skill or knowledge," see Jacqueline J. Goodnow, "Using Sociology to Extend Psychological Accounts of Cognitive Development," *Human Development* 33 (March-June 1990): 81-107, quote is on 83. Also see Stephen J. Ceci and Jeffrey Liker, "Academic and Nonacademic Intelligence: An Experimental Separation," in *Practical Intelligence*, ed. Robert J. Sternberg and Richard K. Wagner (Cambridge: Cambridge University Press, 1986), pp. 119-42.

⁶⁴ I. J. Wylie, *The Self-Made Man in America: The Myth of Rags to Riches* (New York: Macmillan/Free Press, 1966); C. MacLeod, *Horatio Alger, Farewell: The End of the American Dream* (New York: Seaview Books, 1980); for a discussion of similarities with the Canadian experience, see Jonah Goldstein and Joseph Smucker, "Multitracking: The Success Ethic in an Era of Diminished Opportunities," *Youth and Society: A Quarterly Journal* 18 (December 1986): 127-49; and Allan Smith, "The Myth of the Self-Made Man in English Canada, 1850-1914," in *Class, State, Ideology and Change in Canada*, ed. J. Paul Grayson (Toronto: Holt, Rinehart & Winston, 1980), pp. 187-205.

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be considered the paths to specific types of colleges and universities; in turn, these institutions are expected to guarantee career success. For the disadvantaged, dangerous inner-city schools characteristically have high drop-out rates and few connections to financial stability in later life.

But even among families of similar backgrounds, children in the United States do not value academic learning in uniform ways. The absence of a clear consensus is reflected in the great variation of test results. Considered in an international context, the scores of children in the United States are very differentiated; although the average is quite low, some children did very well while others did extremely poorly. The socioeconomic data collected with the IAEP tests suggest that these valuations do not simply reflect socioeconomic background or factors such as grade in school. Rather, the extent of differentiation in the United States appears to relate to the coexistence of quite distinct views of the value of formal education that go beyond the substantial socioeconomic differences.⁶⁵

As would be expected, the varying levels of engagement with schools among families in the United States meant that the extent of differentiation in test scores was greater in mathematics than in science. Since the learning of science is a more diffuse process in the United States, it is less dependent on commitment to formal education. This weaker relationship is reflected in the test results for each of the components of the science assessment. The range of scores was less in the more general topics such as those dealing with the nature of science; in contrast, scores varied greatly for the more specific questions related to the life sciences and the physical sciences. When correct answers depend on knowing material that can really only be learned in school, children in the United States perform in highly differentiated ways, and the differences among them become more pronounced over time.⁶⁶

The noteworthy separation of home and school and the competing visions of formal schooling within the general definition of education in the United States is certainly evident in provinces such as Quebec, Ontario, and British Columbia, but not to the same extent. Two important distinctions are a greater consensus on the value of formal education and a far less positive view of individual wealth, especially successful entrepreneurs. Not only do "intellectuals" have higher status in Canada

⁶⁵ John Modell and Robert S. Siegler discuss educational diversity among children in the United States as part of a larger analysis entitled "Child Development and Human Diversity," in *Children in Time and Place: Developmental and Historical Insights*, ed. Glen Elder, John Modell, and Ross Parke (New York: Cambridge University Press, 1992).

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than they do in the United States, but also flaunting wealth or even admitting to be rich is far less appreciated among Canadians. Educational policies are thus more collectivist in their approach; the goal is to bring all the children to approximately the same point of achievement within the society. In the IAEP results, the scores of the different populations of children in Canada were quite homogeneous regardless of their overall average. The Quebec and British Columbian children who, on average, did relatively well exhibited low levels of differentiation, as did the poor performing children in Ontario.

In each of the Canadian provinces, a relative consensus thus seems to have been reached on the appropriate level of academic achievement. In Ontario, this level is lower than the relatively high levels in British Columbia and Quebec. Ontario resembles the United States in that going to school does not necessarily improve significantly academic achievement; however, the province differs from its southern neighbor in that the valuation of education among families is far less varied. For this reason, the comparably low averages of children in both Ontario and the United States are underlied by a different distribution of IAEP scores. A wide range of performances in the United States (consistent with a great variety of attitudes toward academic achievement) differs from the quite low differentiation in Ontario.

In contrast, academic training in schools (as distinct from learning that takes place outside the classroom) makes a greater impact on children's test results in Quebec and British Columbia than it does in either Ontario or the United States. The Quebec educational system successfully works to bring up the weaker students to the average level, while the British Columbia schools are able to transform quite average academic performance among 9-year-olds into high achievement among 13-year-olds.

In terms of emphasis on academic achievement, then, the Ontario school system has remained more faithful to patterns established in the mid-nineteenth century than its counterparts in Canada. Similarly, the valuation of academic achievement by families in this province seems the least affected by the educational changes of the twentieth century, undoubtedly most striking in Quebec's "revolution."

One important factor is the continuing importance of immigration to Ontario. This province continues to be the favored target of immigrants to Canada. By the early 1980s, one-half of all elementary children in Toronto had at least one foreignborn parent. Not surprisingly, the socio-cultural purpose of schooling has remained at the forefront of educational policy, although it is now articulated within a framework of multiculturalism. Certain public elementary schools in Toronto use English, French,

Chinese, Italian, or Portuguese as languages of instruction in the primary grades.⁶⁷

While the performance of Canadian children appears quite homogeneous within their own school systems, it would be misleading to conclude that their parents shared a uniform view of the value of academic achievement or that school systems did not have important internal differences. An indication of the complexity of the actual situation is illustrated by the tremendous growth of French-immersion streams within Canadian public school systems. Over the past 20 years, these streams have grown rapidly in response to increasing parental demand. Originally considered by educators to be related to a desire to achieve a truly bilingual country, it soon became clear that many parents simply viewed French-immersion as a more academically oriented program that attracted more motivated teachers and pupils. Rather than sending their children to this program in hopes of enhancing their bicultural perspective, these parents were grasping the opportunity to place their children in a more intellectually demanding context. Some critics have claimed that French-immersion streams represent "private" schooling within the public system. While the IAEP data do not indicate whether children in French-immersion programs are an unrepresentative group either in terms of family background or academic achievement, other evidence clearly suggests that a larger proportion of these children do, in fact, go on to university.⁶⁸

Conclusion

Arthur Stinchcombe's view that the initial nature of institutions has a long-lasting impact on their character and operation clearly applies to the history of mass schooling.⁶⁹ The average performance of children in Canada and the United States on tests of achievement in mathematics and science is quite consistent with the general agreement among the founders of school systems on their sociocultural rather than academic purpose. Given the historical ambitions and context of school systems in North America, students in Canada and the United States should not be expected to do particularly well in tests of academic achievement.

⁶⁷ In 1991, Ontario's education minister explained the province's reluctance to participate in a proposal to assess educational achievement at the national level because the proposed test "failed to recognize the ethnic and cultural diversity of students in Ontario, which has a large immigrant population." Eventually, changes to the test and heavy pressure from provinces such as British Columbia led Ontario to begin participating in the test scheduled for 1993. See "Changes Expected in National Testing Plan," *Toronto Globe and Mail* (September 28, 1991), p. A6.

⁶⁸ See the special issue of *Études de linguistique appliquée*, vol. 82 (June 1991), entitled "L'immersion au Canada," esp. the overview by Pierre Calvet, "Vingt-cinq ans d'immersion au Canada, 1965-1990," pp. 7-23.

⁶⁹ Arthur L. Stinchcombe, *Constructing Social Theories* (New York: Harcourt, Brace & World, 1968), pp. 101-29.

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Elementary schools in these countries are structured around the metaphor of the family and are surrounded by other activities at home and in the community rather than taking precedence over them. In this sense, these schools, compared internationally, act only as a weaker independent variable in enhancing academic performance.

At the same time, striking differences among the Canadian provinces and the United States invite further study of the ways in which motivation and the character of educational systems affect academic performance. These differences are subtle, and it is essential to remember that the variation among individual children within any of these societies is much more important than the variation between the children of different societies. It is also clear that an emphasis on the process of family reproduction does not focus directly on children but, rather, on the ways in which they are affected by the relationship between parents and schooling. Much more research is needed on the extent to which children are more than products of family and school goals.⁷⁰ We should not expect such research to identify any single explanation for the subtle differences in academic achievement among the educational jurisdictions of Canada and the United States. As we have seen, the relatively high scores of children in Quebec and those in British Columbia cannot be understood in the same way. Similarly, even the close connections between the educational experiences of Ontario and the United States have clear limits; behind the low scores of children in these two societies lie notably different forces. Thus, the more research focuses on children as individuals within their own sociohistorical contexts, the more studies will undoubtedly discover complexity in the patterns of their academic performance.

The form and content of mass schooling in Canada and the United States reflect the historical context of economic, social, and political changes of the mid-nineteenth-century origins of modernity. In the post-modern world, it seems reasonable to conclude that mass schooling will be transformed. In recent years, momentum appears to be gathering behind proposals to focus schools on academic achievement, to establish a partnership between parents and teachers in formal education, and reassess the articulation between schooling and the labor market.⁷¹ However, such proposals can only be implemented successfully if educators and families take into account the complex relationship between children's

⁷⁰ Jane Gaskell, "The Reproduction of Family Life: Perspectives of Male and Female Adolescents," in *Gender and Society: Creating a Canadian Women's Sociology*, ed. Arlene Tigar McLaren (Toronto: Copp Clark Pitman, 1988).

⁷¹ George S. Papadopoulos, "Educational Reform Trends in the Western World: The Current Debate," *Prospects: Quarterly Review of Education* 10 (1980): 159-68; R. J. Stiggins, "Revitalizing Classroom Assessment: The Highest Educational Priority," *Phi Delta Kappan* 65 (1988): 363-68; H. C. Rudman, "The Future of Testing Is Now," *Educational Measurement: Issues and Practices* 6 (Fall 1987): 5-11.

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lives and academic performance. Close attention to the recent educational history of Quebec may be particularly helpful since this province appears to have anticipated many of the directions now being taken across the rest of Canada and the United States.

Although a great deal remains to be learned about the meaning of schooling in children's lives, it is already clear that educational policies must be designed with close attention to the constellation of processes specific to any particular setting. No educational strategy will have the same impact in all settings. Rather, the meaning of schooling results from a convergence of forces in which any one element becomes important only in interaction with other elements. It is this convergence of forces that appears to determine the ways in which children will experience mass schooling.

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