R.D. Gidney and W.P.J. Millar. Inventing Secondary Education: The Rise of The High School in Nineteenth-Century Ontario. Montreal and Kingston: McGill-Queen's University Press, 1990. Pp. xii, 411. \$42.95 cloth, \$19.95 paper.

Inventing Secondary Education by Bob Gidney and Wyn Millar is an excellent addition to the sparse literature on secondary schooling. In fifteen closely argued chapters, the book traces the transition from traditional to modern educational institutions that occurred between the 1840s and the 1880s in Upper Canada (the modern Ontario). Mindful of the criticism that histories of schooling frequently treat the classroom as a black box, the authors do their best to reconstruct. through statistical and other evidence, life inside the school. The book focuses on the changing fortunes of the grammar schools. As the authors repeatedly stress, even though these little-known institutions eventually turned into what we now recognize as high schools, they can in no sense be seen as their natural precursors.

The contingent nature of inventing secondary education, the authors argue, is underscored if we compare the final product with that of other countries. Why did Ontario end up with public, co-educational, comprehensive, and sometimes free schools, when in many other localities

such developments appeared unthinkable? (And why, throughout the world, were some educational "technologies of power," such as examinations, inspection, and age grading, adopted as widely as the steam locomotive, the gas stove, and the post office?)

Before the mid-century, according to Gidney and Millar, the Upper Canadian grammar school was not seen or used as a second stage in a general system of education. Rather. it was, by intent at least, a special-purpose classical school that took boys from better families immediately after they had learned the rudiments and gave them both an "elementary" and a "secondary" education. In practice, the schools taught boys and often girls whatever local parents demanded and the teachers were able to provide. Similarly, the common school was not simply an elementary school, but provided instruction in both the three Rs and more advanced subjects. Both types of school were seen as properly subordinate to family needs, ideally segregated by both sex and social class, and conducted on a family model.

By the 1880s, these institutions were transformed profoundly. The public schools were "degraded," and became confined to the "primary" stage of education. The grammar schools turned into publicly financed high schools. They absorbed the senior curriculum of the public

schools, but made no provision for offering that curriculum to the majority of public school pupils, who found their entrance blocked by a rigorous examination. In the high schools, Latin and Greek lost their exclusive status as the centre of a liberal education, and took equal place among a number of subjects which would train the mind and provide useful information. The curriculum was increasingly standardized. By the late nineteenth century, subjects were seen as important if they were examinable, and if they were not examinable they were not taught. In the process, Gidney and Millar argue, high schools came to control, through examinations, the key access points to nearly all the professions and prestigious white collar occupations.

A similar process occurred in other western countries as well. In Upper Canada, however, Gidney and Millar identify a set of legislative provisions which fuelled and constrained this process in distinctive ways. In 1798, a large area of "empty" land was set aside for educational purposes. Ten years later, a District Schools Act provided for an annual appropriation of £100 from general revenue for the salary of one grammar school teacher in each of the administrative districts in the colony. And under an 1839 Act, revenue from the school lands was directed to the building and staffing of additional grammar schools.

As districts multiplied, revenues from the school fund increased and regulations for their distribution changed. The number of schools began to grow, often anticipating demand. Increasingly, voluntary effort was directed to the building and running of schools which operated under the auspices of the state rather than to the preservation of the independent sector. Much of the book describes how, for over half a century, the grammar schools and their supporters twisted and turned to come within the definition of one or another piece of legislation and become eligible for a grant. In the scramble, the most profitable courses of action would frequently contradict the original intention of the legislation. override educational practices of the past, and provide tenacious precedents which subsequent initiatives might find impossible to dislodge. Thus the grammar schools consolidated teaching courses other than the classics (and sometimes taught no classics at all), admitted many pupils, including girls. who learnt no Latin, or on occasion forced all girls and boys to learn both Latin and Greek.

Equally important, there were few provisions for systematic oversight of the government subsidies to grammar schools. This situation, the authors point out, seemed to create its own logic. Locals complained, to anyone who would listen, about inequities, problems, and inefficiencies in the distribution of funds, and sought help and redress from anyone they thought might help. On their part, some legislators and administrators made repeated attempts to control the schools through tighter administration of the grants.

Here, Gidney and Millar make two important theoretical points regarding what is often seen as the problematic of social control. First, bureaucratic procedure could not simply be attributed to popular demand for clearer rules, but neither was it "nnnecessarily or arbitrarily imposed...upon an unwilling populace." Their evidence shows clearly that teachers, trustees and other local people actively sought a better framework within which to regulate local grammar schools. Second, the vigorous attempts at social control by Rverson and his colleagues went badly astray. Three chapters of the book describe, with obvious gusto, a complex struggle between the administrators and the locals, with the rules of the game changing frequently and neither side ending up where they intended to go. Not only did some of the administrators' policies backfire, producing results just the opposite of what had been intended, but it proved far more difficult to uproot established practices and local arrangements than they had ever imagined. Local people resisted the transformation of their schools, first by subverting the intent of the act and regulations, and then by public opposition to the very principles embedded in official policy. In the process, they produced the first vociferous defences of the right of girls to grammar school education.

Throughout the book, Gidney and Millar explore the class composition of the schools, and do their best to inform the readers whether the educational developments they discuss refer to girls, boys, or both. Even though their vigilance slips on occasion—it is not made clear, for example, when Canadian universities began to accept female students-it produces some

fine historical scholarship. One outstanding example is the discovery of large numbers of girls (they sometimes constituted 30, 40, or even 50 percent of enrolments) in the grammar schools in the 1860s, at a time when coeducation was not discussed publicly, and educational rhetoric maintained that the schools catered only to boys.

The authors also make perceptive comments about the gendering of The changing grammar education. schools, they conclude, were really schools for boys which also taught girls (who, by the 1880s, comprised about half of high school enrolments). But instead of reshaping the curriculum to accommodate the girls, girls were reconceptualized to fit the curriculum. The accomplishments, and indeed all subjects designed for women, were denigrated, and a curriculum tailored to the needs of boys was standardized across the schools.

While Gidney and Millar do take sides in some theoretical debates, one can sense that the authors pride themselves on not being carried away by the latest theoretical fashion, and certainly not at the expense of their data. To their credit, they are fiercely loyal to the integrity of their sources, clearly and carefully pointing out any gaps and ambiguities in the available evidence, and the limits of their own conclusions. Yet the refusal to engage in current historiographic debates has its costs. It is surprising, for example, that the many references to the power that inspection and statistics gave educational administrators do not engage with Bruce Curtis' use of Foucaultian concepts. In this instance, the same points might be made more

forcefully. Elsewhere, engagement in theoretical debates might alter a part of the argument.

In Building the Educational State, for example, Bruce Curtis emphasizes that school reform in midnineteenth-century Canada involved a simultaneous process of building the state. Invention of new forms of control and of relations between superiors and subordinates such as inspection, collection of statistical information. and examination, and the creation of new school districts undoubtedly form part of the story of inventing secondary (and other) education. They also, and importantly, made a major contribution to the invention of many novel procedures, administrative units, and institutions which we now associate with the modern state. It can be objected that Gidney and Millar's book is about schools and not the state. The problem is that much of the text, of necessity, deals with the relationship between the schools and the state. And while the authors stress, clearly and consistently, that there was no pre-existing secondary school gradually unfolding into a modern form, they often imply that a continuous modern state did exist alongside the ramshackle collection of contemporary educational arrangements. Yet the details of their narrative can be used to argue the opposite case: that it was the schools which pioneered many modern attributes of the state. Indeed, one of the key contentions of the book is that, faced with the inadequacies of traditional and familiar means of educational provision, Upper Canada's middle class adopted a simple but innovative solution: they put their

children on the rates, and thus created a significant new role for local government. A similar society-building approach is implicit elsewhere in the text. Discussions of exams and division of intellectual labour, for example, are directly and immediately concerned with the simultaneous process of transforming and inventing modern state institutions—as well as with constructing the middle class, and with the reshaping and re-inventing of gender and age relations.

None of these reservations, however, detract from the excellent scholarship of the authors. Their important, meticulously researched and produced book will bring joy to the hearts of practical historians, and provide a reliable source of information and inspiration to a much wider audience than those interested in Canadian schooling.

Pavla Miller Phillip Institute of Technology Melbourne, Australia

Richard D. Brown. Knowledge is Power: The Diffusion of Information in Early America, 1700-1865. New York: Oxford University Press, 1989. Pp. ix, 372, illus. \$55.95.

Thinking may let us know that we exist individually, but communication—with whom we talk, the information we exchange, and how we exchange it—lets us know that we exist socially. Richard D. Brown in