

the role played by and impact of the community college president. Leaders who are new to the community college presidency role, and those who are contemplating this role, will find Levin's article particularly interesting. These two studies present a striking comparison in approaches, emphasis, and jurisdictions.

Attrition, as an applied research topic, has attracted community college researchers and practitioners for decades. In the fourth article in this volume, Peter Dietsche connects attrition research and quality factors by arguing that findings from the former can be used to improve the latter. In effect, Dietsche, who has a string of publications dealing with attrition, has taken the topic to a different level.

Michael Skolnik, in the fifth article, traces the development of the system of community colleges in Ontario and describes how the advancement of an effective college-university articulation program within Canada's most populous province has been progressing. In this article, Skolnik identifies and describes the benefit of a systemwide vision and the value of attaching articulation to larger issues. Skolnik's analysis will be of interest to researchers and practitioners who are studying or attempting to advance articulation practices in any jurisdiction, although progress in Ontario has been slow at best.

The sixth and final article, by Michael Hatton, provides a framework for community colleges to examine and shape policies and practices that relate to international activities of all stripes, but most specifically to the delivery of training and development activities, in country or out of country, to international groups. Increasingly, community colleges in Canada and the United States will have a critical role to play on the international stage of technical and vocational education. This article makes specific recommendations for positioning a community college to maximize successful involvement in international development and training activities.

I would like to conclude by thanking the *Community College Journal of Research and Practice* for permitting me to guest edit this volume. The opportunity to share with the readership a volume devoted specifically to perspectives from the Canadian context is appreciated.

Michael J. Hatton, Guest Editor
Humber College, Toronto, Ontario, Canada

CANADA'S COMMUNITY COLLEGE SYSTEMS: A STUDY OF DIVERSITY

Paul Gallagher
Vancouver, British Columbia, Canada

John D. Dennison
Department of Administrative, Adult, and Higher Education,
University of British Columbia, Vancouver, British Columbia, Canada

Diversity is central to Canada's community colleges. For example, Ontario created vocationally oriented colleges of applied arts and technology, British Columbia and Alberta opted for locally governed comprehensive colleges with university transfer, Saskatchewan developed "colleges without walls," Quebec's colleges of general and vocational education incorporated tuition-free technical and preuniversity streams, and Newfoundland, Manitoba, New Brunswick, the Yukon, and the Northwest Territories established technical colleges with a strong accent on short-term work-entry training. This article describes the rich diversity found within Canada's systems of community colleges, as well as the reasons for and consequences of this diversity.

With "too much geography and not enough history,"¹ Canada is the world's second largest land mass, but supports a population of less than 30 million people, most of whom live within 200 miles of the United States. Contemporary Canada has evolved into a dynamic G-7 country from an original confederation of four British colonies.² The federal government, and those of its 10 provinces³ of greatly differing sizes and populations, share constitutionally established powers. Historically, each of this nation's provinces (and vast northern territories) has developed uniquely, with differences of culture, language, religion, resources, and geography all coming into play. In fact, equitable re-

¹This observation has been attributed to William L. MacKenzie King, a former prime minister of Canada.

²Canada became an independent confederation in 1867.

³Canadian provinces are roughly equivalent to the U.S.'s states.

Address correspondence to Paul Gallagher, 2011 Arroyo Court, North Vancouver, British Columbia, Canada V7H 2A3.

distribution of the nation's wealth has been one of the most important responsibilities of Canada's federal government.

This diversity is reflected in all aspects of Canadian life, including the organization, structure, and operation of postsecondary education and, in particular, in the variations among its community college systems. In this article, we describe the development of these systems. We also discuss the consequences of this rich diversity and identify the key challenges these systems face as Canada enters a postindustrial era of rapid technological change and economic restructuring.

CONSTITUTIONAL CONTEXT FOR EDUCATION

Consistent with the distinctive characters of the original provinces, the 1867 division of powers between the federal and provincial governments under Canada's constitution saw education clearly and solely as a matter of provincial jurisdiction.⁴ This arrangement continues to apply to all fields of education, including the postsecondary sector. Thus, Canada has no federal office of education, no federal minister (or secretary), no national goals, and no national standards. Yet, with typically Canadian tolerance for ambiguity, few constitutional sensitivities are raised when the federal government engages in three education-related areas: the funding of research, postsecondary student financial assistance, and adult training.

Both levels of government have seen training, as distinct from education, as a dimension of economic development and therefore a legitimate area of shared jurisdiction, and neither the federal government nor the provinces have seen it in their interests to draw a fine line between what is education and what is training. One consequence is that public funds for vocational training have historically come almost exclusively from the federal treasury, but have been managed under joint agreements between the two levels of government.

Until 1960, postsecondary education was effectively limited to a university sector (Gregor, 1992). Churches had originally played the primary role in establishing denominational degree-granting colleges, except in the western provinces where public universities were created by provincial governments. Plagued by financial uncertainties, virtually all denominational colleges and universities became public institutions by 1970 (Cameron, 1991). Public postsecondary technical and vocational training opportunities were very limited until the 1960s, as these forms

⁴ Although Canada adopted a renewed constitution in 1982, that constitution incorporated the original British North America Act of 1867 and made no change to the constitutional status of education.

of education were quickly encumbered with the stigma of low status and were viewed as a second-order choice for young people who could not aspire to attend a university (Anisef, 1982; Young, 1992). Both formal and informal adult education developed impressively but variably across the country, particularly in the years immediately preceding and following World War II (Selman & Dampier, 1991).

In the early 1960s, a number of significant factors converged to prompt a dramatic change of public policy and practice with respect to the design and function of postsecondary education in all regions of Canada. The first was the influence of human capital theory, which persuaded governments that investment in people could be the key to economic growth (Denison, 1962; Economic Council of Canada, 1964; Schultz, 1961). The second was a disturbing prediction by a number of social scientists (Sheffield, 1962; Zsigmond & Wennas, 1970) that an unprecedented wave of students would soon demand access to postsecondary education. The third factor was the popular acceptance of the view that Canada's prosperity would now increasingly depend on the technical skills of its work force. Manpower training was seen as crucial to fueling the economic engine, particularly when the long-standing policy of importing technically skilled individuals from other countries became a less practical course of action.

COMMUNITY COLLEGE SYSTEMS

It was in this setting that governments in Canada developed an entirely new sector of postsecondary education. The Sheffield (1962) study noted that only an enormous expansion of facilities could accommodate anything close to the number of students who would soon knock on university doors. Many university leaders observed that significant expansion could inadvertently prompt these institutions to diffuse their energies and resources, and could put at risk the traditional mission of the university as a center of liberal education and research. So the search for new kinds of postsecondary institutions began as a way of relieving an anticipated demand on the established universities and of expanding technical training throughout the country.

As talk of new kinds of postsecondary institutions spread informally across Canada in the early 1960s, the Canadian Association for Adult Education did its best to encourage people and organizations to share information in the hope that a nationwide perspective on a postsecondary alternative to universities might emerge (Dennison & Gallagher, 1986). The sociopolitical contexts and economic opportunities of the provinces were so different, however, that a nationwide approach was soon seen as unrealistic. There then began the search for regionally and

culturally specific ways of providing a broader range of postsecondary education and training opportunities to a much larger segment of the population in each province and territory. It was this search that led to the creation of several different college systems. Five significantly different models for the organization of postsecondary education in different parts of Canada were developed in the 1965-75 period (Dennison & Gallagher, 1986). In characteristically Canadian fashion, there were also internal variations within each of these five models.

In the most and least populated provinces (Ontario and Prince Edward Island), a kind of college new to Canada was developed to complement the university sector in each of these provinces. In Ontario, new institutions were formally called colleges of applied arts and technology, in part to make sure that they would not be confused with either the more traditional degree-granting institutions or the postsecondary institutes specializing in fields such as agriculture or medical technologies. On Prince Edward Island, the lone college was not given a similar label but was expected, as in Ontario, to be a postsecondary institution for young people who were not eligible for university admission. In both of these provinces, locally designated boards were given governance responsibilities.

In Ontario, this kind of college—an alternative to university for less academically able high school graduates—was the model promoted by the politically powerful Committee of Presidents of Provincially Assisted Universities, who wanted to make sure that no new institutions would threaten their stature or support. In both provinces, it was also recognized that these new colleges could serve additionally as adult education centers to provide both retraining programs for people in the work force interested in new career opportunities and community and general education for people whose objectives were less career oriented.

A quite different model was developed in the two most western provinces. Alberta and British Columbia opted for California-style locally governed, comprehensive community or regional colleges with transfer programs to universities as a major curriculum component. In these provinces, in which the populations were very dispersed and geographic access to the few universities was very difficult for students who did not live in the larger population centers, the intention was not to segregate the university-bound students from other postsecondary students, as in Ontario and Prince Edward Island. Rather, the vision was to provide both technical-vocational programming and university transfer courses on the same campuses, giving many secondary school graduates the choice of either immediate university entrance or admission to a college program that would provide transfer credits for up to

2 years of university undergraduate study. In both of these provinces, the establishment of institutes of technology and other specialized postsecondary institutes, in addition to community or regional colleges, added further to student choice.

In British Columbia, the California influence was also evident from its adoption of the notion that community colleges could concurrently serve as second-chance institutions and enhance adult education opportunities of all kinds. In Alberta, most second-chance students were still directed to government-run vocational centers established throughout the province.

The third model that emerged might best be described as the postsecondary vocational-technical college, without any transfer function and with a much stronger accent on shorter term work-entry training programs than on more advanced technological education. The early years of college development in Manitoba, New Brunswick, the Yukon and Northwest Territories, and Newfoundland broadly fit this model, but the need for a greater variety of programming soon became evident in all of these jurisdictions.

Newfoundland later incorporated transfer education into its college curriculum and maintained a number of specialized postsecondary institutes in addition to the colleges and its only university. Articulation arrangements between the colleges in the two northern territories and universities in the southern provinces became a quite effective and realistic alternative to the establishment of additional universities in the north. As in the other provinces and models, enhancing adult education opportunity was seen as a secondary justification for establishing all of these new postsecondary institutions.

A fourth and distinctive model developed in Saskatchewan, where people in sparsely populated agricultural regions wanted locally responsive learning opportunities of many kinds, whereas those in the growing urban areas insisted on the need for more technical and industrial training opportunities. Community colleges without walls were established, chiefly in rural areas, with the expectation that they would serve as brokers rather than as service providers. As brokers, their primary responsibilities would be to arrange for the provision of educational services by other institutions and community agencies. In the more urban areas, vocational and technical education programs were to be provided by technical institutes, with the two universities of that province remaining the sole institutions providing postsecondary academic and professional courses and programs.

The original Saskatchewan broker model was effectively set aside in the late 1980s when four previously independent technical institutes were reconstituted as a new multicampus Saskatchewan Institute of

Applied Science and Technology and the more rural community colleges began to provide, as well as broker, educational services. Decentralization of that multicampus institute has been underway for more than 2 years, as postsecondary education in this province—as in others—adjusts to changing economic circumstances and political exigencies.

The fifth and most distinctive model exists in Quebec, which launched a sweeping social and economic revolution in the early 1960s. As part of that mostly quiet revolution, a new public multicampus university was established, and the properties of many old private colleges were used to form the physical nucleus for a new college system that was to be accessible to all young people in that province.

That system of colleges of general and vocational education borrowed from the experience of European as well as North American approaches to postsecondary education. Its special distinction was that all postsecondary students would be required to complete the equivalent of at least 1 year of general education, regardless of career or educational choices after college. Accordingly, the Quebec college curriculum was designed to have two main streams: one of 2 years for students planning to proceed to university study, the other of 3 years for students needing technical education before work force entry. Thus, the Quebec college was conceived of as preparation for some students for admission to university (which offered for college graduates 3-year undergraduate degree programs in virtually all fields of study) and as contemporary preparation for others wishing to enter the skilled work force immediately after college.

The Quebec college model was unique in other respects as well. Three of those distinctions are particularly notable. One, unlike colleges in other Canadian jurisdictions, Quebec colleges were not originally intended to place significant emphasis on adult education (but most soon became very active adult education centers anyway). Two, they were not to provide entry-level vocational training (that was to be provided by secondary schools, for both secondary school students and adults who might wish that kind of training). Three, full-time college study was to be tuition free as an incentive to young Quebecers to continue their studies beyond the secondary school level (and that tuition policy has been maintained to this day despite extraordinary pressures to find new sources of revenue for college operations).

The Quebec college system has operated in a more centralized fashion than other systems in Canada, yet partially elected institutional boards play a significant role in shaping the curriculum and community responsiveness of each college. In uniquely Quebec style, that province subsidizes a number of private colleges of general and vocational education in addition to maintaining a full complement of almost 50 public colleges

and a very accessible public university system. Over the years, there have been several major reviews and reassessments of the effectiveness of the Quebec approach to college education. In each of these cases, areas for improvement have been identified, but the core values and underpinnings of that system have been validated time and time again (Conseil des Collèges, 1992; Ministère de l'Éducation, 1993).

EVOLUTION OF COLLEGE SYSTEMS

Diversity and differentiation have been further accentuated in the quarter century in which the original college systems have evolved. In some jurisdictions, unique expertise has been developed in the field of distance education to cope with the Canada's vastness and to capitalize on its international leadership in some fields of telecommunications (Sweet, 1989). In all provinces and territories, special attention has been paid to the development and refinement of more open, nonconventional learning systems, as student and client populations have become more diverse over the years. Custom-designed training, off-campus delivery systems, and technological applications to various forms of college learning have produced even further diversity of institutions within already diverse systems (Paul, 1990).

Despite their differences, Canada's colleges and college systems have had many features in common. Without exception, these systems have been seen as instruments for the implementation of government policy rather than as quasi-autonomous institutions. Provincial and territorial governments have often felt free to impose on their colleges in ways that would never go unchallenged by universities. The federal government has on occasion been quite insensitive by unilaterally introducing policy changes that have had significant influence on the colleges' capacity to function effectively (Gallagher, 1990).

Patterns of governance have called for balance between local or regional authority to enhance community responsiveness and central decision making to ensure system coherence. That balance has shifted in all jurisdictions over the years (Dennison & Levin, 1989). It is safe to assume that this trend will continue as part of the dynamic of these vibrant systems.

Canadian colleges have remained faithful to their original mission as teaching institutions responsible for providing a broad range of instructional programs. Although the range of programming has always varied from one institution and system to another, the notion of comprehensiveness of programming in colleges has been preserved throughout the country.

It is particularly significant to note that, until very recently, few colleges have sought the formal redefinition of their roles or status, unlike many newer postsecondary institutions in, for example, the United Kingdom and Germany. Alternatively, in the past few years, the British Columbia government has seen fit to designate some of its community colleges as university colleges and has asked them to become centers for 4-year undergraduate programs in a variety of areas of study, in addition to their more traditional mandates (Dennison, 1992). In the same province, novel cooperative working arrangements between the Open University⁵ and several community colleges have led to new degree programs of several kinds as well as to much greater variety in industry-based training programs. Equally, in neighboring Alberta, some colleges have recently sought degree-granting status, in some cases to respond more effectively to demand for greater access to university studies. In other cases, this new status has been proposed to permit the offering of more extended instructional programs in applied fields of study now that the traditional 2-year college program is insufficient to meet labor market needs in several program areas as structural changes take place in the Canadian economy. Elsewhere in the country, there has been little agitation for a redefinition of the roles of public colleges. Rather, the call has been for all postsecondary institutions to do a better and more responsive job of achieving their historic mandates.

Similarly, Canada's colleges have retained their original commitment to open admission policies and to the provision of a range of student services necessary for institutions that accept students of diverse backgrounds and abilities. In fact, there is growing concern that admission policies may be too liberal. In British Columbia, there is a new emphasis on improving success rates in all postsecondary institutions. In Quebec, there has been a recent decision to introduce tuition fees for full-time students who continue to be unsuccessful in college studies. In other jurisdictions, the need to match programming to applicants' capabilities as well as to labor market needs has prompted an expansion of adult basic education instruction and other programs for underprepared students.

Most college personnel are now unionized. In some cases, this is a statement of ideology, in others it is a response to restrictive institutional management or tight government controls or budgets, and in yet other cases it is simply a decision to be consistent with a pattern of public sector unionization across the country. In any event, college employees

⁵Open University and Open College are two components of The Open Learning Agency of British Columbia.

who recall an era of relatively tranquil internal relationships have become more militant (or more resigned) as they face wage rollbacks, more onerous working conditions, and demands for higher productivity. College faculty groups, in particular, are now demanding more meaningful participation in the governance of their institutions and systems, and terms such as *comanagement* and *codetermination* have become much more a part of college governance vocabulary in recent years.

People in the colleges and college systems across Canada also still speak the same educational language, read the same professional literature, and try to stay on top of the same issues. Organizational culture, human resource development, leadership styles, global competition and interdependence, knowledge-based and technology-driven economics, social equity, public deficits and debt, and world sustainability are some of the topics that provoke active debate in colleges and their communities from sea to sea.

CONSEQUENCES OF DIVERSITY

On balance, Canada's college systems have over the years become more dissimilar than similar as they have responded to different economic, social, and political circumstances. For example, Ontario has recently experienced one of the longest and deepest recessions in its history, and British Columbia has continued to expand economically as it capitalizes on its strategic Pacific Rim status. Newfoundland has at least temporarily lost the fishery base of its economy. Although support for a politically independent Quebec remains strong, concern about an economy that is anything but robust competes for public attention in that province. New Brunswick sticks out its determined chin and insists that its citizens will have a better future. The Northwest Territories proceed methodically with their political realignment and growing sense of self-confidence. Both public service reductions and demands for greater social equity have prompted public policy change in the western provinces.

One of the most telling consequences of increasing diversity has been a declining opportunity for these systems and institutions to learn much from one another. Several examples may be appropriate. In the area of labor relations, frameworks for collective bargaining differ, as labor legislation is specific to each jurisdiction. In some provinces, there is centralized bargaining; in others, institution-based bargaining is the practice. In some jurisdictions, college staff are government employees; in others, they are college employees. Patterns of governance are equally diverse. The composition and powers of college boards vary so much that, for example, board development programs at a national level have had marginal value at best.

In some provinces and territories, there are deliberate efforts to incorporate traditional and nontraditional students pursuing the same credentials into the same courses, classrooms, and shops. In other jurisdictions, there are still marked differences in the ways in which learning for younger and more mature students, for example, is organized. To illustrate, British Columbia and Quebec colleges generally see the distinction between full- and part-time students as an awkward but necessary administrative device with little educational significance, whereas colleges elsewhere still frequently establish separate programs, with the same objectives and content, for part-time and full-time students.

The measure of institutional entrepreneurship also varies considerably. Ontario colleges have traditionally been very effective in reaching out to employers and in providing work site, custom-designed training programs. In the northern territories, the vast distances and scattered populations have prompted their multisite colleges to be particularly innovative in finding ways to reach and support potential adult learners. Yet, in the western provinces, campus-based education and training is still the customary practice for most colleges.

Equally, the degree of differentiation of institutions within each college system also varies considerably. In Quebec, Ontario, and Nova Scotia, colleges tend to be duplicates of one another, varying largely in size and in peripheral activities, such as involvement in workplace-based training or international education. In Alberta and British Columbia, colleges now identify their own quite separate mandates and styles in systems that have become increasingly differentiated. In other provinces, institutional roles within postsecondary systems have not yet settled into discernible patterns, as systems continue to evolve.

COLLEGE DIVERSITY: A PROJECTION

Relatively new external influences suggest that major change must be embraced by public colleges and systems, or they will soon find themselves in serious trouble. Four of these influences are of special importance.

First, all postsecondary institutions now operate in a world that has become increasingly interdependent, that is economically structured to favor the highly competitive, and that favors uniformity rather than diversity. The notion of a community college to train young people for jobs in that community is no longer realistic. In an economic environment in which an increasing amount of employment is no longer place specific, Canadians in all parts of the country now have needs that are

far more common than different, and providing all learners with similar learning opportunities is now realistic and feasible. In a very real sense, there is no longer a need for college systems that are so different one from another, because all people now need much the same knowledge, skill, and behavior for economic and social purposes, wherever they may live. It is only a modest exaggeration to assert that we now need world-oriented colleges rather than community colleges.

Second, the shift from an industrial mentality to postindustrial, knowledge-based economies and rapid technological change means that many standard college instructional programs are as obsolete as many of our industrial practices. In particular, the traditional distinction between general transfer programs and specific technical or vocational ones is an industrial age perspective. Needed now are completely revamped programs that combine applied technical learning with new approaches to general education. Colleges need to enable their students to acquire generic workplace skills as well as nontechnical skills so that they will have the foundation for continuous workplace-specific training and be able to take charge of their own future learning.

Third, the range of needs in every jurisdiction is now so great that colleges, and all other postsecondary institutions, will have to develop their own distinctive market niches. The day of the college trying to be all things to all students at all times has been over for some time. It should be anticipated that postsecondary systems or networks will soon emerge in which the comprehensiveness and responsiveness that so characterized community colleges in the past will now be ensured through the system or network of unique institutions rather than through numerous comprehensive institutions. Individual institutions will come to be judged on their distinctive merits, regardless of category or class.

Fourth, a traditional but artificial distinction between public and private sectors of postsecondary education in Canada is no longer useful. In the first instance, most postsecondary institutions labeled as private are not so, unlike most in the United States. They sustain themselves by taking on government-subsidized training programs, and really serve as alternative public institutions in disguise, unencumbered by the bureaucracy and regulation associated with mainstream postsecondary institutions. Also, private institutions are rarely in competition with public ones. Rather, many of them serve disadvantaged students turned away by public institutions (Sweet, 1993). The time has come for the variety of private institutions, with their own mandates and responsibilities, to be welcomed into the new postsecondary networks as full partners.

SUMMARY

In the vast Canadian federation that has consistently valued multiculturalism, bilingualism, and regionalism, it should not be surprising that there is no single, coherent college system. Rather, each political jurisdiction has developed its own approaches to postsecondary education. As postsecondary systems in all developed nations now adjust to new international economic and social realities, Canadian postsecondary education retains a variety of models of governance, labor relations, curriculum, and virtually every other feature of college activity. However, all these models are themselves in transition. There is every indication that the diversity evident in Canadian postsecondary education in the past will be no less apparent in the future, but that the form and shape of that diversity will be driven more by the imperatives of a postindustrial world than by the dynamics of local or regional communities in which most of Canada's college systems were originally established.

REFERENCES

- Anisef, P. (1982). *Losers and winners*. Toronto: Butterworth.
- Cameron, D. M. (1991). *More than an academic question: Universities, government, and public policy in Canada*. Halifax, Nova Scotia, Canada: Institute for Research on Public Policy.
- Conseil des Collèges. (1992). *College education: Priorities for renewal*, Quebec City, Quebec, Canada: Gouvernement du Québec.
- Denison, E. F. (1962). *The sources of economic growth in the U.S. and the alternatives before us*. New York: Committee for Economic Development.
- Dennison, J. D. (1992). The university college idea: A critical analysis. *Canadian Journal of Higher Education*, 22(1), 109-123.
- Dennison, J. D., & Levin, J. S. (1989). *Canada's community colleges in the nineteen eighties: Responsiveness and renewal*. Toronto: The Association of Canadian Community Colleges.
- Dennison, J. D., & Gallagher, P. (1986). *Canada's community colleges: A critical analysis*. Vancouver, British Columbia, Canada: UBC Press.
- Dennison, J. D., & Levin, J. S. (1989). *Canada's community colleges in the nineteen eighties: Responsiveness and renewal*. Toronto: The Association of Canadian Community Colleges.
- Economic Council of Canada. (1964). *Annual review*. Ottawa, Ontario, Canada: Information Canada.
- Gallagher, P. (1990). *Community colleges in Canada: A profile*. Vancouver, British Columbia, Canada: Vancouver Community College Press.
- Gregor, A. D. (Ed.). (1992). *Higher education in Canada*. Ottawa, Ontario, Canada: Supply & Services Canada.

- Ministere de l'Education et de la Science, Quebec. (1993). *Des colleges pour le Quebec du XXIe siecle [Colleges for a 21st Century Quebec]*. Quebec City, Quebec, Canada: Ministry of Education and Science.
- Paul, R. H. (1990). *Open learning and open management*. New York: Nichols.
- Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 5(1), 1-17.
- Selman, G., & Dampier, P. (1991). *The foundations of adult education in Canada*. Toronto: Thompson Educational.
- Sheffield, E. F. (1962). *Education in Canada*. Ottawa, Ontario, Canada: Statistics Canada.
- Sweet, R. (Ed.). (1989). *Post-secondary distance education in Canada*. Athabasca, Alberta, Canada: Athabasca University and The Canadian Society for the Study of Education.
- Sweet, R. (1993). A profile of vocational training schools. *Canadian Journal of Higher Education*, 23(3), 36-62.
- Young, D. R. (1992). *An historical survey of vocational education in Canada* (2nd ed.). North York, Ontario, Canada: Captus Press.
- Zsigmond, Z. E. & Wennas, C. J. (1970). *Enrollment in educational institutions by province 1951-52-1980-81*. Ottawa, Ontario, Canada: Economic Council of Canada.