# Commercial Education and Training



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C.D. Howe Building
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125 Sussex Drive
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## Publication Inquiries

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I N D U S T R Y   P R O F I L E

1990–1991

# COMMERCIAL EDUCATION AND TRAINING



## FOREWORD

*In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to growth and prosperity. Promoting improved performance by Canadian firms in the global marketplace is a central element of the mandates of Industry, Science and Technology Canada and International Trade Canada. This Industry Profile is one of a series of papers in which Industry, Science and Technology Canada assesses, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological, human resource and other critical factors. Industry, Science and Technology Canada and International Trade Canada assess the most recent changes in access to markets, including the implications of the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the profiles.*

*Ensuring that Canada remains prosperous over the next decade and into the next century is a challenge that affects us all. These profiles are intended to be informative and to serve as a basis for discussion of industrial prospects, strategic directions and the need for new approaches. This 1990–1991 series represents an updating and revision of the series published in 1988–1989. The Government will continue to update the series on a regular basis.*

Michael Wilson

Michael H. Wilson
Minister of Industry, Science and Technology
and Minister for International Trade

### Introduction

Commercial education and training services have a significant role to play in meeting the challenges encountered by Canadian industry in the development of its human capital. The success of all industrial sectors will be increasingly dependent on the quality of their human resources. Greater access to high-quality education and training programs for workers and managers, combined with innovation and new technologies, will lead to increased productivity in the workplace, which in turn will help make Canada more competitive in the international marketplace. As we move towards what is becoming known as the "global information economy," human resource investments are increasingly critical to our entire process of economic development.

Most discussions on human resource development have focused on public education, addressing issues such as the adequacy of our schools, colleges and universities to provide well-trained and well-educated individuals. Considerable interest has also been directed to the on-the-job training and retraining provided by industry to upgrade the skills of its existing labour force. Increasingly, attention is being turned towards commercial education and training as a third critical contributor to this process as industries, businesses and individuals recognize the potential of this option to provide many of the specialized training services they require. Many new suppliers have entered the Canadian market to fill the gap that exists between the formal education process and the workplace. Suppliers, both institutional and corporate, have developed services to meet specific education and training needs and offer them on a commercial basis.

Canada's commercial education and training industry is a highly diverse mix of small firms, consultants, and public and private sector institutions that supply equally varied services to domestic and international markets. The diverse nature of the industry and the fact that it is not included in Statistics Canada's Standard Industrial Classification (SIC) have made gathering reliable information about the size and capabilities of the industry difficult. As a consequence, there is no complete data set on revenues, employment, regional distribution or foreign billings. A new sectoral initiative, "Sector Campaign in Commercial Education and Training Services," will be completed by the end of 1992. Among other things, this campaign will gather the data needed to create a more comprehensive and reliable picture of this industry.

This profile is based on fragmentary data, Industry, Science and Technology Canada's (ISTC) experience and consultation with the industry and the department's observations of the industry's existing capabilities. The profile provides an overview of the commercial education and training industry and demonstrates its potential for future development.

## Structure and Performance

### Structure

The commercial education and training industry consists of establishments engaged in the delivery of education and training services on a fee or contract basis. These services can be delivered by private companies or by public education institutions. However, the industry is distinct from the public education system in that it operates on a profit or cost-recovery basis. Education and training services are also delivered by professional associations and trade unions; however, such activities are considered part of the commercial education and training sector only when the training services are provided on a commercial basis.

The commercial education and training industry provides training courses delivered in a classroom or in the workplace. In addition, the industry offers consulting services such as training needs assessments, the evaluation of training programs and the development of educational software. Commercial education and training services are characterized by their emphasis on the provision of job-related training and skills upgrading, primarily for business, industry and government clients.

The industry is made up of four major components:

- firms specializing in education and training services
- businesses in other industrial sectors
- private schools and training institutions
- the commercial activities of public education institutions

The first component of the industry consists of private-sector firms that provide specialized education and training programs and their accompanying products and services, manuals, training videos, curriculum design, train-the-trainer programs and training needs assessments. Domestic clients include companies and government departments seeking to upgrade employee skills and productivity. Internationally, the firms provide services to countries through contracts received either directly from aid and development organizations — such as the Canadian International Development Agency (CIDA), the World Bank and the Asian Development Bank — or from organizations supported by them. Such services are also purchased directly by foreign governments and companies on a purely commercial basis.

An important part of this component is Canada's courseware industry. The Canadian Association of Courseware Producers (CACP) estimates that at least 50 Canadian firms are engaged in the production of computer-based educational and training materials. This number has risen and fallen over the past decade as some firms experience considerable difficulty in surviving in this field's highly fragmented and emerging market. Notwithstanding these difficulties, Canadian courseware firms provide considerable opportunities for further development, as new information technologies reshape teaching and learning processes.

The second component consists of businesses that have a principal activity in another area but provide education and training services either as a supplement to, or independent of, their principal products or services. Included in this category are a number of professional service firms (such as consulting, engineering, accounting and management consulting firms). Most large consulting firms teach specialty courses based on their own professional expertise. Specialty courses are available in areas including forestry management, environmental protection, fisheries development and project evaluations of technical training needs. Most businesses and professional service firms developed the capacity to offer commercial training by building on their capacity to provide in-house training to their own employees. In-house training is included as part of the commercial education and training industry only to the extent that such training is adapted for use outside the company and is offered on a commercial basis.

Also included in the second component are the training courses and manuals sold by computer equipment manufacturers. While this type of training is often provided with the purchase of computer equipment, it can also be purchased on a stand-alone basis. Hydro and telecommunications companies also offer training under similar arrangements.

The third component consists of private schools and training institutions, of which there are two types. One type consists of independent schools that deliver education services (elementary and secondary) for a fee, independent of major funding from local school boards and provincial departments of education. Independent schools are part of the commercial education and training services industry because they rely primarily on tuition fees for revenue.

Independent schools in Canada market their services both domestically and abroad. The Canadian clientele consists of students whose parents have chosen to send their children to a private school rather than enrol them in the publicly funded system. Internationally, these schools have relied on attracting students from newly industrialized countries (NICs) such as Hong Kong and Singapore. More recently, there has been an influx of students from Central and South America. A subgroup of these schools is known as the "visa" school, which exclusively teaches the last few years of high school and prepares students for entrance into Canadian universities.

The second type of private school is the licensed career-training institution. In 1989, such schools recorded 190 000 enrolments in various pre-employment business, service and technical trade courses. There were over 1 000 schools, which were attended by 140 000 students, and a further 50 000 students were served by some 50 correspondence programs.[1]

In addition, a number of highly specialized, industry-focused technical training institutes attract both Canadian and international students for a variety of industry-related skills development and skills upgrading training. For example, the Petroleum Industry Training Service (PITS) is a non-profit organization governed by a board of directors composed of senior representatives from the Canadian petroleum industry. Headquartered in Calgary, Alberta, the service operates on a commercial basis throughout Canada and has conducted international training for over a dozen countries.

A number of technology institutes have been set up by federal and provincial governments in co-operation with the private sector. Many, such as the Management of Technology and Innovation Institute in Ancaster, Ontario, offer training programs and seminars on a fee-for-service basis.

The fourth component of the industry consists of the commercial activities of Canadian public educational institutions, primarily universities, community colleges (also known as colleges of applied arts and technology), technical institutes and CEGEPs (*collèges d'enseignement général et professionnel*). Many of Canada's 69 universities and 201 colleges, technical institutes, and CEGEPs offer services to the domestic commercial education market in response to the demands of Canadian business and industry. They deliver short-term seminars and specialized training programs in areas ranging from small business management to automotive technologies, with such courses being offered apart from mainstream diploma or degree programs. Many of the courses offered by universities are aimed at middle-level and senior managers, often in the form of executive development seminars, which are provided to both Canadians and an international clientele.

The range of international commercial activity varies greatly from one institution to another. Some do not offer any services in the overseas commercial market, whereas others have actively pursued overseas opportunities. Many colleges and universities promote their services overseas through offices established on their campuses. At the same time, these institutions work with their representative associations to identify overseas opportunities. Such organizations include the Association of Canadian Community Colleges (ACCC), the Association of Universities and Colleges of Canada (AUCC), the Canadian Bureau for International Education (CBIE) and the World University Service of Canada (WUSC). All four organizations have actively marketed Canadian institutional services overseas in order to attract international students and to supply Canadian expertise to on-site overseas educational and training projects.

The largest foreign market for Canadian universities and colleges continues to involve the enrolment of international students. In the fall of 1990, there were 87 000 such students in Canada, of whom 70 percent were enrolled at a post-secondary level. The remaining 30 percent were enrolled at the elementary and secondary school levels.[2] Although many international students are enrolled in mainstream diploma or degree programs, they are considered part of the commercial activities of public institutions, largely because they often pay much higher tuition fees than their Canadian counterparts. International students are actively recruited by education institutions for a variety of reasons. In addition to being viewed as a source of revenue, international students provide a multicultural dimension to the campus.

## Performance

### International Market

Canada's commercial education and training services industry began to grow in the late 1960s. Overseas

[1] Hartley Nichol (1990) as quoted in "Profile of Career Training Institutions in Canada." Unpublished paper by Robert Sweet, School of Education, Lakehead University, Thunder Bay, 1991.

[2] *International Student Participation in Canadian Education*, Statistics Canada Catalogue No. 81-261, January 1992.

opportunities, supported by CIDA, assisted Canadian public and private institutions in becoming involved in international development and technical co-operation. As a result, institutions were encouraged to develop an international market focus. Any major changes to the structure and delivery of Canadian overseas development assistance could affect the competitiveness of Canadian commercial education and training services, whose growth and export development have been strengthened by CIDA programs.

Traditionally, the international market for Canadian education and training services has been channelled through aid and development projects. The export of most of these Canadian services continues to be funded by CIDA or one of the many international organizations to which Canada provides financial assistance. CIDA-sponsored projects place a great deal of emphasis on education and training. In 1990, CIDA administered a total of 185 operational bilateral projects in education and training, with a value of approximately $900 million. These educational projects were in addition to 100 operational projects totalling $1.2 billion in other sectors, such as agriculture and energy, which had sizable training components in the project budgets. In 1990 and 1991, CIDA disbursed a total of $375 million on education and training. Developing countries do not have the domestic capacity to develop and maintain a full range of education and training programs and infrastructures independently; therefore, they turn to foreign institutions and businesses for the required expertise. Canada's education and training facilities are highly regarded by NICs, and we can expect strong demand for services to meet the human resource and institutional development objectives of these countries.

While there are no reliable data on the size of the worldwide market for commercial education and training services, budgets of some international financial institutions (IFIs) give an idea of the potential market for Canadian suppliers since most IFIs include educational components in projects being undertaken in developing countries. Although it is difficult to determine precisely the amount disbursed on education projects by these institutions, it is estimated that the cumulative lending commitments for education were $6 billion by the World Bank and $1.6 billion by the Inter-American Development Bank.

However, Canada does not fare well in competing for IFI projects. Canada contributes about 4.5 percent of the overall budgets of IFIs and receives about 2 percent of the contracts awarded by these organizations. International competition is strong, and Canadian suppliers need to be more aggressive in marketing if they are going to improve their bidding success.

Until recently, organizations such as CIDA and the World Bank have been the major catalysts for international market development in this industry, with CIDA and the IFIs taking the lead in identifying needs and in drawing up the parameters for the projects they sponsor. Traditionally, the Canadian industry has relied on CIDA as the lead government agency to identify and develop market opportunities. However, increasing competition for international services has encouraged Canadian suppliers to explore opportunities on their own and to develop new markets for their services, rather than waiting for countries or IFIs to tender for project bids.

As Canadian suppliers become less reliant on international development assistance programs, they are adopting more aggressive marketing practices and are exploring opportunities outside developing countries. For example, Middle Eastern countries have purchased Canadian expertise in school curriculum design, petroleum industry training and industrial safety training. Increasingly, the Eastern European nations offer excellent opportunities for export as they seek overseas expertise in language and management training. There is also a significant potential market for Canada in Western Europe, Japan, and the United States, which have shown an interest in Canadian capabilities in technology-based training. Furthermore, it is possible to create consortia with European and other firms, for example, to help break down some of the barriers against Canadian players, so that they can reach additional developed and developing markets. The potential for downstream benefits to other sectors of Canadian industry is considerable, as the provision of Canadian education and training services can lead to the development of broader and longer-term trading relationships.

To date, Canada has participated in a large number of international projects and has delivered a variety of specialized services. Canada is recognized as a leader in areas such as forestry, mining, petroleum, fishing, telecommunications, public administration and engineering. Because of Canada's expertise in these areas, domestic organizations have been able to provide high-quality programs to meet foreign education and training needs.

In the fall of 1990, there were 87 000 international students in Canada, which represents an increase of 66 percent from the low of 52 400 in 1986. Enrolment figures from 1986 to 1990 indicate increases at the elementary and secondary level (73 percent), in colleges and trade schools (189 percent), in the undergraduate programs of universities (11 percent) and in graduate programs (48 percent).[3]

School boards have shown an increasing interest in attracting international students, particularly for the last few years of their secondary education. Given that some 40 percent of international university students in Canada have previously attended a Canadian secondary school,[4] increased marketing efforts at the secondary level may be expected to have a positive impact on the number of international students enrolling in Canadian universities.

The international student market has undergone some changes over the past few years as relatively fewer students travel abroad to seek an undergraduate education. The NICs, which provide many of these students, are gradually establishing their own universities and community colleges and are less inclined to fund the cost of foreign study. The demand for commercial education and training services is beginning to change, as the NICs seek to develop and improve the capacity of their institutions by purchasing specialized training services, teacher training and curriculum design. As a result, greater opportunities have been created for Canadian private and institutional suppliers to market their services for delivery overseas.

Considerable benefits are to be derived from the sale of commercial education and training services abroad. Foreign individuals who study here, whether students, businesspeople or government employees, develop a variety of professional and personal contacts and take back with them a knowledge and understanding of Canada. When international students return home, their insights and contacts can serve as essential links in the flow of ideas, information and technology which may, in turn, lead to stronger commercial and cultural ties. The sale of commercial education and training services to other countries can serve as a lead-in for the purchase of other Canadian services and products.

The foreign sales potential for commercial education and training services has long been recognized by Canada's major competitors, particularly Great Britain, the United States, France, Japan and Australia. These countries have adopted aggressive, co-ordinated approaches that have resulted in their capturing significant parts of the international market. In Australia, the growth in foreign sales of education and training services has been spectacular. The Bureau of Industry Economics has estimated that foreign exchange earnings from education in 1987 were about A$120 million (Australian dollars). An independent study undertaken for the Australian Industries Assistance Commission calculates that earnings would have at least doubled in 1988 to between A$240 million and A$270 million. Estimates of future foreign sales earnings of around A$500 million annually are considered realistic.[5]

### Domestic Market

Compared with the international market, the domestic market for commercial education and training services is relatively new. However, significant domestic markets are emerging. The Human Resource Training and Development Survey administered by Statistics Canada in 1987[6] found that approximately one-third of Canadian companies provide formal training for their employees, amounting to an estimated expenditure of $1.4 billion annually. The commercial education and training sector is expected to capture a significant share of this market.

The Canadian banking industry alone reported expenditures of over $180 million on training during 1989.[7] While more than 133 000 employees enrolled in training courses provided by their own banks, another 17 577 employees took banking courses from establishments outside their banks.

A 1990 Conference Board of Canada survey of 444 mid-sized to large companies found that respondents have been steadily increasing their training budgets over the past two years.[8] Companies reported spending an average of $450 on training and development for each employee. For the next year, expected budget increases for training were substantial, with a mean of almost 11 percent across the sample. Training expenditures reported by respondents totalled $315.9 million in 1989, of which a minimum of $119.3 million was spent externally on consultants, off-the-shelf materials and external courses.

The domestic market has developed because Canadian businesses recognize that workers and managers need to upgrade their skills to function effectively in the evolving workplace. Human resource studies carried out by Employment and Immigration Canada between 1986 and 1991 indicated a shortage of qualified workers in the following industries: electrical and electronic manufacturing, automotive service and repair, food services, trucking, printing and aircraft maintenance. In all cases, it was noted that these industries faced

[3] *International Student Participation in Canadian Education*, Statistics Canada Catalogue No. 81-261, January 1992.

[4] Canadian Bureau for International Education, *Annual Report*, Ottawa, 1990.

[5] Australian Industries Assistance Commission, *Exporting Health and Education Services: Inquiry into International Trade in Services*, Australian Government Publishing Service, Canberra, 1989.

[6] Doug Higgins and Edith Rechnitzer, *Human Resource Training and Development Survey Results, 1987*, Projections and Analysis Section; Education, Culture and Tourism Division; Statistics Canada.

[7] Survey by the Canadian Bankers' Association, as reported in *Canadian Banker*, Volume 97, Number 6, November–December 1990.

[8] Peter E. Larson and Matthew W. Blue, *Training and Development 1990: Expenditures and Policies*, The Conference Board of Canada, Ottawa, 1991.

a difficult challenge in ensuring the availability of the human resources necessary to maintain and build on their competitive positions. Skilled labour shortages are being experienced in a number of other occupations such as air traffic controllers, systems analysts, and some of the skilled trades, especially those involving the operation of computer-assisted machinery.

The Canadian Tooling Manufacturers' Association has expressed concern about the lack of qualified machinists, with some firms having to look overseas to find workers possessing the skills needed to operate a machining tool, maintain quality control standards and meet required delivery dates. There is a need to increase the skill level of the Canadian electronics industry, which employs almost 180 000 workers and has annual sales of close to $18 billion. Within this industry, rapid technological change requires a constant upgrading of skills in order to ensure the viability of the industry and to enable Canada to compete internationally. The success of all industrial sectors in both services and manufacturing will be increasingly dependent on the quality of their human resources.

The importance of education and training to economic well-being is receiving attention from Canadian policymakers in all sectors. During the 1989 annual Conference of First Ministers, concern was expressed that Canada may not be equipping itself with the human resource skills needed to prosper in the emerging information-based and globally competitive economy of the 21st century. Similar concerns are reflected in the 1990 report of the Premier's Council of Ontario, *People and Skills in the New Global Economy*, which notes, "In the emerging global marketplace, the ability to adapt and learn new skills continually will be the most highly prized skill of all."

In addition, a number of reports have been produced by other provincial governments, private industry and non-governmental organizations. For example, a Kodak report comments that "At all levels … business education and training must be revamped to provide the knowledge and skills needed to build competitive businesses. Canada must develop a national competitive advantage in its people."[9] Similar observations are made in reports by the Canadian Labour Market and Productivity Centre (CLMPC), the de Grandpré Advisory Council on Adjustments, the Economic Council of Canada, The Conference Board of Canada, the Fraser Institute, the Canadian Chamber of Commerce and the Canadian Manufacturers' Association. All of these groups share a concern about Canada's "skills crisis" and call for industry, educators, labour and government to work together to ensure that tomorrow's work force has the skills needed to ensure that Canadian industries are internationally competitive.

Programs to upgrade employees' skills will become, by necessity, a greater priority for Canadian business and industry. This need will result in an ongoing demand for the type of services provided by the commercial education and training industry. The industry offers a wide range of services and possesses the expertise and experience to develop new training services to meet the changing needs of the labour force and to address the training problems of Canadian industry. Suppliers are able to respond quickly, and they can provide custom-designed programs to meet individual client needs. Most suppliers of commercial services can provide training in the workplace, a practice which ensures the provision of work-related training, avoids the additional cost and lost productivity usually associated with sending employees to attend off-site training courses, and responds directly to some of the training concerns of small business.

Some suppliers are able to deliver their services not only through personal instruction, but also through more sophisticated technology-based delivery mechanisms, such as interactive video and computers. Some courses are designed so that employees can learn at their own pace while on the job, often with the use of their own personal computers.

## Strengths and Weaknesses

### Structural Factors

Collectively, the commercial education and training sector possesses the expertise to provide the job-related training needed to increase employee productivity and upgrade the skills of laid-off workers and others re-entering the labour force. However, the industry needs to identify ways of increasing co-operation among its members, so as to promote the industry's capabilities, to address common problems and to maximize market opportunities. Measures undertaken in order to strengthen the industry's ability to serve domestic needs will have a positive effect on its ability to compete in international markets.

Internationally, Canadian suppliers have been reactive in marketing their commercial education and training services. Rather than actively working to develop new markets, they have tended to bid on projects that have already been identified and put up for tender. By contrast, Canada's major competitors (Great Britain, the United States, France, Japan and

[9] Alan M. Rugman and Joseph R. D'Cruz, *New Visions for Canadian Business: Strategies for Competing in the Global Economy*, Kodak Canada Inc., Toronto, 1990.

Australia) have adopted nationally co-ordinated and aggressive approaches to the international marketplace.

In Japan, both the private and public sectors have invested heavily in training institutes, primarily as a loss leader to support the development of export markets for Japanese technologies. These institutes are an integral part of trade, export and investment promotion because they help create future markets for products that will require users to master new skills. The provision of industrial training services in highly visible forms, such as training institutes, is now almost a prerequisite for non-aid projects in certain Asian countries if companies hope to get continuous contracts. The Pacific Rim is a good potential market for Canada, but Canadian companies generally have not adopted the training-institutes approach to this market.

Australia has benefited from its proximity to the Asian Pacific market and has established Australian education centres at nine locations in the Asian Pacific region in order to generate business for its commercial education and training sector. In other countries, several Australian institutions have formed a consortium to market their services through a number of centralized offices. This co-ordinated approach, combined with an on-site presence in foreign countries, has greatly increased the profile of Australian institutions. As a result, the increase in the number of fee-paying overseas students has been spectacular — from 4 500 students in 1986 to 22 000 in 1988.[10]

The United States is a traditional international competitor by virtue of its size and economic diversity. Most U.S. embassies have detailed information about educational opportunities at U.S. public and private colleges and universities. In addition, about 100 offices worldwide promote study in the United States, and the U.S. government regularly leads trade missions abroad to develop foreign government and private sector interest in U.S. commercial education and training services. As in Australia, several U.S. institutions have formed consortia to market their services internationally. Some of the consortia have become influential in developing new market opportunities for their member institutions, because they have resources that a single institution cannot readily acquire.

The co-ordinated, on-site, central approach to the international marketplace has been most successfully practised by the British Council, which has encouraged international trade in British education and training services. Many British educational institutions belong to the Council which, through 80 offices around the world, actively markets the commercial education and training services of its member colleges and universities. As a representative agency abroad, the Council has become a strong marketing resource for British suppliers. France, like Britain, is also a significant competitor, with strong government support for the marketing of its education and training services.

The on-site presence in foreign countries, combined with a more co-ordinated industry approach to the international market, is becoming increasingly necessary if countries are going to increase the sale of their education and training services. To date, Canada has not adopted this approach in any significant way, although there is increasing recognition of the need for more co-ordinated marketing efforts. In 1989, an Education Canada office was established in Malaysia, with CIDA funding, in order to encourage Malaysian students to come to Canada. The office also promotes Canadian expertise in education, training and human resource development. The Malaysian centre is operated by a consortium of Canadian non-governmental organizations, which have agreed that it will jointly market the services of each organization as well as the resources of its institutional and corporate membership.

Within the past few years, there has been evidence of increased efforts, particularly on the part of Canadian community colleges, to pool resources and develop a more co-ordinated approach. In Ontario, the Ontario Colleges International Committee (OCIC) has been established to organize the international marketing activities of Ontario's 23 colleges of applied arts and technology. Similarly, the Alberta Colleges and Technical Institutes International Committee (ACTIIC) has been established to harmonize the activities of Alberta's colleges and technical institutes. The British Columbia Centre for International Education (BCCIE) co-ordinates the international marketing activities of that province's community colleges and universities.

Recent developments reveal a tendency towards greater interprovincial co-operation. For example, early in 1991, Ontario and British Columbia collaborated to promote their respective institutions at an educational fair in Hong Kong. On a national basis, as part of its "Sector Campaign in Commercial Education and Training Services," in March 1991, ISTC established an industry committee to bring together suppliers from the private sector, industry associations, colleges and universities (see page 11). The role of this committee is to advise the department in the development of specific initiatives aimed at making the commercial

[10]Australian Industries Assistance Commission, *Exporting Health and Education Services: Inquiry into International Trade in Services*, Australian Government Publishing Service, Canberra, 1989.

education and training services industry more competitive in domestic and international markets.

In the market for international students, Canadian institutions, non-governmental organizations and representative associations are often hampered because it is difficult for individual colleges and universities to specify the number of placements available for international students. Canada's competitors identify the number of qualified students they are able to accept, thereby achieving a competitive advantage. The difficulty experienced by Canadian institutions in developing comprehensive and reliable data on their capacity to absorb international students has hindered attempts to attract these students in larger numbers.

Likewise, in domestic markets, the commercial education and training industry has not adopted a well-planned and aggressive approach to the marketplace. The commercial education and training sector encompasses a diversity of players, ranging from individual consultants to large firms with training components to groups within colleges and universities. These entities have unique capabilities and differing approaches, and do not have a history of working collectively to co-ordinate their approach to the marketplace. While certain distinct groups of suppliers, such as courseware producers, are represented by regional and national associations, no umbrella organization represents the interests of the industry as a whole, as is the case for other industries, such as banking, insurance, actuarial science and accounting, where collective interests are represented by associations. As a consequence, the capabilities of the industry are not well-known among Canadian industries and businesses. For example, a 1990 study on management training for small business in Canada found that the "lack of a simple and inexpensive source of information on available training programs in Canada further impedes small businesses from taking advantage of affordable training opportunities."[11]

**Trade-Related Factors**

In industrial economies such as Canada's, domestic demand for commercial education and training services is largely served by domestic suppliers or by foreign-owned firms established in Canada. Foreign-based suppliers can rarely compete against the on-site advantage of locally established organizations. However, foreign-owned firms have shown an increasing interest in establishing offices in Canada or in buying out local firms. Overall, there is very little trade in commercial education and training between industrialized countries, except in some specialized training areas where the expertise is not widely available or where students wish to study abroad. Most international trade in commercial education and training services flows from industrialized countries towards less developed countries (LDCs) or NICs.

In the past, Canada's domestic suppliers of commercial education and training services have been faced with little foreign competition; however, foreign competition is increasing, particularly from U.S. suppliers of technology-based training. Foreign competition is increasing in part through takeovers, but also because rapid changes in technology facilitate the cross-border delivery of such services.

The provision of commercial education and training services is not subject to tariffs, either in Canada or abroad. Moreover, no significant tariffs are imposed on goods associated with the delivery of commercial education and training services. However, certain non-tariff barriers, including labour mobility restrictions and preferential purchasing policies, pose problems for the sale of commercial education and training services from Canada to other countries. The Canada-U.S. Free Trade Agreement (FTA) implemented on 1 January 1989 makes provision to facilitate temporary movement of service providers between Canada and the United States. While there is little trade in commercial education and training services between these two countries, the FTA will permit the trade that does exist to flow more freely.

**Technological Factors**

The commercial education and training sector is becoming adept at the use of a number of advanced technologies, such as computer-enhanced learning, interactive video, audio tapes, radio and television. The industry in Canada has acquired a particular strength in the development and application of technology for distance education services. More than 35 public institutions in Canada offer distance education services. Many provincial governments have actively supported distance education in order to meet domestic training requirements, particularly in remote areas.

The private sector also plays an important role in providing distance learning in Canada. Primarily serving the business, trade and vocational upgrading market, more than 40 private providers of distance education are licensed by provincial governments. Canadian providers are on the frontier of using advanced technologies as firms start to integrate computers, video and audio technologies and link these with telecommunications systems to provide distance education services.

The commercial education and training sector stands to gain from the potential for the application of new technologies to meet the training needs of the Canadian workplace. It is

[11]Canadian Labour Market and Productivity Centre, *Management Training for Small Business in Canada*, Ottawa, April 1990, page 1.

reported that new technologies are increasing instructional effectiveness. They make it easier to provide on-demand, individualized training, which is faster, more highly motivating and results in better retention of information than traditional classroom approaches.

Whether such training is less costly than traditional methods of delivery depends on a number of factors, such as the size of the firm, the type of training required, and the level of technological sophistication already attained by the firm. Generally, delivery of technology-based training is less expensive than traditional delivery, but it requires considerable front-end investment in development. For this reason, small businesses are often reluctant or unable to invest in technology-based training. However, the training mechanisms being created by technological advances can also promote co-operative efforts, such as joint ventures and cost-sharing, and might also address other training issues faced by small businesses, such as the difficulty of sending key personnel on training for more than a few days. For these reasons, the new technologies are becoming more attractive for smaller and medium-sized businesses. One attractive alternative is the use of Canadian courseware, which is particularly valuable in an environment where conventional training services (such as classroom instruction) are not feasible. Specifically, courseware offers personalized, interactive, need-specific instruction, universal access to training regardless of company size or location, and an infinitely flexible training schedule.

Nevertheless, many businesses are reluctant to make use of technology-based training, largely because the benefits of these modes of instruction are not well understood and because it is difficult for purchasers to make an informed choice among the multitude of products available. The Conference Board of Canada survey found that expenditures on new technologies in the training area have been relatively modest.[12] Of the $315.9 million spent on training by respondents in 1989, only $10 million (about 3 percent) was spent on investment in new technology. However, despite the relatively low usage of technology in training delivery at that time, most training departments surveyed expected to double the use of sophisticated technologies and software in 1990 and 1991. This points to opportunities for the suppliers of technology-based training to assist companies in realizing the advantages of technological developments in the delivery of training. The commercial education and training industry would benefit from developing initiatives, such as joint ventures and cost-sharing among clients, in order to make advanced technologies more attractive to client industries, especially small businesses.

The commercial education and training industry has the potential to develop a 21st century high-technology industry. However, the industry needs to first identify ways of adapting some of the more traditional delivery methods to technology-based delivery mechanisms. It also needs to market these services more effectively to clients.

Not only is the commercial education and training industry a user of high-technology, but it also has a role to play in assisting other industries to become effective users of new technologies. The industry can assist in the retraining of workers displaced by technological change and can help them adjust to new technologies in the workplace.

The commercial education and training services industry is an excellent vehicle for linking technology advancement to industry retraining programs. What has come to be called the "new human resource management" embraces a range of policies and practices designed to enhance the skills, adaptability, motivation and performance of people in the workplace. By equipping people to cope with adjustment and change, this approach minimizes both personal and organizational costs and, in addition, ensures the fullest exploitation of the potential of new technologies.

Canadian suppliers of commercial education and training have had success in preparing workers in various manufacturing sectors to work in technologically advanced plants and thereby to enhance the productivity and competitiveness of the training sector. There are a number of success stories that illustrate this potential. One example emerges from the partnership between the Open Learning Institute (OLI) of British Columbia and Western Pulp's Squamish operation. In the late 1970s, Western Pulp began planning for a new $200 million plant to replace an antiquated bleach plant. Since the new plant would feature modern, automated, electronic technology, the existing mill operators would require massive retraining. A partnership was established whereby Western Pulp would provide the technical content of the learning modules, and OLI would translate this information into training language, design and write the course modules based on open learning techniques, and deliver them.

This project was an enormous success, with benefits to both sides. For Western Pulp, it meant that industry personnel could act as resource people rather than having to dedicate several hours to direct instruction. Moreover, workers were able to receive training without having to leave the work force, thereby reducing costs to both workers and the company. OLI was able to demonstrate that educational institutions can deliver on time and within budget. In other words, they can compete

[12]Peter E. Larson and Matthew W. Blue, *Training and Development 1990: Expenditures and Policies*, The Conference Board of Canada, Ottawa, 1991.

on a commercial basis. This is but one example of the role to be played by suppliers of commercial education and training services in assisting Canadian industries to train their employees to make more effective use of new technologies.

Traditionally, the major international markets for Canadian technology-based training services and products are the LDCs and NICs. However, the application of advanced technologies may be restricted by the lack of supporting telecommunications systems abroad.

Canada's international reputation in offering world-class distance education services is demonstrated by the decision, on the part of governments of the Commonwealth and La Francophonie, to establish multilateral distance education centres in Vancouver and Quebec, respectively. These centres will co-ordinate the development and distribution of distance education materials designed to meet the needs of Commonwealth and Francophone countries.

## Evolving Environment

International trade in commercial education and training services through tendered contracts of IFIs is not expected to grow significantly in the near future. However, it is likely that the number of non-aid-related educational and training projects in many LDCs and NICs will continue to increase. Governments in Southeast Asia and the Middle East have placed increasing emphasis on human resource development, as these countries seek to develop the educational infrastructure necessary to ensure their continued economic and industrial progress. Their ongoing need for improved educational systems will ensure that international market opportunities continue to grow.

New trade opportunities are also emerging for Canadian suppliers in countries seeking alternatives to the services already supplied by major exporters, especially the United States, Great Britain and Australia. Canadian suppliers in the international marketplace are generally regarded as positive alternatives to the firms and institutions that have traditionally had dominance.

It is expected that the domestic market will also continue to grow, creating increased opportunities for the suppliers of commercial education and training services. Some of these opportunities will arise as a result of recent changes in Canadian government policies to encourage industry-led training. As a result of federal government efforts to shift emphasis from income support to human resource development, Employment and Immigration Canada (EIC) is redirecting $800 million towards work force training. In January 1991, the federal government announced the formation of the Labour Force Development Board, composed largely of business and labour representatives, to provide the federal government with guidance and direction on national training policies and programs. The EIC initiatives present a considerable opportunity for the commercial education and training industry, which should be well positioned to meet the training needs identified by the Board.

In addition, the industry should be able to capitalize on opportunities being created as Canadian companies try to develop worker skills and improve performance through training. All evidence points to a tendency towards greater expenditures on training, with the potential for more training dollars to be spent on commercial suppliers. At the same time, however, some Canadian firms are purchasing their training requirements directly from U.S. suppliers or are purchasing courseware developed in the United States, even when made-in-Canada products are readily available from Canadian suppliers.

Overall, the international and domestic market demand for commercial education and training services is not stable. It is a constantly growing market, whose demands will continue to change. In accordance with a worldwide emphasis on human resources development, both industrialized and developing nations will continue to improve their own educational infrastructures. At the same time, education and training requirements will become more specialized and will constantly evolve, requiring the services of a commercial education and training industry that is both flexible and responsive.

## Competitiveness Assessment

Internationally, Canadian exporters of commercial education and training services face great challenges. Canadian suppliers for the most part lack the marketing experience and the resources to identify and follow up on new opportunities. While the quality of services offered by the industry is highly competitive, Canadian capabilities are not well-known or understood overseas. Although Canadian suppliers have begun to better co-ordinate their marketing efforts, they still face the challenge of penetrating a global market dominated by a number of well-established and highly organized competitors.

The positive benefits of sales to foreign countries are reinforced by the potential to develop broader and longer-term trading relationships as a result of the initial provision of education and training services. As developing countries improve their human resources and their industrial infrastructures, their need for education and training services will increase. Given the market characteristics and Canadian expertise, there are considerable opportunities for this industry to increase its foreign sales.

Within Canada, the nature of work is changing radically and will require a major change in the way industry views the development of its human resources. Forecasts of occupational structure indicate that the demand for highly skilled workers is expected to increase significantly. Moreover, the skills that are being learned now will become obsolete at a more rapid pace than ever before, meaning lifelong training and retraining will be needed. Within a number of industrial sectors, rapid technological change requires a constant upgrading of skills in order to ensure the viability of industries and to enable Canada to compete internationally. The commercial education and training industry has a key role to play in upgrading the skills of the labour force and in assisting other industrial sectors to become effective users of new technologies.

These factors underline the potential inherent in the development of the commercial education and training industry, which has the ability to provide the training capability required to meet the increasing human resource development needs of Canadian industry.

**For further information concerning the subject matter contained in this profile or in the initiative, contact**

Service and Construction Industries Branch
Industry, Science and Technology Canada
Attention: Commercial Education and Training
235 Queen Street
OTTAWA, Ontario
K1A 0H5
Tel.: (613) 954-2977
*Fax: (613) 952-9054*

## SECTORAL STUDIES AND INITIATIVES

For additional information on the following initiative, contact Industry, Science and Technology Canada.

**Sector Campaign in Commercial Education and Training Services**

The sector campaign provides for seven activities to be carried out between 1 April 1991 and 31 December 1992. The purpose of the campaign is to gather data on the sector, document the capabilities of suppliers, identify client needs and address problems faced by the industry through the development of specific initiatives aimed at making the commercial education and training services industry more competitive in domestic and international markets.

Note: Formal industry statistics are not currently available for commercial education and training services, but will be gathered in the course of the sector campaign.

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