ADULT EDUCATION AND TRAINING IN CANADA

REPORT OF THE 1994 ADULT EDUCATION AND TRAINING SURVEY

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Adult Education and Training in Canada

Report of the 1994 Adult Education and Training Survey

Prepared by the Training and Continuing Education Section,
Centre for Education Statistics, Statistics Canada, February 1997

The 1994 Adult Education and Training Survey and this report were prepared under
contract to Human Resources Development Canada

SYMBOLS

The following symbols are used throughout this report:

- \- Amount too small to be expressed

- * Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.

- ** Numbers marked with this symbol are not reliable enough to be released; their coefficient of variation is greater than 25%,

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HIGHLIGHTS

Given the major changes our economy is going through, individuals and enterprises recognize that education and training are essential elements to improve Canada's economic performance as well as general quality of everybody's life.

This report presents the findings of the 1994 Adult Education and Training Survey. The purpose of the survey was to measure the incidence of training in firms and in the population in general. It aimed also at informing the major stakeholders on the major obstacles to training. The survey was conducted by Statistics Canada and funded by Human Resources Development Canada.

The survey collected information on all education and training activities, regardless of level, content or method, pursued by people aged 17 and over. However, in order to concentrate more on job-related education and training activities, unless they were supported by their employer, this report excluded students enrolled full-time in certificate, diploma or degree programs.

Major findings

Who are the adult learners ?

- In 1993, 5.8 million or 28% of Canadians aged 17 and over participated in adult education or training activities. This represents a one percentage point increase from 1991. On average, Canadian adult learners participated in 1.6 activities or 103 hours per individual.

- Geographically, the level of adult education or training participation progresses from East, at 19% in Newfoundland, to West, reaching 35% in British Columbia.

- The majority of adult learners (71%) participated in job-related education or training. Among these learners, 70% received some or total sponsorship from their employers.

- One of every eight (12%) adult learners registered in courses or programs for personal interest reasons and 13% of them were sponsored by an employer.

- Women participated more than men (29% vs. 27%) and the prime working age (25-44 age group) population participated more than younger and older populations.

- Higher education stimulates adults to participate in the learning process. The participation rate for adults with high school education or less was 17% compared to 50% for those with a university education.

- Degree of attachment to the labour force determines the level of participation in job-related adult education or training. Participation of full-time workers was higher than part-time workers (31% vs. 21%). Unemployed individuals participated less (16%) than those who were employed and individuals not attached to the labour force participated at a rate of only 5%.

Who sponsored the training?

- Employers sponsored three of every four participants in job-related training activities, while almost one in every three (29%) individuals contributed to the cost of these activities.

- Employers invested mainly in full-time employees, in their prime working years and favoured better educated workers with seniority in the firm.

- With little support from employers, young individuals tend to invest more in their own education and training, whereas older Canadians (45 years and older) who are no longer in their prime working years, also received relatively little employer support and few of them had the incentive to pursue the training on their own.

- Employers tend to sponsor job-related courses rather than programs (78% vs. 44%).

- The three most popular types of employer support was the payment of fees or tuition (78%) followed by paid time-off work (69%) and covering the course materials (66%). The least used employer support was providing unpaid time-off work (9%).

Training in industry

- Workers in the services sector participated more in adult education or training than those in the goods producing sector (30% vs. 23%). The difference is more pronounced when comparing workers in the public sector with those in the private sector (39% vs. 24%).

- One in every five persons in the workforce (21%) had some of his/her education and training sponsored by the employer. However, variations by industry were large, ranging from 8% of persons in Agriculture and Construction industries to 52% of those in the Utilities industry.

- Employer-sponsored training increased with job tenure (from 14% for workers with one year of job tenure to 31% for those with 10 to 19 years) and firm size (12% for worker in firms with less than 20 employees to 34% for those in firms with 500 employees or more).

- Employers in Utilities, Public Administration and Finance/Insurance/Real Estate industries were the most likely to sponsor the training of their employees.

What did they learn ?

- By far, course activities were the most popular: they represented 85% of all adult education or training activities.

- Half of the education and training activities were concentrated in three fields of study: Commerce, Management and Business Administration, Engineering/Applied Sciences Technologies and Trades, and Health Professions, Sciences and Technologies. These three fields represented 64% of all job-related training activities.

- Male trainees tended to be more concentrated in the Engineering/Applied Sciences Technologies and Trades field, while female trainees were more numerous in the Commerce, Management and Business Administration field.

- In program activities, men were more likely to pursue their education or training in the fields of Engineering/ Applied Sciences Technologies and Trades, Elementary/Secondary and Commerce, Management and Business Administration. In contrast, women learners were more concentrated in Commerce, Management and Business Administration, Elementary/Secondary and Health Professions, Sciences and Technologies programs.

The provision of training activities

- Educational institutions were the main provider of adult education and training activities. They accounted for one third (34%) of all providers followed by employers and commercial suppliers who shared two fifths of the market (21% and 20%, respectively).

- The variations in training providers among provinces were largest in Atlantic Canada, with Newfoundland depending heavily (44%) on educational institutions for the provision of adult education and training. In contrast, New Brunswick relied much less (28%) on their educational institutions for the provision of adult education and training activities.

- Young learners relied more heavily on educational institutions, while older learners relied more on their employers.

- Employers mainly relied on themselves (35%) and external consultants (28%) to provide their training activities. The larger the firm the more likely it used its own resources to deliver the training.

- The most common method of teaching was still classroom instruction (91%), followed by reading materials (37%) and audio/video cassettes (21%).

Outcomes and accessibility of training

- Among the workers who assessed the adequacy of training provided by their employers, the great majority of them (84%) judged that in general the training provided to them and their co-workers was adequate. However, almost half of the respondents (45%) did not or were not able to assess the training provided by their employers.

- Most workers (82%) also evaluated that the training they received was useful to their work. Young workers (17-24 years olds) found the training less useful than older workers and full-time employees assessed the training more useful than part-time employees.

- Blue collar workers judged the training less useful compared with workers in other occupations, particularly the training that was not sponsored by an employer.

- For those who participated in job-related and employer-sponsored training, the majority of activities (78%) were completed in 1993, 14% were still on-going and only 5% were interrupted.

- The training interruption rates in Quebec were almost twice higher compared with other regions. Compared with course interruption rates, the program interruption rates was more than ten times higher (1.7% vs. 18.3%).

- Employer sponsorship greatly reduced the training interruption rates of employees and was more efficient in reducing the rates for blue collar workers.

- One in ten workers reported an unsatisfied training need in 1993. The training needs were at their lowest levels among the young and the old workers. Workers who have participated in training were more likely to report a training need than those who had not been exposed to training.

- The main barriers to job-related training needs reported by employees were the lack of time and money, followed by inconvenient time or location, absence of the desired course or program and lack of employer support.

- One in every four Canadian adults wanted training and did not get it. Again the proportion of training wants was higher among the participants in adult education and training than the non participants (37% vs. 21%).

INTRODUCTION

The overall social and economic restructuring that is prevailing now is compelling all members of Canadian society to adapt to new social, economic and labour force cultures. These changes open up new opportunities for adult education and training . Indeed, the acquisition of new knowledge and skills has become essential to understand and adapt to the recent political changes which have redefined the world political scene and to cope with the increase in global economic competition, the rapid development of communication technologies and the increasing pressure of ecology and cultural pluralism. (The next section describes the socio-economic context which is forcing Canadian adults and more specifically the workforce to continuously adapt to their new environment and acquire new skills). Today, given the pace at which changes occur, knowledge itself and the control of knowledge has become an important form of power. To assure long term economic growth and employment in this complex and uncertain world, the society has to adapt to this new paradigm.The emergence of a lifelong learning culture in Canada attests to this adaptation.

As a consequence, education and training has become imperative. People are devoting more and more time to education and training. They invest time and energy to keep abreast with ever changing job requirements and to adapt to their environment. This acquisition of knowledge doesn't take place only during childhood and adolescence but increasingly during adulthood. Education is becoming a lifelong process. The learning environment is changing accordingly. Schools are not the only provider of knowledge. A fair amount of structured education and training activities is taking place outside the regular school system. Learning experiences are also taking place at home, at work or elsewhere.

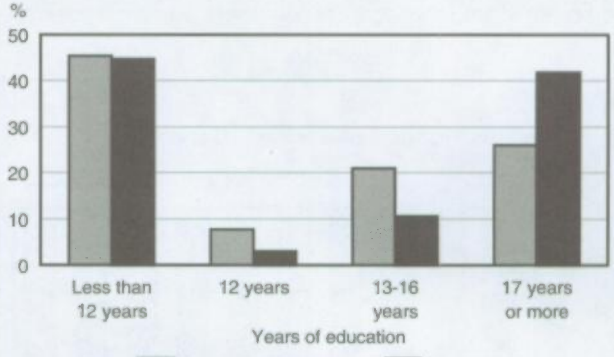
The purpose of this report is to enhance the understanding of education and training that takes place in Canada from a lifelong learning perspective. It presents results of the 1994 Adult Education and Training Survey (AETS) which describe how Canadians adapted to their changing environment by acquiring new skills and knowledge during the 1993 calendar year. Chapter 1 presents an overview of these results. It provides a profile of adult learners and describes the education and training activities they engaged in. Chapter 2 focuses on the education and training taken for job-related purposes and gives special attention to training supported by employers. Education and training activities followed for personal interest reasons is the object of Chapter 3. Employers' involvement in this type of training will also be examined. Chapter 4 deals with the organizational aspect of training. It presents the various training providers, types of sponsorships offered, methods of teaching used, and the locations of the training activities. Chapter 5 provides a broad assessment of training by examining the usefulness and adequacy of training provided. Finally, Chapter 6 measures the importance of education and training needs and wants of Canadians.

The socio-economic context

Many socio-economic trends are now requiring Canada to re-examine the way national wealth is being created. In order to continue performing and maintaining its standard of living, new ways must be found to increase Canada's productivity. As with many countries, Canada can no longer rely solely on its natural resource base, the volume of its current or potential labour force and current trade partners, to participate successfully in the current global market economy. The continuous and effective upgrading of Canada's human resources has become an essential condition of ensuring long term growth and success in the global economy.

Chart 1

Education and training requirements of the 1995 labour force and of jobs created between 1995 and year 2000, Canada



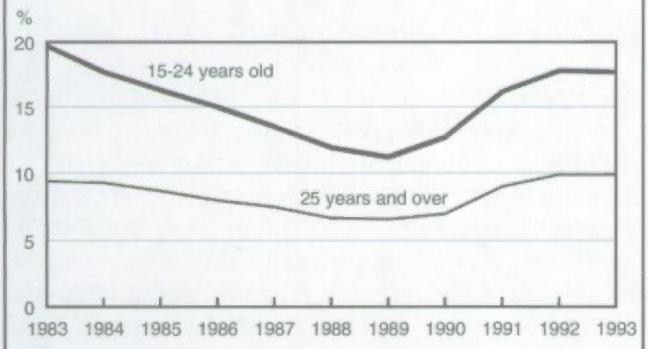
Source: Human Resources Development Canada

In the coming years, the changing demands of the workforce will put a lot of pressure on Canadian workers. Traditional jobs, with work patterns and skills that remain stable over the worker's entire career, are disappearing.

Changes in technology modify the variety of jobs available and skills needed to accomplish them. By the end of the century, more than 40% of the new jobs will require at least 17 years of education and training. This is compared to the 26% in 1995. Given the present demographic patterns, these education and training requirements for new jobs can no longer be replenished with new entrants into the workforce. Consequently, a fair proportion of the present workforce will have to be retrained.

Chart 2

Unemployment rates by age group, Canada, 1983-1993

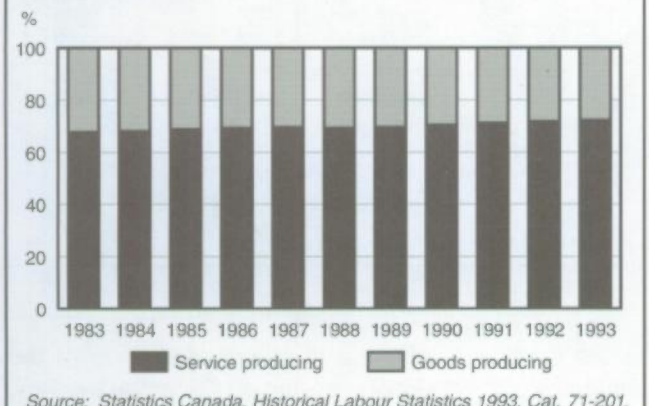


Source: Statistics Canada, Historical Labour Statistics 1993, Cat. 71-201, Annual

The combination of an aging Canadian population and weak economic performance limiting job creation contributes to an increasingly older working population, a smaller proportion of qualified entrants into the labour force and as a consequence a stronger competition for jobs. In 1993, 84% of employed persons were 25 years and older, compared to 78% ten years earlier. Therefore,

Chart 3

Industrial distribution of workers, Canada



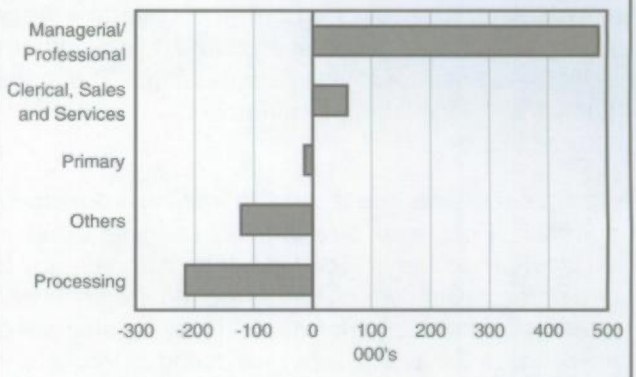
Source: Statistics Canada, Historical Labour Statistics 1993, Cat. 71-201, Annual

young people (less than 25 years old) have been unable to take their share of the employment market. They have consistently experienced higher rates of unemployment than the rest of the labour force.

The Canadian economy continues to shift away from resource-based activities (goods-producing) to service-producing activities. As a result, employment in the service sector has increased to 72% of the labour force in 1993 from 68% a decade earlier. A major reorientation in the skills and knowledge of the current labour force participants is required. Productivity, efficiency, competitiveness, job security, advancement and so on, being dependent on the skill level of the worker, the Canadian labour force must be encouraged to either maintain, restore or increase its existing competencies and to develop new ones for new tasks.

Chart 4

Net jobs created by occupation, Canada, 1988-1993



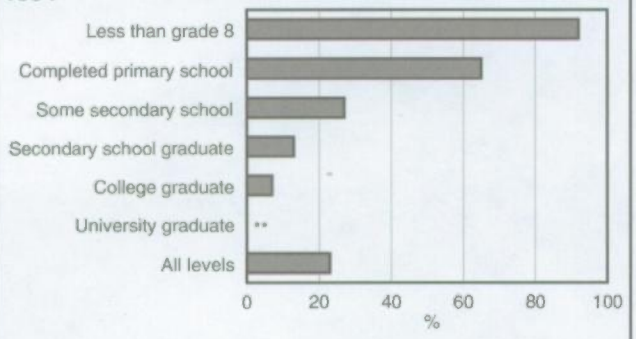
Source: Betcherman et al. 1994

As a result of major restructuring of the economy and and shifts in industries, it is inevitable that shifts also occur in occupations. Job creation in primary, processing and other occupations showed a deficit over the five years prior to 1993. Net job creation was recorded in managerial/ professional and in clerical, sales and services occupations. The recourse for many workers, as employers and employees, is to address these demands through active upgrading of skills knowledge and competencies through further training and education activities.

The demand and need for adult education and training does not reside in the employment sector alone. The average literacy level of Canadians has created serious concerns in the last several years. For many adults, the most basic skills are wanting. Given the slow growth rate of the labour force and the lower level of schooling

Chart 5

Proportion of Canadian adults aged 16 and over showing limited literacy skills by schooling level[1], 1994



[1] *These adults are at the lowest level of the document scale which has five levels.*

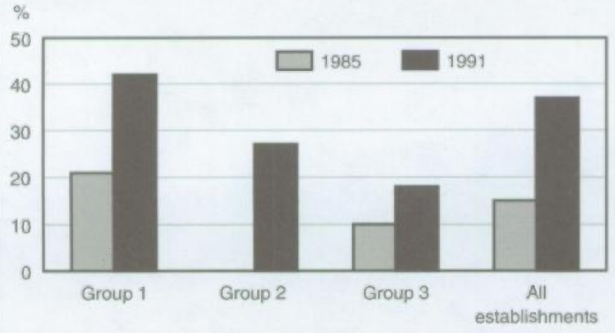
** *Data are not reliable enough to be released.*

Source: Reading the Future: A Portrait of Literacy in Canada, Cat. 89-551-XPE

and literacy levels of many older workers, Canadian adults will require further training in order to face the challenges ahead. As other authors indicate, even low-paying service jobs, are requiring more advanced technical, numeracy and literacy skills.

Chart 6

Proportion of all employees who worked directly with computer-based technologies, Canada, 1985 and 1991[1]



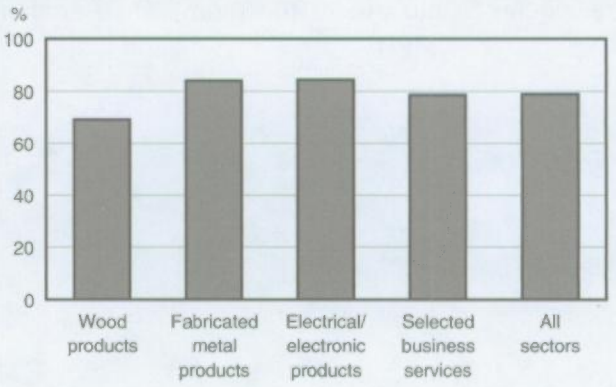
[1] *Group 1 consists of establishments that introduced computer-based technology (CBT) during 1980-1985 and 1986-1991; group 2 consists of establishments that introduced CBT only during 1986-1991; group 3 consists of establishments that did not introduce CBT during 1980-1985 and 1986-1991 or that only did during 1980-1985.*

Source: Betcherman et al., 1994

The diffusion of new technologies is affecting most industries and most activities within firms. Close to two-thirds of all industrial sectors reported significant technological changes in their environment during the five year period prior to 1993. Moreover, between 1985 and 1991, the proportion of workers using computer

Chart 7

Proportion of establishments reporting increase in the degree of competition, Canada, 1988-1993



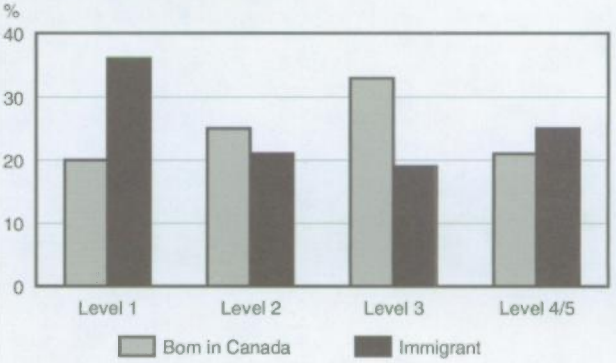
Source: Betcherman et al., 1994

based technology at work increased from 15% to 37%.

The nature and level of competition with our traditional trade partners as well as with other countries is forcing firms to adapt their production and management processes. Almost 8 in 10 firms reported an increase in the degree of competition during the period from 1988 to 1993. This increase in competition is the one change most often reported by firms regardless of the specific sector they are in.

Chart 8

Distribution of Canadian adults aged 16 and over by level of literacy in document reading and immigration status, 1994



Source: Reading the Future: A Portrait of Literacy in Canada, Cat. 89-551-XPE

The number of immigrants to Canada has more than doubled during the last decade. For many immigrants, neither French nor English are understood, cultural

differences between their country of origin and Canada can be extreme and Canadian social systems can be a mystery to them. More than a third of immigrants are at the lowest level of literacy in the document scale (results are similar in the prose and quantitative scales) compared to 20% of people born in Canada. These are unique and specific needs that must be addressed for these individuals to assume their full role as productive members of Canadian society.

CHAPTER 1

An overview of adult education and training in Canada

L. Shipley

Education in Canada has typically been viewed from the perspective of accomplishments in the formal sector of education, for example the number of high school, college or university graduates, the number of apprenticeship students, the number of enrollments in trade/vocational programs. The interpretations and measurements have been strongly based in the concepts of highest level of attainment or completion. This view sees the learning process as finite and as an end product of one particular environment, the formal education system. Given the changing perspective on education and learning that was discussed in the introduction, the move to a lifelong learning perspective, there is a need to develop new concepts and methods of measurement that speak to a more dynamic and continuous process of education and learning.

It is now recognized that education and learning are no longer the sole domain of the young. School Boards, colleges, universities etc., are no longer the sole providers. Accreditation in a specific field of study (i.e., law, teaching, high school diploma and so on) no longer explain the depth and breadth of learning that takes place across the life cycle. This broadened perspective on learning has alerted us to the potential that continued education and training offers in resolving unemployment dilemmas in the Canadian labour force, in allowing Canada to compete effectively in a growing global economy, in producing a population that can assume more responsibility for their personal health and welfare and life management processes.

The Adult Education and Training Survey provides information that speaks to this broader perspective of education and learning. New learning populations are identified, the subject areas of learning are given broader consideration, and the lists of providers, methods of learning, location of learning, support for learning etc., have been expanded.

A. Adult learners: who are they?

The 5.8 million learners who were involved in adult education and training in 1993 can be seen to be representatives of a number of socio-economic and socio-demographic groups in Canada. The following sections explore the participation rates of these various groups in adult education and training.

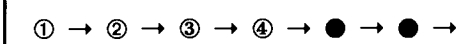
Based on the adult education and training population definition presented below, the overall Canadian participation rate is 28%[1]. This represents a 1 percentage point increase in the participation rate from 1991 or 330,000 new adult students. This number may appear small relative to the size of population, but it represents a 6% increase in the number of participants. This is an important increase from the perspective of providers and organizers of adult education and training. (See Appendix C for comparative tables, 1991/1993)

[1] *The main unit of measurement in this report is the* participation rate. *The participation rate is the proportion of a given adult population engaged in a specific adult education or training activity. In the context of training offered by employers, the term* training rate *is generally used. Definitions of all major concepts referred to throughout this report are provided in Appendix A.*

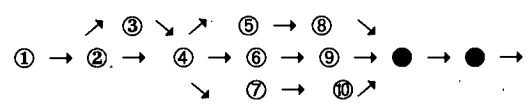
The lifelong learning paradigm

Traditionally, individuals who were choosing a career knew in advance the type of educational program required. The starting point, the point of arrival as well as the way to go from one to the other were well identified. Training was done in a linear sequence. Today, firms are forced to adapt to rapidly changing market conditions and to create differentiated products. As a consequence they need to develop a more versatile workforce. This new more flexible production model then requires that workers continually upgrade their skills to adapt to the changing environment. This new learning paradigm may be described as a non-linear sequence of learning events (see Legendre 1993).

Traditional education and training model



Modern education and training model



Adult education and training: concepts and definitions

The Population

The results from any survey are bound by the concepts and definitions that were organized to administer it. The definition of adult education and training used for this report is a modified version of the definition developed by UNESCO (in the International Standard Classification of Education). According to UNESCO, adult education is defined as organized programs of education which have been adapted to the needs of persons 15 and older who are not in the regular school and university systems (often referred to as students who are still involved in their first or initial cycle of education).[1]

The boundaries of the target population as defined by UNESCO have been adapted to more appropriately reflect the Canadian context. In most provinces and territories school attendance is compulsory until age 16. For the purposes of this report, then, the adult population includes those aged 17 and over.

In order to retain a focus on students who were not in the regular school or university systems, the population used in this report excludes regular full-time students except those who were financially supported by an employer. It includes then all people registered in part-time education or training activities. Education and training activities taken by full-time students beyond their regular school and university programs have also been included. This reveals the investment this group is making in education and training beyond their regular formal education activities. Employer-sponsored, full-time training and education has been retained in order to obtain a comprehensive picture of how employers are involved in training, an example of the broadened perspective.

Following these conditions, of the 7,2 million people aged 17 or over who had pursued some form of education or training in 1993, 5.8 million people met the requirements for inclusion in the adult education and training population retained for this report.

Adult education and training activities

The 1994 AETS collected information on both credit and non-credit courses, offered full-time or part-time, at public or private institutions, at the workplace, at a variety of other locations or through electronic media. Respondents could include courses or programs taken for career or job-related purposes and/or for personal interest reasons (e.g., a part-time program in computer programming or a recreational course in aerobics). They only include formal education activities.[2]

---

[1] *It can be argued that adults returning to school on a full-time basis after a prolonged period outside the regular school system ("returnees") constitute a special group and should also be considered in an analysis of adult education and training. However, because they cannot be clearly distinguished from those 17 and over who have not yet left the regular school system for a significant period of time, they were not included as a separate group in the analyses presented in this document. An estimate for the number of Canadian full-time students who fall into this category was 449,000 for 1993.*

[2] *Formal education or training activities have an identifiable structured plan and clear objectives which are geared to the development of the learner's skill and competence. The student follows a program planned and directed by a teacher or trainer and receives some kind of formal recognition upon completion. Informal education and training activities such as watching a television program, impromptu learning/instruction in the work place, and any other unstructured learning activities were not covered by this survey.*

Adult education and training in the provinces

There is considerable variation in the level of adult education and training that takes place within the provinces. From the furthest east (Newfoundland at 19%) to the furthest west (British Columbia at 35%) participation rates nearly double. Participation rates show a steady increase as one progresses from the Atlantic region (22%), through central Canada (27%), across the Prairies (31%) and into the West Coast (35%). Many factors are involved in these varying participation rates including the level of employment/ unemployment, the economic well being of the province or region in 1993, the industrial structure of the province (and as a consequence the varying impact of down-sizing, technological advances etc.) and the availability of resources for education and training (both in terms of funding and in the types and numbers of programs and courses offered). Positive employment opportunities which result from the creation of new projects or expansion on existing ones through the introduction of new technologies, opening of new markets, development of new products etc. enhance the participation in education and training. For both males and females, as unemployment rates drop participation rates increase.

Table 1.1

Participation rates in adult education and training activities and unemployment rates, by sex, Canada and provinces, 1993

	Unemployment Rates			Participation Rates		
	Both Sexes	Males	Females	Both Sexes	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)
Canada	**12**	**13**	**10**	**28**	**27**	**29**
Atlantic Provinces	**15**	**16**	**14**	**22**	**23**	**22**
Newfoundland	20	21	19	19	20	17
Prince Edward Island	18	18	18	25	20	30
Nova Scotia	15	16	13	25	26	25
New Brunswick	13	13	12	20	21	20
Quebec	13	14	12	24	23	24
Ontario	11	11	10	29	28	30
Prairie Provinces	**9**	**10**	**9**	**31**	**30**	**33**
Manitoba	9	10	9	30	30	30
Saskatchewan	8	9	7	27	28	27
Alberta	10	10	10	34	31	36
British Columbia	10	10	10	35	33	36

Rural/Urban Factors in Adult Education and Training

One would expect proximity to education and training centres to affect participation rates in adult education and training. Given the high concentration of post-secondary public education institutions, business colleges, private training schools and the like in urban[1] locations, one would assume that participation rates in rural locations would be much lower than in urban locations. The table below shows differences which are smaller than anticipated.

In addition to the smaller size of firms and different type of industries existing in rural areas, structural demographic differences in the populations provide an explanation. For the various levels of educational attainment the differences in participation rate between rural and urban are at the most 3 percentage points. Why then is the overall rural participation rate lower than the Canada rate by 5 percentage points, and lower than the urban rate by 6 percentage points? The concentration of individuals with high school or less in the rural population is much higher than in the population of Canadians overall and in the urban population. Although individuals from each level of educational attainment participated at close to the same rates across national, urban and rural groupings, rural populations had the highest concentration of persons with high school or less. This group also has the lowest participation rates . The combination of these two factors results in an overall rural rate of 23%. The incidence of low participation rates in rural areas do not seem to stem mainly from less important training needs, poor accessibility, poor response to distance education opportunities etc., but rather from the demography of the population itself.

Table 1.2

Participation rates in adult education and training activities and population distribution by level of educational attainment and rural/urban areas, Canada, 1993

	Participation rates by Level of Education (%)			Number of individuals per 100 in the population		
	Canada	Urban	Rural	Canada	Urban	Rural
Total	**28**	**29**	**23**	**100**	**100**	**100**
High School or less	**17**	**17**	**15**	**53**	**50**	**63**
0-8 years	5	5	6			
Some secondary	15	15	14			
Graduated from High School	24	24	24			
Postsecondary	**41**	**41**	**37**	**47**	**50**	**37**
Some post-secondary	38	38	35			
Postsecondary Certificate/Diploma	37	37	35			
Postsecondary University	50	50	52			

[1] *In about 90% of cases, urban refers to places with a population of 15,000 or more. Other factors, such as population density and level of economic exchange between an urban centre and its environs, will determine how large, geographically, an urban area will be.*

Gender differences in participation are small, but age makes a difference

Males and females do not show unusually large differences in participation with 47% of the adult learners being male and 53% of the learners being female. These numbers reflect the general distribution of males and females in the population at large in Canada. These two groups participated at nearly equivalent rates with males at 27% and females at 29% overall. Each of these groups has experienced a one percentage point increase in participation rates since the previous survey in 1991.

As in the population of Canada in general, persons in their primary working years (25-44 years of age) were over represented in the adult learning population, accounting for over half of all adult learners. This group participated at a rate of 36%, compared to a participation rate of 31% for both persons aged 17-24 years and 45-54 years, 16% for those aged 55-64 years, and 6% for those over the age of 64. These participation rates underscore the benefits of taking the broader, lifelong learning perspective when examining education and training in Canada. For the population aged 17 to 54 years, one in three Canadians (34%) was involved in some form of structured learning process in 1993. Even after the age of 65, although participation rates are much lower, structured learning continues. It is clear that leaving the first cycle of regular or formal education does not necessarily mean leaving structured learning.

Table 1.3

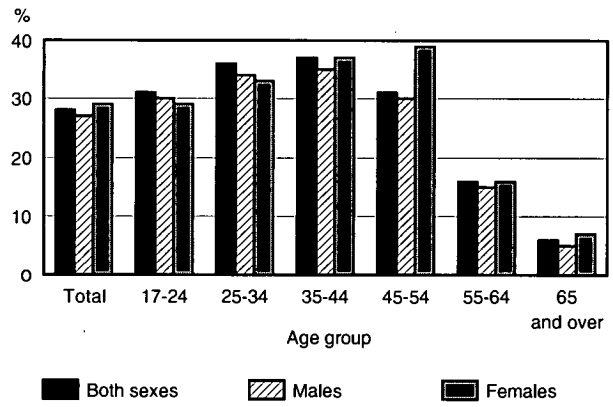
Participants and participation rates in adult education and training activities, by sex, Canada, 1993

	Total	Participation Rates
	(in millions)	(%)
Both Sexes	**5.8**	**28**
Males	2.7	27
Females	3.1	29

Male and female participation rates are comparable for the first two age categories, but as male rates begin to decline after the age of 44, female participation increases through the next 10-year age grouping. Whereas male participation peaks between 35 and 44 years of age, female rates peak between 45 and 54 years. These differences may be influenced by an interruption in the ability to participate through the childbearing years, with a "catching-up" phenomenon occurring once these women return to work when their children become older.

Chart 1.1

Participation rates in adult education and training activities by sex and age group, Canada, 1993



Educational attainment and income go hand in hand

Previous level of educational attainment has a clear impact on the level of participation in adult education and training. As previous level of educational attainment increases so do participation rates, with some quite dramatic differences. Persons with less than 8 years of education participated at a rate of 5% (one person in 20). By contrast, persons holding a university degree participated at a rate of 50% (one out of every two person). In fact, two thirds of the 5.8 million participants in adult education and training had already completed at least some post-secondary education.

Both males and females show this increasing pattern of participation by level of educational attainment. Females consistently participated at a higher rate than males across all but one level of educational attainment, but most dramatically in the post-secondary university classification where females participated at a rate that is 8 percentage points higher than the male rate. Various factors may be involved here. As will be seen in Chapter 3, females participated much more in personal interest education than did males. There may also be an impact from the differential distribution of wages in the labour market between males and females at equivalent levels of education. Females may be trying to close the income gap through an education and training avenue.

Table 1.4

Participation rates in adult education and training activities by sex and level of educational attainment, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**28**	**27**	**29**
High school or less	**17**	**16**	**17**
0-8 years	5	5	6
some secondary education	15	16	14
graduated from high school	24	23	26
Postsecondary Non-University	**37**	**35**	**39**
some post-secondary	38	35	40
post-secondary certificate/ diploma	37	36	38
Postsecondary University	**50**	**46**	**54**

The same pattern of increasing participation rates is visible with increases in income. For individuals at the lowest end of the income scale (less than $15,000) participation rates are the lowest of all income groups at 21%. For individuals at the highest end of the income

Chart 1.2

Participation rates in adult education and training activities by sex and income level, Canada, 1993

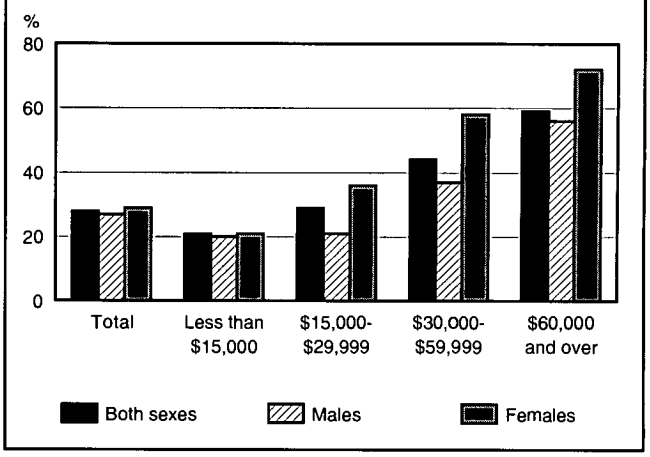


Table 1.5

Distribution of Canadian population by sex, income[1] and level of educational attainment,Canada, 1993

	Level of educational attainment								
	High school or less			Postsecondary Non-university			University		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Less than $15,000	56	39	71	38	25	49	19	13	26
$15,000-$29,999	24	28	21	27	25	29	18	14	22
$30,000-$59,999	18	30	7	30	40	21	43	44	43
$60,000 and over	2	3	-	5	9	1	20	29	10

[1] *The response rate to the income question in the 1994 AETS was 76%. The distribution of the Canadian population by income by level of educational attainment, as reported here, has been calculated using the AETS . While the income/education distribution may vary slightly with other surveys that had higher response rates on income questions, it would not change the level of participation for each group. The conclusions would remain the same.*

scale ($60,000 or more) participation is more than two and a half times higher at 59%. Once again this pattern holds true through male and female participation rates. However, while male rates increase 2.5 times between the lowest and highest income groups, as in the overall rates, female rates more then triple.

As has been demonstrated in many research reports, income is closely tied to educational attainment. As calculated using the 1994 AETS, eight out of 10 adults with an educational attainment level of high school or less in 1993 had an annual income of less then $30,000. On the other hand less than four out of 10 adults with a university degree had an income of less than $30,000. When these figures are analysed by gender, the relationship still holds.

When examining participation rates in adult education and training by income, it is important to bear in mind the interactive effect of the educational attainment and income variables. The higher the level of education the greater the likelihood of finding work at higher income levels and work positions that include supervisory and management tasks. These kinds of positions then lead to a greater need for continued education and training as a result of changing markets, down-sizing, decision-making processes, creativity, adjusting to new technologies, new management technologies, etc. As well, previous success with post-secondary experiences establishes certain skills that make continued education and training more amenable, such as feelings of success, a belief in the ability to accomplish the task, communication skills for in-class comments and discussions, study habits, note-taking skills and so on.

Table 1.6

Participation rates in adult education and training activities by sex, income and level of educational attainment, Canada, 1993

	Level of educational attainment								
	High school or less			Postsecondary Non university			University		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**17**	**16**	**17**	**37**	**35**	**39**	**50**	**46**	**54**
Less than $15,000	14	14	14	30	29	31	44	36	48
$15,000-$29,999	19	13	26	38	29	46	44	41	47
$30,000-$59,999	30	25	46	51	45	62	53	45	63
$60,000 and over	32	35	**	60	59	66*	67	63	81

In Table 1.6, participation rates can be seen to increase both up the income levels and across the levels of educational attainment. Individuals with high school or less, and who earned less than $15,000 a year participated at a rate of 14%, while individuals with a university degree and the same level of income participated at a rate of 44%. Individuals with a university degree making more than $60,000 had a participation rate of 67%, almost five time higher than the low income/high school or less group.

When the lowest level of income (less than $15,000) is held constant, those with university education participated at a rate three times higher than those with high school or less. Rates for those with postsecondary non-university education doubled those with high school or less. The increase from post-secondary non-university to university graduates is much less important. When level of education is held constant, an increase from the lowest to the highest income level at least doubles the likelihood of participation for persons with high school or less and for those with postsecondary non-university education.

Family and children: varying impacts

Taking a lifelong learning perspective on adult education and training increases the potential of exploring change in participation throughout the life cycle. The advantages of this approach become particularly evident when looking at the differences in participation rates across various family structure situations.

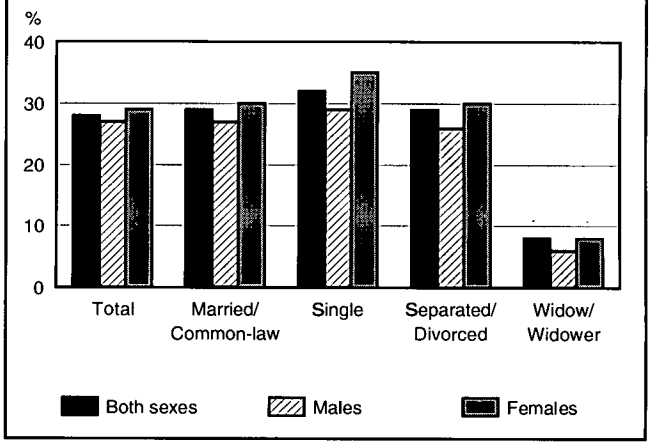
Participation rates by marital status categories show markedly little difference other than in the widow/widower category. Individuals with a marital status of now married or common-law had a participation rate of 29%, single people had a rate of 32% and separated and divorced people had a rate of 29%. Now married/common-law, single and separated/divorced marital status' are typical of individuals in the under 65 age groups. It is not surprising that the participation rates for the three categories are so close to the participation rates for persons in their primary working years.

These participation rates contrast the rate of only 8% for persons in the widow/widower category. One does not usually associate the marital status of widow/widower with younger age groups. However, the 8% participation rate in the widow/widower category masks an underlying pattern that is taking place in this category. Of the 100,000 participants who were widows or widowers in 1993, 86,000 were females. Of these, 40,000 were women between the ages of 45 and 64. This may be evidence of a differential impact of both previous level of educational attainment and the lifestyle changes that occur with the loss of a spouse for women under the age of 65. The overall rate is influenced by the population of widows/widowers in total. This would include all males and females of all ages who had lost a spouse.

Since the previous survey, the participation rate in the single category has stayed constant at 32%. However, both the married/common-law (27% in 1992, 29% in 1994) and separated/divorced-widow/widower categories (which were combined in the 1992 report) (17% in 1992, 19% in 1994) have shown a minor increase of 2% points.

Chart 1.3

Participation rates in adult education and training activities by sex and marital status, Canada, 1993

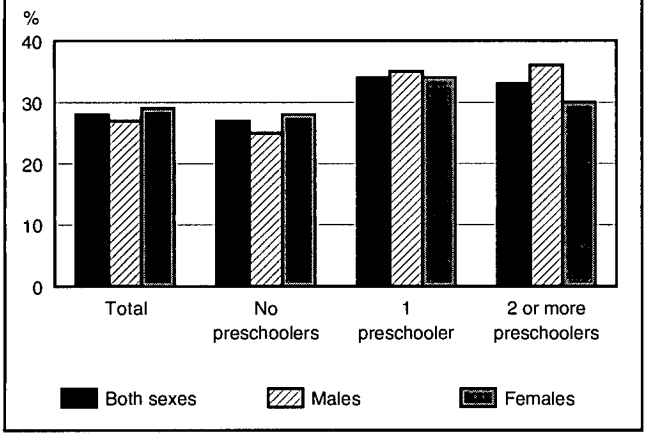


One would expect the presence of preschool children (under the age of five) in the home to place great time constraints on the ability to participate in continued education and training. Rather than being an inhibiting factor, however, young children in the home appear to be a motivating factor for pursuing additional education and training. Individuals with no preschoolers in the home participated at a rate of 27% (25% males and 28% females). Individuals with one preschooler in the home had a much higher rate at 34%, with no real differences between males (35%) and females (34%). Time demands begin to show some intrusion as the number of preschoolers in the home grows. For persons with two or more preschoolers in the home the overall rate remains comparable at 33%. Yet the male rate is now up to 36% and the female rate has dropped down to 30%, much closer to the national female participation rate. These results help explain the differences in male and female peak participation rates by age (males highest participation rates are between 25 and 44 years

of age, females between 35 and 54 years of age), referred to earlier. There appears to be some demonstration of the more traditional "breadwinner" and "caregiver" roles that are associated with each of the sexes in family life. Time demands and alternative care costs for children under the age of five may be manageable when there is one child in the home who is a preschooler. The factors may become more prohibitive when two preschoolers are involved. Once preschool children have grown, there is more opportunity to pursue additional interests. Family women have the same motivation for education and learning that family men express at an earlier age.

Chart 1.4

Participation rates in adult education and training activities by sex and presence of preschool children, Canada, 1993



Labour force status is a key variable in the ability to participate

The Canadian labour force is considered to be the full pool of available workers in Canada. A person's labour force status indicates in what manner they are members of this pool of workers or whether they should be considered as part of this population of available workers. Labour force status for the AETS consists of four components, "full-time workers," "part-time workers," the "unemployed" and "not in the labour force." The Canadian labour force consists of the first three categories, full and part-time workers and the unemployed. Discussions pertaining to the labour force itself, then, are focused on these three groups and the varying situations that occur around adult education and training. Persons with a status of 'not in the labour force' are not considered as part of the pool of available workers.

Participation rates across the labour force status categories varied considerably. The rate for the labour force as a whole (including full-time/part-time workers and the unemployed) in 1993 was 36% compared to 28% for all Canadians. As connections to the labour market became weaker participation rates dropped. Two out of every three participants in adult education and training in 1993 were full-time workers. This group had the highest participation rate for all labour force status categories at 39%, with part-time workers dropping down to 33%. The rate for the unemployed was lower yet at 23%, while the rate for individuals who were not in the labour force was considerably lower at 13%.

Male and female participation rates by labour force status showed some strong differences. Although there is only a 2% point difference between male and female rates for Canada in total, in the labour force female rates are 7% points higher than the male rates (40% vs. 33%). This difference is driven primarily by the 9% point difference in rates for full-time workers(females 44%, males 35%), and the 6% point difference in rates for the unemployed (females 26%, males 20%). Again, these differences are driven by women's higher participation rates in personal interest education and possibly women's preparation for entry/reentry into the labour force after preschool children reach the age of six and begin school.

Table 1.7

Participation rates in adult education and training activities by sex and labour force status, Canada, 1993

	Both Sexes	Male	Female
	(%)	(%)	(%)
Total	**28**	**27**	**29**
Labour Force	**36**	**33**	**40**
Employed	38	35	41
Full-time	39	35	44
Part-time	33	32	34
Unemployed	**23**	**20**	**26**
Not in the Labour Force	**13**	**10**	**14**

Canadian labour force: the employed and the unemployed

The participation rates for the working members of the labour force follow the same patterns as the participation rates for Canada with some notable exceptions. Participation by full and part-time workers also showed an increase through the primary working years, with a decline through the later years. However, the rates for all age groups of workers are higher than both the

Table 1.8

Participation rates in adult education and training activities by sex, age group and labour force status, Canada, 1993

	Total Population	Labour Force Population	Employed			Unemployed		
			Both Sexes	Males	Females	Both Sexes	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**28**	**36**	**38**	**35**	**41**	**23**	**20**	**26**
17-24 years	31	34	35	34	36	30	29	31
25-34 years	36	38	40	38	43	22	18	30
35-44 years	37	40	42	39	45	20	20	21
45-54 years	31	36	38	34	43	21	17	26
55-64 years	16	22	23	22	26	14	**	**
65 years and over	6	16	16	12	24	**	**	**

national and the overall labour force rates. Furthermore, the decline after the age of 55 is not as dramatic as in the population in general. In fact, male full-time/part-time workers 65 years of age and older had a participation rate more than twice the overall rate for males in this age group (12% vs. 5%) while female rate was more than three times the overall rate for females (24% vs. 7%).

The situation is quite different for the unemployed members of the labour force. The unemployed participation rates were lower than both the overall rates and the labour force rates for the same age levels. In addition, peak participation by the unemployed is in the youngest age category (17-24 years), with a steady decline for each subsequent age group. It appears that addressing unemployment through education and training activities seems a more viable option for young persons than for older individuals. As one approaches retirement age, the return on investment in education and training may be less appealing.

As the following table shows, for both working individuals and the unemployed the pattern of increasing participation with increasing levels of educational attainment continues to hold true. In the working population participation rates are consistently higher than national and labour force totals for all levels of educational attainment. On the other hand individuals with zero to eight years of education are the only group from the unemployed category whose participation rate is higher than the national rates. Even though participation rates for the unemployed continue to increase as level of education increases, the pattern is not as strong as for the employed. For individuals with the highest level of educational attainment (post-secondary university), the rate for the unemployed (42%) is 11 percentage points lower than the labour force rate (53%), and eight percentage points lower than the national rate (50%). It appears that for people of all but the lowest education levels, the unemployed have a more difficult time accessing education and training than their working counterparts due to their limited access to employer-sponsored training.

In the working population, female employees consistently participated at higher rates than their male counterparts across all levels of educational attainment. In the unemployed population the males and females have participation rates that are alternatively higher through the levels of educational attainment.

The impact of the attachment to the labour force is perhaps most dramatic when participation rates are disaggregated by income. At the higher income level, working individuals are participating at least twice as often as their unemployed counterparts. For those who are working, there may be again an interactive effect between education and income (compare the rates for those making more then $30,000 a year with the rates for individuals with more than a high school education from the previous table). Persons with higher levels of education will generally have higher levels of income. They will also have employment positions that tend to lead to continued education and training. The situation is not the same for the unemployed. It may be that individuals who are unemployed and have retained higher incomes are less motivated to make the investment in education and training because they generally do not remain unemployed for long time.

Table 1.9

Participation rates in adult education and training activities by sex, level of educational attainment and labour force status, Canada, 1993

	Total Population	Labour Force	Employed			Unemployed		
			Both Sexes	Males	Females	Both Sexes	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**28**	**36**	**38**	**35**	**41**	**23**	**20**	**26**
High School of less	**17**	**23**	**25**	**22**	**28**	**16**	**14**	**19**
0-8 years	5	10	10	8	15	8	**	**
Some secondary	15	19	20	20	21	15	14	**
Graduated from high school	24	29	30	27	33	19	17	21
Postsecondary Non-University	**37**	**43**	**45**	**43**	**46**	**29**	**26**	**33**
Some post-secondary	38	44	46	42	49	31	38	25
Postsecondary certificate/ diploma	37	42	44	43	46	28	22	37
Postsecondary university	**50**	**53**	**54**	**50**	**59**	**42**	**44**	40

Table 1.10

Participation rates in adult education and training activities by sex, income and labour force status, Canada, 1993

	Total Population	Labour Force Population	Employed			Unemployed		
			Both Sexes	Males	Females	Both Sexes	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**28**	**39**	**41**	**38**	**44**	**24**	**21**	**28**
Less than $ 15,000	21	28	28	28	30	24	23	26
$15,000 -$29,999	29	34	35	27	41	24	18	36
$30,000 -$59,999	44	46	48	40	62	20	18*	**
$60,000 and over	59	62	62	59	77	**	**	**

Note: *Totals exclude people who did not state their income level. Since a majority of these people were low income earners with low participation rates, their exclusion tend to overstate totals presented in this table.*

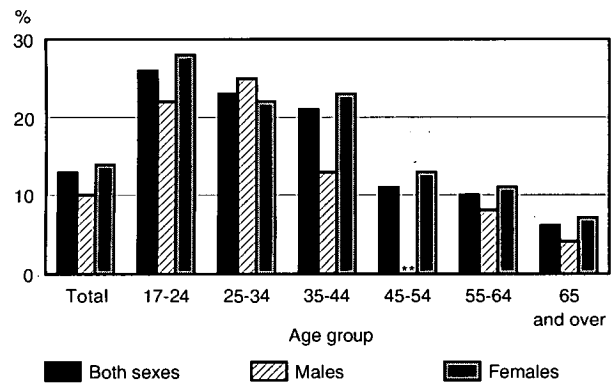
People out of the labour force had low participation rates

Individuals out of the labour force are not actively seeking employment. One would expect their activities in education and training to be much lower than their labour force counterparts. Overall their participation rate was 13%, considerably lower than the labour force participation rate of 36%. Except for those aged 25 to 34 years, women's rates were higher than men's rates.

The participation rates are once again higher for the 17 to 44 year old age groups. Although these individuals are not in the labour force, there may be an intent to become employed at some point in the future. The dramatic drop in rates after the primary working year age groupings may indicate a shift from career-oriented education and training to personal interest education and training. These will be discussed further in the following section as well as in the next chapter.

Chart 1.5

Participation rates in adult education and training activities by sex and age group, participants out of the labour force, Canada, 1993



** Data are not reliable enough to be released.*

Table 1.11

Participation rates in adult education and training activities by sex, level of educational attainment, income and presence of preschool children, participants not in the labour force, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**13**	**10**	**14**
High School or less	8	7	9
Post-secondary, non university	20	14	24
Post-secondary university	30	23	37
Less than $30,000	14	11	16
$30,000 and over	15	11	23
No preschoolers	11	10	13
1 preschooler	25	18	26
2 or more preschoolers	20	22	10

Through levels of educational attainment and levels of income, although the rates are much lower, the patterns established in the Canada totals are repeated. Those with higher levels of education and higher incomes participated at higher rates even when not working or looking for work. Furthermore, the impact of children under the age of five discussed earlier is also repeated for individuals not in the labour force. However, the difference in rates between males and females when there are two preschoolers in the home is more dramatic.

B. Adult learning: the nature of the learning activities

The 1994 AETS asked each respondent to identify the main reason they had pursued each educational or training activity. The response categories that were available were for current or future job or for personal interest reasons.[2] The format of the report is organized around these two reasons for pursuing adult education or training activities. As will be seen, each category represents not only different motivations, but often different areas of study/ learning or different populations.

For every 100 participants in adult education and training in 1993, 57 took their education and training for current or future job reasons only. Another 29 took education and training for personal interests only, and the remaining 14 took education and training for both career and personal interest reasons. The participation rate for Canadians aged 17 and over in job-related education and training was 20% in 1993, compared to 12% for personal interest education and training. Participation in job-related education since the previous report has remained stable at 20%. On the other hand participation in personal interest activities has increased by 2% points. Chapter 2 of this report explores the attributes of the population and the nature of the activities that are associated with job-related education. Chapter 3 provides a similar discussion on personal interest education and training.

When examining the nature and level of commitment to adult education and training in Canada, two approaches are available. The first is to explore the number of activities undertaken in particular fields of study.[3] This demonstrates the popularity of particular areas of learning. It also enables some assessment to be made between the nature of the learning taking place relative to the need for particular skills in the labour market.

The second approach is to examine commitment in terms of the amount of time being invested. This gives

[2] *There was provision for an "other" category on the questionnaire, however, due to the limited number of responses that were received in this category they have been collapsed into the "personal interest" category for this report.*

[3] *The fields of study classification used by Statistics Canada had been developed for fields of study typically affiliated with primary/ secondary and post-secondary school systems. The sudden growth of education and training mainly outside the school system, has created a huge number of activities which do not fit as easily into the original classification system. A 'nearest match' approach has been taken so that the nature of all activities might also be explored.*

Table 1.12

Training incidence and intensity by sex, Canada, 1993

	Both Sexes	Males	Females
	(in 000's)	(in 000's)	(in 000's)
Total number of activities	**9,366**	**4,312**	**5,054**
Job-related activities	6,238	3,162	3,076
Personal interest activities	3,128	1,150	1,978
Number of participants	**5,842**	**2,744**	**3,098**
Average number of activities per participant	1.6	1.6	1.6
Total number of hours	**598,736**	**295,822**	**302,914**
Average number of hours per participant	103	108	98

some idea of the amount of time people in various circumstances are able to devote to learning activities. It also takes into account the various demands that are made on the learner depending on their field of study. In 1993, 9.4 million activities were undertaken by the AETS population, compared to 8.6 million in 1991 (an 8% increase). On average each participant was involved in 1.6 activities. Males were involved in 4.3 million activities (1.6 activities per participant) and females in 5.1 million activities (also 1.6 activities per participant). These activities represented 599 millions of hours, a 13% increase over 1991. On average, male participants took 108 hours and female participants 98 hours of education or training.

The range in average number of activities taken by various population groups was remarkably narrow. Regardless of sex, age, marital status, income or labour force status, the range in average number of activities was consistently between 1.2 and 1.9 activities per participant.

Although the range is narrow, the patterns in average number of activities for particular demographic populations are a reflection of the patterns established in participation rates across the same demographic populations, as examined in the previous section. For example, the lowest participation rates in the oldest and youngest age categories are affiliated with the lowest average number of activities by age. As education and income levels increase so do the average number of activities. As attachment to the labour force decrease the average number of activities taken also decrease.

It appears that as participation increases and decreases across specific populations, the level of actual learning that takes place also increases or decreases. For marginalized populations (individuals with low incomes, the unemployed and those with lower levels of education) not only are fewer participating but those who do participate are learning less (as measured by the number of activities) than their more active counterparts. As a consequence the gap in knowledge and skills may widen over time, leaving marginalized populations at an increasing disadvantage.

Fields of study- varying interests, varying demands

The Field of Study classification used in the AETS includes 15 areas of learning at the Major Group Level. Overall, 6 of these 15 aggregated fields of study accounted for just over 70% of all activities taken in 1993. One-fifth (1.9 million) of all activities were taken in the

Table 1.13

Number of activities and hours of training by field of study, Canada, 1993

	Number of activities (in 000's)	Hours of training	
		Total (In 000's)	Average per training activity
Total	**9,366**	**598,736**	**64**
Commerce, Management and Business Administration	1,962	112,467	57
Engineering/Applied Sciences Technologies and Trades	1,628	99,597	61
Health Professions, Sciences and Technologies	1,069	51,491	48
Fine and Applied Arts	726	37,842	52
Recreational	612	26,984	44
Social Sciences and Related fields	581	47,977	83
Personal Development	559	14,941	27
Humanities and Related fields	554	42,817	77
Educational, Recreational/ Counseling Services	534	25,015	47
Agricultural and Biological Sciences and Technologies	368	21,967	60
Elementary/Secondary program	256	65,987	258
Mathematics and Physical Sciences	198	15,601	79
Other Fields of Study	122	11,205	92
Professional Upgrading	83	9,314	112
Engineering and Applied Sciences	81	8,500	105

Note: *Total includes 33,000 activities for which no field of study was reported.*

Commerce/ Management and Business Administration field of study. A further 1.6 million activities were in Engineering and Applied Science Technologies and Trades. A third field of study entitled Health Professions, Sciences and Technologies, also accounted for more than a million activities taking place in 1993. Together, these first three major fields of study accounted for 50% of all adult education and training activities taken in 1993.

The remaining three fields of study in the top 6 were Fine and Applied Arts (8% of all activities), Recreational activities (7%) and Social Sciences and Related fields (6%). It is important to note the placement of fields of study that stand outside the typical academic or work related subject areas. In combination Recreational and Personal development activities totaled over 1.1 million activities (13% of all activities). A considerable number of activities reflected an interest in leisure, personal health and life management functions by the Canadian population. These activities augment the number of learning events that are taken outside the formal sector of education. Although they are typically not related to career or job interests, they serve the needs for learning that are created in personal life.

Table 1.14

Distribution of top ten major fields of study by sex, Canada, 1993

	Total	Males	Females
	(%)	(%)	(%)
Total	**100**	**100**	**100**
Commerce, Management and Business Administration	21	21	21
Engineering/Applied Sciences Technologies and Trades	17	25	11
Health Professions, Sciences and Technologies	11	11	12
Fine and Applied Arts	8	4	11
Recreational	7	5	8
Social Sciences and Related Fields	6	7	6
Personal Development	6	5	7
Humanities and Related Fields	6	5	7
Educational/Recreational/ Counseling Services	6	4	7
Agriculture and Biological Sciences and Technologies	4	3	5
All Other Major Fields of Study	8	10	5

Top ten fields of study by sex

At the Major Group Level, variations in field of study were evident but not dramatic between the sexes. The primary choice in field of study for males was Engineering and Applied Science Technologies and Trades. The first choice for females was Commerce/ Management and Business Administration. The most obvious difference between the sexes was the 3rd place ranking of Fine and Applied Arts for females compared to its 9th place ranking for males. Conversely, Social Sciences and Related fields of study ranks 4th for males and places 9th for females.

The interest in personal development and recreational activities as compared to other activities remained high across the sexes although it was higher for females. One in ten activities taken by males was in these two fields of study, totaling over 435,000 activities. For females 1.5 in ten activities were in these two fields, for a total of 735,000 activities.

Female activities were more diffuse across the top ten fields of study. While the top three fields of study for males accounted for 57% of all their activities, the top three fields of study for females accounted for a much lower 44% of all female activities. This is partially due to the greater interest in personal development and recreational activities shown by females and a higher percentage of female activities taking place in the remaining five fields of study.

This ranking is somewhat different when hours of training rather than number of trainees are considered. Commerce, Management and Business Administration and Engineering and Applied Sciences Technologies and Trades remain in first and second position but Elementary-Secondary Studies Program move to the third position. This is explained by the longer duration of this program compared to others. For the reverse reason, recreational and personal development activities move back. (A more detailed analysis of the learning activities is provided in Appendix D).

Courses or programs

In 1993, of the 9.4 million training events that took place, eight million were taken as courses and 1.4 million were taken as programs. A *course* refers to a structured training or education event that attends to one specific area of study (e.g., Introductory Psychology or Home Financial Management). They may be taken at the work place, local community centre, sports centre, with a private tutor or instructor, at the local school, college or university. A *program* refers to a selection of courses that are being taken for credit towards a degree, diploma or certificate. Program studies typically take place within a public education institution recognized by a Provincial Ministry of Education. Upon completion of the program (which may take several years and involve numerous courses) a certificate, diploma or degree is awarded by an officially recognized body of the education institution (e.g., a school board, the Senate of a University).

Table 1.15

Adult education and training courses and programs by sex and reason for education or training, Canada, 1993

	Both Sexes		Males		Females	
	(in 000's)	(%)	(in 000's)	(%)	(in 000's)	(%)
Total activities	**9,366**	**100**	**4,312**	**100**	**5,054**	**100**
Courses	7,997	85	3,649	85	4,348	86
Programs	1,369	15	662	15	707	14
Job-related Activities	**6,238**	**100**	**3,162**	**100**	**3,076**	**100**
Courses	5,142	82	2,614	83	2,528	82
Programs	1,096	18	547	17	548	18
Personal Interest Activities	**3,128**	**100**	**1,150**	**100**	**1,978**	**100**
Courses	2,855	91	1,035	90	1,820	92
Programs	273	9	115	10	159	8

Course activity that is not taken towards a certificate, degree or diploma, wherever it is taken, may attend to specific job-related tasks that were not covered during program activity (such as a specific computer application course, a course on teamwork, conflict-resolution in the workplace etc.), or to an individual's personal or family interests (such as music lessons, a university course in astronomy, personal financial budgeting, aerobics etc.). The certification received through program work is often viewed as a preparatory exercise for participation in employment and is typically career or job-related.

The distribution of course and program activities between academic/job-related interests and personal (recreational/personal development) interests reflects the higher tendency for program work to be seen as a preparation for entry into the labour force. Six out of every ten course activities were taken for current or future career concerns, compared to eight out of every ten program activities.

Course activities were the most popular

By far, the greatest registrations were in course activities, which represented 85% of all activities taken in 1993. The eight million course events that took place were evenly split between males and females. Both males and females chose course work activities in far greater numbers than they did program activities. Of all activities taken by men in 1993, 85% were taken as course work. For women, the proportion reached 86%.

Adult learners spent 300 millions hours in course activities for an average of 37 hours per course. The smaller demand on time and finances makes course activity a more viable and accessible alternative in education and training. Furthermore, activities which address work culture (such as management in a diverse workplace, business management for the self-employed and the like) or the specific needs of a particular workplace (such as introduction of a new technology on the shop floor) are much more likely to be offered

Table 1.16

Adult education and training courses by sex and field of study, Canada, 1993

Rank	Both Sexes	(%)	Males	(%)	Females	(%)
1	Commerce	21	Engineering T&T	25	Commerce	20
2	Engineering T&T	17	Commerce	22	Fine/Applied Arts	12
3	Health	12	Health	12	Health	12
4	Fine/Applied Arts	9	Social Sciences	6	Engineering T&T	11
5	Recreation	8	Recreation	6	Recreation	9
6	Personal Development	7	Personal Development	6	Personal Development	8
7	Humanities	6	Humanities	5	Education/Counselling	7
8	Social Sciences	6	Education/Counselling	4	Humanities	7
9	Education/Counselling	6	Fine/Applied Arts	4	Agriculture	5
10	Agriculture	4	Agriculture	3	Social Sciences	5
11	All Other Fields	4	All Other Fields	7	All Other Fields	4

outside the formal education sector in the form of a subject specific course. Learning activities which are taken for personal development or recreational purposes (such as aerobics, parenting your teenager) are also typically offered as courses. In general, then, courses tend to be more focused and more flexible than programs. Courses can address areas of employment, work culture, and personal life that are not covered within programs, in a more brief and less expensive format than is associated with programs.

Even if two-thirds of the participants in adult education and training in 1993 were employed full-time, only 40% of participants in course activities took these courses on a part-time basis[4]. This situation reflects the involvement of employers who provided training during working hours as well as the long duration of courses.

Fields of study for course activity

The very heavy weighting of activities towards courses results in little difference between the top ten fields of study for courses as compared to the top ten activities overall. The tendency for personal development activities to be taken as courses results in a shift of activities in the lower five fields of study. Personal development moves into 6th position, and represented 7% of all course activities.

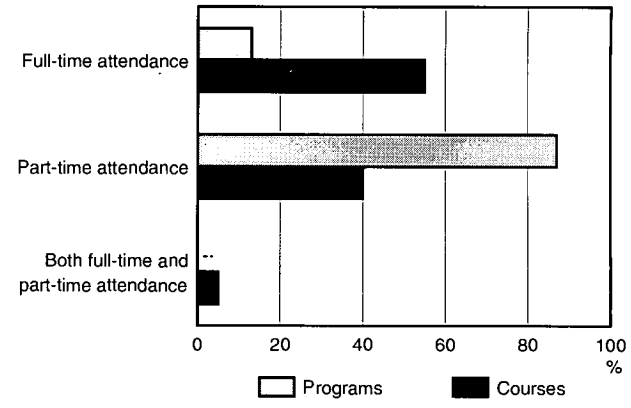
For both sexes there is little a change across the ranked placement for the various fields of study when compared to their position in the overall totals. In general, fields of study change position by one or two placements only. The major differences between males and females again is in the field of Fine and Applied Arts, 9th position for men and 2nd position for women.

Program activity

The much lower number of activities (1.4 million) taken as program events reflects the higher demands on both time and finances that programs entail. Overall, trainees enrolled in programs spent almost the same amount of time as those enrolled in courses. However, on average they spent much more time (233 hours) then those enrolled in courses. Program activity is specifically oriented to gaining some form of accreditation that is recognized by both Provincial Ministries of Education and employers. There are a number of different kinds of accreditation that can be completed and AETS respondents were asked to identify the level of accreditation they were seeking. The responses to this question are classified in the AETS under the heading 'Level of Program'. This variable includes five possible classifications: Elementary/Secondary certificate, Apprenticeship Qualifications, Trade/ Vocational certificate or diploma, College certificate or diploma, or a University degree.

Chart 1.6

Distribution of adult education and training programs and courses by attendance status, Canada, 1993



-- Number too small to be expressed.

Almost one-third of all program events that took place in 1993 were towards a university degree. Colleges, trade/ vocational and elementary/secondary programs attracted almost the same proportion of people each (21%, 20% and 19% respectively). On the other hand, only 8% of all program activities were taken towards Apprenticeship qualifications. It is notable that the number of activities devoted to elementary/secondary certification far exceeds the number of activities devoted to Apprenticeship programs.

Given the heavy demands full-time program work entails, both in time and finances, it is not surprising that the majority of programs are taken on a part-time basis. By definition, full-time attendants in program activities must have had their employer's support to be included in the AETS population. From the data below it appears that employers are more inclined to offer support to males than to females (support may take many forms: paid/ unpaid leave, fee-payment, transportation payment, etc.) The nature of employer-support, by sex, is further explored in the Chapter 4 on organizational aspects of adult education and training.

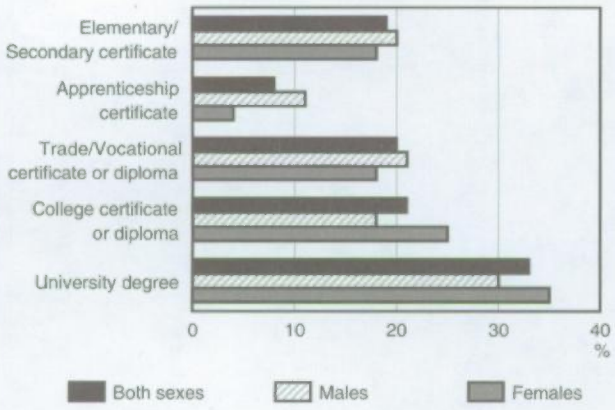
Program activity by sex

As with courses, the 1.4 million program activities were evenly split between males and females. The distribution of activities across the five levels of program, indicates that males and females are making different choices in the level of accreditation that is being sought. At the

[4] *Part-time courses were defined as events that take less than six hours per day and can be pursued in conjunction with work or outside working hours.*

Chart 1.7

Distribution of adult education and training programs by sex and level of accreditation sought, Canada, 1993



elementary/secondary level there are not large differences in the number of activities pursued by males or females. For males, apprenticeship programs accounted for 11% of all their program activities. In combination apprenticeship and trade/vocational programs, both of which have a heavy trade and technical inclination, represented 33% of all male program activities. For females, apprenticeship programs accounted for 4% of their program activities. Overall female involvement in trade and technically oriented programs represented 23% of their activities. Alternatively, females preferred to make their investment at the college or university level, (60% of all female program events compared to 48% of all male program events).

Program activity by field of study

As one moves through the Apprenticeship, Trade/ Vocational, College and University levels, enrolments increase. As enrolment increases, diversification across the various fields of study also increases. Furthermore, areas of specialty which account for a large portion of the enrolments at the Apprenticeship level account for a small proportion of enrolments at the university level. This is a reflection of the nature of training as allocated between colleges, universities, trade/vocational schools and apprenticeship programs. Universities tend to focus on a theoretical and research approach, while trade vocational and apprenticeship programs tend to take a more hands-on, practical approach. College programs can be seen as the bridge between the two where there is often a combination of the theoretical and the practical.

There are two notable changes in the ranking of the top ten fields of study in program activity when compared to their ranking of overall activities. The first is the complete absence of recreation and personal development from the list of Major Fields of Study. Given the nature of program activity towards preparation for employment, it is not surprising that the balance between career and personal life activities witnessed in course work is absent from program work. The second major change is the move in rank for Elementary/Secondary studies from 11th overall to 3rd for program activity (A more detailed analysis of program activities by field of study is provided in Appendix E).

Table 1.17

Adult education and training programs by sex and field of study, Canada, 1993

Rank	Both Sexes	(%)	Males	(%)	Females	(%)
1	Commerce	22	Engineering T&T	30	Commerce	29
2	Engineering T&T	18	Elem./Sec.	19	Elem../Sec.	16
3	Elem../Sec.	18	Commerce	15	Health	11
4	Social Sciences	9	Social Sciences	8	Social Sciences	10
5	Health	7	Mathematics	6	Humanities	8
6	Humanities	6	Humanities	4	Education/Counselling	7
7	Education/Counselling	6	Education/Counselling	4	Engineering T&T	7
8	Mathematics	4	Health	4	Fine/Applied	4
9	Fine/Applied Arts	3	Engineering Sciences	3	Agriculture	3
10	Agriculture	2	Agriculture	2	Mathematics	2
11	All other fields	5	All other fields	5	All other fields	3

CHAPTER 2

Job-related education and training

L. Shipley

A. Participation in job-related education and training

A.1 Participants in job-related education and training

More than four million Canadians took part in some form of job-related education in 1993. This represents 20% of the total population aged 17 and over, and 71% of all participants in adult education and training activities. Career mobility and related concerns, high levels of market competitiveness and a constantly changing technological environment are being reflected in this one in five participation rate. For instance, respondents to the 1994 General Social Survey (Statistics Canada, 1995a) indicated that more than 50% of workers were greatly or somewhat affected by the introduction of the computer in the last five years. Moreover, of all computer users, 75% of both men and women reported that the computer has increased the level of skill required to do their jobs.

The four million participants in job-related training were made up of 2.1 million men and 2 million women. Men and women engaged in job-related education and training at fairly equivalent rates, with males participating at a rate of 21% and females slightly lower at 19%.

Table 2.1

Participants and participation rates in job-related education and training activities by sex, Canada, 1993

	Total	Participation Rates
	(in millions)	(%)
Both Sexes	**4.2**	**20**
Males	2.1	21
Females	2.0	19

These participants took close to 450 million hours of education or training which represent an average of 107 hours for both male and female trainees.

Age: a major factor in job-related training participation

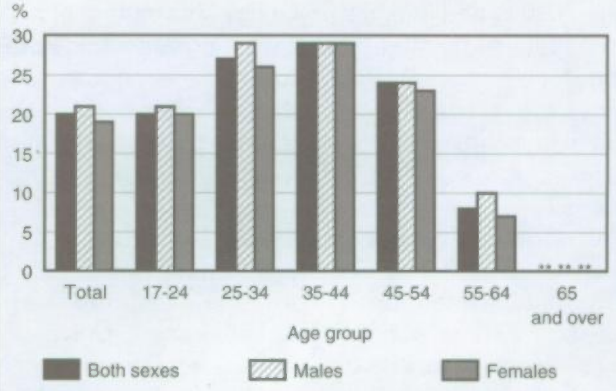
Not surprisingly there are large differences between age groups in participation in job-related education and training. Individuals in their primary working years showed the highest participation rates in job-related training, with those aged 25-34 participating at a rate of 27% and those aged 35-44 participating at a rate of 29%. Those aged 45-54 years had a somewhat lower participation rate of 24%. People between the ages of 25 and 54, in fact, accounted for eight out of every 10 participants in job-related training activities.

Outside this age range participation rates drop considerably. The younger age group (17-24 years) shows a participation rate of 20%. However, it must be remembered that these adult education and training analyses exclude program activities taken on a full-time basis without employer support. Therefore, this 20% only represents people from this age group who are taking their studies full-time with employer-support or are attending part-time. This selected definition serves to drop the participation rate for this group more than other age groups.

At the other end of the life cycle, when the retirement years are approaching, or have arrived, up-skilling or retraining for career or job-related purposes almost disappears. Participation rates slip to 8% for those aged 55-64 and is down to less than 1% for those 65 and

Chart 2.1

Participation rates in job-related education and training activities by sex and age group, Canada, 1993



*** Data are not reliable enough to be released.*

Job Related Education and Training in the Provinces

The data on provincial participation rates in job-related education show large deviations from the Canadian average of 20%. Alberta had the highest rate of participation at 26%, while Newfoundland had the lowest at 13%. The negative relationship between participation and unemployment rates observed in Chapter One continues through the job-related participation rates. Access to adult education and training is strongly tied to labour market characteristics, especially if one works for an employer who is willing to become involved in additional training for employees. Differences in participation rates between the sexes, by region, range between 0 and 3 percentage points and these differences were decreasing from East to West. Males had the higher participation rate in all regions except British Columbia.

The industrial make-up of the various provinces has a role to play in the level of job-related training that takes place. On the demand side, differences in job opportunities and industry composition determine the validity of making an investment in education and training. There must be at least some prospect of employment, career advancement or job security related to the education or training that an individual undertakes. The nature of the industrial sector also determines the level of impact experienced from the introduction of new technologies and the level of market competitiveness (see Baldwin and Johnson, 1995). Each of these acts as a catalyst for employers for the education and training/re-training of workers. On the supply side, the existence of large employers, which are centralized in a few provinces, increases the likelihood of both job-opportunities and the cost-effectiveness of employer-supported training.

Table 2.2

Participation rates in job-related education and training activities and unemployment rates by sex, Canada and provinces, 1993

	Unemployment Rates			Participation Rates in Job-related Activities		
	Both	Males	Females	Both	Males	Females
		Sexes			Sexes	
	(%)	(%)	(%)	(%)	(%)	(%)
Canada	**12**	**13**	**10**	**20**	**21**	**19**
Atlantic regions	**15**	**16**	**14**	**16**	**16**	**13**
Newfoundland	20	21	19	13	16	11
Prince Edward Island	18	18	18	19	17	21
Nova Scotia	15	16	13	18	20	15
New Brunswick	13	13	12	14	17	11
Quebec	13	14	12	15	17	14
Ontario	11	11	10	21	22	20
Prairies	**9**	**10**	**9**	**24**	**24**	**23**
Manitoba	9	10	9	22	24	21
Saskatchewan	8	9	7	21	22	20
Alberta	10	10	10	26	26	26
British Columbia	10	10	10	25	25	25

Source: Statistics Canada, 1995b and AETS 1994.

older. Males and females both show this pattern of high participation rates through the working years and lower rates for either end of the work cycle. The range in rates between the sexes is fairly stable, with men consistently participating at a rate 0-3 percentage points higher than women.

Well educated people participated the most

The results of the AETS show dramatic increases in participation rates for job-related education for each subsequent level of educational attainment. University graduates were over 3 times more likely to participate in job-related education than individuals with high school or less. Around 50% of the Canadian population aged 17 years and older is individuals with high school graduation or less. Workers with this level of schooling are very critical to the employers' ability to compete. Only 11% of this group participated in adult education and training activities in 1993. For those with post secondary, non-university education, the participation rate rises to 27%. For the population with a university education the participation rate jumps to 37%, more than one graduate in three. These figures are consistent with the patterns established for this variable in Chapter 1. For both males and females, participation rates rose as level of education increased.

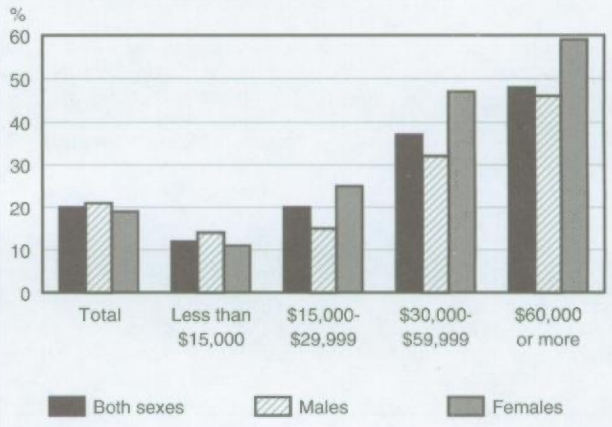
Table 2.3

Participation rates in job-related education and training activities, by sex and level of educational attainment, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**20**	**21**	**19**
High School or less	**11**	**12**	**10**
0-8 years	2	3	2
Some secondary education	9	12	7
Graduated from high school	17	19	16
Post-secondary Non-University	**27**	**27**	**27**
Some post secondary	27	25	29
Post secondary certificate/ diploma	27	29	26
Post-secondary University	**37**	**37**	**37**

Chart 2.2

Participation rates in job-related education and training activities by sex and income, Canada, 1993



Participation increased with income

As seen in Chapter 1, participation rates in job-related education increase dramatically with income levels. Those earning less than $15,000 in 1993 had a participation rate of 12% in job-related education and training, substantially lower than the overall job-related rate of 20%. On the other hand, those earning more than $60,000 had a participation rate of 48%, more than twice the overall job-related rate and four times the rate for the less than $15,000 income group.

Only at the lowest income level (less than $15,000) do male participation rates exceed female rates. Female rates peak at 59% in the more than $60,000 income category, a rate which is 13 percentage points higher than the male rate in the same category. While both male and female rates rise considerably as income increases, the difference in the range between highest and lowest income levels is far more dramatic for females. Male rates increase by 32 percentage points between the lowest and highest income levels. By comparison, female rates increase 48 percentage points across the same categories.

The education-income dynamic seen in Chapter 1 is repeated when considering job-related education and training. Job-related participation rates increase as income rises and as educational attainment rises. For each income level, participation increases with the level of educational attainment. For each educational level, participation increases with income levels.

No significant differences in participation by marital status

Participation rates by marital status are clearly linked to the age groups outlined above, as would be expected. Career plans are more associated with age than with the marital status of an individual. The categories 'now married or common-law' (with a participation rate of 21%), 'single' (22%) and 'separated or divorced' (22%), are marital status's typically applicable to the 17-54 age groups. The participation rates for these three marital statuses reflect the participation rates for the 17-54 year old age groups. Participation rates for both sexes were quite similar across all marital status categories. For both men and women the participation rates in all marital status' except the widow/widower category vary between 20% and 23%.

The category 'widow/widower' is typically associated with the over 55 age categories, a time in the life cycle where career development is typically on the decline. The overall job-related participation rate for this marital status group (3%) mirrors the lower rates for the associated age groups. However, over half the participants (58%) from the widow/widower category are females between the ages of 25 and 54 years of age (the remainder were females in other age groups and males in all age groups). The participation rate for widowed females between these ages reached 16%[1]. The overall job-related participation rate of 3% for 'widow/widower' masks the relatively higher participation of young to middle-aged females.

[1] *There were not enough male participants in the widower category to estimate reliable participation rates.*

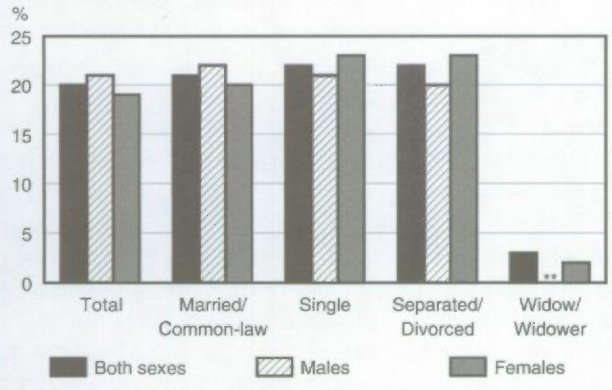
Table 2.4

Participation rates in job-related education and training activities by sex, income and level of educational attainment, Canada, 1993

	Level of educational attainment								
	High School or less			Postsecondary Non-university			University		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total	**11**	**12**	**10**	**27**	**28**	**27**	**37**	36	38
Less than $15,000	8	10	6	19	20	19	24	22	25
$15,000-$29,999	12	8	17	27	22	32	32	30	33
$30,000-$59,999	26	22	40	42	38	50	42	38	47
$60,000 or more	29	31	**	46	46	48	57	53	68

Chart 2.3

Participation rates in job-related education and training activities by sex and marital status, Canada, 1993



*** Data are not reliable enough to be released.*

The presence of preschool children, a motivating factor

The overall participation rate for people with preschool children in the home, rather than being lower than the overall job-related rate of 20%, is notably higher, at 26%. The participation rate for men jumps from 19% for those with no preschoolers to 30% for those with preschoolers. For women the impact is not as large, increasing from 18% for those with no preschoolers to 21% for those with preschoolers. Families with preschoolers are typically younger than families with older children, and are at that period in their lives when they are establishing careers or developing job security. The investment in job-related education and training are likely seen to enhance these two objectives.

When the respondent's labour force status is taken into account there appears, once again, to be some influence from the traditional divisions of family responsibilities. Participation rates for males with one or more preschoolers, regardless of labour force status, are higher than the rates for males with no preschoolers. This becomes especially noticeable for males who are not full-time workers where those with one preschooler participate at twice the rate of those with no preschooler (18% vs 9%). Those with two or more preschoolers participate at even a higher rate (22%). Family responsibilities may give impetus to the need for a permanent position. On the other hand, the job-related participation rates for females with preschoolers are consistently closer to the rates for females with no preschoolers across both full-time and part-time labour force status'. It may be that females in these categories cannot partake in education and training as readily as their male counterparts because they have assumed the 'caregiver role' at home. This situation is well reflected in the participation rate of women with two or more preschoolers and not working full-time (10%). However, it seems that for a certain group of women there is a marked intention to return to the labour market at some point in the future. Those with one or more preschoolers in the home and who are not in the labour force participated at a rate more than 3 times higher than females with no preschoolers in the home (13% vs 4%).

The distribution of male and female parents with preschoolers across the various labour force status is clearly different. The presence of preschoolers has an impact on the participation of women in the labour market. While the number of males and females with one or more preschoolers in the home is not markedly different (1.66 men vs 1.69 million women), a much

Table 2.5

Participation rates in job-related education and training activities by sex, presence of preschool children and labour force status, Canada, 1993

	Labour force status					
	Total	Full-time	Total excluding Full-time	Part-time	Unemployed	Not in the Labour Force
	(%)	(%)	(%)	(%)	(%)	(%)
TOTAL	**20**	**31**	**10**	**21**	**16**	**5**
No preschoolers	19	31	9	21	16	4
1 preschooler	26	33	17	24	17	13
2 or more preschoolers	24	33	12	15	23	7
MALES	**21**	**29**	**11**	**24**	**15**	**4**
No preschoolers	19	28	9	23	14	4
1 preschooler	30	33	18	**	17	**
2 or more preschoolers	31	33	22	**	**	**
FEMALES	**19**	**34**	**10**	**20**	**18**	**5**
No preschoolers	18	34	11	20	18	4
1 preschooler	23	33	17	23	7	13
2 or more preschoolers	18	34	10	**	**	**

Table 2.6

Distribution of male and female participants in job-related education and training activities by presence of preschool children and labour force status, Canada, 1993

	Total	Full-time workers	Part-time workers	Unemployed	Not in the Labour Force
	(%)	(%)	(%)	(%)	(%)
Males					
1 or more preschoolers	100	78	4	12	6
Females					
1 or more preschoolers	100	38	16	7	38

larger proportion of men (78%) with one or more preschoolers in the home are full-time workers compared to only 38% of women. Alternatively, 6% of males with one or more preschoolers are not in the labour force while for females this figure is 38%.

The degree of attachment to the labour market is determinant

Participation rates in job-related education for members of the labour force are much higher for both males and females, than those not in the labour force.The labour force participation rate (full/part-time workers and the unemployed) in job-related education was 28%, 8 percentage points higher than the Canadian job-related totals. Males in the labour force participated at a rate of 27%, females in the labour force participated at a rate of 29%.

As with the Canada totals, discussed in the previous chapter, the stronger the connection to the labour force the more likely the participation in job-related training. Of the 4.1 million Canadians who pursued job-related education, more than 3 million (75%) were full-time workers. Full-time workers had the highest participation rates in job-related education and training (31%) followed by part-time workers (21%), the unemployed (16%) and those not in the labour force (5%).

Unemployed people are workers who have quit their job or have been laid off. In order to re-enter the labour market, they need to acquire new competencies or adjust their skill levels. Participation in education and training may be seen as one avenue that enables the search for gainful employment to be successful. Through purchase of service arrangements made between the Unemployment Insurance and Employment Counselling Divisions and local colleges, training agencies, and the like, qualifying Unemployment Insurance recipients had access to financially subsidized training/re-training. However, given the important role that employers play in job-related education and training (see the following section on employer-sponsored education and training), the lack of access to this important education and training resource appears to have a major impact on their ability to participate. Lack of financial resources will also impact on the ability to access education and training as evidenced in the participation rates by income tables. These two factors may set-up a vicious cycle for the unemployed, where their generally poor connections to the workplace and lack of financial resources limit access to training, reducing their chances of finding employment. These people then become high-risk candidates for long-term unemployment.

The participation rate for the unemployed is the lowest of all three labour force groups, at 16%. While females who were working full-time or were unemployed had higher job-related participation rates than their male counterparts (34% vs. 29% for full-time workers and 18% vs. 15% for the unemployed), men employed part-time were more likely to participate than women working part-time (24% vs. 20%). For persons who were not in the labour force, there was little difference in participation in job-related education and training between the sexes.

The large majority of education and training participants (80%) who were unemployed had been unemployed for less than 2 years and over half (52%) had been unemployed less than 6 months. The participation rate for all persons who had been unemployed less than 6 months was 18%, and 17% for those who had been unemployed between 7 and 24 months. By comparison, the rate for those who had been unemployed more than 2 years was 12%. The AETS suggests that as duration of unemployment increases, participation in education and training decreases. There may be a "discouraged learner" syndrome occurring here. This may be similar to the discouraged worker phenomena where unsuccessful long-term efforts to find employment leads to a decrease and even a termination of job-searching (Akyeampong, 1992). If continued training/re-training has not lead to gainful employment, there may be a decreasing desire to make the investment in further education. It is also true that the longer the unemployment the less likely the individual will be receiving Unemployment Insurance benefits and, therefore, will have decreased access to the subsidized programs. As financial resources decline with long term unemployment, accessing education and training becomes more and more difficult.

Table 2.7

Participation rates in job-related education and training activities by sex and labour force status, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**20**	**21**	**19**
Labour Force	28	27	29
Employed	29	29	30
Full-time	31	29	34
Part-time	21	24	20
Unemployed	**16**	**15**	**18**
Not in the Labour Force	**5**	**4**	**5**

Six out of every ten unemployed participants were less than 35 years of age. One in four was between the ages of 17 and 24 years, the majority of whom had been unemployed less than six months. The large number of unemployed participants from this age group is a reflection of the great difficulties that they were having in finding gainful employment in 1993. Taking additional education/training was one of the avenues used to address the problem (Sunter, 1994) but, as these tables indicate, the participation rates are not high enough to match the rates for their working counterparts.

Previous postsecondary experience once again stimulates participation rates. Unemployed university graduates participated at more than twice the rate of the unemployed who had a level of educational attainment that was high school or less.

Those unemployed who have been working in a Professional/Managerial occupation before had the highest participation rate of all unemployed individuals with a rate of 27%. Persons listing Clerical/Sales/Service occupations had a rate of 16% and persons listing Blue Collar occupations had a rate of 13%. For all three occupational groups the participation rates in job-related education and training for unemployed persons are well below the overall totals for the group as a whole.

Table 2.8

Participation rates in job-related education and training activities by sex and selected demographic variables, unemployed participants only, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**16**	**15**	**18**
Duration of unemployment			
0-6 months	18	16	23
7-24 months	17	16	18
Over 2 years	12	**	16
Age Group			
17-24 years	18	18	18
25-34 years	19	15	25
35-44 years	14	14	14
45-54 years	16	16	16
55 years and over	10	**	**
Level of educational attainment			
High School or less	11	10	12
Postsecondary non-university	23	20	26
University	28	33	**
Level of income			
Less than $15,000	17	17	16
$15,000-$29,999	20	14	31
$30,000-$59,999	17	15	**
$60,000 or more	**	**	**
Occupation of unemployed			
Professional/Managerial	27	24	31
Clerical/Sales/Service	16	20	15
Blue Collar	13	12	18
Not stated	15	**	**

Note: *This table includes all participants who were unemployed at the time of survey (January 1994); some may have had employer support for training taken in 1993.*

In summary, regardless of the demographic variable under consideration, participation rates in job-related education for the unemployed do not approach either the national job-related totals, or the totals for the labour force. The weak connection to the workplace, the lack of access to employer-sponsored education or training, and reduced financial resources are difficult factors to overcome for numerous demographic groups within the unemployed population.

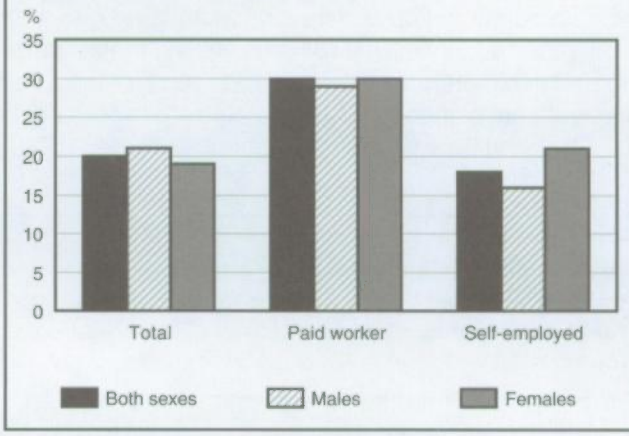
Paid workers get the lion's share

Workers in Canada can be classified into two general categories, those who are employees (paid workers) and those who are employers/self-employed. The majority of the working individuals in the labour force are paid workers, although recent downsizing practices and the encouragement of entrepreneurial enterprises by various governments have led to an increase in the numbers of self-employed (Crompton, 1993).

Paid workers participated at a rate of 30% overall, with little difference between male and female employee participation rates (29% and 30% respectively). The situation is quite different for the self-employed. The overall participation rate for this group is much lower (18%), with a male participation rate of 16% and a female rate of 21%. Either because of a lack of financial resources or of lack of flexibility in their work schedule, cost effectiveness and return on investment in education and training may be greater issues for those who are self-employed than for firms that employ more people and are able to train groups of people at one time.

Chart 2.4

Participation rates in job-related education and training activities by sex and class of worker, labour force participants, Canada, 1993



Occupations with high education requirements participate more in training

As indicated earlier, level of education, age and employment status (full or part-time worker) appear to be strongly related to participation in job-related education and training. People in their primary working years, working full-time and having higher levels of education also have the highest participation rates in adult education and training.

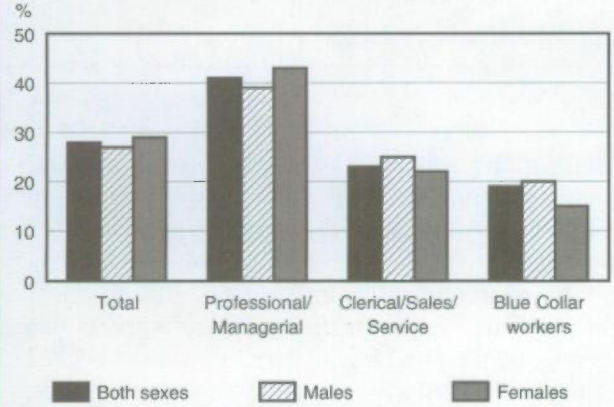
Persons in Professional/Managerial occupations participated at a rate almost twice the rate of persons working in Clerical/Sales/Service occupations and at more than twice the rate for those in Blue Collar occupations (41%, 23% and 19%, respectively). This reflects a disparity in access to training and in skill requirements among occupations. In 1993, 83% of persons in Professional/

Managerial occupations were working full-time, compared to 64% of those in Clerical/Sales/Service occupations and 76% of those in Blue Collar occupations. (Statistics Canada, 1995b). Professional and managerial occupations are also associated with higher levels of educational attainment. In the Professional/Managerial occupational classification for the total Canadian population, 81% had some/completed postsecondary education. In Clerical/Sales/Service occupations, the percentage with some/completed postsecondary education falls to 45% and in Blue Collar occupations the percentage with this level of education drops down to 37%. The interplay between level of education, employment status and occupation contributes to the higher participation rates for Professional/Managerial occupations and the lower rates in the other two categories.

Although the overall male and female labour force participation rates were quite similar at 27% and 29%, respectively, differences appear when one compares participation rates by occupational categories. Females in Professional/Managerial occupations participated in job-related education and training at a higher rate than their male counterparts(43% vs. 39%). Males participated at higher rates than females in both of the other occupational categories: Clerical/ Sales/Services (25% vs. 22%) and Blue Collar occupations (20% vs. 15%).

Chart 2.5

Participation rates in job-related education and training activities by sex and occupation, labour force participants, Canada, 1993

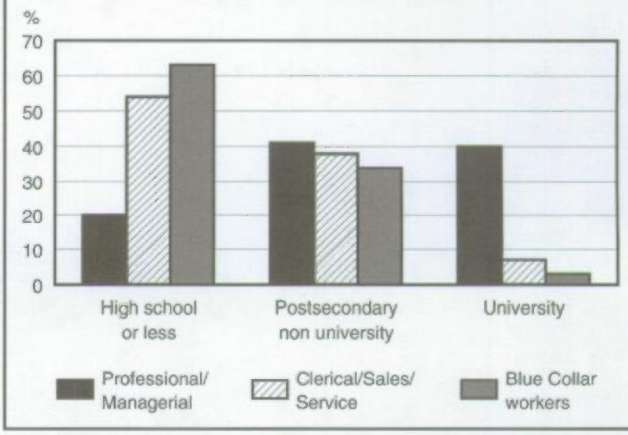


Large differences in participation among industries[2]

Since employers are sponsoring most of the job-related training(75%), the accessibility to this type of training is very dependent on the industrial sector in which a person works. Workers training needs and access to job-related

Chart 2.6

Distribution of participants in job-related education and training activities by level of educational attainment and occupation, Canada, 1993



education and training will vary considerably from one industry to another. Important differences were also observed by firm size within the same industry. Some industries will be more affected by technological change, while others may be involved in major downsizing strategies. Some industries are inclined to be made up of a large number of self-employed workers (for example in Agriculture), while others are comprised of many large firms with many employees (as in the Utilities industries). As will be discussed in the chapter on the organizational aspects of training, each of these factors, and others, has a bearing on the manner in which adult education and training takes place.

In this report, industrial classifications have been developed along two broad perspectives: goods producing/ service industries, a classification which is oriented to the nature of the inputs/outputs affiliated with various industries, and private sector/public sector industries, a classification which is oriented to the ownership/ management structures that are in place. Each orientation encompasses a subsetting of Canadian industries along the given levels of interpretation. In terms of the analyses conducted for theAETS, both orientations have been undertaken.

The Service Sector represents over three-quarters of the labour force pool. The participation rate for this sector was 30% compared to the Goods Producing sector which had the lower rate of 23%. Male and female participation rates for both these sectors did not vary substantially from the overall totals.

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[2] *A discussion of the employer-sponsored training by industry is provided in section A.2 of this chapter.*

Chart 2.7

Participation rates in job-related education and training activities by sex and goods/services sector, labour force participants, Canada, 1993[1]

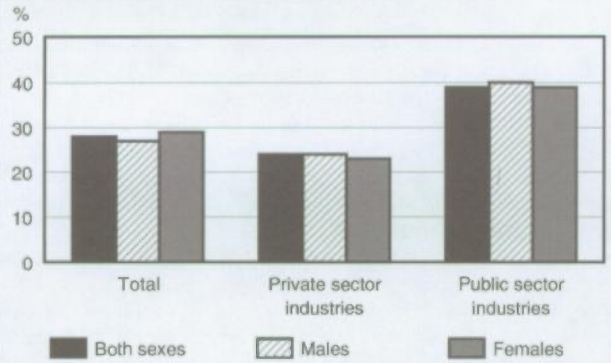
[1] *Industrial classifications are not available for persons who had not worked during the survey reference year.*

In the Private Sector overall participation rates were at 24%, compared to the Public Sector participation rate which was much higher at 39%. Again there was no substantial difference between male and female participation rates and the overall public/private totals.

Public Sector employees have a noticeably higher participation rate than employees in Private Sector. This may be explained, as we will see later on, by the level of employers' involvement in training and also by the distribution of levels of educational attainment across the classifications. As mentioned earlier, higher levels of educational attainment are more prevalent in the Service sector relative to the Goods Producing sector, a factor which may influence the difference in participation rates in these two sectors. However, by far the largest concentration of individuals with more than a high school education is in the Public sector (71% with more than a high school education). An additional factor to consider is the size of the firm in which the employee works. Larger firms, which are more concentrated in the Public sector, also appear to be linked to higher participation rates.

Chart 2.8

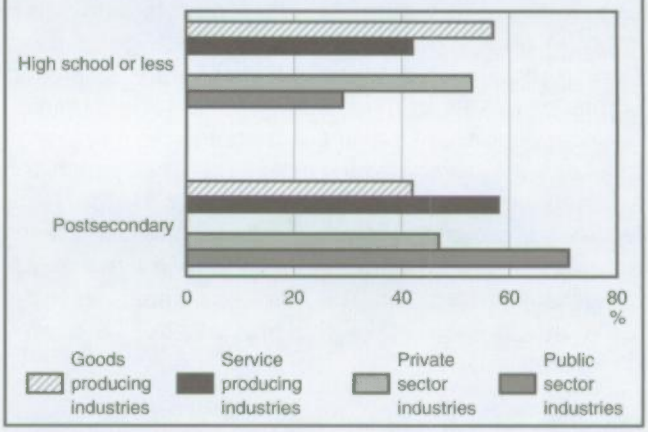
Participation rates in job-related education and training activities by sex and public/private sector, labour force participants, Canada, 1993[1]



[1] *Industrial classifications are not available for persons who were not working during the survey reference year.*

Chart 2.9

Distribution of participants in job-related education and training activities by level of educational attainment and industrial sector, Canada, 1993



A.2 Participants in employer-sponsored job-related training

The role employers play in supporting education and training activities for their employees is significant. In general, employers recognize that the ability to become or remain competitive, to adapt to ever changing technologies, or respond appropriately to shifting market demands, rests on the adaptability and skill level of their employees. Their support can often be the turning point in whether or not the activity takes place. One out of every two participants in adult education and training in 1993 of had some or all of their activities supported by their employer.

Employer-sponsored education and training can also be interpreted from the two perspectives referred to before, job-related and personal interest[3]. Employer-sponsored job-related education and training can be seen as those activities which address the efficiency and competency levels of the employee(s). From safety and health issues to further knowledge and/or skills in a specific subject area, the return to the employer is an

improved workplace in terms of production. This kind of education and training is also seen to be an avenue of redress for high unemployment rates (higher skill levels lead to higher employability) and as critical to Canada's ability to compete in the global market.

Of the 4.2 million participants in job-related education and training activities in 1993, 2.9 million (70%) had received assistance from their employer. Employer sponsorship comes in a variety of forms, from organizing and presenting a course to granting time-off work so that the employee may attend education and training sessions. Employer training occurs for a number of reasons. Maintaining and advancing the skill levels of employees can be seen to enhance productivity levels, place the company or agency at a competitive advantage, facilitate the introduction of new technologies, improve quality of products or services, get a more flexible production system and ameliorate employer-employee relations. In addition, some employer training is a consequence of legislation that requires employees to receive education/training that insures their health and safety in the workplace[4]. Overall 21% of the labour force received employer sponsorship for their job-related training activities. There was virtually no difference between the genders in participation. This rate was comparable to the 1991 rate measured by the previous AETS survey conducted in 1992[5].

Employers supported 239 million hours of job-related training. This translates into 84 hours per trainee or 17 hours per employee.

Table 2.9

Participants and participation rates in employer-sponsored job-related education and training activities by sex, labour force participants, Canada, 1993

	Total	Participation Rates
	(in millions)	(%)
Both Sexes	**2.9**	**21**
Males	1.6	20
Females	1.3	21

The following two sections highlight specific issues regarding employer-sponsored job-related education and non employer-sponsored job-related education and training more closely.

Employers mainly sponsored full-time employees

Clearly the opportunity to partake in employer-sponsored education and training is almost exclusively available to those who are employed. As the table below indicates, an individual's labour force status plays a crucial role in access to employer-sponsored education and training. The overall labour force training rate in employer-sponsored job-related education and training was 21%. The male training rate was 20% and the female rate was 21%. However, full-time employees made up 87% of all employees who were trained by their employers in 1993. For both males and females, the participation rates for full-time employees (25%) were markedly different from the rates for part-time workers (10%) or workers who had received some employer-sponsorship in 1993 and had become unemployed by January 1994 (4%). It is the training rates for full-time employees which boost the labour force rates up to 21% overall. Given that occupying a full-time job seems to be an important condition to get employer-sponsored training, the probability to get trained for those in precarious jobs (these are non-standard work arrangements such as part-time, seasonal, short-term jobs as well as own-account jobs) is very low. This limited access to training for an increasing portion of the workforce could mean that the recent increase in precarious jobs might not be

Table 2.11

Participation rates in employer-sponsored job-related education and training activities by sex and labour force status, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Labour Force	**21**	**20**	**21**
Employed Full-time	25	25	27
Employed Part-time	10	8	11
Unemployed	4	3	6
Not in the Labour Force	**1**	**1**	**1**

[3] *In the 1992 AETS, all employer-sponsered activities were assumed to be job-related. In the survey conducted for this report, employer-sponsored activities could either be job-related or personal interest events. In order to compare 1994 to 1992 participation rates in employer-sponsored activities, participation in personal interest training activities sponsored by employers should be taken into consideration. Employer-sponsored personal interest training activities are discussed in Chapter 3.*

[4] *For a discussion on the determinants of training see J.R. Baldwin and Joanne Johnson (1995).*

[5] *The 1992 AETS didn't make a distinction between job-related and personal interest activities sponsored by employers. As a consequence, the rate quoted in the Report on the results of the 1992 survey (22%) included both type of training activities. The comparable global rate for 1993 is estimated at 23%.*

Employer-sponsored and Non employer-sponsored Job-related Education and Training in the Provinces

Fluctuations in the overall provincial participation rates in job-related education and training are a reflection of the fluctuations in employer-sponsored participation rates. Employer-sponsored participation ranges from 15% of the labour force in Quebec to 25% in Manitoba, Alberta and British Columbia.

Non employer-sponsored participation has a much narrower range, with a low of 4% in New Brunswick and a high of 8% in Alberta and British Columbia. It is the variation in employer-sponsored training rates that lies behind the east-west trend in the overall participation rates discussed in Chapter One.

Table 2.10

Participation rates in employer-sponsored and non employer-sponsored job-related training activities, Canada and provinces, 1993

	Total participation rate in job-related training	Participation rates in employer-sponsored training	Participation rates in non employer-sponsored training
	(%)	(%)	(%)
Canada	**20**	**21**	**6**
Atlantic Region	**16**	**19**	**5**
Newfoundland	13	16	5
Prince Edward Island	19	21	5
Nova Scotia	18	21	5
New Brunswick	14	17	4
Quebec	15	15	6
Ontario	21	21	7
Prairie Region	**24**	**25**	**7**
Manitoba	22	25	5
Saskatchewan	21	23	6
Alberta	26	25	8
British Columbia	25	25	8

Note: *While total participation rates and participation rates in non-employer sponsored training are calculated as a percentage of total population, employer-sponsored training rates are expressed as a percentage of the labour force population.*

a temporary phenomenon (G. Betcherman et al., 1994 and Krahn, 1991).

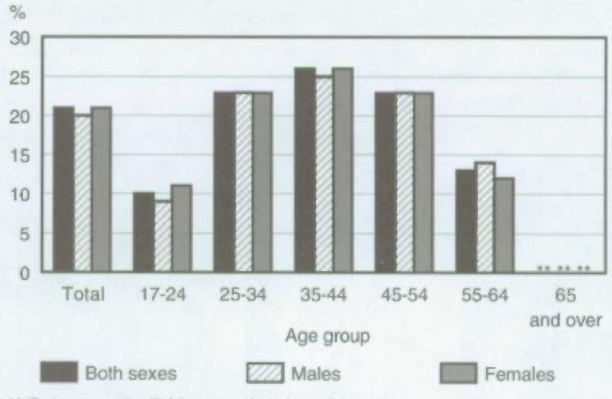
It should be noted that 90,000 employees received training in 1993 and had become unemployed by the time of the survey in January 1994. These may be people who became unemployed through the downsizing practices that took place during this period, through business closures and bankruptcies or people who were occupying precarious jobs. A further 80,000 people received training in 1993 who had left the labour force completely by January of 1994. These people may have received retirement training and the like, or may be out of the labour force on a temporary basis (maternity/ paternity leave, etc.).

Employers tended to sponsor workers in their prime working years

As with the job-related participation rates at the national level, participation in employer-sponsored education and training are much higher for people in their middle working years. The dramatic difference between those

Chart 2.10

Participation rates in employer-sponsored job-related education and training activities by sex and age group, labour force participants, Canada, 1993



** *Data are not reliable enough to be released.*

17 to 24 years of age and those more than 55 years of age with the 25-54 age group reflects two possible

positions taken by employers. For the younger group, largely the most recent entrants to the labour force, formal education activities would have been most recently completed. The need for continued education/ training may not be as critical for these new entrants to the labour force. For the older age group, the return on the investment made by employers would not be as great as for those in the middle of their careers. Approaching retirement would foreshorten the long-term usefulness of the skills acquired through additional education and training.

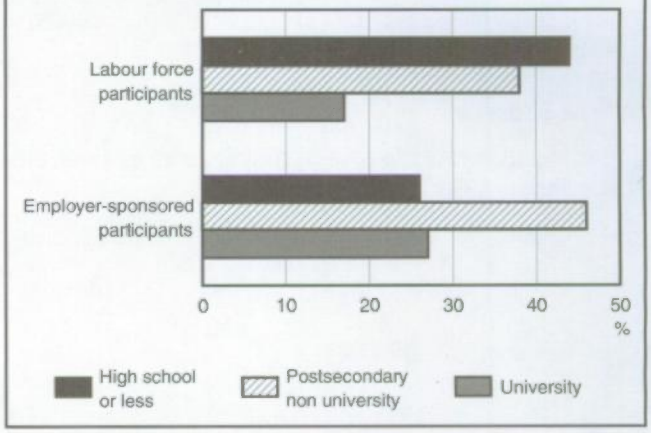
Employers favoured better educated workers

The 'education breeds education' phenomenon described in Chapter 1 is clearly evident in employer-sponsored job-related education and training. Employer support for education and training leans heavily toward those with higher levels of educational attainment. Training rates for those with a post-secondary university degree (33%) are almost triple the rates for employees with high school or less (12%).

The distribution of these various levels of educational attainment in the labour force needs consideration. Whereas an important proportion (44%) of the labour force is composed of individuals with a high school diploma or less, only a quarter of the employer-sponsored participants had completed this level of education. By contrast, while only 17% of the labour force had a university degree, university graduates represented 27% of the employer sponsored participants. The over representation of individuals with post-secondary university degrees has many possible explanations. These people would be more likely to hold senior/ management positions which may require a continuing updating of skills. They have also demonstrated the ability to complete and implement complex educational material. They may be perceived as more experienced at incorporating the skills acquired through education and training into the workplace and thus a more credible investment in these types of practices.

Chart 2.12

Distribution of labour force participants and employer-sponsored job-related participants by level of educational attainment, Canada, 1993



Incidence of job-related training was higher among best paid workers

The large differences in the overall job-related participation rates by income, discussed in the introductory section of this chapter, are fundamentally driven by the differences in the employer-sponsored rates by income. Male rates across the levels of income increase by 40 percentage points. The female rates increase by 47

Chart 2.11

Participation rates in employer-sponsored job-related education and training activities by sex and level of educational attainment, labour force participants, Canada, 1993

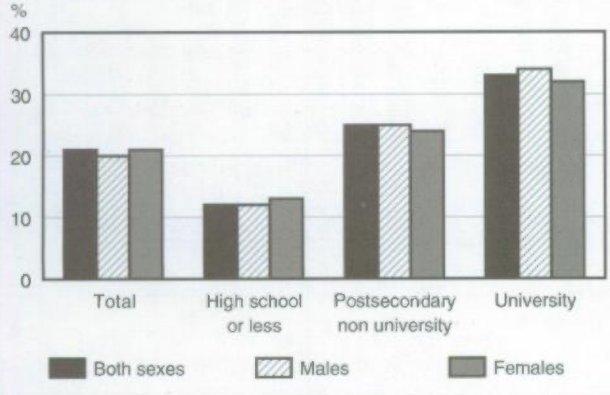
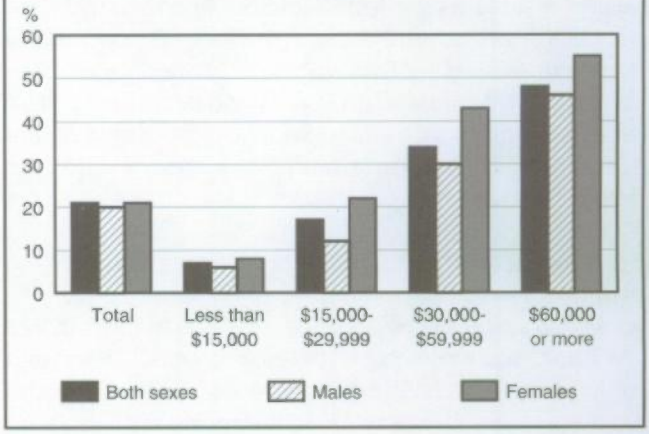


Chart 2.13

Participation rates in employer-sponsored job-related education and training activities by sex and income, labour force participants, Canada, 1993



percentage points. Compared to low income employees, a larger proportion of high income earning employees were sponsored by their employer. However, these high paid employees represented a smaller portion of the labour force (individuals making more than $60,000 in 1993 represented less than 6% of the labour force). Combined with the education information highlighted above, it appears that those with both a low income and a lower level of educational attainment were at a clear disadvantage in employer-sponsored training.

Professional/Managerial occupations are getting more than others

As the level of skill required for a position increases so do participation rates. Across the varying occupational classifications there are large differences in participation rates. In the Professional/Managerial occupations where educational and income levels are at their highest, employer-sponsored participation rates are 34% for both males and females. Only in the Artistic/Literary/Recreational occupations (within the Professional/Managerial grouping) are the participation rates substantially lower than others in the same occupational group. Persons in these occupations are much more likely to be self-employed or in small firms, each of which have an impact on the level of employer-sponsorship that takes place.

Table 2.12

Participation rates in employer-sponsored job-related education and training activities by sex and occupation, labour force participants, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**21**	**20**	**21**
Professional/Managerial	**34**	**34**	**34**
Managerial and Administrative	37	37	39
Sciences, Engineering and Mathematics	42	41	51
Social Sciences and Religion	40	42	39
Teaching	27	24	29
Medicine and Health	33	35	32
Artistic, Literacy and / Recreational	13	10	16
Clerical, Sales and Service	**15**	**16**	**14**
Clerical and Office operation	18	19	18
Sales	14	14	13
Services to community and individual	12	16	8
Blue Collar	**14**	**15**	**8**
Primary	9	10	**
Manufacturing and Processing	17	19	7
Construction and Transportation	12	12	**
Materials handling and other occupations	14	15	**

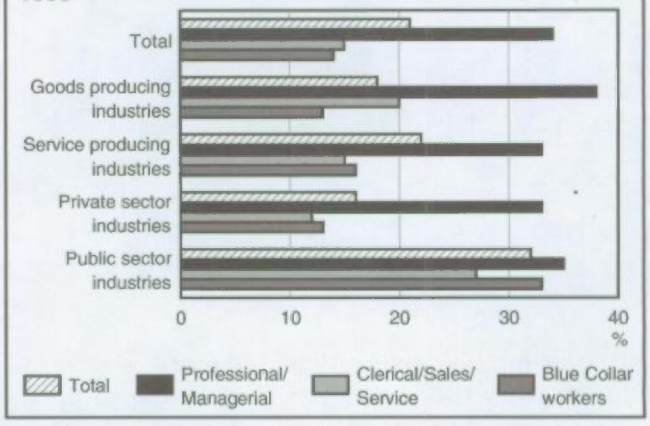
By contrast, individuals in Clerical/Sales/Service occupations had a much lower overall participation rate (15%) as did persons in the Blue Collar occupations (14%). There is little apparent difference in male and female participation rates in Clerical/Sales/Service occupations except in the Community/Individual Services category where the rate for women is half that for men (8% vs 16%). In Blue Collar occupations, rates for women were so low as to be unreliable except in Manufacturing and Processing occupations. The rates for men in Blue Collar occupations are fairly equivalent to their rates in the Clerical/Sales/Service occupations .

Each of these three occupational classifications may in fact be affiliated with different training requirements. Professional/Managerial occupations may require education/training that is related to developments in a specific subject area (engineering, mathematics, health sciences, etc.) as well as changes in management strategies and decision-making practices. Clerical/Sales/Service occupations may be confronted with new technologies related to these fields and new operational procedures. Blue Collar occupations may need to attend to health and safety regulatory changes, the introduction of new technologies and new operational procedures.

The relationship between occupation and training is true across all industry classifications, with some exceptions which are worth noting. In the Goods-Producing and Public Sector Industries, Clerical/Sales/Service employees have a notably higher training rate than their Service-Producing and Private Sector Industries counterparts. In addition, Blue Collar workers in the Public sector have a training rate that is nearly equivalent to those in the Professional/Managerial occupations in all sectors. These alternative training commitments

Chart 2.14

Participation rates in employer-sponsored job-related education and training activities by occupation and industrial sector, labour force participants, Canada, 1993



made by employers across occupational groups are the result of many factors. It may be that the factors (new technology, downsizing, market competitiveness, etc.) which lead to employer support for education and training have varying levels of impact and vary in their combinations across the many industries.

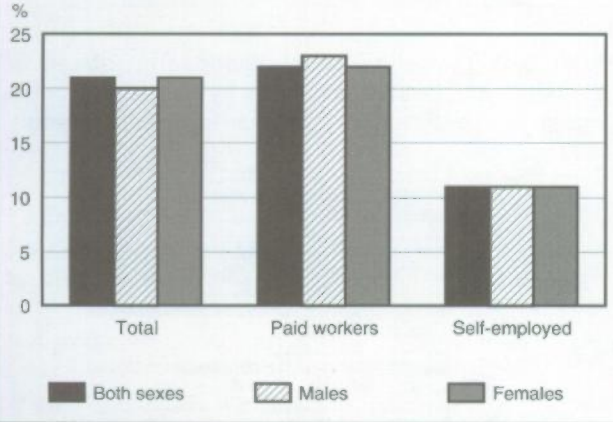
The relationship is also maintained across all firm sizes except in organizations with 100 to 199 employees, where blue collar workers are getting more training than workers in clerical, sales or services occupations.

Paid workers getting most of the training

Considerable differences in job-related employer-sponsored participation rates existed by class of worker. The paid worker training rate is twice as high as the self-employed rate overall, and for both sexes. The ability of the self-employed to draw funds from their business enterprises for further education and training is clearly limited. The difficulty of training several people at once and affiliated time constraints are perhaps more important for the self-employed than they are for the larger employers. Although entrepreneurial business approaches have been given much emphasis in recent years, there seems to be a disadvantage in terms of allocating resources for education and training for the self-employed. The self-employed constitute around 14% of total employment. Over the last decade it increased at a rate twice faster than the number of paid workers (Pold, 1991 and Cohen, 1988).

Chart 2.15

Participation rates in employer-sponsored job-related education and training activities by sex and class of worker, labour force participants, Canada, 1993



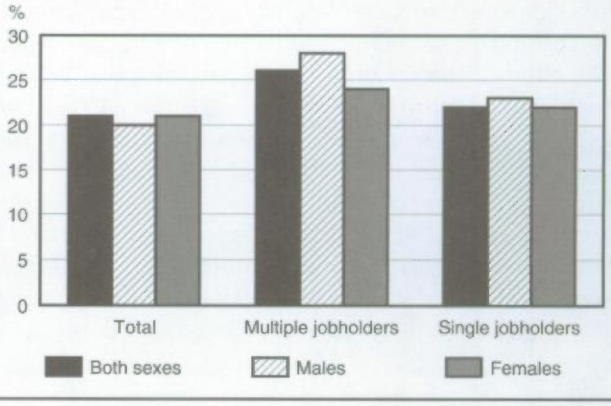
Multiple job holders participated more

During the last few decades the number of people holding more than one job increased to a point where in 1993, one in twenty workers had a second job. Moonlighting has become as popular among female than male workers (Cohen, 1994).

Multiple job holders may have one or more part-time jobs or may have a full-time and one or more part-time jobs. In 1993 the large majority of the moonlighters were part-time workers.

Chart 2.16

Participation rates in employer-sponsored job-related education and training activities by sex and single and multiple jobholders, labour force participants, Canada, 1993



People who have more than one job are spending a large number of hours in paid work or own-account work. One would then assume that there would be little time left for education and training and that if one holds many jobs, most of these jobs probably don't require a lot of training. However, as the table below indicates multiple job holders had higher training rates in employer-sponsored education and training than did their single job holder counterparts. It is quite possible that as single job holders became multiple job holders they needed to be trained for their new position(s). However, the level of employer investment in multiple job holders is difficult to explain. One possible explanation is that since multiple jobs holders are generally young and highly educated workers, they tend to get more than their share of employer-sponsored training like most workers in this population group. In addition, moonlighters tend to have their second job in the service industries, some of which are known for high levels of training support for their employees (namely health and education).

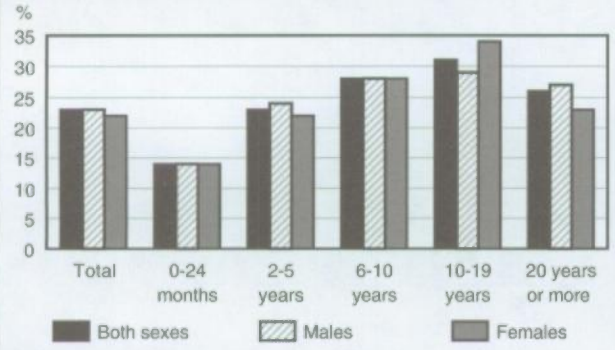
Participation rates increase with seniority

The length of time an employee has worked with a particular employer has a large impact on the employers willingness to support training. Employers, and probably

but to a lesser extent, employees, recognize that in the long run job mobility pays less than job tenure (Mincer, 1988). A loyal employee may appear to be a more worthwhile investment and less of a risk for 'poaching' (hiring trained employees away from other firms). The highest participation rates occur for employees who have worked between 10 and 19 years with the same firm. For this group, almost one in three males and females were trained with the support of their employer.

Chart 2.17

Participation rates in employer-sponsored job-related education and training activities by sex and duration of employment, working individuals, Canada, 1993[1]



[1] *Duration of employment was not available for persons who received employer-sponsored training in 1993 and had become unemployed by the time of the interview in January 1994.*

Participation rates[6] show large variations by industry

The decision to sponsor training for employees will depend on several factors: the requirements within the firm that are a result of technological innovation, new management strategies, downsizing and restructuring. They will also result from external effects such as changes in product markets, health and safety regulatory changes and increased competition in the market. Employers may also regard support of education and training as a statement of commitment to their employees, a move to enhance the employer-employee relationship.

The ability to offer support for training often demands a budget allocation that must be seen in the context of the entire budget. Employers have two avenues of training support in budgetary terms: train many people for a few hours or train a few people for a larger number of hours. Training decisions will be made according to the specific needs of the employer/company/agency.

Results of the 1994 AETS reflect the unique technology and competitive situation each industry is facing. Overall, employers in Goods-Producing industries sponsored training for their employees at a moderately lower rate than did employers in the Service Sector, with training rates of 18% and 22% respectively. However, the range of training rates within the Goods-Producing sector (the lowest were Agriculture and Construction at 8%, the highest was in Utilities at 52%) was much larger than in the Service sector (the lowest was Trade at 13%, the highest was Public Administration at 43%). Several factors are involved here: firm size, the number of self-employed within an industry (for example Agriculture has a higher number of self-employed than Utilities), varying degrees of technological innovation, downsizing, restructuring and market conditions. The impact of firm size becomes more evident when the industries are grouped according to a Public/Private breakdown. In the Public sector, where there is greater concentration of large firms, training rates are close to double those of the Private sector.

Male and female training rates across the industries show some large disparities. Females in the Utilities industry are trained at a rate that is 20 percentage points higher than their male counterparts. In the Finance/Insurance/Real Estate industry, employers trained their male employees at rate that was 11 percentage points higher than the female employee rate. However, overall, as rates rose or declined across industries they rose or declined for both sexes in the same way.

Another way to look at training by industry is by creating a training intensity index as suggested by A. P. Carnevale (1990). The industry intensity index is the ratio of the proportion of training events (or hours of training) to the proportion of employment in the same industry. Employees in industries with indexes greater than one received more than their proportionate share of employer-sponsored training. Calculations based on the number of training activities, show that the intensity of training was similar in the Goods-Producing (0.9) and the Services-Producing (1.0) sectors but very unequal in the Private (0.7) and the Public(1.8) sectors. Three out of five industries in the Goods-Producing sector and two out of six in the Service-Producing sector showed a relative deficit in terms of number of training events sponsored by employers. Gender differences were mainly concentrated in manufacturing, utilities and trade industries where a significant larger proportion of training event were offered to male workers. An analysis based on hours of training does not reveal a very different pattern by industry but a few important differences by gender are worth mentioning. Female workers (1.2)

[6] *Participation rates in employer-sponsored training are also referred to as training rates.*

Table 2.13

Participation rates in employer-sponsored job-related education and training activities by sex, industrial sector, labour force participants, Canada, 1993

	Distribution of Labour Force	Participation rates			Distribution	
		Both Sexes	Males	Females	Hours	Activities
	(%)	(%)	(%)	(%)	(%)	(%)
Total	**100**	**21**	**20**	**21**	**100**	**100**
Goods-Producing Industries	**27**	**18**	**18**	**17**	**24**	**22**
Agriculture	4	8	8	**	1	1
Other Primary	2	25	25	**	2	3
Manufacturing	14	19	21	15	12	13
Construction	5	8	8	**	5	2
Utilities	1	52	47	67	4	4
Service-Producing Industries	**73**	**22**	**22**	**22**	**75**	**78**
Transportation/Communication	6	20	20	19	5	6
Trade	17	13	15	10	14	10
Finance/Insurance/Real Estate	6	32	39	28	9	10
Education/Health/Welfare	17	27	24	28	22	27
Business/Comm./Personal Services	20	14	16	13	14	10
Public Administration	7	43	45	40	13	15
Private Sector Industries	**75**	**17**	**18**	**15**	**62**	**54**
Public Sector Industries	**25**	**32**	**34**	**31**	**38**	**46**

Table 2.14

Training intensity index by sex and industrial sector, Canada, 1993

	Training Intensity Index based on number of training activities			Training Intensity Index based on number of hours of training		
	Both Sexes	Males	Females	Both Sexes	Males	Females
Goods-Producing Industries	**0.9**	**0.9**	**0.7**	**0.9**	**0.8**	**1.2**
Agriculture	0.2	0.3	0.2	0.4	0.4	0.2
Other Primary	1.4	1.5	1.2	1.2	1.1	1.2
Manufacturing	0.9	1.0	0.6	0.9	0.9	0.6
Construction	0.4	0.4	0.4	0.9	0.5	4.1
Utilities	3.6	3.1	0.3	3.5	1.7	7.7
Service-Producing Industries	**1.0**	**1.1**	**1.0**	**1.0**	**1.1**	**1.0**
Transportation/Communication	1.0	1.0	0.9	0.8	0.7	1.2
Trade	0.6	0.7	0.4	0.8	0.9	0.6
Finance/Insurance/Real Estate	1.6	1.8	1.4	1.4	1.9	1.0
Education/Health/Welfare	1.6	1.5	1.6	1.3	2.0	1.0
Business/Comm./Personal Services	0.5	0.5	0.5	0.7	0.6	0.8
Public Administration	2.2	2.2	2.2	1.9	1.9	1.8
Private Sector Industries	**0.7**	**0.8**	**0.6**	**0.8**	**0.8**	**0.9**
Public Sector Industries	**1.8**	**1.9**	**1.7**	**1.5**	**1.9**	**1.3**

received more training (in hours) than men (0.8) in the Goods-Producing sector due to high training intensity in construction and utilities. In the Service-Producing sector, the male training intensity for the Education/ Health/Welfare industrial group (2.0) was twice the rate for women (1.0).

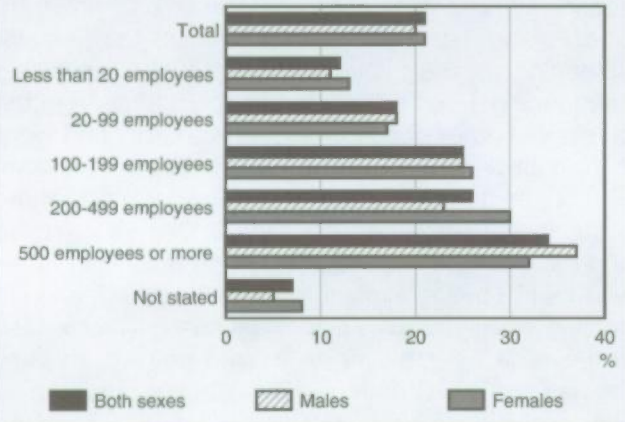
The larger the firm the more it sponsors training for its employees

Because they have formalized job structures, have internal labour markets, are generally more unionized, and operate in environments that encourage investment in training (Knoke and Kalleberg, 1994), large firms

sponsor a large number of employees while small employers can hardly afford the employees' time away from work that is required for training during working hours. As a consequence, the probability of getting trained is much lower in small firms. As a few studies have shown (Baldwin and Johnson, 1995, and Thompson 1989), this may explain why small firms tend to rely more on informal training. This situation is very critical given that around 96% of Canadians firms have less than 50 employees (Survey of employment and payroll, Statistics Canada). Employers who have more than 500 employees (34%) were almost three times more likely to offer training support to their employees than are firms with less than 20 employees (12%). In 1993, these large employers supported 50% of all training hours. This pattern is evident through both the Goods/Service Industry breakdowns and in the Public/Private Sector breakdowns. However, differences in training rates by firm size were much more important in the Goods-Producing Industry and the Private sectors than in the Service-Producing and the Public sectors.

Chart 2.18

Training rates in employer-sponsored job-related education and training activities by sex and size of firm, labour force participants, Canada, 1993



The overall male and female participation rates are fairly consistent for each of the Goods Producing, Service, Public and Private sectors. However, large differences appear between the sexes at each level of the firm size classification within the Goods Producing Industries. In the Service Industries sector differences are small except for large firms, where men had an advantage over women.

In addition to training a larger percentage of its employees than the private sector, training in the public sector is also much more accessible to employees working for small organizations. Differences in rates between the two sectors decline with size of organization.

Table 2.15

Participation rates in employer-sponsored job-related education and training activities by sex, size of firm and industry, labour force participants, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**21**	**20**	**21**
Goods-Producing Industries	**18**	**18**	**17**
Less than 20 employees	7	7	6
20-99 employees	11	12	**
100-199 employees	20	21	**
200-499 employees	20	18	27
500 employees or more	39	38	44
Not stated	5	5	**
Service-Producing Industries	**22**	**22**	**22**
Less than 20 employees	14	14	14
20-99 employees	21	22	19
100-199 employees	28	27	28
200-499 employees	29	27	30
500 employees or more	33	36	31
Not stated	8	5	10

Table 2.16

Participation rates in employer-sponsored job-related education and training activities by sex, size of firm and industrial sector, labour force participants, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**21**	**20**	**21**
Private Sector Industries	**16**	**18**	**15**
Less than 20 employees	10	10	9
20-99 employees	15	17	11
100-199 employees	21	22	21
200-499 employees	24	22	28
500 employees or more	30	33	25
Not stated	5	5	5
Public Sector Industries	**32**	**34**	**31**
Less than 20 employees	24	22	24
20-99 employees	28	27	28
100-199 employees	33	35	32
200-499 employees	30	27	32
500 employees or more	41	45	38
Not stated	14	9	16

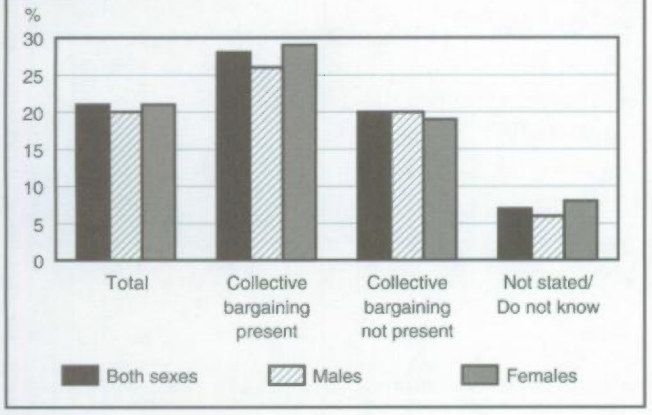
However, major differences exist by genders for some firm sizes. In the Private Sector, differences are clear in firms with 20-99 employees and over 500 employees. Differences are also noted in firms with more than 200 employees in the Public sector. These differences may be a consequence of the varying nature of the occupations that are held by the two sexes within an industry.

Employer-sponsored job-related training and the presence of collective bargaining

As unions move to recognize the benefits of employee training in terms of job security and advancement, more are incorporating discussions around training into their negotiations with employers. Although this move has not been solidified, there does seem to be some benefit to the presence of collective bargaining units in terms of employer-sponsored training. Employees who are working with employers within the context of a collective agreement received employer-sponsorship at a rate of 28%, while those with no collective agreement in place had a lower rate of 20%. Females appear to benefit more than men from employer-sponsored training when there is a collective agreement with the employer.

Chart 2.19

Training rates in employer-sponsored job-related education and training activities by sex and presence of bargaining units, labour force participants, Canada, 1993



A.3 Participants in non employer- sponsored job-related training

Close to 1.5 million persons aged 17 or older pursued job-related education and training with no assistance from an employer. Given that full-time program participants with no employer-support have been excluded from the current analyses, this represents a considerable number of people. These people pursued their job-related education and training outside of their work or family-related responsibilities and made their own time, transportation and financial arrangements. The split between males and females in non employer-sponsored education and training leans more toward female participants, with 57 out of every 100 participants being female and 43 being male. In total, these people took 205 million hours of education and training or an average of 151 hours each. This is almost twice the average of those that were supported by their employer.

Table 2.17

Participants and participation rates in non employer-sponsored job-related education and training activities by sex, Canada, 1993

	Total	Participation Rates
	(in 000's)	(%)
Both Sexes	**1,350**	**6**
Males	600	6
Females	750	7

Many of the relationships that were observed in the analysis of employer-sponsored job-related training still hold. For instance, educational attainment is still a major determinant in the probability to take further education and training. Even without the financial support of the employer, people working in the service sector and those in the public sector again participated more than workers of other sectors. This tends to demonstrate that the occupational mix in the service and in the public sectors and the changes (administrative and technical) these sectors are facing explain the level of participation in training. However, some of the relationships that existed in the case of employer-sponsored training are now reversed. This situation shows that in addition to differences in the characteristics and motivation of the two groups of trainees (those sponsored and those not sponsored by the employer), employers have an important influence on the selection of trainees.

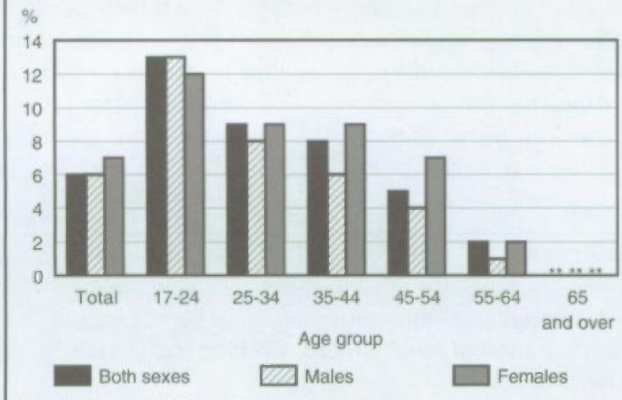
Young people participating more

Contrary to the participation rates found in employer-sponsored job-related education and training, the rates by age for non employer-sponsored education and training were highest in the youngest age group. Whereas employer-sponsored participation rates increase through the middle working years, the participation rates in non employer-sponsored education and training decline after the youngest age category. However, the rates for the youngest age group are

comparable for employer-sponsored and non employer-sponsored job-related education and training (10% vs 13%). The decline in non employer-sponsored education and training in the older age groups is offset by their higher rates in employer-sponsored education and training. These patterns reflect life style changes that typically occur between the ages of 17 and 24. First-time entry into the labour force is greatest through these years. There seems to be a shift from a reliance on personal strategies for continued education and training before entry into the labour force, to a reliance on employers strategies after entry into the labour force.

Chart 2.20

Participation rates in non employer-sponsored job-related education and training activities by sex and age group, Canada, 1993



** Data are not reliable enough to be released.*

Table 2.18

Participation rates in employer and non employer-sponsored job-related education and training activities by sex and income, Canada, 1993

	Employer-sponsored Participation rates (Labour force population)	Non employer-sponsored Participation rates		
	Total	Both Sexes	Males	Females
	(%)	(%)	(%)	(%)
Total	**21**	**6**	**6**	**7**
Less than $15,000	7	9	10	8
$15.000-$29,999	17	7	6	7
$30,000-$59,999	34	6	4	9
$60,000 or more	48	5	4	11

Participation declined with income

The pattern in participation in non employer-sponsored job-related education and training, by income, is again, the reverse of the pattern in employer-sponsored job-related education and training. The rates for those making less than $15,000 are almost equivalent for the non employer-sponsored and the employer-sponsored categories, with male participants at this income level having the highest of all the non employer-sponsored participation rates. However, the non employer-sponsored rates decrease through the higher income categories while the rates increase in employer-sponsored income categories.

People with a low degree of attachment to the labour market participated more

Part-time and unemployed participation rates are higher than those for full-time employees and for individuals not in the labour force. One would expect this pattern for unemployed and part-time workers as they take measures to acquire full-time employment. The higher non employer-sponsored participation rates for the unemployed would also be expected as a result of their limited access to employer-sponsorship. The participation of persons not in the labour force are an indication that many individuals who were not connected to the labour force at the time of the survey clearly intended to enter/return to the labour force at a later date.

Table 2.19

Participation rates in non employer-sponsored job-related education and training activities by sex and labour force status, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**6**	**6**	**7**
Labour Force:	**8**	**7**	**9**
Employed Full-time	6	5	8
Employed Part-time	11	16	9
Unemployed	12	12	13
Not in the Labour Force	4	3	4

Small differences in participation among occupations

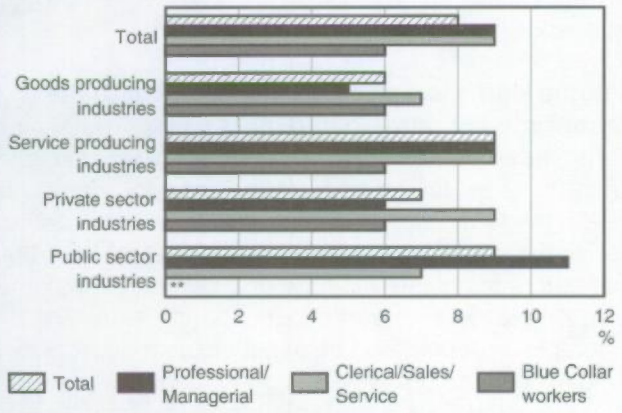
The dramatic differences seen in employer-sponsored education and training across the occupational categories are not as clear in non employer-sponsored job-related education and training. Outside of occupations

associated with Social Sciences/Religion, Teaching and Medicine/Health where the rates are at their highest, the occupational classifications of the participants appear to have little influence on the participation rates. These rates must be understood in the context of the rates in employer-sponsored training. As employers are involved in meeting the education and training needs of their employees in the majority of job-related activities, the remaining needs may be more equivalently distributed across the various occupational categories.

The stability of participation rates in non employer-sponsored education and training holds true when occupation and industry are examined in unison. The large deviations in participation rates for Professional/ Managerial occupations in total and for Blue Collar occupations in the Public Sector are not in evidence in the non employer-sponsored participation rates.

Chart 2.21

Participation rates in non employer-sponsored job-related education and training activities by occupation and industrial sector, Canada, 1993



** *Data are not reliable enough to be released.*

Table 2.20

Participation rates in non employer-sponsored job-related education and training activities by sex and occupation, Canada, 1993

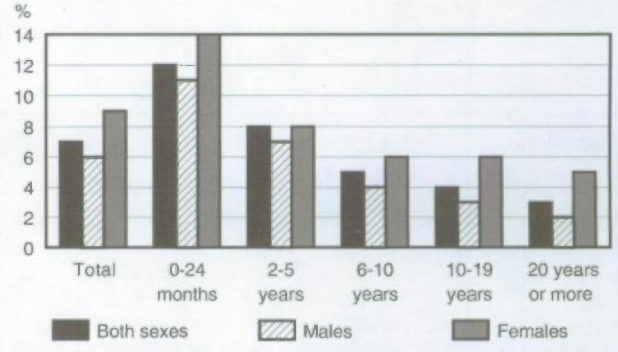
	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**8**	**7**	**9**
Professional/Managerial	**8**	**6**	**11**
Managerial and Administrative	5	3	8
Sciences, Engineering and Mathematics	5	6	**
Social Sciences and Religion	12	**	14
Teaching	15	16	14
Medicine and Health	12	13	11
Artistic, Literary and Recreational	10	**	14
Clerical, Sales and Service	**9**	**10**	**8**
Clerical and Office operation	9	10	8
Sales	9	11	8
Services to community and individual	8	9	7
Blue Collar	**6**	**6**	**8**
Primary	5	5	**
Manufacturing and Processing	6	6	7
Construction and Transportation	5	5	**
Materials handling and other occupations	8	7	**

Less experienced workers were more pro-active

Participation rates in non employer-sponsored education and training were highest for persons with two or less years of experience in their job and declined steadily as length of time on the job increased. This is the opposite pattern to the employer-sponsored rates. This may be further evidence of the balancing between employer-sponsored participation rates and non employer-sponsored participation rates as discussed previously with the age and occupation variables.

Chart 2.22

Participation rates in non employer-sponsored job-related education and training activities by sex and duration of employment, working individuals, Canada, 1993[1]



[1] *Duration of employment on the job was not available for persons who received employer-sponsored training in 1993 but had become unemployed by the time of the interview in January 1994.*

Incidence of job-related non employer-sponsored training across the industries was relatively similar

Participation in non employer-sponsored job-related education and training was not dramatically different across the Goods/Services and Public/Private industrial classifications of employers, nor across the sexes. Participation which relies more heavily on the learners initiative seems to occur relatively equally across

industries and sex. While the range in participation in employer-sponsored training was from 8% (Agriculture and Construction) to 52% (Utilities), it was much narrower in non employer-sponsored training, from 4% (Agriculture) to 10% (Education/Health/Welfare). It is interesting to note that in many cases, the highest rates in employer-sponsored education and training are associated with lower rates in non employer-sponsored education and training. This seems to suggest that the variation in industry needs for additional education and training are being attended to predominantly through employer-sponsorship, while more personal job-related education and training needs are being attended to by the individual.

Table 2.21

Participation rates in non employer-sponsored job-related education and training activities by sex and industrial sector, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**8**	**7**	**9**
Goods Producing Industries	**6**	**5**	**7**
Agriculture	4	**	**
Other Primary	7	**	**
Manufacturing	6	6	7
Construction	5	5	**
Utilities	**	**	**
Service Producing Industries	**9**	**8**	**9**
Transportation/Communication	5	4	8
Trade	9	9	10
Finance/Insurance/Real Estate	9	12	7
Education/Health/Welfare	10	10	11
Business/Comm./Personal Services	8	8	8
Public Administration	6	4	9
Private Sector Industries	**7**	**7**	**8**
Public Sector Industries	**9**	**7**	**10**

The education level, a decisive factor in the training of unemployed

The overall level of participation of unemployed individuals (12%) is half way between employer (21%) and non-employer sponsored participation rates (6%). With very few exceptions, all unemployed people, whatever their characteristics, participated in training at similar rates. While education and as a result, type of occupation, seems to be a determinant factor to their participation (and to a lesser extent, income), other characteristics such as age and sex didn't have much influence on their level of participation.

Table 2.22

Participation rates in non employer-sponsored job-related education and training activities by sex and selected demographic variables, unemployed individuals, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**12**	**12**	**13**
Duration of unemployment			
0-6 months	12	12	13
7-24 months	15	16	14
over 2 years	11	**	14
Age Group			
17-24 years	14	16	**
25-34 years	14	11	20
35-44 years	11	11	11
45-54 years	12	12	**
55 years and over	**	**	**
Level of educational attainment			
High School or less	8	8	8
Postsecondary Non-University	16	15	18
University	21	24	**
Level of income			
Less than $15,000	15	17	13
$15,000-$29,999	11	10	**
$30,000-$59,999	**	**	**
$60,000 or more	-	-	-
Occupation of unemployed			
Professional and Managerial	18	15	21
Clerical, Sales and Service	12	17	9
Blue Collar	10	9	**

B. Job-related activities

B.1 An overview

Of all the activities taken in 1993, 67% were taken for current or future job-related reasons. Clearly, obtaining, maintaining or advancing a career is a major factor in the number of education and training activities pursued by Canadian adults. As with the participation figures, the split between the number of activities pursued by males and females were nearly equivalent. Males took 3.2 million job-related activities and females undertook 3.1 million activities. The average number of activities per participant was consistently 1.5 across the sexes.

Table 2.23

Distribution of job-related education and training activities by sex, Canada, 1993

	Both Sexes	Males	Females
	(in 000's)	(in 000's)	(in 000's)
Number of activities	**6,238**	**3,162**	**3,076**
Programs	1,096	547	548
Courses	5,142	2,614	2,528
Number of participants	**4,164**	**2,142**	**2,022**
Average number of activities/participant	1.5	1.5	1.5

Large concentration of activities in a few fields of study

The level of activity within a particular field of study is a reflection of the interests and needs of students, as well as their perceptions of the potential for employment in the job market in specific areas. In addition, as the following section on employer-sponsored training demonstrates, the ranking of fields of study is an indication of where employers feel there are gaps in the skills and training of employees.

The top three fields of study taken for job-related reasons were the same as in the overall totals and accounted for 64% of all job-related activities (67% of activities for men, 61% of activities for women). Beyond this consistency, the most obvious change is the disappearance from the top ten listing of Recreational activities (in 5th position at the overall level) and Fine and Applied Arts activities (in 4th position at the overall level). Furthermore, while Recreational activities disappear, Personal Development activities not only remain in the top ten, but move up from 7th to 6th position. Other fields of study make large moves up the ranks as well. The most important changes are: Education/ Recreation/Counselling from 9th overall to 5th position in job-related, Elementary/Secondary studies form 11th to 8th, and Math and Physical sciences from 12th to 9th. Male and female differences which were noted at the overall level continue through job-related activities. Males pursued activities in Engineering/Applied Science Technologies and Trades in 30% of their activities, while females followed activities in Commerce/Management/ Business Administration in 31% of their activities.

Job-related programs: men and women made different choices

Program work taken for job-related reasons is intended to lead to the accreditation required to find and maintain gainful employment. Almost 70% of all job-related program activities taken in 1993 were in 4 fields of study. Of particular importance is the number of activities that were taken by men and women at the Elementary/ Secondary level (more than 250,000). Completing Elementary/Secondary studies is clearly seen as an important and basic qualification for current/future career plans.

There are clear differences in the nature of program activities for males and females. Program activities taken by men are concentrated in the top three fields of study, with one in three job-related activities occurring in Engineering/Applied Science Technologies and Trades. On the other hand, while one in three activities taken by women was also concentrated in one field of study, Commerce/Management/ Business Administration, there was greater diversity across the remaining fields of study (Table 2.25).

Table 2.24

Distribution of top ten job-related training education and training activities by sex and field of study, Canada, 1993

	Both Sexes	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	28	26	(2)	31	(1)
Engineering/Applied Sciences Technologies and Trades	22	30	(1)	14	(3)
Health Professions, Sciences and Technologies	14	11	(3)	16	(2)
Social Sciences and related fields	8	8	(4)	8	(5)
Educational/Recreational/Counseling Services	6	4	(5)	9	(4)
Personal Development	4	3	(7)	5	(6)
Humanities and Related Fields	4	4	(6)	4	(7)
Elementary/Secondary	3	3	(9)	2	(11)
Math and Physical Sciences	3	3	(8)	2	(10)
Agriculture and Biological Sciences and Technologies	2	2	(10)	3	(8)
All Other Major Fields of Study	6	6	n.a.	6	n.a.

Job-related Courses

The distribution of fields of study for courses is more reflective of the overall totals than are the fields of study for job-related programs. This results from the fact that 5.1 million of the 9.2 million adult education and training activities taken in 1993 were taken as job-related courses. The very strong tendency for job-related activities to be taken as courses is a consequence of the ability for course work to attend to specific job needs in a short and focused format, and the inclination of employers to sponsor/provide training that is of shorter duration than program work. Although 44% of all job-related program activities had some form of employer sponsorship, 78% of all course activities had employer sponsorship. There were large similarities between men and women in their choice of job-related courses.

Chart 2.23

Distribution of job-related program and course activities by type of sponsorship, Canada, 1993

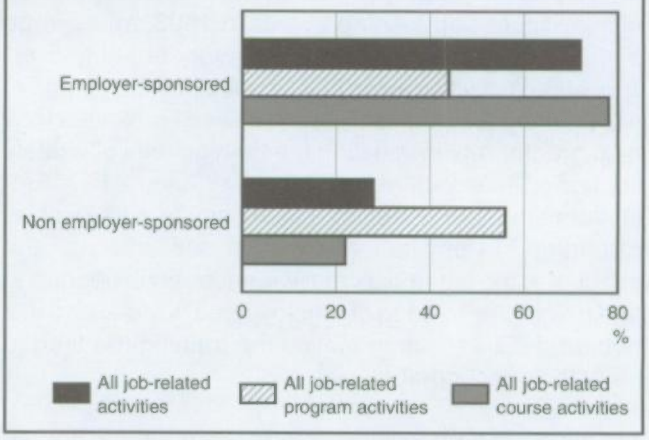


Table 2.25

Distribution of top ten job-related education and training programs by sex and field of study, Canada, 1993

	Total	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	24	17	(2)	31	(1)
Engineering/Applied Sciences Technologies and Trades	19	31	(1)	6	(6)
Elementary/Secondary	15	16	(3)	14	(2)
Social Sciences and related fields	10	9	(4)	11	(4)
Health Professions, Sciences and Technologies	8	4	(7)	11	(3)
Educational/Recreational/Counseling Services	7	4	(6)	10	(5)
Math and Physical Sciences	4	6	(5)	**	(10)
Humanities and Related Fields	4	3	(9)	5	(7)
Agriculture and Biological Sciences and Technologies	3	**	(10)	3	(9)
Fine and Applied Arts	2	**	(12)	3	(8)
All Other Major Fields of Study	4	10	n.a.	6	n.a.

Table 2.26

Distribution of top ten major job-related education and training courses by sex and field of study, Canada, 1993

	Total	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	29	28	(2)	31	(1)
Engineering/Applied Sciences Technologies and Trades	23	29	(1)	16	(3)
Health Professions, Sciences and Technologies	15	13	(3)	18	(2)
Social Sciences and related fields	7	7	(4)	7	(5)
Educational/Recreational/Counseling Services	6	4	(7)	9	(4)
Personal Development	4	4	(6)	6	(6)
Humanities and Related Fields	4	4	(5)	4	(7)
Agriculture and Biological Sciences and Technologies	3	3	(8)	2	(8)
Math and Physical Sciences	2	2	(9)	2	(10)
Fine and Applied Arts	2	1	(12)	2	(9)
All Other Major Fields of Study	5	5	n.a.	3	n.a.

B.2 Job-related employer-sponsored activities

Almost three-quarters (72%) of all job-related activities taken in 1993 were undertaken with the assistance of an employer. Employer-sponsored trainees pursued almost 4.5 million training events in 1993, an average of 1.5 events per trainee. Nine in every ten employer-sponsored activities were initiated either by the employer or by the student themselves. However, employers took a far greater role in initiating the training they ultimately supported than did their trainees (73% vs. 24%). Employers are often better able to anticipate and respond to changes, from factors that are both internal and external to the enterprise, that will necessitate upgrading and training/re-training of employees. They are also in a better position to set in motion the training required to meet those changes.

The differing time investments of program and course work are reflected in who initiated discussions regarding employer-supported education/training in each of these two areas. Not only are employers less likely to support program work, they are also less likely to initiate discussions regarding the attaining of some form of accreditation. This corroborates the human capital theory that argues that employers have an incentive to offer job-specific rather than general training (Becker, 1963).

The slightly higher number of employer-sponsored male participants influences the distribution of employer-sponsored activities by sex. Of the 4.5 million courses taken, 54% of the activities were taken by male trainees and 46% were taken by female trainees. However, male and female trainees followed almost the same number of activities (1.5 for men and 1.6 for women) through employer-sponsorship.

Nine out of ten employer-sponsored job-related training events were taken as courses. The shorter durations of courses, the ability to focus on specific issues and design course work to respond to the particular needs of the enterprise make this form of training a more viable avenue for many employers. For both males and females, employer-sponsorship was much more inclined toward courses than toward programs.

Table 2.27

Distribution of employer-sponsored job-related training activities by sex, Canada, 1993

	Both Sexes	Males	Females
	(in 000's)	(in 000's)	(in 000's)
Number of activities	**4,492**	**2,417**	**2,075**
Programs	477	277	200
Courses	4,015	2,141	1,875
Number of participants	**2,908**	**1,581**	**1,327**
Average number of activities/participant	1.5	1.5	1.6

Seven out of ten employer-sponsored training activities were in three fields of study

The overall ranking for field of study for job-related reasons is heavily influenced by the fields of study in employer-sponsored training. Since employer-sponsored education and training accounts for 72% of all job-related activities, the fact that there is little difference between these two categories in the top ten fields of study is not surprising. It is interesting to note, however, that Personal Development retains its position in the top 10 fields of study within employer-sponsored education and training. Differences between male and female activities in the national and job-related levels are driven by the differences between the sexes in employer-sponsored education and training.

Goods and Service Industries had different training needs

When employer-sponsored activities are disaggregated according to the industrial classification of the employer, the relative needs of the various industries become clearer. Activities in Engineering/Applied Science Technologies and Trades account for 44% of all employer-sponsored activities taken in the Goods-Producing sector. In the Service-Producing sector, Commerce/ Management/Business Administration accounts for 32% of the employer-sponsored activities in the sector.

Within the Goods-Producing sector, the importance of the top three fields of study was mainly influence by the Manufacturing industry where each of these three fields accounted for 50% of the employer-sponsored training activities or more. In the Service-Producing sector, importance of each field of study within each industry was more varied. Just over a quarter (26%) of activities in Commerce/Management/Business Administration were taken by trainees from Finance/ Insurance/Real Estate industries. In the Engineering/Applied Science Technologies and Trades field of study almost one-quarter (24%) of the activities were taken by trainees from the Trade Industries. In the Health Professions/ Sciences and Technologies field of study, employer-sponsored activities taken in the Service sector were followed almost exclusively (75%) by trainees in the Education/Health/Welfare industries.

Table 2.28

Distribution of top ten employer-sponsored job-related activities by sex and field of study, Canada, 1993

	Total	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	31	28	(2)	33	(1)
Engineering/Applied Sciences Technologies and Trades	25	32	(1)	16	(3)
Health Professions, Sciences and Technologies	15	13	(3)	17	(2)
Social Sciences and Related Fields	7	8	(4)	7	(5)
Educational/Recreational/Counseling Services	6	3	(5)	10	(4)
Personal Development	4	3	(6)	5	(6)
Humanities and Related Fields	3	2	(10)	3	(7)
Agriculture and Biological Sciences and Technologies	2	2	(8)	2	(8)
Math and Physical Sciences	2	3	(7)	2	(9)
Fine and Applied Arts	1	-	(13)	2	(10)
All Other Major Fields of Study	4	5	n.a.	3	n.a.

Table 2.29

Distribution of top ten employer-sponsored job-related activities by field of study and industry, Canada, 1993

	Total	Goods-Producing Industries		Service-Producing Industries	
	(%)	(%)	Rank	(%)	Rank
Commerce/Management/Business Administration	31	26	(2)	32	(1)
Engineering/Applied Sciences Tech. and Trades	25	44	(1)	19	(2)
Health Professions, Sciences/Technologies	15	12	(3)	16	(3)
Social Sciences/Related Fields	7	2	(9)	9	(4)
Educational/Recreational/Counseling Services	6	**	(14)	8	(5)
Personal Development	4	3	(6)	4	(6)
Humanities/Related Fields	3	2	(8)	3	(7)
Agriculture/Biological Sciences and Technologies	2	3	(5)	2	(8)
Math and Physical Sciences	2	3	(7)	2	(9)
Fine and Applied Arts	1	**	(10)	1	(12)
Engineering and Applied Sciences	1	4	(4)	1	(13)
All Other Major Fields of Study	4	5	n.a.	4	n.a.

B.3 Job-related non employer-sponsored activities

Of all the job-related activities taken in 1993, 29% (1.7 million) were taken without any assistance from an employer. The distribution of activities between males (43%) and females (57%) in non employer-sponsored education and training is the reverse of the figures for employer-sponsored education and training. The shortfall in activities for females in employer-sponsored job-related training is offset by their activities in non employer-sponsored training. The average number of activities taken in a non employer-sponsored situation shows a slight decrease, down to 1.3 (1.2 for males, 1.3 for females) from 1.5 for job-related overall and 1.5 for employer-sponsored job-related training.

Table 2.30

Distribution of non employer-sponsored job-related activities by sex, Canada, 1993

	Both Sexes	Males	Females
	(in 000's)	(in 000's)	(in 000's)
Number of activities	**1,746**	**745**	**1,001**
Programs	619	271	348
Courses	1,127	474	653
Number of participants	**1,350**	**597**	**754**
Average number of activities/participant	1.3	1.2	1.3

Training activities still concentrated in three fields of study

There is no change in the top three fields of study for non employer-sponsored training from either job-related activities overall or employer-sponsored job-related activities. In the lower ranked fields of study there is a downward movement in placement. This is due to the jump in placement of Elementary/Secondary activities to 4th position in non employer-sponsored education and training (Table 2.31).

Training activities taken as programs are more popular among the non-employer sponsored trainees

The percentage of non employer-sponsored activities that were taken as program work (35%) was more than three times as high as the percentage of employer-sponsored activities that were taken as program work (11%). However, courses remained the main form of training, representing two-thirds of all activities. The same pattern holds true for both male and female non employer-sponsored trainees. Trainees who pursue studies without the support of an employer are more likely to follow a path that will lead to accreditation. While it is not surprising that employer sponsorship would lean more toward course work, it means that individuals who wish to obtain some level of accreditation must make time and financial compromises on their own. Non employer-sponsored training is necessarily taken outside of work and must be balanced against family and other responsibilities. While the number of people who followed non employer-sponsored training is quite high, often the financial and time demands on these people are quite different from those who have employer-sponsorship (see Chapter 4 for a discussion on the organizational aspects of adult education and training).

Table 2.32

Distribution of employer and non employer-sponsored job-related training programs and courses by sex, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Employer-sponsored training activities			
Programs	11	11	10
Courses	89	89	90
Non employer-sponsored training activities			
Programs	35	36	35
Courses	65	64	65

The higher proportion of activities taken at the program level in non employer-sponsored education and training was quite revealing. More than a third (36%) of the non employer-sponsored program activities was taken toward university accreditation. Elementary/ Secondary studies account for one in five activities that were taken for accreditation through non employer-sponsored training. It is the Elementary/Secondary activity that is taking place in non employer-sponsored education and training that accounts for the high proportion of Elementary/Secondary studies at the overall job-related program level. Apprenticeship programs have a very small showing in this distribution. It is typically within the definition of Apprenticeship programs that there be some form of employer involvement.

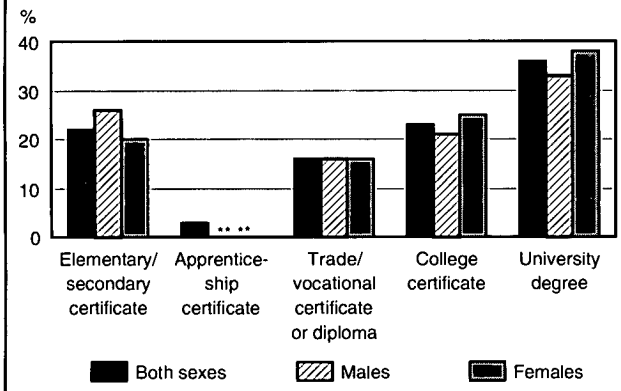
Table 2.31

Distribution of top ten non employer-sponsored job-related activities by sex and field of study, Canada, 1993

	Total	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	22	18	(2)	26	(1)
Engineering/Applied Sciences Technologies and Trades	15	22	(1)	10	(3)
Health Professions, Sciences and Technologies	12	8	(5)	15	(2)
Elementary/Secondary	8	9	(3)	7	(6)
Social Sciences and related fields	8	7	(6)	8	(4)
Humanities and Related Fields	7	9	(4)	6	(2)
Educational/Recreational/Counseling Services	6	6	(7)	7	(5)
Personal Development	5	5	(8)	4	(8)
Fine and Applied Arts	3	3	(10)	4	(9)
Math and Physical Sciences	3	4	(9)	3	(11)
All Other Major Fields of Study	11	9	n.a.	10	n.a.

Chart 2.24

Distribution of non employer-sponsored job-related education and training programs by sex and level of accreditation sought, Canada, 1993



*** Data are not reliable enough to be released.*

Activities of the Unemployed

The majority of non employer-sponsored job-related activities followed by the unemployed were taken as course work (62%). Yet the percentage of activities taken as programs is as high for the unemployed as it is in the non employer-sponsored distribution overall (38%).

The smaller proportion of activities taken by individuals who had been unemployed more than 2 years (16%) reflects the dramatic decline in participation shown by this group relative to the other two groups. The majority (57%) of program activities were taken by individuals who had been unemployed less than six months, while courses were more evenly divided between those who had been unemployed less than six months (41%) and those had been unemployed 7-24 months(44%).

Of all programs taken by the unemployed, 76% were taken by those unemployed who were aged between 17 and 34 years of age. Courses were more diversified across the age groupings. Both the non employer-sponsored program and course activities of the unemployed drew most heavily from unemployed individuals who had already participated in some kind of post-secondary education.

Commerce/Management/Business Administration and Engineering/Applied Science Technologies and Trades are as important to unemployed non employer-sponsored participants as they are to their employer-sponsored and other non employer-sponsored counterparts. It is important to note that no other group devoted as many of their activities (15%) to Elementary/ Secondary studies as unemployed non employer-sponsored participants.

Chart 2.25

Distribution of non employer-sponsored job-related education and training programs and courses by sex, unemployed individuals, Canada, 1993

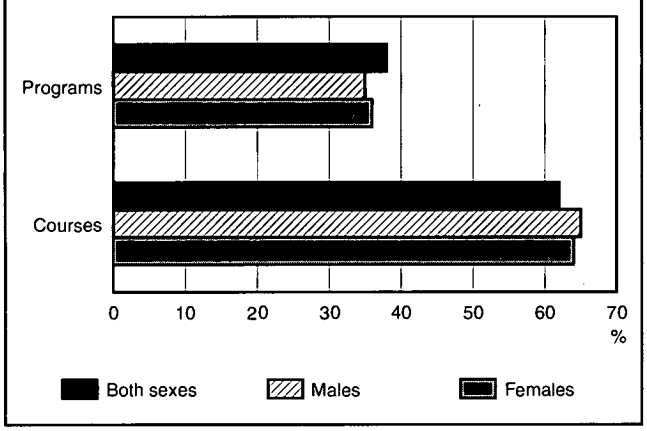


Table 2.33

Distribution of non employer-sponsored job-related training programs and courses by selected demographic variables, unemployed individuals, Canada, 1993

	All Activities	Programs	Courses
	(%)	(%)	(%)
Duration of unemployment			
0-6 months	47	57	41
7-24 months	37	25	44
over 2 years	16	18	15
Age Group			
17-24 years	25	36	19
25-34 years	33	40	29
35-44 years	18	17	19
45-54 years	19	**	25
55 years and over	**	**	**
Level of Educational Attainment			
High School or less	40	40	39
Postsecondary non-university	47	48	46
University	14	**	15

Table 2.34

Distribution of non employer-sponsored job-related training activities by sex and major field of study, unemployed individuals, Canada, 1993

	Total	Males		Females	
	(%)	(%)	Rank	(%)	Rank
Commerce, Management and Business Administration	19	13	(4)	27	(1)
Elementary/Secondary	15	17	(1)	**	(3)
Engineering/Applied Sciences Technologies and Trades	10	14	(3)	**	(5)
Humanities and Related Fields	10	14	(2)	**	(6)
All Other Major Fields of Study	46	42	n.a.	73	n.a.

CHAPTER 3

Personal interest education and training activities

R. Couillard

As described in the previous chapter, the very large majority of education and training activities taken by Canadians adults were to increase their job-related skills. However, not all education and training is related to the labour market. People are acquiring skills and knowledge for many other reasons. The analysis of information on education and training activities taken for personal interest reasons is also important since it describes how Canadians are integrating the lifelong training culture into their personal lives and indicates their interests in education.

Education and training activities taken for personal interest reasons include any courses or programs not taken for job-related reasons[1] . They are educational activities taken to acquire skills or knowledge to respond to needs generated by day to day life, to solve specific problems, for hobby or recreation purposes, for personal development, to satisfy thirst of knowledge, and any other motives not related to work. Each person has to learn new tasks throughout his/her life. These tasks may be grouped according to three periods of adult life: early adulthood, 18-30 years, middle age, 30-55 years, and finally maturity, 55 years and over (Havighurst 1972). With informal education activities, these education activities taken for personal interest reasons represent one of the ways people acquire learning required to face different life situations, to manage their lives as adults, parents, citizen, organization member, etc.

This chapter first presents an analysis of the personal interest training sector both in terms of the trainees and in terms of their activities. The second section focuses on personal interest training activities sponsored by employers. Even if employers sponsored only 13% of all personal interest training activities, the very existence of this type of support may be a sign of an emerging new philosophy of training among businesses.

A. Overview of the personal interest training sector

In 1993, close to 2.5 million Canadians adults or one in every eight (12%) registered in more than 3.1 million courses or programs for a personal interest reason. Women (14%) were much more likely then men (9%) to engage in such activities. In fact, women represent two thirds of all participants in this type of training. The very large majority of participants registered in a course rather than a program of study. The prevalence towards courses can be attributed to their lower financial costs and shorter duration.

Even if the lack of time is one of the most important reason for not taking any training or further training, a fairly large number of people found the time to take both job-related and personal interest education or training

[1] *Respondents to the AETS were asked to classify their training activities as either job-related, personal interest or activities taken for other reasons. Since a very small number of activities were taken for "other reasons", in this analysis, these activities are included in activities taken for personal reasons.*

Table 3.1

Participants and participation rates in personal interest education and training activities by sex and type of activity, Canada, 1993

	Both Sexes		Males		Females	
	Participants	Rate	Participants	Rate	Participants	Rate
	(In 000's)	(%)	(In 000's)	(%)	(In 000's)	(%)
Total	**2,486**	**12**	**936**	**9**	**1,550**	**14**
Programs	270	1	115	1	155	1
Courses	2,263	11	838	8	1,426	13

Note: *Totals may not add due to rounding*

(see Chapter 6 for a discussion of the barriers to training). One in every seven adult learners (800,000) registered in both types of activities in 1993. Two thirds of them were in their primary working years (25-44 years of age) and the vast majority (89%) were working.

While men and women participated at low and rather comparable rates in programs, women were much more inclined than men to register in courses.

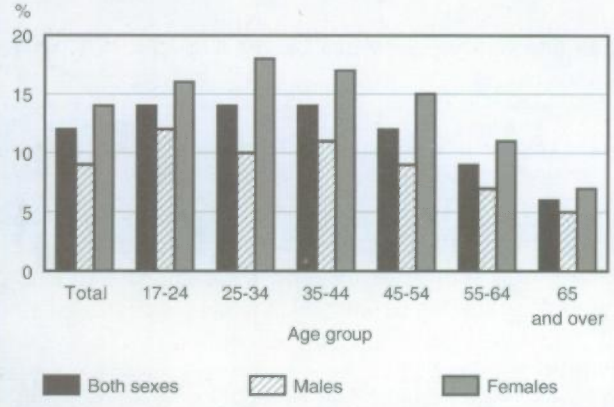
Overall, participants spent 155 million hours on personal interest education or training activities. This represented an average of 63 hours per trainee. Because of their more important participation in courses compared to men, women spent an average of 56 hours on personal interest training activities compared to 72 for men.

Except for the 55 and over age group, all other age groups participated in training for personal interest reasons at a similar rate. This is a very different pattern than the one observed for job-related training. It simply reflects that at all ages, adults need to learn but as we will see below, these learning needs vary with age. After 55 years of age, as retirement approaches and during retirement, factors such as limited finances and mobility may inhibit older people from participating. In addition to physical deterrents such as hearing, vision fatigue or memory problems, older people generally fear for their personal safety and for this reason are somewhat reluctant to attend night classes (Cavanah and Williams, 1994). This generation had received much less formal education than younger ones and this in itself has probably the greatest impact on today's participation in further training. According to the 1994 AETS, close to 70% of the population aged 55 or over in 1993 had a high school diploma or less. Beder (1990) also explained this decline in participation of older people by the lowest perception of needs and their tendency to adapt to their state of low literacy. Miller (1968) went further in showing that their limited participation may also result from their lack of confidence in themselves and their embarrassment to meet participation requirements.

For all age groups, women participated more than men. Differences were more pronounced in the 25-54 groups, partially due to their lower participation in the labour force. Differences were less important at both ends of the age scale.

Chart 3.1

Participation rates in personal interest education and training activities by sex and age group, Canada, 1993



Personal interest training activities in the provinces

The East-West tilt observed previously still exists when participation in personal interest training activities is examined. This tilt is less important than in job-related education and training. Atlantic provinces participated at rates ranging from 7% to 11% while Quebec and Ontario had similar rates (11%). All western provinces, except Saskatchewan, had rates over the average. Women participated more than men in every province. Women were particularly responsible for the much higher rates recorded in Alberta and British Columbia.

A breakdown into urban/rural areas reveals that except for Alberta, residents from rural areas participated less than those from urban areas. However while some provinces (Newfoundland, Nova Scotia) showed very small differences in participation rates between the two areas, others recorded larger gaps (Prince Edward Island, Manitoba, British Columbia).

Table 3.2

Participation rates in personal interest education and training activities in rural/urban areas, Canada and provinces, 1993

	Total	Urban	Rural
	(%)	(%)	(%)
Canada	**12**	**12**	**10**
Atlantic Provinces	**9**	**10**	**9**
Newfoundland	7	8	7
Prince Edward Island	10	12	9
Nova Scotia	11	11	10
New Brunswick	9	10	8
Quebec	11	12	10
Ontario	11	12	10
Prairie Provinces	**12**	**13**	**11**
Manitoba	12	13	10
Saskatchewan	10	11	9
Alberta	13	13	14
British Columbia	16	16	12

Education level of participants still a major factor

Even if the majority of training events taken for personal interest purposes do not require any prerequisite level of education or training, the level of participation is still highly correlated with the participant's education level. Adults with a university degree (22%) participated a rate three times higher than those who had a high school diploma or less (7%). This relationship was valid for both men and women. The high school diploma seems to be the minimum level of education, required by an individual to assure capacity and interest in further education or training. The more a person had participated in the formal school system the more this person remains involved in education throughout his/her life.

Table 3.3

Participation rates in personal interest education and training activities by sex and level of educational attainment, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total	**12**	**9**	**14**
High School or less	**7**	**5**	**9**
0 to 8 years	3	2	4
Some secondary education	7	6	8
Graduated from High School	10	6	13
Postsecondary Non-University	**15**	**12**	**18**
Some postsecondary education	15	14	17
Postsecondary certificate/ Diploma	15	11	19
Postsecondary University	**22**	**17**	**28**

Single persons participated more than others

Both male and female singles participated more than married, widowed, separated or divorced people. Since participation rates in personal interest training activities were relatively constant for any age groups up to the 45-54 age group, this situation may reflect the more important availability of singles over married people. However, a further analysis of the level of participation shows that, among people with children (as in the case of the job-related training discussed before) those with two or more pre-schoolers participated more than those with one or no pre-school children. Their level of participation (14%) was almost comparable to the level of single persons (15%).

Whatever their marital situation (with or without the presence of children) women participated much more than men. In terms of differences by gender, married women and women with more than two pre-schoolers participated at twice the rate for men. Widows participated at three times the rate of widowers.

If people participating in job-related education and training activities are what Houle (1961) has labelled goal oriented people, those involved in personal interest training are probably, based on his terminology, more activity and learning oriented people. The learning oriented person, as defined by Houle, is one who is using this activity to acquire more knowledge. The activity oriented person participates in these activities more to socialize than to learn. This person is not so much interested in the content than in the circumstances of learning.

Chart 3.2

Participation rates in personal interest education and training activities by sex and marital status, Canada, 1993

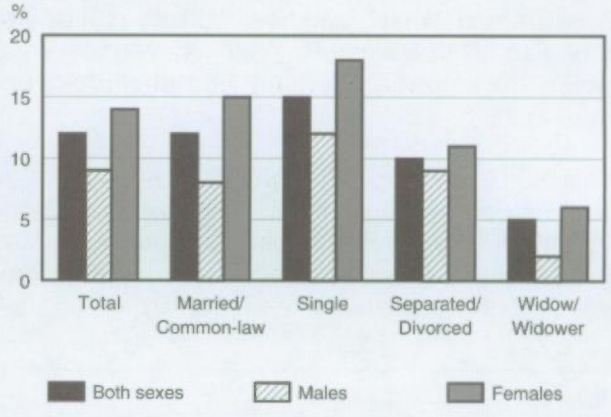
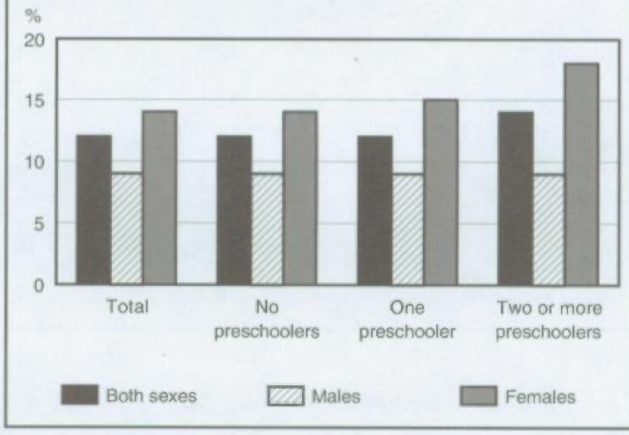


Chart 3.3

Participation rates in personal interest education and training activities by sex and presence of preschool children, Canada, 1993



Employed people tended to register more

Employed Canadians participated in personal interest training activities at a rate of 14% while those who were unemployed and those not in the labour force, were much less active with a rate of 9% and 8%, respectively. As one would expect, part-time workers participated more than full-time workers; in the job-related training sector, the reverse situation was observed (see Chapter 2).

In addition to a lower interest in this type of education, the lower participation of the non employed population is a reflection of the income and age factors of these populations. Participation rates of non employed women were almost equal to those of employed men.

Table 3.4

Participation rates in personal interest education and training activities by sex and labour force status, Canada, 1993

	Both Sexes	Male	Female
	(%)	(%)	(%)
Total	**12**	**9**	**14**
Labour Force	**14**	**10**	**18**
Employed	**14**	**11**	**19**
Full-time	14	11	19
Part-time	17	12	19
Unemployed	**9**	**7**	**12**
Not in the Labour force	**8**	**6**	**10**

Participation increased with income

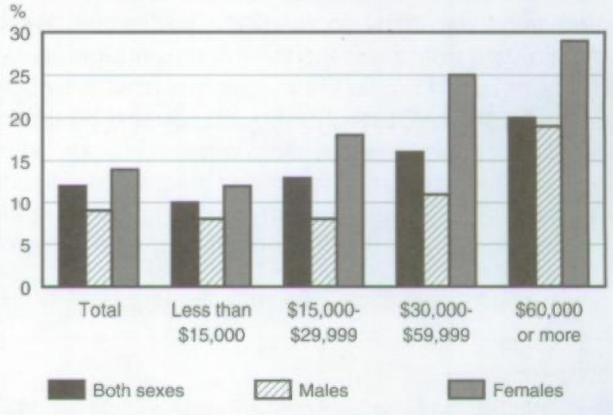
There was a clear relationship between income and incidence of education or training taken for personal interest reasons. The relationship for men was rather flat up to the $30,000 income level whereas the female participation rates for women increased steadily. For both sexes though, the highest income earners participated at a rate over twice that of those at the lower end of the income scale.

Men and women selected different activities

Education and training activities in the field of Recreational and Fine and Applied Arts were the most popular personal interest activities, accounting for almost 40% of the total. None of the other fields of study represented more than ten percent of the total number of activities. Recreational activities were the first choice for men while Engineering and Applied sciences techniques and

Chart 3.4

Participation rates in personal interest education and training activities by sex and income, Canada, 1993



trades ranked second, followed by Fine and Applied Arts. The concentration of activities was even larger for women with close to 45% of all activities reported in only two fields of study. The most popular field of study for women was Fine and Applied Arts which accounted for 25% of personal interest activities, followed by Recreational activities with 19%.

Table 3.5

Distribution of top ten personal interest education and training activities by sex and field of study, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Total number of activities (in 000's)	**3,128**	**1,150**	**1,978**
Fine and Applied Arts	20	11	25
Recreational Activities	19	17	19
Humanities and Related fields	10	8	11
Personal development	10	10	10
Engineering and Applied Sci. Tech. & Trade	8	13	5
Agricultural & Biological Sci./Tech.	7	4	8
Health Professions, Sci. & Tech.	6	9	5
Commerce, Management & Business Admin.	6	7	6
Educational/Recreational/ Counselling	4	6	3
Social Sciences& Related Fields	4	4	3
All other fields	6	11	5

Courses were the main type of personal interest activities

Learning activities which are classified as personal development or recreational activities were mainly offered

as courses (91%) rather than programs. Courses often require much less investment in time and money, are more specific and don't need any prerequisites.

Among the programs, those at the elementary or high school level were the most popular, with more than a third of all programs. Among the other programs, those in Humanities and Related Fields and those in Commerce, Management and Business Administration ranked second and third, respectively.

B. Personal interest activities sponsored by the employer

Who had Access to Them?

It is believed that an increasing number of employers are offering or supporting personal interest training. Employers may offer this type of training on their premises or in other locations. Some are sponsoring them to improve labour relations, others as non-cash compensation to reward deserving employees, others to improve employees' fitness, etc. In any case, the provision of stress management courses, aerobics classes, managing work and family courses etc., as well as employer support for further formal education and training that the employee wishes to pursue from their own interests, is an expression of the employer's commitment to the employee on a more personal level. In order to measure this new phenomenon, respondents to the 1994 AETS were asked to identify sponsorship for those activities.

In 1993, close to 316,000 people have had access to education or training for personal interest reasons with the support of an employer. This represents around 13% of all trainees involved in personal interest training activities and 10% of all employer-sponsored trainees. Who were the employees who had access to such training and who were the employers sponsoring that type of training? What kind of courses were the most popular? This section answers those questions.

Women participated slightly more than men

Only 2.2% of the labour force received personal interest training sponsored by their employer. Men participated at a rate of 1.9%, while women, as most similar surveys have shown before, were relatively more likely to participate (2.6%). However, the intensity of training as measured by the number of hours presents a different picture. Overall, employers sponsored some 26 millions hours of personal interest training or an average of 85 hours per trainee. Female trainees received an average of 64 hours compared to 109 hours for male trainees.

People at both extremes of the age scale received less

As in the case of job-related training supported by the employers, people aged 25 to 54 participated at twice the rate of their younger and older fellow workers. Employees in this age range are generally more active than older workers. Among young workers (17 to 24 years old), men participated just slightly more than those aged 55 and over while young women participated less than those 55 years and over (1.1% vs. 1.6%).

Overall, men's participation in employer-sponsored personal interest activities steadily increased with age while women' rates had fluctuated between 1% and 4%.

Well educated workers received more training

There was a clear relationship between the level of educational attainment and participation in personal interest training. Three in four trainees had post-secondary education and the majority were in professional and managerial positions. As a consequence the incidence of such training increased regularly with each income level. The relationship was particularity strong for women with income over $30,000. Their participation rate was twice the rate for men with the same income and more than five times the rate for female low income earners.

Access was almost exclusively limited to full-time workers

As in the case of job-related training, employers were more likely to sponsor this type of training for full-time rather than part-time employees. Close to 85% of participants in employer-sponsored personal interest training were full-time workers[2]. This proportion reached 89% for men and 81% for women.

Type of employer sponsorship

The type of support employers offered to employees taking personal interest training was comparable to what they gave to job-related trainees. Employers were generally willing to pay for fees or tuition, to provide paid time-off, to pay for material or to provide premises or supplies.

Personal interest training: a reward for long service employees

Participation rates in personal interest training increased with job tenure, from 1% for those with a year or less in

[2] *This number is somewhat underestimated since the labour force status of workers is the one reported at the time of survey. Approximately 5% of the workers who had received personal interest training with employer support were no longer employed in January 1994. They were either unemployed or out of the labour force.*

service to 4% for those with 6 to 10 years of seniority with the same employer. The rate fell to less than 3% for employees with 10 years of service or more. This pattern is much influenced by the situation observed for professional and managerial as well as clerical and sales occupations. In the case of blue collar workers, participation increased steadily. In fact more than 40% of blue collar workers who received personal interest training had twenty or more years of service with the same employer.

The service sector still a big trainer

As was observed in the case of employer-sponsored job-related training, participation in personal interest training showed large variations by industry. Workers in the service sector had a greater access to this type of training than their counterparts in the goods producing sector. Employees in the Utilities, Education, Health and Welfare industries as well as in Public Administration, participated at a rate twice the average rate. However the Finance, Insurance and Real Estate industries who posted a job-related training rate (32%) much above the average, offered personal interest training to less than 2% of its employees. In the goods producing sector only Utilities posted a rate above the average (8.5%).

The larger the firm the more it provided training for personal interest

Large firms were more likely to sponsor both job-related and personal interest training. In 1993, larger firms (500 employees and over) employed around a third of all workers but were responsible for more than half of the personal interest training sponsored by employers. At the other end of the spectrum, small firms (less than 20 employees) who employed a similar proportion of workers, contributed 20% of this type of training. Difficulties usually encountered by small firms in delivering job-related training still apply in the case of personal interest training.

Firms located in Central Canada were less prone to sponsor personal interest training

Participation in employer-sponsored personal interest education or training was lowest in Quebec and Ontario (1.6% and 1.7% respectively). Participation rate in Atlantic provinces (2.4%) was comparable to the national rate whereas rates where much above average in the Prairies region (3.1%) and British Columbia (4.1%).

Which training activities were sponsored?

Personal interest courses offered by employers were generally not recreational or hobby type activities. Indeed, the three most popular personal interest activities sponsored by employers were quite similar to those offered for job-related purposes. These fields were

Table 3.6

Profile of participants in employer-sponsored personal interest education and training activities by sex and selected variables,Canada, 1993

	Participation Rates (%)		
	Both sexes	Males	Females
Total	**2.2**	**1.9**	**2.6**
Age Group			
17-24 years	1.1	1.3	1.1
25-34 years	2.8	1.9	3.8
35-44 years	2.3	2.3	2.4
45-54 years	2.7	2.4	3.1
55 years and over	1.2*	1.0*	1.6*
Level of Educational Attainment			
High school or less	1.3	1.1	1.5
Postsecondary non-university	2.6	2.4	2.8
Postsecondary university	4.0	3.2	5.0
Level of Income			
Less than $15,000	0.9	**	1.0*
$15,000-$29,999	2.4	1.7	3.1
$30,000-$59,999	3.6	2.7	5.4
$60,000 or more	3.4	3.1*	**
Labour force status			
Employed full-time	2.7	2.3	3.3
Employed part-time	1.5	1.0	1.7
Occupation			
Professional and Managerial	3.8	3.4	4.2
Clerical, Sales & Services	1.7	1.6	1.8
Blue Collar Workers	1.3	1.2	1.5*
Industrial sectors			
Goods producing industries	**1.8**	**1.8**	**2.1**
Agriculture	**	**	**
Other Primary	**	**	**
Manufacturing	1.6	1.7	**
Construction	**	**	**
Utilities	8.5*	**	**
Service producing industries	**2.4**	**2.0**	**2.7**
Transp. & Communications	**	**	**
Trade	0.9*	**	**
Finance, Insurance & Real Estate	**	**	**
Education, Health & Welfare	4.6	4.7	4.6
Buss., Commercial, Pers. Services	1.5	1.6*	1.3*
Public Administration	4.2	4.2*	4.3*
Private Sector	**1.4**	**1.3**	**1.4**
Public Sector	**4.7**	**4.7**	**4.7**
Firm size			
Less than 20 employees	1.4	1.2	1.8
20 to 499 employees	2.3	1.8	3.1
500 employees and over	3.6	3.3	4.0
Duration of Employment			
One year or less	1.4	1.2	1.6
2 to 5 years	2.3	1.9	2.7
6 to 10 years	4.1	2.9	5.6
11 or more years	2.8	2.8	2.8

Table 3.7

Distribution of top ten employer-sponsored personal interest education and training activities by sex and field of study, Canada, 1993

	Both Sexes		Males		Females	
	(%)	rank	(%)	rank	(%)	rank
Commerce, Management & Business Administration	19	(1)	16	(3)	21	(1)
Health Professions, Sciences and Technologies	18	(2)	20	(1)	17	(2)
Engineering & Applied Sciences Technologies and Trades	16	(3)	17	(2)	15	(3)
Educational/Recreational/Counselling Services	10	(4)	8	(5)	11	(5)
Personal Development	9	(5)	7	(6)	12	(4)
Social Sciences & Related fields	7	(6)	10	(4)	4	(8)
Humanities & Related fields	6	(7)	4	(9)	9	(6)
Fine and Applied Arts	3	(8)	2	(12)	4	(7)
Mathematics and Physical Sciences	3	(9)	5	(7)	1	(11)
Elementary-Secondary Studies	3	(10)	3	(11)	2	(10)
All other fields of study	6	n.a.	8	n.a.	4	n.a.

Commerce, Management and Business Administration (19%), Health professions, sciences and technologies (18%) and Engineering and Applied Sciences Technologies and Trades (16%). Overall, these three types of activities accounted for more than half of all personal interest activities sponsored by employers. The same three fields of study represented 70% of all job-related employer-sponsored activities. These employer-supported personal interest activities were somewhat different from those not supported by employers. The non-employer sponsored activities were mainly concentrated in Fine and Applied Arts (22%), Recreational activities (21%), and Humanities and Related fields of study (10%).

At this stage it is important to remember that the AETS is a household survey. Consequently the distinction between job-related and personal interest activities reflect respondents' motivation to register in such activities which might be different from the employer's intention. For this reason, it is possible that some activities were reported by trainees as being motivated by personal interests while in employer's mind they were intended as job-related activities. This might explain why the top three fields of study are the same in personal interest and in job-related employer-sponsored training. A further analysis would also be required to determine if the course location or the time of the day it has been offered might have influenced the trainees' perception. For example, courses offered in-house and at lunch time might be perceived more as personal interest courses that those offered elsewhere and at different time.

In terms of major fields of study, men and women undertook almost the same type of training. However, the distribution of training activities across the various fields show a somewhat different ranking of these fields.

Table 3.8

Selection of courses by employer-sponsored personal interest training participants within the three most popular fields of study by sex, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Commerce, Management and Business Administration	**100**	**100**	**100**
Business and Commerce	17	21	15
Financial Management	21	15	25
Industrial Management and Administration	26	32	21
Marketing, Merchandising, Retailing, Sales	14	21	10
Secretarial Science	19	8	27
All others courses	3	3	2
Health Professions, Sciences and Technologies	**100**	**100**	**100**
Nursing	11	8	16
Public Health	18	17	18
Medical Treatment Technologies	52	56	48
All others courses	19	19	18
Engineering and Applied Science Tech. & Trades	**100**	**100**	**100**
Building Technologies	3	5	-
Data Processing and Computer Sc. Tech.	60	37	84
Electronic and Electrical Technologies	9	15	3
General and Civil Engineering Technologies	6	9	3
All others courses	22	34	10

A closer examination reveals different choices within those fields. For example, in Commerce, Management and Business Administration, women tend to received relatively more courses in Secretarial Science and Financial Management whereas men were more concentrated in Industrial Management, Business and Commerce, and Marketing. In Engineering and Applied Sciences Technologies and Trades, differences were even more evident. Women registered almost exclusively in Data Processing courses while men took a larger selection of courses.

CHAPTER 4

Organizational aspects of adult education and training

R. Couillard, and A. Rogers

Provincial departments of education are mandated to meet the learning needs of youths. To achieve this, they define program curricula and their various organizational aspects. Over the years, these departments have begun to accept some responsibility for the education of adults, namely in the area of adult literacy. Thus, the school system became involved in continuing and remedial education. However, adult education has never been a truly organized sector because no clear mandates or goals were given. The sector has always reacted to policies dictated by multiple, and competing, government departments (Education, Manpower, Immigration etc.). As a consequence, regulations are relatively nonexistent. Adult education and training in Canada is much less controlled than the regular education offered to the young. School boards, colleges and universities are responsible for designing the courses they offer to adults, but they have no control on out-of-school education and training (sometimes comparable in content) offered by other providers such as commercial schools or employers. The only form of control comes from provincial departments of education who issue licences to commercial schools and from the competition which exists between the various training suppliers. Therefore, the providers and locations where adult education takes place are very diversified and course content and quality vary from one supplier to another.

The Canadian education and delivery system is composed of two main types of education and training activities: the formal and the informal. Historically, formal education is provided by the school system which includes elementary and high schools, colleges, trade/ vocational schools and universities and by commercial schools, professional associations, unions, community organizations, employers (including governments), vendors providing after sales training and tutors. Informal training is learning acquired by watching fellow workers, by experience in doing work, by receiving instructions from supervisors, by reading or watching television, etc. The AETS covered only the formal type of learning. For many people as for many industries, the contribution of informal training is very important. However the concept of informal education and training is difficult to define and generally people have difficulty to recall such training experiences. For this reason , the AETS did not survey this type of learning. Additional methodological researches are required before such a measure is developed.

This chapter examines how adult education and training activities are delivered in terms of providers, locations where the activities took place and teaching methods. It also reviews the most important sources of funding trainees had access to.

A. The providers

Over the years, the provision of adult education and training has changed. Adult education and training has become more accessible. It is now provided throughout the day as well as at night and by an increasing number of private and public suppliers. The diversity of training needs and the quasi absence of guidelines in this sector of learning explain the proliferation of providers and settings. In a sense, the increase in the number of providers over the years reflects the free market forces and the changing needs of individuals over their lifetime. Training is segmented because interests and concerns among stakeholders vary. Governments are usually concerned with the employability of youths and the unemployed. Employers, in the interest of increasing the productivity of their employees, are looking for job-specific training. Professional associations aim at increasing the skills level of their members and tend to offer general as well as specific training activities. Unions are concerned with job quality and job security. For this reason, they tend to promote apprenticeship training, and environment and health related training.

Recently, various typologies of providers have been proposed. Schroeder (in Selman and Dampier, 1991) has developed a classification system around the concept of the clientele being served (agencies serving the needs of adults, agencies serving the needs of youths, etc.). Others, such as Apps (in Selman and Dampier, 1991), have classified suppliers according to their financial structure (for profit agencies, non-profit agencies, etc.). The rapid evolution of the adult education and training sector and the increased collaboration between institutions make it difficult to design a typology taking into account all the latest developments. Therefore, the AETS has tried to identify four groups of providers[1]:

[1] *Information on providers were not collected for all types of training activities. To obtain a comprehensive picture of training providers, the location of personal interest activities not sponsored by the employer was used as a proxy for the training provider.*

educational institutions (divided by level), the commercial sector (commercial schools, consultants, etc.), the employers and all other providers. It is believed that this classification system allows the delineation of the most important groups of suppliers. In addition, it was deliberately kept simple to ensure that the respondents (trainees) were able to answer the question.

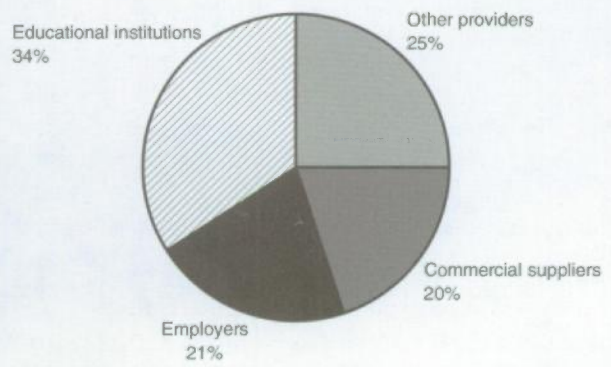
The formal education system was the most important provider

Adult education has historically been initiated and offered by voluntary organizations such as farmers' associations and the Y.M.C.A. Over the last few decades, educational institutions and employers have been playing an increasing role. In 1993, of all the adult education and training activities taken, one third were provided by educational institutions. These include elementary and secondary schools, trade/vocational schools, community colleges and universities. This illustrates how the regular school system can diversify its clientele given the aging of the Canadian population, and adapt to the new lifelong learning paradigm.

The second most important provider is the employers, who have provided 21% of all adult education and training activities. This is a slight increase from the previous survey, which showed employers providing 17% of the activities taken. Commercial suppliers, such as commercial and business schools, provided 20% of the activities. Looking at the previous survey conducted, this decreased slightly from 24%. Community and sports centres were responsible for 6% while other providers accounted for the provision of roughly 18% of the activities taken.

Chart 4.1

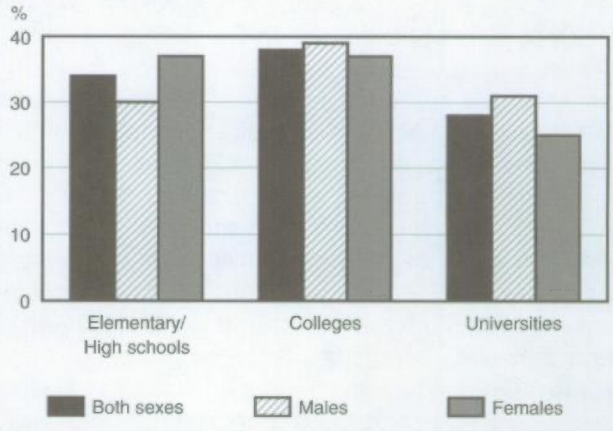
Providers of adult education and training activities, Canada, 1993



The AETS did not ask respondents to specify whether training activities provided by educational institutions were given by elementary or high schools, colleges or universities. However, if one assumes that in the formal school system the location where the activity takes place is a good proxy for the provider, then the colleges were the most important providers with 38% of the activities given by educational institutions. They were closely followed by elementary or high schools (34%) while universities had 28% of the market. Men mainly used college facilities (39%) and an almost equal proportion went to elementary or high schools and university campuses (30% and 31%, respectively). Only one in every four women relied on the university to get their education. Women mainly received their education from elementary or high schools and colleges (37% each).

Chart 4.2

Providers of adult education and training activities within the education system by sex, Canada, 1993



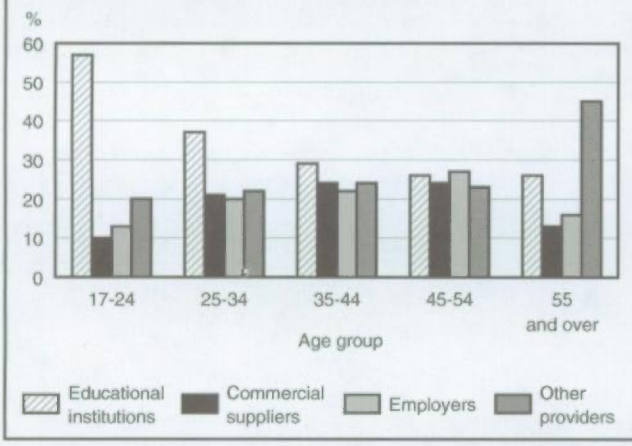
Training providers varied by age and gender of trainees

Individuals relied on different providers to get their training at different stages of their lives. Reliance on the education system rapidly declined with age. Almost 60% of the youth (17-24 years old) were still getting their education or training from the school system. They were either completing their initial education on a part-time basis or returning to school on a full-time basis with the financial assistance of their employer. In general, they were looking for general or basic academic education. At the other end of the spectrum, only 26% of people aged 55 or over relied on the educational institutions to get their education or traininig activities. For the 25 to 34 year-old age group, the school system was still their most important provider, but, commercial suppliers and employers who supplied more specialized training started playing a larger role. Since commercial suppliers and

employers mainly provide job-related training, their clientele was largely concentrated in the three middle age groups. Other providers (which include community centres or sport facility, conference centres, hotels or elsewhere) took care of approximately one quarter of all the training needs of people aged 17 to 54. For the 55 year-old and over, this proportion increased to 45%. This reflects the larger participation of these people in personal interest training activities.

Chart 4.3

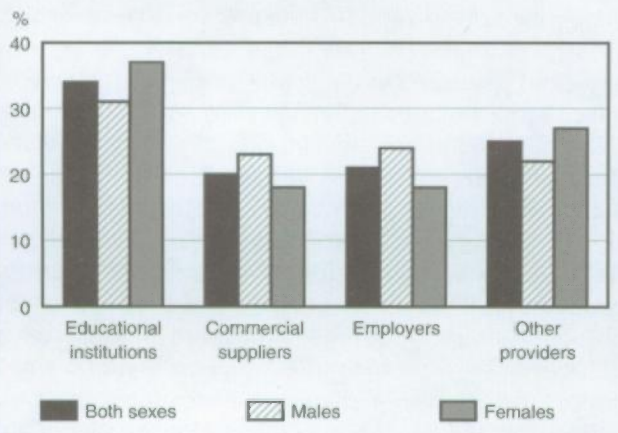
Providers of adult education and training activities by age group of trainees, Canada, 1993



Men and women did not call on the different providers in the same proportions. Women tended to rely more on the regular school system (37% vs. 31%) and other providers (27% vs. 22%) than men . On the other hand, relatively more men than women received their training from commercial suppliers (23% vs. 18%) and employers (24% vs. 18%).

Chart 4.4

Providers of adult education and training activities by sex of trainees, Canada, 1993

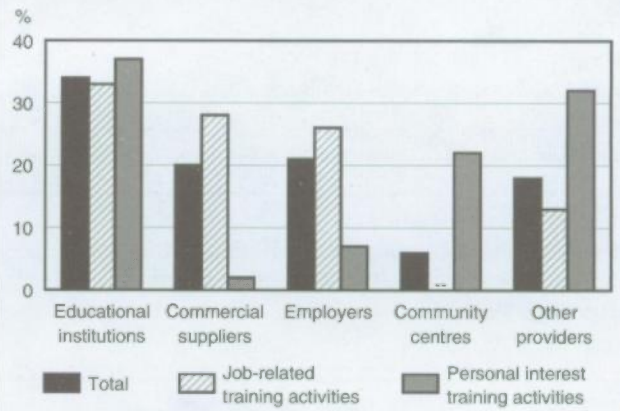


Providers differed by type of training

The importance of each type of provider also varies according to the type of training offered. Job-related training, which we described in chapter two, was mainly offered by educational institutions, commercial suppliers and employers. Combined, these providers accounted for over three quarters of the job related training activities taken. The same three types of providers were responsible for less than half of the personal interest training activities. Although educational institutions remained the most important provider for personal interest activities (even slightly more than job related activities, at 37%), the remaining two most frequently mentioned providers were community and sports centres (22%) and other providers (32%) composed of professional associations, unions as well as private trainers or tutors. Together, these three types of providers were responsible for 91% of the personal interest activities taken.

Chart 4.5

Providers of adult education and training activities, by type of activity, Canada, 1993



Job-related training providers varied according to occupations

Reflecting the schooling level of the different occupational groups and the type of training they are looking for, workers in professional and managerial occupations were relying almost equally on the three main groups of providers to get their job-related training. Clerical, sales and services and blue collar workers relied more on the educational institutions (Chart 4.6).

Employers looked to themselves to provide employer-sponsored education and training

As we have seen in chapter two, employers play a very active role in developing the skills and knowledge of the workforce. While some employers are important enough to have their own local or centralized training centre,

Provincial differences in the provision of adult education and training activities

In addition to differences in the local development of educational systems, the varying importance of providers by province reflects the forces which have shaped adult education in the past, as well as differences in the types of training people are currently engaged in.

The most noticeable variations were observed in the Atlantic provinces. Newfoundland showed the largest reliance on the school system while New Brunswick showed the least. Among the providers other than the education institutions, employers were providing almost the same proportion of activities in each province. However, the market share of commercial schools (and consultants) varied from 14% in Quebec to 24% in British Columbia. Variation was also important in the case of other non-school providers. They accounted for only 21% in Ontario but for 33% in New Brunswick. In Ontario, this was counterbalanced by the importance of the commercial schools (and consultants) and employers while in New Brunswick, the performance of these other providers was mainly at the expense of the school system and the commercial schools.

Table 4.1

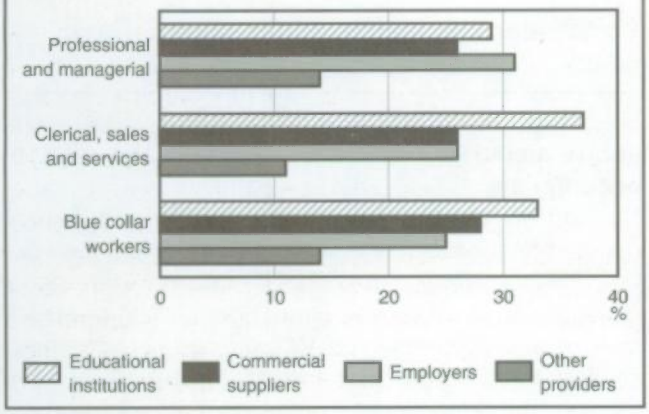
Providers of adult education and training activities by province, Canada, 1993

	Educational Institutions	Non educational institutions			
		Total	Commercial suppliers	Employers	Others
	(%)	(%)	(%)	(%)	(%)
Canada	**34**	**66**	**20**	**21**	**25**
Newfoundland	44	56	16	18	22
Prince Edward Island	29	71	23	19	29
Nova Scotia	37	63	15	18	30
New Brunswick	28	72	17	21	33
Quebec	36	64	14	19	30
Ontario	35	65	21	22	21
Manitoba	36	64	22	19	23
Saskatchewan	33	67	19	23	25
Alberta	32	69	23	20	26
British Columbia	31	68	24	20	24

***Note**: Since the AETS did not collect information on providers of personal interest activities, in this table the location of these activities was used as a proxy variable.*

Chart 4.6

Providers of job-related education and training activities by occupational group of trainees, Canada, 1993



others have to completely rely on outside providers to deliver structured training to their employees.

The AETS (Table 4.2) showed that employers primarily relied on their own staff and facilities to provide educational and training activities. Over one third of employer-sponsored training activities were provided by employers (35%), followed by outside consultants and instructors who were responsible for the organization and delivery of roughly 28% of the activities. Over a fifth of the training activities were provided by educational institutions while other providers were responsible for 13%. This breakdown is heavily influenced by the distribution of providers of job-related training activities (which accounted for approximately 90% of all employer-sponsored activities).

Importance of the various providers varied according to the type of training activity taken. Employer-supported personal interest training was mainly provided by educational institutions (34%) and outside consultants (25%). Employers ranked third with 21% of the activities. Programs offered to employees as a personal interest activity were mainly provided by educational institutions (77%). Personal interest courses were more evenly distributed among the various providers. Except the commercial schools which provided only 4% of the personal interest courses, the share of each other provider was more comparable. Employers were the most important providers of job-related activities they sponsored (36%). They provided only 19% of the programs but 38% of the courses. As expected, the

Table 4.2

Providers of employer-sponsored education and training activities by type of activity, Canada, 1993

	All activities			Job-related activities			Personal interest activities		
	Total	Programs	Courses	Total	Programs	Courses	Total	Programs	Courses
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Educational institutions	21	63	16	20	61	15	34	77	26
Commercial Suppliers	4	6	4	4	6	4	4	5	4
Employers	35	17	37	36	19	38	21	5	24
Consultants	28	8	30	28	9	30	25	4	28
Other providers	13	5	13	12	5	13	16	7	18

Table 4.3

Providers of employer-sponsored education and training activities by size of firm, Canada, 1993

	Educational institutions	Employers	Commercial suppliers	Other providers & consultants
	(%)	(%)	(%)	(%)
Total	**21**	**35**	**32**	**13**
Less than 20 employees	28	13	37	22
20 to 99 employees	24	23	37	16
100 to 199 employees	15	34	39	12
200 to 499 employees	26	32	27	15
500 or more employees	19	44	29	8

educational institutions were mainly providing study programs (61%).

Overall, differences between men and women were minimal. The only noticeable difference was the greater use of educational institutions by women (23% vs 19%) which is compensated by a lesser use of outside consultants (26% vs 29%).

The larger the firm the more it used its own resources to deliver training

As many previous surveys have shown, large firms not only supported more training than smaller ones but were also more reliant on their own resources to provide training (Baldwin et al. 1994 and Rechnitzer, 1990). People working for firms with less than 20 employees got more training outside the workplace either because small firms cannot afford to have their own trainers or because they have training needs that are better met by outside providers (Table 4.3). Their reliance on the commercial suppliers (37%) tend to support this latter hypothesis. They also tended to use the educational institutions (28%) and other providers (22%) frequently. A fairly large proportion (44%) of trainees in firms with 500 or more employees were trained by their employer. Commercial suppliers were also important training providers (29%), whereas educational institutions and other providers were much less used.

Some industries were more self-sufficient than others

In addition to the size of the firm, other factors, such as the specificity of training needs, are associated to the degree of dependence on outside training suppliers. Businesses will turn to educational institutions to provide general or academic education to their employees but will tend to provide the more specific training. The proportion of activities provided by the employers varied substantially from one industry to another. It ranged from 24% in Agriculture and Primary industry to 49% in the Finance, Insurance and Real Estate industry. The Manufacturing, Utilities, Transportation and Communications, Finance, Insurance and Real Estate, and Public Administration industries relied primarily on staff and facilities within the company. Educational institutions were quite solicited in the Agriculture, Construction, Education / Health/Welfare and Business, Commercial and Personal Services industries. Outside suppliers

Table 4.4

Providers of employer-sponsored education and training activities by industrial sector, Canada, 1993

	Employers	Training bought from		
		Educational Institutions	Commercial suppliers and Consultants	Other providers
	(%)	(%)	(%)	(%)
All industries	**35**	**21**	**32**	**12**
Goods-producing industries	**38**	**19**	**34**	**9**
Agriculture and Other Primary Ind.	24	28	33	15
Manufacturing	40	18	35	7
Construction	29	28	31	12
Utilities	48	10	31	5
Service-producing industries	**34**	**22**	**31**	**13**
Transportation and Communications	45	11	34	10
Trade	32	16	42	10
Finance, Insurance and Real Estate	49	14	27	10
Education, Health & Welfare	24	34	23	19
Business, Comm. & Personal Services	27	21	38	14
Public Administration	46	13	33	8
Private	37	18	35	10
Public	33	25	28	14

(consultants and commercial or business schools) were used more frequently by the Trade and the Services industries. Except for the Finance, Insurance and Real Estate and Education/Health/Welfare industries where outside providers were relatively less used, the distribution between the other industries was fairly even. Other suppliers provided an additional 12% of the employer-sponsored education and training activities but differences were relatively large by industry.

B. Locations

Courses provided to children by the formal education system are generally delivered in school settings; this is not always the case in the adult education sector. As an example, a professional association may use an hotel conference room or a classroom in a local community college to provide instruction to its members.

Providers are generally responsible for the organization and delivery of the activity. However, the location of the activity, which is the setting where the activity takes place, may differ from the provider's location. For example, an employer may organize a course for its middle managers and deliver it an hotel conference room. Similarly, a college may provide courses in computer graphics, accounting, or language proficiency, yet employers may have boardrooms or classrooms in which these courses take place. Some respondents may take aerobics, or dance lessons provided by and located at their local community centre.

While regular formal schooling is typically provided in school settings, adult education may be conducted in many different settings. Instruction could be provided in schools, colleges or universities, at the workplace, at home or in any other location. These multiple locations are further evidence of the lifelong learning culture developing in Canada. Education and training can now be delivered at a place most convenient to the trainee. This results mainly from a larger involvement of businesses in training and also from the development of new technologies which facilitate distance and self-paced learning.

Since the educational institutions provide more than a third of the training and education activities, it was not surprising that 30% of adult learners receive their training and education in a school setting. However, an increasing number of other locations are becoming more popular, and more frequently utilized.

Activities located at work or training centres accounted for an additional 30% or 2.7 million activities. Twenty percent of the activities taken were at conference centres, hotels, community or sports centres. Interestingly, increasing numbers of educational and training activities were taken at home by adult learners (4%). People continue to take advantage of other locations in which training or education take place such as churches or retail stores. Thirteen percent of the activities taken were located in areas such as these.

Educational institutions housed most of the programs and courses

The most popular location for educational or training programs was educational institutions. Two thirds of the programs were delivered in these institutions. On the other hand, only one quarter of courses were located within the formal education system. However, the workplace was also a popular location, with 20% of the courses taken housed here. Training centres and conference rooms or hotels housed 12% and 14% of the courses taken, respectively. More educational programs than courses were located at home (9% vs 3% respectively).

Over half the job-related programs were located within the formal education system, with 49% of these taken at college and university campuses. However, work was also a popular location, housing 21% of these programs. One third of the courses were located at work, and another third at training centres, conference rooms or hotels.

Virtually all programs pursued out of personal interest were located within the formal education system. Personal interest courses, however, unlike job-related ones, were more evenly distributed throughout all the locations. The most popular locations for personal interest courses were the formal education system (29%), and community or sports centres and other locations, 43% combined.

Only a third of employer-sponsored training was provided at work

It is generally admitted that in order to minimize costs and time lost, and to have better access to hands-on practice, most employers provide training close to the job itself. Contrary to this popular belief, most of the formal training sponsored by employers in 1993 was not offered on job the premises[2]. Indeed, only 34% of employer-sponsored training was provided at work and an additional 14% in training centres (Table 4.5). The AETS did not provide any information as to the location and ownership of these centres. Some are probably owned by corporations, while others might be commercial-type centres. Centres which belong to corporations may be on or off-site. Another third of the training activities took place in other locations such as conference centres or hotels, in community centres, at home or elsewhere. Close to one in five activities, mainly educational programs, were provided in school settings. Finally, business or commercial schools, as locations, accounted for only 2% of activities taken.

Differences between men and women were rather small. Work premises and training centres were used in the same proportion. However, relatively more women than men (22% vs 16%) were using school facilities. This situation was partially compensated by a lesser use of other locations (namely conference centres) by women compared to men (30% vs 33%).

Trainees in manufacturing sector were mainly trained on-site

The location of training activities is a function of the type of training being sponsored by the employer and also of the employer's financial and physical capacity to deliver training on the work premises. An analysis of the training locations revealed large variations among industries. In the Manufacturing sector, 53% of the training was offered on-site while, at the other end of the spectrum, only 24% of training activities in the Agriculture industry were located at work. The Manufacturing industry offered only 13% of its training activities through the school system while it reached 24% in the Agriculture industry.

[2] *Unstructured or informal training which is not covered by the AETS is by definition offered on site.*

Table 4.5

Locations of employer-sponsored education and training activities by sex of trainees and type of activity, Canada, 1993

	Both Sexes	Males	Females	Programs	Courses
	(%)	(%)	(%)	(%)	(%)
At work	34	34	33	20	36
Training centres	14	14	14	7	15
Business or commercial schools	2	2	2	3	1
Schools settings	19	16	22	57	15
Elementary/secondary	5	3	6	65	
College	8	8	8	28	6
University	6	5	7	24	4
Other locations	32	33	30	13	34
Conference centres	20	21	17	4	21
Community centres	2	2	1	4	1
Home	2	2	2	-	2
Elsewhere	9	9	9	4	10

Table 4.6

Locations of employer-sponsored education and training activities by industry, Canada, 1993

	Schools	Work	Training centre	Other locations
	(%)	(%)	(%)	(%)
All industries	**19**	**34**	**14**	**32**
Goods-Producing industries	**16**	**43**	**12**	**29**
Agriculture and Primary ind.	24	24	12	40
Manufacturing	13	53	9	25
Construction and Utilities	16	34	18	32
Service-Producing industries	**19**	**31**	**14**	**36**
Transportation and Communications	10	43	24	23
Trade	18	25	18	39
Finance, Insurance & Real Estate	12	34	19	35
Education, Health & Welfare	28	27	8	37
Business, Commercial, Personal Services	18	27	14	41
Public Administration	13	38	19	30

C. Training sponsorship

Before examining the various sources of funds used by the trainees and the way employers support their own employees, it may be interesting to measure the size of the training budget in Canada. Indirect measures such as the number of participants in training activities (5.8 million) or the number of training events taking place (9.4 million), all show that training expenditures in Canada are important. It is difficult however to know exactly what we spend collectively on training. No survey has yet been conducted to measure all components of these expenditures. In 1987, the Human Resource Training and Development Survey (Rechnitzer, 1990) reported that the Canadian private sector spent 1.4 billion dollars on training. Another similar survey conducted in 1991 by Canadian Facts for the Canadian Labour Market and Productivity Centre (CLMPC, 1993) showed that employers spent 3.6 billion dollars[3]. This only represents expenditures incurred by private businesses to train their own employees. Government at all levels and trainees themselves also spend large amount of money on all types of training.

The AETS asked individual respondents to indicate who supported their education or training. Thus, survey results reflect respondents' perceptions of the sources of funds. However, this cannot be used to allocate total estimated training expenditures in Canada. As an example, tuition costs supported by a postsecondary student or his/her family usually represent only a fraction of the real costs, the rest being supported by governments and private foundations. In the context of this survey, students would generally report their own contribution, the support they got from their family and any scholarships or bursaries directly received from a government body or a private organization. It is unlikely that the student would report the general government contribution to postsecondary education. In the case of employer-supported training, trainees will recognize the direct contribution by the employer, but generally will not be aware of any indirect government support they may receive (for instance, employer's participation to a given governmental training assistance program). Employer-sponsored trainees were queried about the type of employer sponsorship they received (paying for tuition, for course material, providing paid or unpaid time-off, etc.). Information on the type of sponsorship was limited to financial contributions for other sponsors.

Overall, employers were involved in more than 50% of adult education and training activities

Of the 9.4 million training activities reported in 1993, 52% were supported by employers. For the very large majority (79%) of these activities sponsored by employers, the employers were the only sponsor. The remainder were jointly supported by employers and individuals or their family in 13% of the cases, employers and governments in a proportion of 4%, and employers and other organizations such as unions, professional associations and other organizations (4%).

Overall, individuals and their families were financially involved in 44% of all activities. Indeed, individuals and their families sponsored 77% of all non employer-sponsored training activities and, as mentioned above, even contributed to 13% of the activities sponsored by their employers. Other organizations and governments ranked in the third and fourth positions, being involved in 9% and 7% of the activities, respectively.

[3] *Since only half of the organizations were able to provide information on their training costs, this estimate has a large margin of error.*

Table 4.7

Sponsorship of adult education and training activities, Canada, 1993

	All activities	Programs	Courses
	(%)	(%)	(%)
Employers	52	40	54
Self and/or family	44	62	41
Governments	7	13	6
Other organizations	9	8	9

Note: Since some activities are supported by more than one sponsor, the sums may exceed 100%.

Funding sources varied by type of education and training undertaken

The funding resources for an adult student depended to a large degree on the kind of training that was undertaken and the reason they enrolled in education or training activities. Employers who are generally more inclined to support specific rather than general or more academic education or training were financially involved in 40% of the educational programs, while students and their families contributed in a proportion of 62%. The situation is somewhat reversed in the case of courses. Probably because courses (seminars, workshops tutorials, etc.) are generally less expensive, of shorter duration and more directly related to the job than most programs, employers were more disposed to sponsor them. Employers supported 54% of all the courses, and individuals or their families, 41%. While the involvement of other organizations was very similar in programs and courses (8% and 9%, respectively), governments were more likely to support programs than courses (13% vs 6%).

The implication of the various stakeholders is even more obvious when considering the reason for undertaking the training. Job-related education and training was mainly sponsored by employers while training taken for personal reasons was mainly supported by the trainees and their families. Indeed, employers contributed to 72% of all job-related training activities and individuals or their families to 75% of personal interest training activities. Employers sponsored 78% of the courses pursued for job-related reasons but only 44% of the programs. Governments and other organizations each contributed to 8% of the job-related activities. The government proportion was down to 5% in the case of personal interest training activities but stood at 12% for other organizations. The contribution of employers to personal interest training activities was rather small (12%) but this may represent a new trend. Employers may offer personal interest training activities as a reward to employees, to improve employees' relationship with the company or simply to boost employee morale.

Female trainees had to rely more on their own financial resources than male trainees

For all types of training activities, but especially for study programs, and regardless of the motivation (personal interest or job related), women received less outside financial support than men. Overall, employers were involved in 61% of male training activities but only 45% of female training activities. As a result, male trainees or their families contributed to the cost of 36% of all their training activities compared with 51% for female trainees.

Employers supported 77% of job-related activities undertaken by men and 68% of those taken by women. Male students or their families contributed to 23% of these activities compared to 33% for females. Contributions by governments and other organizations were rather comparable. This larger contribution of employers to male compared to female trainees was even more evident in the case of personal interest training activities. Men were able to obtain support from their employers for 16% of the personal interest training activities they took compared to 10% for women.

Table 4.8

Sponsorship of adult education and training activities by sex and type of activity, Canada, 1993

	All Activities			Job-related Activities			Personal interest Activities		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Employers	52	61	45	72	77	68	12	16	10
Self and/or family	44	36	51	28	23	33	75	70	78
Governments	7	7	6	8	8	7	5	5	5
Other organizations	9	10	9	8	8	7	12	15	11

Employer's sponsorship varied according to the type of training offered

The assistance provided by the employer took several forms. In the vast majority of cases (78%), the employer paid at least part, if not all, of the student's tuition or fees. Some 66% also received support for course material. Overall, in 78% of the cases, employers provided time off to employees to pursue their training. Employers provided paid time off in roughly seven out of ten cases while 9% got unpaid time off. Employers also contributed to training by providing the premises (59%), providing the training (44%), or defraying travel and accommodation costs (30%).

Paying for fees or tuition occurred in relatively similar proportions for courses and programs (79% vs 70%, respectively). However, other types of support offered by employers differed between those enrolled in courses and programs. Employers were much more likely to defray costs, other than tuition fees, associated with courses than programs. For example, employers paid for course material in just over two thirds of courses and just over half of programs (68% compared to 52%). Three quarters of those taking courses were given paid time off compared to just over one third of those taking programs. The shorter duration of courses compared to programs make them more amenable to this type of employer support. Employers were more likely to provide unpaid time off for education leave for programs (27%) than for courses (7%). Finally, employers offered premises or supplies for courses in three out of five cases (61% vs. 40% for programs), defrayed the cost of transportation or accommodation in almost one out of three cases (31% vs. 20%) and gave the training themselves in more than two out of five cases (46% vs. 27%).

Although the nature of the support given by employers was comparable between men and women, there were some significant differences by type of activity taken and its motivational factor. For programs, women received support in terms of payment of fees and tuition more often than men, but employers were less inclined to provide time-off, premise, transportation or give the training to women compared to men. In the case of courses, types of support received from the employer for both men and women were comparable except for the payment of course materials and provision of transportation and accommodation where men had a clear advantage.

Finally, the analysis of the different types of support offered for job-related and personal interest activities shows that employers were less generous in supporting personal interest than job-related training activities (Table 4.10). For example, employers were less likely to provide course materials, paid time-off, transportation and accommodation, to offer premises or to give training in the case of personal interest training activities than for job-related training activities. Men and women received comparable types of support for their job-related training, but major differences were noted in the case of personal interest training activities. Indeed, except for provision of transportation and accommodation, where men had a real advantage over women, there was no major difference in the way employers supported job-related activities. However, women not only participated less than men in employer-supported personal interest training activities but those who did, received less support in terms of provision of course materials, paid time-off, transportation and accommodation.

Table 4.9

Adult education and training programs and courses by type of employer's support and sex, Canada, 1993

	All activities			Programs			Courses		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Paying for fees or tuition	78	78	78	70	68	72	79	80	79
Paying course materials	66	68	64	52	51	53	68	70	65
Providing paid time-off	69	71	68	36	39	32	74	75	72
Providing unpaid time-off	9	10	9	27	28	26	7	7	7
Providing premises/supplies	59	60	58	40	42	34	61	62	61
Providing transportation or accommodation	30	36	23	20	22	17	31	38	23
Giving the training	44	44	43	27	30	22	46	46	46
Providing any other support	16	17	14	17	19	13	16	17	14

Table 4.10

Adult education and training activities by type of employer's support, type of activity and sex, Canada, 1993

	Job-related activities			Personal interest activities		
	Total	Males	Females	Total	Males	Females
	(%)	(%)	(%)	(%)	(%)	(%)
Paying for fees or tuition	78	78	79	77	75	79
Paying course materials	67	68	65	55	59	51
Providing paid time-off	71	72	69	63	62	51
Providing unpaid time-off	9	9	8	16	14	17
Providing premises/supplies	60	60	59	46	47	46
Providing transportation or accommodation	30	36	23	22	29	16
Giving the training	45	45	45	31	33	28
Providing any other support	16	17	14	18	21	15

D. Methods of instruction

There is little question that the methods of teaching being used directly influences the level of knowledge and skill one acquires during an education or training episode. In many cases, the methods used could even determine the completion of the studies undertaken. Teaching methods are usually adapted to accommodate the students being taught. They could vary according to the age, cultural background and level of schooling of students. For these reasons, it is interesting to examine the methods of instructions used in adult education and training.

It is also well accepted that new technologies have a great influence on our lives and that they are re-shaping the way information is disseminated. For pedagogical as well as for financial reasons, this technology is also influencing the way education and training activities are now delivered. More visual and interactive methods are used to improve curriculum content and the acquisition of skills. At the same time, they allow a larger dissemination of knowledge, reduce problems associated with distance learning and help reduce delivery costs. The role of teaching methods in general, and of the non- traditional[4] ones in particular, in the development of a lifelong learning culture is crucial. Development of distance education and of methods based on this new technology which shift responsibility for delivery of knowledge from the instructor to the trainee, should contribute to increase accessibility to learning by reducing, if not eliminating barriers such as course location and scheduling, personal availability, family responsibilities or personal embarrassment.

This chapter will examine the various teaching methods used to provide education and training to adults. Are they really different from those used by the young in the regular school system? Are they using the new technologies available? Do they vary by type of training or industry?

Traditional methods still the most popular

The most popular method of instruction in the adult education sector, as in education for the young, was classroom instruction. While this is probably an indication of the relatively low degree of penetration of the new technologies in the adult education sector, it may reflect the desire of adults to make contacts with other learners and, for a good proportion of them, their lesser degree of computer literacy compared to the young. On average, 1.8 different methods were used in each education or training activity taken by adults. Some 60% of all education and training activities used only one method of teaching, 20% used two, and the remainder more than two methods. Classroom instruction was used in 90% of the training activities followed by materials reading which was used in 39% of the training events, while audio/ video cassettes ranked third with 20% of the training activities. A grouping of the methods into traditional and non-traditional methods showed that traditional methods are still the most popular. Almost all training activities (98%) still used at least one traditional methods of teaching while less than a third (31%) used one or more non-traditional methods such as educational software, radio or television broadcasting and audio/video cassettes and other methods. Among those non-

[4] *Traditional methods of teaching are classroom instruction, reading materials and on-the-job training. Non-traditional methods of teaching were defined as those using the new electronic technologies. These methods are the education softwares, the radio/television broadcasting, the audio/video cassettes and any other methods. These other methods were not defined in the survey but they are assumed to be interactive methods such as audioconferencing, videoconferencing, telematics and other multimedia techniques.*

traditional methods, instruction through audio/video cassettes were the most important (20%), followed by the use of educational software (12%).

Men and women used traditional and non-traditional training methods in the same proportion. However, mainly because of a larger use of audio/video cassettes, men were slightly more exposed to methods integrating new technologies (32% vs 30%).

Table 4.11

Adult education and training activities by teaching methods used and sex, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Traditional methods	**98**	**97**	**98**
Classroom instruction	90	89	90
Reading materials	39	38	39
On-the-job training	13	14	13
Non traditional methods	**31**	**32**	**30**
Educational software	12	12	11
Radio/Television broadcasting	2	2	2
Audio/Video cassettes	20	21	18
Other methods	7	7	6

Note: *Since more than one teaching method could be used for each activity, the sums could exceed 100%.*

Selection of teaching methods varied by type of education activities

There was a stronger preference for classroom instruction (91% vs. 84%) and on-the-job training (15% vs. 9%) in the delivery of courses compared to programs (Table 4.12). In programs, the lesser reliance on classroom instruction was compensated by a higher use of reading materials (45% vs. 37%) and non-traditional methods of training (32% vs. 28%).

However, differences in teaching methods were more important between the different programs available than between programs and courses. For instance, the frequency of teaching delivered in a classroom setting vary from 72% in apprenticeship programs to 90% in college programs. This is explained by the greater use of on-the-job training in apprenticeship programs (50%) compared to other programs. Trade/vocational and university programs relied less on non-traditional methods of teaching than other programs.

Employers were open to the new technologies

In addition to using a larger variety of methods, employer-sponsored training activities made a greater use of non-traditional methods than non employer-sponsored training activities (Table 4.13). One in five education and training activities sponsored by employers used audio/video cassettes and one in eight used educational software. These proportions were down to one in six and one in ten, respectively, for non employer-sponsored training. Technology-based training allow self-pace learning and facilitate access everywhere. According to McIntyre (1996), new training technologies also help reduce training costs and might generate greater returns than investment in more traditional methods of instruction.

A large number of adult learners opted for distance learning

In Canada, some 42 universities, an increasing number of community colleges and other educational and professional organizations, are offering distance education to adult students. Distance education is any education or training activity that is not taking place in the presence of a teacher or trainer. It is self-directed learning that may use a variety of teaching methods. Some of these methods, like the traditional correspondence course, have a very low degree of

Table 4.12

Adult education and training programs and courses by teaching methods used, Canada, 1993

	All Courses	Programs					
		Total	Elem/Sec	Apprenticeship	Trade/Voc.	College	University
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Traditional methods	**98**	**98**	**97**	**98**	**97**	**98**	**99**
Classroom instruction	91	84	78	72	79	90	89
Reading materials	37	45	54	36	43	49	41
On-the-job training	15	9	-	50	10	8	3
Non traditional methods	**28**	**32**	**30**	**28**	**22**	**33**	**27**
Educational software	12	11	14	13	6	17	9
Radio/Television broadcasting	2	4	6	10	1	2	3
Audio/Video cassettes	21	16	20	23	13	18	14
Other methods	7	8	8	6	8	8	9

Table 4.13

Employer and non employer-sponsored education and training activities by teaching methods used, Canada, 1993

	Employer-Sponsored Training	Non Employer-Sponsored Training
	(%)	(%)
Traditional methods	**98**	**97**
Classroom instructions	91	87
Reading materials	38	41
On-the-job training	18	n.a.
Non traditional methods	**32**	**29**
Educational software	12	10
Radio/television broadcasting	2	2
Audio/Video cassettes	21	15
Other methods	6	10

***Note**: Due to multiple responses, the sums could exceed 100%.*

pedagogical interaction. Others, using very sophisticated technologies such as computer-based learning using a multimedia approach, have a degree of interaction (with instructor or other learners) even higher than seen in a regular classroom. One in four courses or programs taken through distance education were totally delivered by an interactive[5] method while close to a third used a mixed method (interactive and non-interactive).

In 1993, more than 420,000 adults trainees (or 7% of all trainees) used distance learning to acquire new skills. They represented 16% of all adult trainees registered in a study program compared to only 3% of those involved in courses. Adult trainees used distance education usually to overcome structural barriers such as course schedules, location of classes, absence of time-off or dispositional barriers such as physical handicaps, slow learning abilities, etc. One of the main characteristics of distance education is its flexibility. Distance learners are relatively free to choose the time, place and pace of learning. Institutions see distance education as a way to maintain their level of enrolments or to reduce their operational costs as well as their capital costs.

[5] *Interactive methods of teaching are classroom instruction, education software, on-the-job training. Non-interactive methods are reading, radio/television broadcasts and audio/video cassettes.*

A profile of the adult distance learner
(Adapted from R. Bernier, 1995)

On average, a distance learner was 33 years of age, or five years younger than the average traditional learner and 6 out of ten were women. Six distance learners out of 10 were between 17 and 34 years of age; only 4 out of 10 traditional learners were in this age group. Like in traditional education, the large majority of distance learners (66%) had postsecondary education level.

Workers represented close to 80% of the distance education clientele. It was highly popular with sales and services sector and blue-collar workers. This mode of learning appeared to appeal to these employees because these workers must often cope with irregular hours. For these workers, being free at a given time every week may pose a challenge. If distance education did not appeal to the unemployed, it was likely for the opposite reasons. First, the unemployed had fewer scheduling problems than employed persons. Second, there may be serious reasons for opting for a classroom situation. One is undoubtedly the range of government programs offered. These programs, intended to retrain the unemployed, are offered almost exclusively in traditional classroom settings or on-the-job. Retraining programs may also provide an opportunity for the unemployed to establish contacts.

Even if the majority of distance learners lived in urban areas (82%), distance education represented a larger proportion of adult learners in rural areas (10%) than in urban areas (7%). Most of these rural learners were members of the 17-to-24 age group.

CHAPTER 5

Outcomes of adult education and training

S.Y. Dai

Training incidence alone provides an incomplete portrait of adult education and training in Canada. The outcomes of education and training are also important as they impact on employers and workers as well as on the overall economic health of Canada. On the employer side, a more skilled workforce contributes to less conflict between management and labour, less need for supervision and better communication with workers. On the worker side, training could increase morale, reduce stress, improve performance, increase chances of promotion and improve overall satisfaction. When properly managed, these results can also have impact on firms by increasing productivity, reducing production costs and improving product quality, increasing market share and profit, and adapting to the new knowledge economy.

The 1994 AETS has included questions on the adequacy, the usefulness and the completion status of the education and training activities, in order to evaluate their outcomes. Since the AETS focuses on one aspect of the job market, the labour force, the survey only provides us with their perceptions regarding the success and failure of the training undertaken. Other surveys, such as the Human Resource Training and Development Survey (Rechnitzer, 1990), the National Training Survey (Canadian Labour Market and Productivity Centre, 1993), the Human Resources Practices Survey and the Working with Technology Survey (Betcherman et al, 1994), provide an assessment of training outcomes from the employers' point of view.

The adequacy of training question was asked to all respondents seventeen years and older who worked in 1993 or at the time of the survey (January 1994). The results concerning the usefulness of training apply to all job-related and employer-sponsored training activities. The completion status of the training activities apply to all programs and job-related courses. No data were collected concerning the usefulness of non employer-sponsored personal interest training and the completion status of non employer-sponsored personal interest courses.

This chapter is divided into three sections. The first section considers the adequacy of training activities, the second their usefulness and the third their completion status. The first section will examine the perceptions of employees regarding the adequacy of training provided by the employer. The section on usefulness will analyse the applicability of the knowledge acquired in the program or course activity to the work environment. The last section will discuss the completion status of the training activities taken by the trainees. Since the completion rates (completed training activities as a proportion of all activities) do not provide an ideal indicator due to the ongoing or temporarily uncompleted activities, the analysis will concentrate on the perseverance of the individuals who participated in adult education and training activities. An interruption rate (interrupted training activities as a proportion of all activities) is developed to better evaluate the outcome of education and training. This section will also describe the demographic and socio-economic characteristics of participants who interrupted the training activities and the interruption patterns by type of activity, training, support, and learning situations.

A. Adequacy of training

All employed respondents were asked to assess the adequacy of training their employers provided to them or to their fellow workers. The results give us an indication of the employees' perceptions regarding the quantity, quality, variety and appropriateness of the training. The employee's knowledge and perception of training needs may be quite different from those of employers. Both have different motivations and do not have access to the same information.

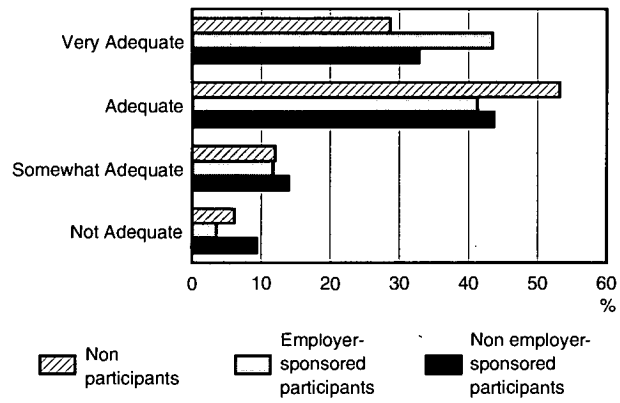
Overall, only 56% of respondents were able to provide an assessment of the adequacy of the training provided by their employers.

Employer sponsorship in training improves the employee's perceptions of adequacy

Among the respondents who assessed the training, a large majority of the participants in employer-sponsored training found the training very adequate (44%) or adequate (41%). A small proportion of trainees found the training provided by their employers somewhat adequate (12%) or not adequate (4%). On the other hand, among the participants in training not sponsored by their employers, a majority assessed the training very adequate (33%) or adequate (44%) and 23% judged the training provided by employers as somewhat adequate

Chart 5.1

Workers' perceptions[1] of adequacy level of adult education and training activities by type of sponsorship, Canada, 1993



[1] Distribution of workers who provided an evaluation of the adequacy level of training.

(14%) or not adequate (9%). In contrast, of the employees who did not participate in any training, only 29% of them found the training provided by their employer very adequate and 53% judged the training adequate, and 18% assessed it as somewhat adequate (12%) or not adequate (6%).

The great majority of workers (85% of the employer-sponsored participants, 77% of the non employer-sponsored participants and 82% of non participants) were satisfied with the training provided by their employers (very adequate or adequate) and only 4%, 9% and 6% respectively found the training not adequate. The fact that these workers could evaluate the training is already an indication that they have had some experience with training or, they work for employers who offered training to their employees, thus their perceptions are more positive concerning their employers.

Adequacy perceptions of employer-provided training are similar regardless of gender, age, education, occupation or industry

Adequacy perceptions did not vary significantly according to gender, age, education, occupation or industry of the respondent. The proportion of respondents who evaluated the training provided by their employers as adequate or very adequate was about the same for any age, gender, education, occupation or industry. Results from the 1992 AETS survey as well as the Australian Training and Education Experience Survey (ATEES) presented similar conclusions. The 1993 ATEES from Australian Bureau of Statistics (Castles, 1994) showed that the proportions of employees who are satisfied (adequate) with their job training (formal and informal training) vary relatively little regardless of gender, occupation, education or industry. Age is the only variable that presented a different result between the ATEES and the AETS. While the AETS did not show variations by age, the ATEES results showed that a descending trend in the job training satisfaction accompanies the aging of the population.

Employees have difficulty assessing the training provided by their employers

Almost half the respondents (45%) were unable to assess the training sponsored by their employers. Some 30% of respondents answered 'not applicable/no training' and 15% did not provide an answer. The high percentage of workers who did not assess the adequacy of training reflects the lack of information available to employees on training and the relatively low rate of training provided by Canadian firms (Betcherman and Leckie, 1995). As we have seen in Chapter 2, one in every five (21%) Canadian workers participated in employer-sponsored training in 1993.

The proportion of non participants who were unable to assess the training adequacy are twice higher than those of participants (54% vs 25%). Among participants, only 1% of the employer-sponsored participants did not assess the adequacy of training compared with 40% of non employer-sponsored participants. These results reinforce the hypothesis that the inability to assess the training provided by employers is related to the lack of exposure to training or a training environment. Moreover, this lack of exposure to training is unevenly distributed across occupational groups of labour force. The low level of training in Canada also reflects the low diffusion of a training culture. As stated by Meltz (1990), the low level of training in Canada is related to the policy of dealing with skill shortages by recruiting skilled labour through immigration rather than by training the workforce.

B. Usefulness of training

This section will analyse the results concerning the relevance of the training received by the participants of adult education and training. All respondents who were involved in job-related training and those who received employer-sponsored training were asked to assess the usefulness of training to the work environment. Non employer-sponsored activities taken for personal interest reasons were not considered[1]. In this section, 94% of the training activities are job-related and 74% are employer sponsored (68% are both).

[1] These activities represent 29% of overall activities, which represent 16% of all programs and 32% of all courses.

In the following analysis of the results, the percentages were calculated excluding training activities for which the respondent answered 'not applicable' and those for which the respondent did not provide an answer (7%). In other words, we analyse the results of participants who were able to rate the usefulness of the training they have received in 1993.

Most participants apply the skills they acquired in the training

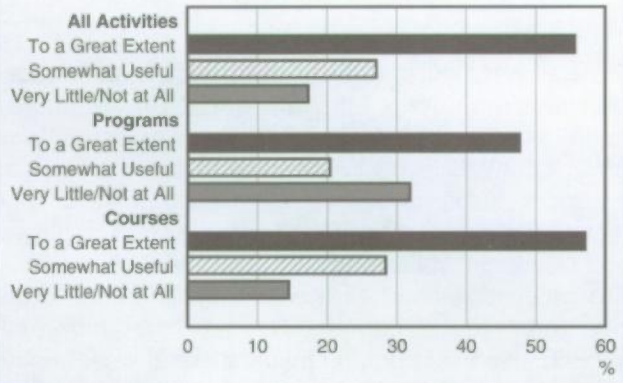
The great majority of participants (82%) applied the skills or knowledge they acquired in the training activity at work. Only 18% declared the training activities were of very little or no use at all. For participants in employer-sponsored and non employer-sponsored training, the corresponding figures are 12% and 37%. It is clear from this results that most of the training received by employees is relevant to work, particularly those sponsored by employers. These results show that employer-sponsored training activities are better designed to address the workplace needs.

Courses more useful than programs

More participants found the courses (85%) useful to their work compared with programs (68%). Programs are generally longer, more complex and have long term benefit rather than immediate applicability. In contrast, courses are shorter and often accentuate specific topics. Usually the programs are more related to knowledge transfer, while courses provide mainly skill transfer.

Chart 5.2

Usefulness[1] of adult education and training activities at work by type of activity, Canada, 1993



[1] Distribution of workers by level of usefulness of training.

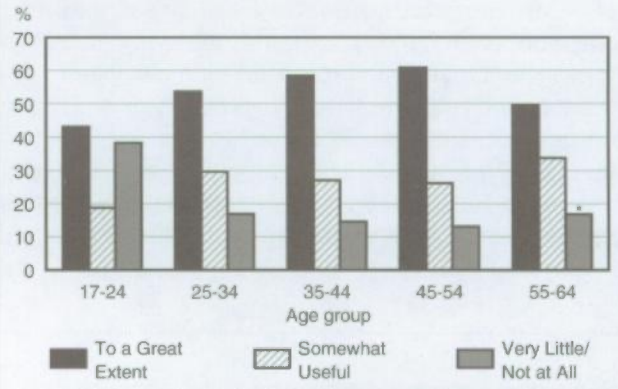
Two in five learners in the 17-24 age group found the training of little use at work

When assessing the usefulness of training, variations are significant at both extremes of age groups. The younger adults (17-24 year olds) found the training they received much less useful at work than all other age groups. The older and more experienced employees generally found the training more useful. The poor assessment given by these young participants may be due to the following reasons:

(a) lack of work experience combined with lack of exposure to training makes it difficult to choose wisely the education/training activity,
(b) lower participation rate (10%) in employer-sponsored training,
(c) higher concentration of young workers in nonstandard employment (Economic Council, 1991), and
(d) high proportion of young workers in program education and training activities (42%).

Chart 5.3

Usefulness[1] of adult education and training activities at work by age group, Canada, 1993



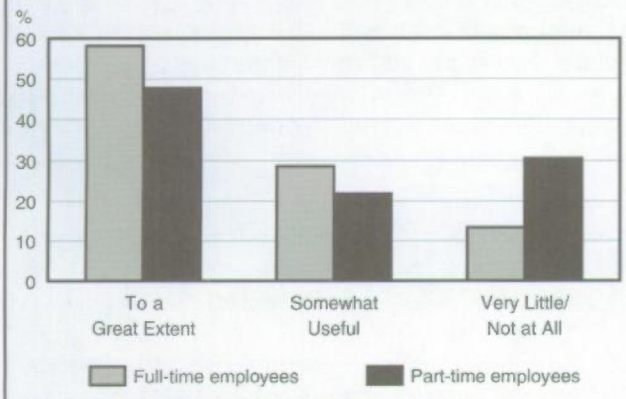
[1] Distribution of workers by level of usefulness of training.
** Data have a coefficient of variation between 16% and 25%.*

Full-time employees assessed the training more useful than those working part-time

Among the employed participants, the full-time workers applied the skills they acquired to a greater extent than part-time workers. The great majority (87%) of full-time workers found the training useful in their workplace. On the other hand, almost one third (30%) of the part-time workers found the training of little or no use at work. Almost 30% of part-time workers are between 17 and 24 years old, and more than half of these young part-time workers (53%) assessed the education or training they received are of little or no use to their work.

Chart 5.4

Usefulness[1] of adult education and training activities at work by type of worker, Canada, 1993



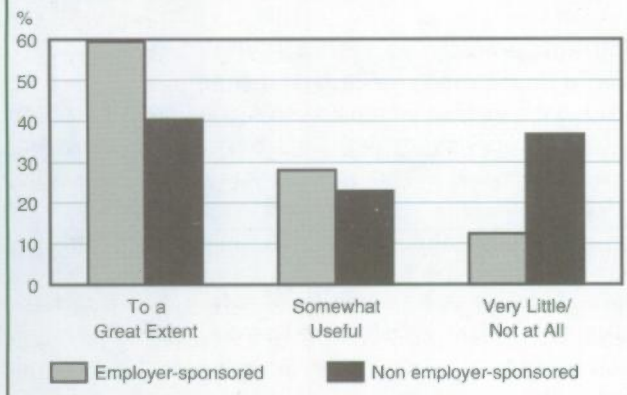
[1] Distribution of workers by level of usefulness of training.

Employer-sponsored activities were considered more useful than non employer-sponsored activities

The large majority (88%) of employer-sponsored training activities were found useful (to a great extent or somewhat useful) by participants, compared to 63% of the non employer-sponsored training activities. The employer-sponsored activities are probably more adapted and geared to the needs of the workplace. This also reflects the difficulty for some employees in identifying their needs and in obtaining the appropriate information required to select training activities that are most useful to the workplace.

Chart 5.5

Usefulness[1] of adult education and training activities at work by type of sponsorship, Canada, 1993



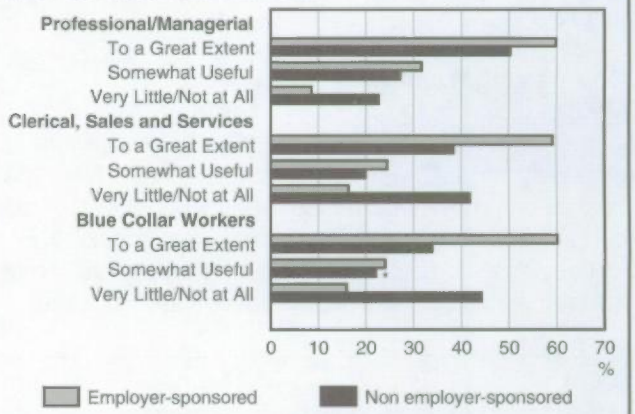
[1] Distribution of workers by level of usefulness of training.

Usefulness of training varied by occupation

The training was generally considered more useful for workers in professional and managerial occupations compared to those in clerical, sales & services or blue collar occupations (89%, 76% and 79% respectively). Only 11% of the training received by workers in professional and managerial occupations were judged of little or no use compared with more than 20% for those in the other two occupational categories. This difference could be explained by the higher participation of workers in professional and managerial occupations in employer-sponsored activities (34% vs. 15%) and a better knowledge of their training needs and a better access to information by this group.

Chart 5.6

Usefulness[1] of adult education and training activities at work by occupation and type of sponsorship, Canada, 1993



[1] Distribution of workers by level of usefulness of training.
** Data have a coefficient of variation between 16% and 25%.*

In the assessment of training usefulness, the differences between employer- and non employer-sponsored activities are the largest for blue collar workers (84% vs 56%) followed closely by the clerical, sales & services category (84% vs 58%). In the professional and managerial category the differences between employer- and non employer-sponsored activities (91% vs 77%) are only about half of those showed in the other occupational categories. The fact that employer sponsorship has a greater influence on the usefulness of training for blue collar workers probably indicates a greater need of career development orientation and advice in selecting the training.

C. Interruption of training

The survey participants were asked to state the completion status of their education or training activities. From the 6.8 million training activities (excluding non employer-sponsored personal interest courses) taken by the participants, 5.3 million (78%) were completed in 1993, 0.9 million (14%) were still ongoing and uncompleted and only 0.3 million (5%) were interrupted. Men and women had equal shares of the training activities considered in this section (3.4 million each). They also had the same completion rates for their education and training activities (78%), and the same interruption rates (5%). The following analysis focuses on the results of interruption rates (interrupted training activities as a proportion of all activities) to give an indication of the participants' perseverance in completing the training activities they took in 1993.

The small number of interrupted training activities, particularly in course activities, make it difficult to analyse these data in great details. In general, results were aggregated to improve reliability.

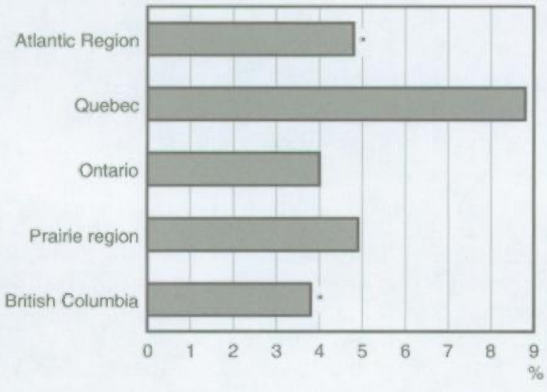
Interruption rates in Quebec are almost twice as high as those of other provinces

Quebec has an interruption rate almost twice as high as those of all other regions. The interruption rate is at its lowest level in British Columbia. The other three remaining regions have interruption rates varying between 4% and 5%.

Urban and rural geographic location has little impact on the interruption rates. The difference in interruption rates of urban and rural locations are rather small (5% vs. 4% respectively).

Chart 5.7

Interruption rates in adult education and training activities by province and region, Canada, 1993



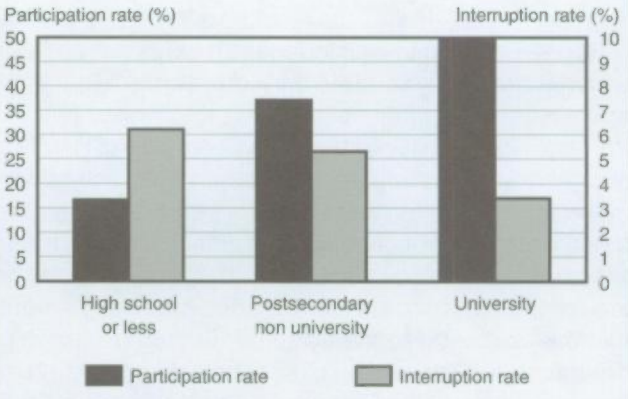
** Data have a coefficient of variation between 16% and 25%.*

Interruption and participation rates have an inverse relationship

The education and training participation rates and the interruption rates display an inverse relationship for most socio-economic variables. For example, the most educated people have the highest participation rate and the lowest interruption rate. This result suggests that the more educated population has a higher motivation to participate in a training activity and to complete it. Higher educated workers are probably better informed on their needs and availability of training. Thus, they can make a better selection of training activities than those less educated.

Chart 5.8

Participation and interruption rates in adult education and training activities by educational attainment, Canada, 1993



Type of activity has large impact on interruption rates

The difference between interruption rates of program and course activities are quite large. Course activities are usually short, while program activities are longer and needs more commitment from the learners. So, it is not surprising that program interruption rates (18%) are ten times higher than those of course (2%). Males tend to be less perseverant than females in program activities (19% vs. 17% interruption rate). This result is consistent with the higher participation rates of females over males (29% and 27%). In other words, females are more likely

Table 5.1

Interruption rates in adult education and training programs and courses by sex, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
Programs	18.3	19.4	17.3
Courses	1.7	1.9	1.5

to participate in a training activity and they are also less likely to interrupt the training activity.

Course interruption rates have very small numbers and the results are not reliable to be evaluated by age or most of other variables. In general, the program and course activities have the same trend, although the variations in course interruption rates are much smaller than those of programs. The analysis of training activities for programs can be easily extended for courses, with reduced impact.

Older and more experience workers of both genders are wiser in their choice of training

Overall, interruption rates decrease with age, from 10% for the 17-24 age group to 3% for the 45-64 age group. However, there are noticeable differences between genders. In the youngest age group (17-24), men (12%) have higher interruption rates than women (8%). In the older age group (45-64), the results are reversed: women (4%) have slightly higher interruption rates than men (3%). Older workers may be more motivated, more experience and wiser in their choice of training activities. Finding from the National Apprenticeship Survey (NAS) confirm the decreasing interruption rates with age. The survey found that the young (less than 24 years old) were the most likely to drop out of apprenticeship programs (Akyeampong, 1991). One main reason given was the lack of interest in the chosen trade, especially among the least exposed to the trade prior to apprenticeship. These young learners also gave poor assessments of the usefulness of their training, so one can expect that they will have higher drop out/interruption rates. The same reasons given for their poor assessment on usefulness of training are valid for their higher interruption rate. Besides the high interruption rates, these young workers also have lower participation rates, which support the hypothesis of inverse relationship between these two rates.

Table 5.2

Interruption rates in adult education and training activities by sex and age group, Canada, 1993

	Both Sexes	Males	Females
	(%)	(%)	(%)
17-24 years old	9.7	11.7	7.6
25-34 years old	6.3	6.4	6.3
35-44 years old	3.5	3.6	3.4
45-64 years old	3.3	3.1	3.5

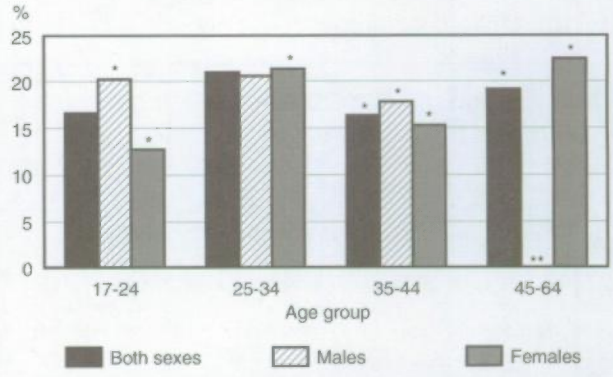
Men and women have a different patterns in program interruption rates according to their age

The pattern in the variations of the interruption rates fluctuates largely for program activities (Chart 5.9). These variations in the program interruption rates are mainly influenced by those of female rates. Male program interruption rates has a decreasing trend with age (from 20% to 15%).

Women have an interesting fluctuation pattern in the program interruption rates. Their rates are much lower than males when they are younger (17-24 age group: 13% vs. 20%). At 25-34 age group, their interruption rate increases dramatically (21%) even surpassing slightly the male rate, only to drop again at 35-44 age group (15%). In next age group (45-64), women reach their highest interruption rate at 23%.

Chart 5.9

Interruption rates in adult education and training programs by sex and age group, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*
*** Data are not reliable enough to be released.*

Childbearing and child-rearing activities affect women's interruption rates

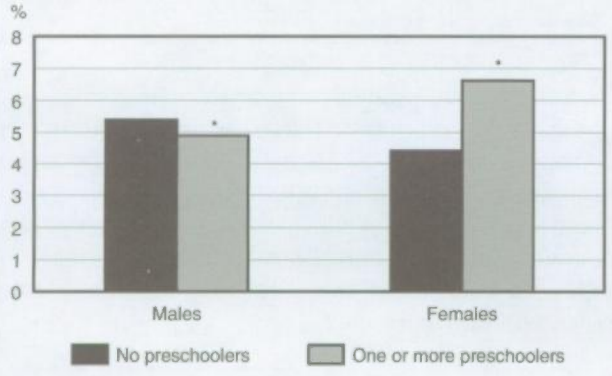
Childbearing activities may partially explain the female pattern of interruption rates. The presence of preschool children has almost no effect on training activities' interruption rates for men, whereas these rates are higher for women with preschool children (7% vs. 4% for women with no preschooler). Women's behaviour is very much affected by childbearing and child-rearing activities (OECD, 1994).

In 1993, most of the births (64%) were from mothers aged 25-34 years old (Statistics Canada, 1996). This coincides with the high program interruption rate in this age group (Chart 5.9.) The following age group (35-44)

found a drop in the female interruption rate, probably because most of them already overcame the child bearing and rearing period. The return or new entries of women to the workforce after the rearing of preschool children could explain the second high peak of the female interruption rate at age 45 to 64. Women in this age group probably need to update their skills in order to participate in the workplace fully. After many years outside the labour market, the education and training activities are not always easy to resume for many of them.

Chart 5.10

Interruption rates in adult education and training activities by sex and presence of preschoolers, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

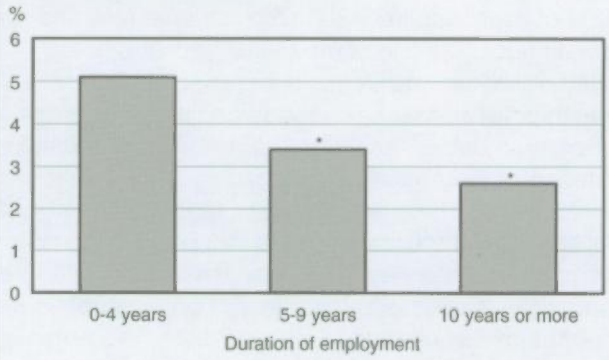
Interruption rates according to job tenure have the same trend as for age groups

Interruption rates decrease with age as well as with the duration of employment. New or younger employees have lower job tenures and older employees have higher duration of employment. This indicates the correlation between job tenure and age.

Betcherman and Leckie (1995) and the AETS (Chapter 2) have found a positive relation between training incidence and job tenure of employees. This increased participation by job tenure could influence the training interruption rates with the duration of employment. We can observe that the best outcome results (lowest interruption rate) are from employees with longer duration of employment. The impact of short duration of employment is more important when we consider that almost half (46%) of the employed participants in this survey have job tenure of less than five years.

Chart 5.11

Interruption rates in adult education and training activities by duration of employment, working individuals, Canada, 1993



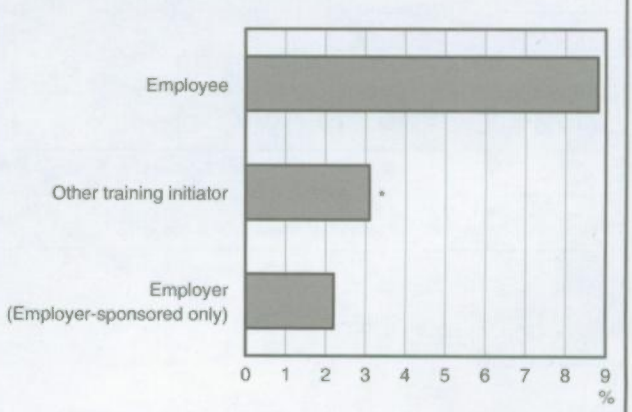
** Data have a coefficient of variation between 16% and 25%.*

Employees had difficulty in identifying their training needs

Who suggested this training or education? This question was used in the survey to collect information on training initiators. The main finding is that the interruption rate is four times higher when the employee is the initiator compared with the employer (9% vs 2%). The interruption rate for other initiators of training is slightly higher (3%) than for employers. The employees' choices for training reflect the lack of good judgement of their training needs. This judgement is influenced by their lack of knowledge or information of concerning their firm's or their own training needs which reflects the non participatory management style of Canadian firms (Betcherman et al, 1994). In Canada, where the "traditional" human resources management predominates, most employers

Chart 5.12

Interruption rates in adult education and training activities by training initiator, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

do not provide large amounts of training or facilitate the employees to balance work and family responsibilities or share their knowledge and information concerning their company. These results also reflect the large proportion of employees initiating their program training activities (72%), which require great time commitment and are sometimes difficult to complete.

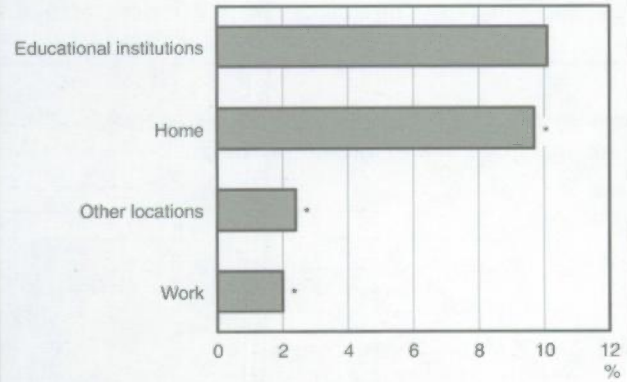
The employees who have suggested their own training activity can better assess their training needs with the increase of job tenure. The interruption rates improve from 10% for employees with less than one year of job tenure to 7% for those with one to four years of job tenure and to 5% for those with five year or more of job tenure. Longer duration of employment not only improves the chances of having more employer-sponsored training (Chapter 2), but also improves the ability of employees in the assessment of their training needs.

Locations of training, types of training provider, program accreditation and teaching methods are all influenced by type of training activity

The variables related to the delivery of educational and training activities (location of training, type of training provider, program accreditation and teaching method), are all closely related to the type of training activity (program or course). Their analysis provides additional explanation of the different interruption rates in programs and courses.

Chart 5.13

Interruption rates in adult education and training activities by location of training, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

Chart 5.14

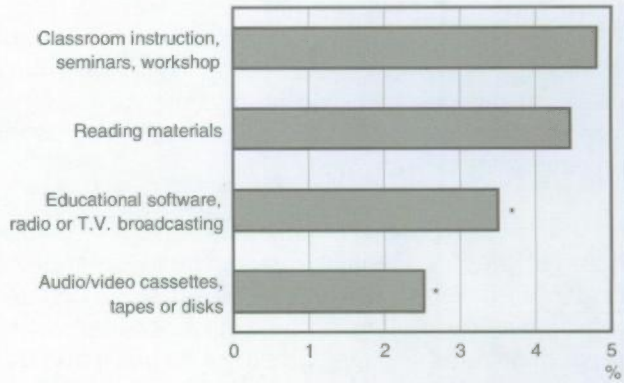
Interruption rates in adult education and training activities by type of provider, Canada, 1993

** Data have a coefficient of variation between 16% and 25%.*

The location and provider of training activities have a large impact on interruption rates. The highest interruption rates are observed in educational institutions and at home, which are more typical of program activity delivery. On the other hand, training activities given by employers or commercial suppliers and at work or other locations have the lowest interruption rates because they are mainly courses related activities.

Chart 5.15

Interruption rates in adult education and training activities by teaching method, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

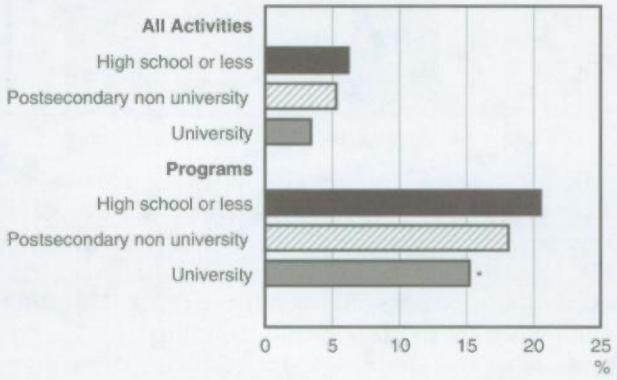
The teaching method used for training also has an influence on the interruption rates. The highest interruption rates are found in the traditional methods of teaching: classroom, seminars or workshop and reading materials. The lowest interruption rates are observed in the non traditional teaching methods using audio/video cassettes, tapes and disks. In the National Apprenticeship Survey, one common reason given for dropping out of the apprenticeship programs was the classroom teaching. The participants of the programs found the subjects covered in the classroom do not reflect their job experience and the number of classroom training hours was excessive.

Chart 5.16

Interruption rates in adult education and training programs by level of accreditation sought, Canada, 1993

Chart 5.17

Interruption rates in adult education and training activities by level of educational attainment and type of activity, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

The program accreditation sought by learners (Chart 5.16) and level of educational attainment of the learners (Chart 5.17) are correlated. More educated learners will seek higher program accreditation. The results has demonstrated that educational attainment of learners have inverse relationship with interruption rates of training activity. The same relationship can be extended for the level of the program accreditation and interruption rates.

Another aspect of adult education and training is the learning ability of adults to complete successfully their education or training. This ability to learn has to be developed and it deteriorates with the lack of use (Rubenson, 1989). The more educated workers, who have developed studying methods and learning skills, are usually placed in jobs where they have more opportunity to continue practicing their learning skills. In contrast, the less educated employees are in occupations with low access to training or opportunities to use their learning skills.

Distance education has twice the interruption rate of non distance education

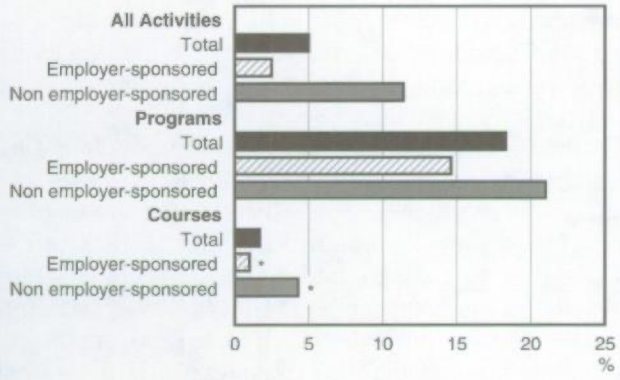
Distance education has an interruption rate more than twice higher than non distance education (11% vs. 5%). The main barrier of distance education which may explain the higher rate is the lack of interactive communication (Bernier, 1995). With the development of new technologies and the increase of computer users, distance education could have a better and larger role in the domain of education and training. In the near future, the main obstacle of distance education could be diminished or eliminated from the present distance education methods by using the latest technology, such as the Internet.

Employer sponsorship in training is an essential element for employees to pursue their training

Employer sponsorship can reduce almost four times the program and course activity interruption rates of employees, from 11% to 3%. The program interruption rate for a non employer-sponsored programs is 21%, but this rate drops one-third to 14% with employers' sponsorship. The same effect of employers' sponsorship is observed for courses: interruption rates can be reduced by four times from 4% to 1%. Employers' sponsorship is an important economic incentive for the employee. Moreover this recognizes their role in the selection of the training activity since they usually have better knowledge of training needs of the workplace.

Chart 5.18

Interruption rates in adult education and training activities by type of sponsorship and type of activity, Canada, 1993



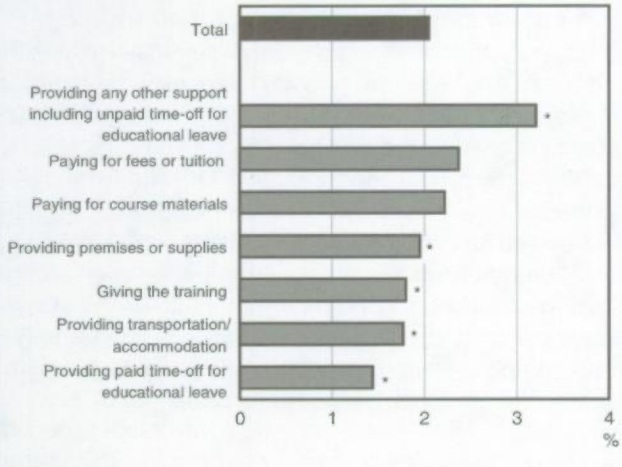
** Data have a coefficient of variation between 16% and 25%.*

Paid time-off is the best type of employer support for employees to continue and complete their training

The best incentive to reduce the interruption rate of training is for employers to provide paid time-off. This is consistent with the fact that the most important barrier to training is the lack of time (Chapter 6). Employers providing transportation/ accommodation, premises/ supplies and giving the training, also help to improve the outcome of training by reducing the interruption rates. Paying for course materials, fees/tuition and other support have less impact on the outcome of training.

Chart 5.19

Interruption rates in employer-sponsored education and training activities by type of employer support, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

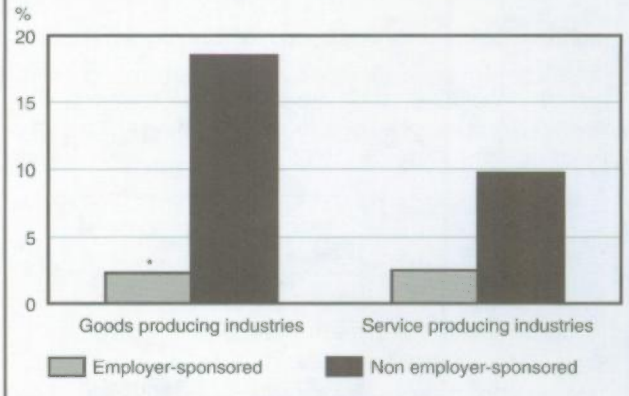
Employer sponsorship is more efficient in reducing the training interruption rates of goods producing industries

Employer-sponsored training interruption rates are almost the same in both industrial sectors: goods or services(2.3% and 2.5%), but the non employer-sponsored interruption rates of the goods producing sector are almost twice higher than those of services sector (19% and 10%).

The difference in interruption rates between employer-sponsored and non employer-sponsored activities varies dramatically in industries of both sectors. The results indicate that employer sponsorship in training is essential in lowering the overall training interruption rates of goods producing industries, where more industries (such as transportation, communication, manufacturing and construction) have a higher concentration of blue collar workers. Furthermore, employer support is probably more critical in threatened industries, such as manufacturing (Baldwin and Johnson, 1995). In these industries the job turnover is particularly high (Baldwin and Rafiquzzaman, 1995), which could lead to negative perceptions concerning job security and also limits the employee's commitment and loyalty to the workplace. As a consequence, employees are less motivated to pursue and complete their training.

Chart 5.20

Interruption rates in adult education and training activities by industry and type of sponsorship, labour force participants, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

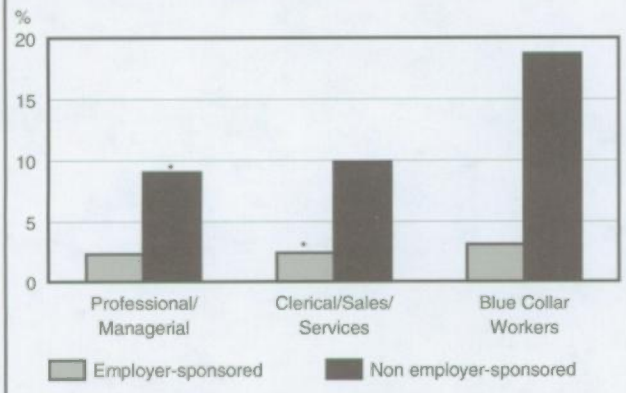
Employer sponsorship even more critical for blue collar workers to pursue their training

Employer-sponsored activities have similar interruption rates for all three occupational categories but the non employer-sponsored rate of blue collar workers are twice higher than those of other two occupations. The blue

collar workers have a non employer-sponsored training interruption rate six times higher than that of employer-sponsored training (19% vs. 3%). Blue collar workers are generally less educated and in the lower paid jobs relative to workers in other occupations. They are the most in need of financial and advisory support. The results also agree with their responses concerning the usefulness of training. Blue collar workers found the training activities less useful when not sponsored by employers. Consequently, they are less motivated in completing training activities that may not provide very specific and transferable skills or knowledge to the workplace.

Chart 5.21

Interruption rates in adult education and training activities by occupation and type of sponsorship, labour force participants, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

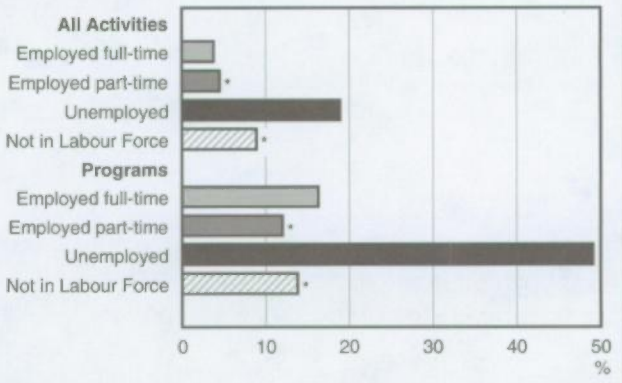
Income consideration and to lesser extent the time availability have important impacts on interruption rates

The part-time or full-time employment status of workers has little impact on interruption rates (5% and 4%), but unemployment has a large impact by increasing to 19% the interruption rates. The individuals who are not in the labour force also have a relatively high interruption rate but it is still lower than those of the unemployed (9% vs. 19%). The unemployed seem to have other priorities, such as searching for employment, rather than pursuing and completing the training activities that may not be useful to the new employment.

For program activities, part-time employment presents some positive effect on interruption rates compared with full-time employment. These results show that the time availability is an important element in the completion of program activities. Full-time employees have less time available for program activities, while those individuals working part-time or who are not in labour force have more time to dedicate to their program activities. On the other hand, unemployment has a very negative effect. The program interruption rate of the unemployed is almost 50%. This shows clearly that they are often not able or interested in investing the time to complete program activities.

Chart 5.22

Interruption rates in adult education and training activities by labour force status and type of activity, Canada, 1993



** Data have a coefficient of variation between 16% and 25%.*

Among all workers, the self-employed have slightly lower interruption rates compared with other paid workers (4% vs. 5%), probably because they are assuming all the risk and the benefits of the training investment.

To improve the outcome of training in the Canadian labour force, it is essential not only to increase the accessibility to training, but also make sure the training dollars are well spent. One way to accomplish this is by maximizing the degree of skills transfer and completion rates of training activities. The type of training, program or course, can greatly influence the completion rates of training. Compared to program training activities, course training activities vary little. In particular, the job related course activities which are mainly skill oriented and the learners are usually familiar with the topic. Program activities, in contrast, are mainly knowledge oriented and require a considerable time commitment on the part of trainees. This kind of activity is greatly influenced by level of education and learning ability, which are also influenced by age and gender of learners. The employer-sponsored training in Canadian workplaces being relatively low infers that employers are probably as selective as possible in the choice of trainees. In other words, they probably choose the employees who will bring most benefits to the firm. This practice leads employers to select those who have better chances to succeed in the training and not necessarily those who need it the most.

This chapter has shown that :

- in general Canadian workers are satisfied with the education and training offered by their employers. They judged that the training provided by employers was adequate and the knowledge and skills acquired useful to their workplace;
- a large proportion of respondents were unable to assess the adequacy of training provided by their employers and this proportion is higher among the non participants in adult education and training activities;
- the main differences in the interruption of training are related to the type of training activity (program or course) and employer sponsorship.

CHAPTER 6

Training requirements and impediments

R. Couillard

As the previous chapter has shown, trainees generally perceived the education and training they have received as useful and the training provided by employers as adequate. However, some groups in the population reported that they did not participate in training or had limited access to the training they needed or wanted. From a policy point of view, these people represent an interesting challenge. What were the impediments which prevented them from participating and how can they be overcome? The AETS can help answer these questions since the survey provides information on the profile of the non participants in education and training, of people with unsatisfied training needs and wants and a description of the barriers limiting their participation.

This chapter identifies and characterizes population groups who have expressed further training requirements that were needed for job-related or career reasons (training needs) or that were wanted for job-related or personal interest reasons (training wants). The barriers or impediments that have prevented them from taking all the desired education and training will also be discussed.

A. Training needs

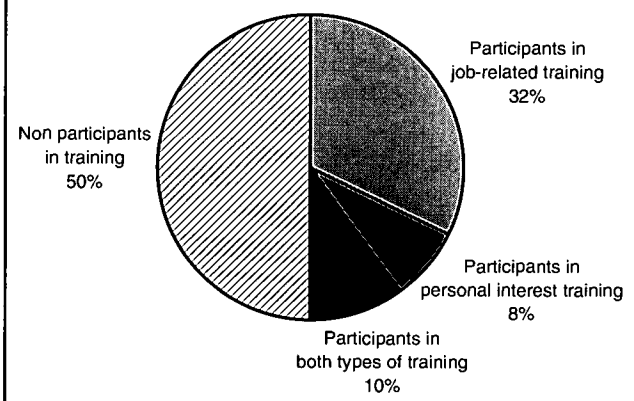
Participation rates in education and training activities varied with age, schooling level, marital status, and employment status of the individuals. For certain groups in Canada, namely the unemployed, the accessibility to job-related training is rather limited. Among the employed population, accessibility varied by occupation, industry and firm size. Due to all kinds of impediments many people are not getting the kind or the amount of training they need in their current or future job.

Participants in training expressed the largest job-related training needs

Approximately 1.7 million people did not take all the training they **needed**[1] for job-related or career reasons. This group is composed of an almost equal number of participants and non participants in training. Among the participants, those who have received job-related training represented the largest share.

Chart 6.1

Distribution of workers with unsatisfied training needs by participation status in adult education and training, Canada, 1993



These people with unsatisfied training needs represented 10% of the total number of workers in 1993. However, given the rapid changes society is experiencing and the insecurity this creates among workers, it is believed that this number is somewhat underestimated. Due to the uncertainty of the future and the lack of information regarding training courses available, for many workers, unemployed, entrants or re-entrants in the work force, the identification of their training needs is an impossible task. As a consequence, this proportion of one in ten people with training needs may represent only those who knew what kind of training they needed.

Around 15% of training participants expressed unsatisfied training needs compared to 6% of non participants. However, this result should not be interpreted as a measure of dissatisfaction of the participants with the type, content or amount of training they have received. Rather, this may show that participation in education or training activities increases the participant's desire to be trained and awareness of training needs. Given that the degree of satisfaction with training was relatively high (see Chapter 5), this perceived need of participants to enrol in further learning activities probably reflects a better perception of the usefulness of training activities, a better identification

[1] *All AETS respondents were asked if they **wanted** education or training for career, for hobby or personal reasons. However, only those who had a job in 1993 were asked if they **needed** education and training for job-related purposes.*

Table 6.1

Number and proportion of workers with unsatisfied training needs by sex and participation status in adult education and training activities, Canada, 1993

	Workers with Training needs (In 000's)	Proportion of the workers with training needs		
		Total	Males	Females
		%	%	%
All working individuals with unsatisfied training needs	**1,708**	**10**	**11**	**10**
Participants with unsatisfied training needs	**866**	**15**	**16**	**14**
Participants in job-related training	554	17	17	15
Participants in personal interest training	143	9	9	8
Participants in both types of training	169	21	22	20
Non participants with unsatisfied training needs	**842**	**6**	**7**	**5**

of their training needs and a larger thirst for knowledge. These are people who have adopted the lifelong learning paradigm.

These statistics may also reveal that those who didn't have access to training either don't necessarily need more training, or were unable to gauge their own needs. According to the CLMPC (1990) workers with low educational attainment, older workers, female heads of household and laid-off workers are probably the groups with the greatest training needs.

Further analysis also shows that, among the training participants, those with prior job-related training experience expressed greater needs (17% of participants in job-related training only and 21% in both types of training) for further training than those who have participated for personal interest reasons only (9%) and those who did not participate at all (6%). This may be attributed to the rewards that those people found in such training. These rewards could take many forms including job promotion, pay raise, recognition, and increased job satisfaction.

Men expressed slightly more training needs than women

A slightly larger proportion of men than women reported unsatisfied training needs in 1993 (11% vs. 10%). Among the participants (16% vs. 14%) and non participants (7% vs. 5%), males expressed more need for further job-related training than women.

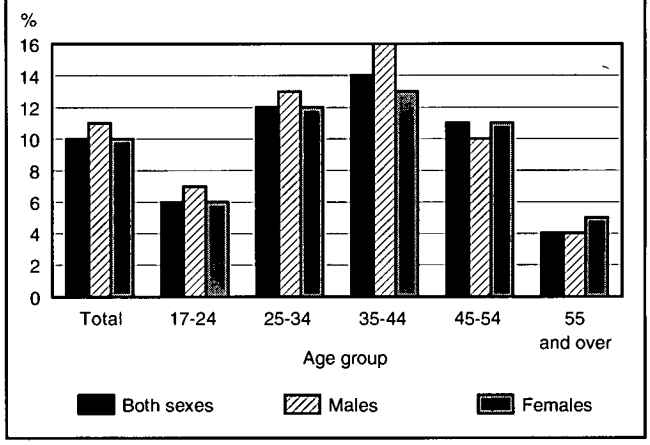
As discussed in Chapter 2, this situation is consistent with the fact that women are highly concentrated in certain low-paid occupations which generally provide less training opportunities. This lack of training leads to a lack of knowledge regarding their training needs.

The need for training lowest for the young and the old

Like their participation in training, training needs for people at both ends of the age scale is lower than those in their prime working years. In fact, up to the 35-44 age group, an increasing percentage of people reported unsatisfied training needs. After this age group, the proportion of people with unsatisfied training needs steadily declined. Men and women showed a similar pattern, but differences by age group were more important among men. For instance, while the proportion of women with training needs was rather constant for the three age groups between 25 and 54 years, the proportion of men showed large variations.

Chart 6.2

Proportion of workers with unsatisfied training needs by sex and age group, Canada, 1993



Factors determining participation in adult education and training also explain the level of training needs

People who did not access or have limited access to training in 1993 also expressed limited needs for further training. For this reason the characteristics of the individuals with training needs are comparable to those of the training participants. Individuals who reported training needs were generally working full-time (people occupying jobs require more regular training than those who don't) and mainly aged between 25 and 44 years. They were also earning fairly high incomes and occupying professional or managerial positions. Close to 70% had postsecondary education.

While similarities existed between adult education and training participants and non participants who were seeking further training needs, some differences were also noted.

Compared to participants, a larger proportion of the non participants with unsatisfied training needs were in age groups 17-24 and 55 and over. Many non participants are young workers or new entrants to the labour force who probably needed to complete their education and older workers who needed to upgrade their skills. Non participants expressing training needs were more likely to be unemployed (11% vs. 3%) and not in the labour force (6% vs. 3%) compared to participants. A larger proportion of workers seeking training for the first time had less education, lower income and were members of the Clerical, Sales and Services or Blue Collar Workers groups. For example, 41% of the non participants with training needs had a high school education level or less; the proportion among the participants was 23%. Similarly, 25% of non participants with training needs had $15,000 income or less, compared with 14% for participants. Among the non participant, people in non professional or managerial occupations expressed 68% of the training needs, compared to 45% for the participants.

Table 6.2

Distribution of workers with unsatisfied training needs by participation status in adult education and training activities and selected variables, Canada, 1993

	Total	Participant in adult education and training	Non participant in adult education and training
	(%)	(%)	(%)
Total	100	100	100
Age			
17-24 years	10	8	13
25-34 years	32	32	32
35-44 years	35	38	32
45-54 years	18	19	17
55 years and over	5	3	7
Educational Attainment			
High School or less	32	23	41
Postsecondary non university	43	44	42
University	25	33	17
Income			
Less than $15,000	20	14	25
$15,000 - 29,999	25	22	29
$30,000 - 59,999	45	49	40
$60,000 and over	10	14	6
Labour Force Status			
Employed	89	93	84
Full-time	78	83	72
Part-time	11	10	12
Unemployed	7	3	11
Not in the Labour Force	5	3	6
Occupation			
Professional and Managerial	44	56	33
Clerical, Sales and Services	32	28	36
Blue Collar Worker	24	17	32

***Note**: The labour force status is the one prevailing in January 1994.*

Workers in training intensive industries also looking for more training

Either because the level of training has been insufficient or because they were not able to catch up with all the changes they were experiencing, workers in industries with high employer-sponsored training incidence were also those who needed additional training. In total, 10% of the workers reported further training needs. This percentage increased to 18% in Public Administration and 13% in Utilities and Finance, Insurance and Real Estate industries. These three industries are those who also had the highest participation rates in 1993.

Table 6.3

Participation rates in employer-sponsored job-related education and training activities and proportion of workers with unsatisfied training needs by industry, Canada, 1993

	Participation rates	Workers with unsatisfied training needs
	%	%
All Industries	**21**	**10**
Goods Producing Industries	**18**	**10**
Agriculture	8	7
Other Primary	25	10
Manufacturing	19	12
Construction	8	8
Utilities	52	13
Service Producing Industries	**22**	**11**
Transportation/Communication	20	7
Trade	13	8
Finance/Insurance/Real Estate	32	13
Education/Health/Welfare	27	11
Business/Comm./Personal Services	14	10
Public Administration	43	18

Type of training needed

The AETS did not ask workers who reported training needs to specify those needs. The analysis of survey results by respondent characteristic, occupational group and industry only provides a vague indication of those needs.

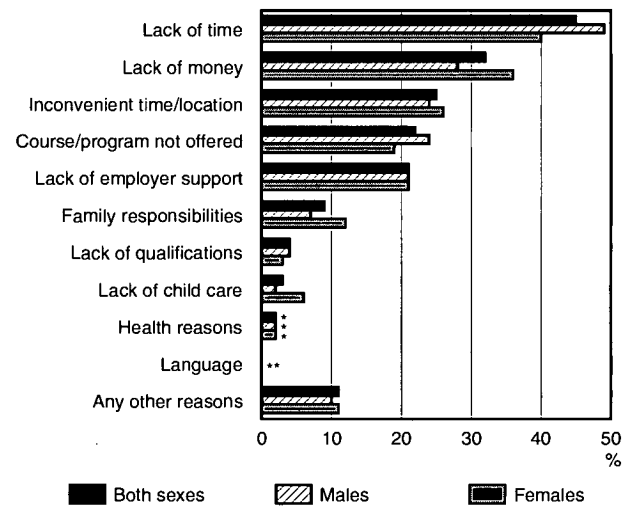
Individuals with low educational levels (these people are generally young entrants, re-entrants and older workers) might need to acquire core skills such as literacy and numeracy skills. Older workers might also need to update their skills or acquire new ones. Given the relatively large concentration of participants in only a few fields of study (see Section B of Chapter 1 and Section A.2 of Chapter 2), it could be inferred that individuals with unsatisfied needs were looking for training in the same fields.

B. Barriers to job-related training[2]

Many types of barriers to education or training exist. Some are related to the economic status of individuals, others to their family situation. The degree of attachment to the labour force as well as the availability of training programs are important impediments as well. Any effort towards increasing access to training for all Canadians should then focus on eliminating or at least reducing some of the barriers the AETS has identified. Efforts should also be made to reduce difficulties experienced by training providers, namely the employers, in the delivery of training. Other studies (Betcherman, 1994 and Rechnitzer, 1990) have shown that fear of poaching, lack of financial resources and cost of training have a limitating effect on the amount of training sponsored by employers.

Chart 6.3

Proportion of workers with unsatisfied training needs by sex and type of training barriers, Canada, 1993[1]



[1] Due to multiple responses, the sums could exceed 100%.
** Data have a coefficient of variation between 16% and 25%.*
*** Data are not reliable enough to be released.*

As the 1992 AETS survey has shown, the lack of time ("too busy at work or job") is the most important barrier to job-related education and training. It prevented 45% of the people (49% of men and 40% of women) with training needs to fully satisfy them. As a consequence, any policies aimed at increasing worker participation in training will have to be designed in such a way as to promote training activities provided during working hours. Such policies place additional burden on employers who already sponsor close to 75% of all job-

[2] Information on barriers to job-related training was collected from respondents who reported unsatisfied training needs.

related training. To achieve this, employers will have to either find the necessary resources to support an increased level of training or find a way to adapt work schedules of workers.

Close to a third of those who reported unsatisfied training needs blamed it on the cost of training ("training too expensive"). Given their relatively limited resources and access to training offered by employers, this factor is relatively much more important among the part-time workers and the unemployed than the employed. More women (36%) than men (28%) reported this reason as a deterrent to training, probably due to the relatively high concentration of women in low paid jobs. Many low income earners may be reluctant to spend money on training if the prospect of getting a better job at the end of their training is not certain. Moreover, women's generally weak attachment to the labour market (e.g. non-standard jobs) precludes them from getting much training from their employer. Direct income support would probably be needed to compensate their precarious economic situation.

Barriers generally associated with the supply of education and training activities to adults ranked third. One in every four adults (men 24%, women 26%) reported unsatisfied training needs due to inconvenient time and location of the activities offered while one in five blamed it on the non availability of the needed course or program (men 24%, women 19%). In addition to making reference to the difficulty in getting proper transportation and scheduling of training activities, this may also indicates a reluctance for certain groups of people (e.g., women, elderly) to go out at night. Given the varying density of the Canadian population, the non provision of certain training activities are certainly good economic decisions based on market analyses. In other cases, however, this low level of demand for these activities may reflect potential trainees' lack of information on activities being offered. Numerous training suppliers are competing to get their share of the market, but information on training opportunities are not available from a single wicket. This information barrier may even be more important for people residing outside large metropolitan areas and those with low literacy skills and language barriers. Graves, Remai and Redmond (1993), in a survey of 2,500 Canadian firms also show that this lack of information about training opportunities was also a deterrent for employers. The survey indicated that this obstacle was even more important than the cost of training.

One in every five men and women said the lack of employer support prevented them from taking any further training they needed. This lack of support may be interpreted as a financial barrier to training, but it may also mean that these potential trainees didn't have the time or inclination to get trained on their own time and were expecting either to get trained by the employer or at least to get paid or unpaid time-off to take this training. Almost half of those who reported that the lack of employer support was a deterrent to training also mentioned the lack of money and another third cited the lack of time and the non availability of the course they needed to take.

Other impediments to training (such as family responsibilities, lack of child care, lack of qualifications, health problems, and language barriers) were judged less important and were generally reported by less than 10% of people needing further training. Among those barriers, family responsibilities and the lack of child care were the most important factors. Family responsibilities was a factor for only 9% of the people, while the lack of child care was reported by 3% of adults with unsatisfied training needs. These two barriers were mentioned more often by women. Family responsibilities and lack of child care were reported by 12% and 6% of women, respectively. Equivalent numbers for men were 7% and 2%.

The lack of sufficient qualifications or prerequisites was reported as a barrier to training by less than 4% of the workers with unsatisfied training needs. This proportion increased to 6% for those with a high school diploma, and to 11% for those with less than a high school diploma. In a sense, people with the greatest need for training cannot easily access it.

Importance of the different barriers to training varied by age

The importance of each barrier to training varied with each stage in one's career or life. While the lack of time was a barrier for roughly a third of the young and the elderly, it was a more important deterrent for people aged 25 to 54 (Table 6.4). Indeed, close to 50% of the people in this age group indicated that they were too busy at work to undertake training activities that they felt were needed. At this age, people often don't have much spare time or flexible schedules. They are generally raising their family and/or are much involved in working and building up their careers.

As people age and improve their financial situation, the cost of training becomes a less important barrier. Some 40% of the adults with training needs and aged between 17 to 24 cited the cost of training as a barrier. This proportion was down to 19% for those aged 55 and over.

Table 6.4

Proportion of workers reporting unsatisfied training needs by age group and type of training barriers, Canada, 1993

	Total	17-24	25-34	35-44	45-54	55 or over
	(%)	(%)	(%)	(%)	(%)	(%)
Lack of time	45	33	41	52	48	37
Lack of money	32	40	39	29	25	19
Inconvenient time/ location	25	32	24	26	23	20
Course/program not offered	22	18	24	20	26	26
Lack of employer support	21	13	24	20	21	24
Family responsibilities	9	**	11	13	6*	**
Lack of qualifications	4	**	4*	3*	**	**
Lack of child care	3	**	7	**	**	**
Health reasons	2	**	**	**	**	**
Language	**	**	**	**	**	**
Any other reasons	11	15	8	9	13	25

Notes: *Due to multiple responses, the sums could exceed 100%.*
* *Data have a coefficient of variation between 16% and 25%.*
** *Data are not reliable enough to be released.*

The time and location of courses or programs offered was a more important impediment for young people than older ones, but the difficulty in finding the appropriate courses or programs was more heavily felt as people age. Probably because a large proportion of people aged 17 to 24 were employed in part-time jobs requiring a minimum level of skills, this group was the least to suffer from a lack of employer support. Even if the information is rather limited, results also show that family responsibilities mainly affected people aged 25 to 54.

Finally, the overall relative importance of "any other reasons" is rather small but the large variations observed by age group is revealing. Some 8% of the respondents in the 25 to 34 age group and 9% in the 35 to 44 age group mentioned other reasons for not taking the training they needed. However, these other reasons were much more important for all other age groups. For instance, 25% of the 55 year old and over and 15% of the 17 to 24 year olds said they were stopped from taking further training for other reasons. Respondents were not asked to specify these reasons, but it is evident that there are some barriers to training which are more specific to old people and that were not listed in the categories of answer proposed to survey respondents.

Barriers to job-related training by occupation

In general, the importance of each training barrier did not vary much by occupational group, but some interesting patterns existed (Table 6.5). For instance, the lack of time and the lack of money ranked first and second for the three occupational groups under study. The inconvenient time or location of training offered ranked third for the Professional and Managerial occupations and the Clerical, Sales and Services occupations, while the availability of courses or programs occupied this position in the Blue Collar Workers group. Surprisingly, the Professional and Managerial occupational group received more employer-sponsored training than any other groups, but is also the occupational group most affected by the lack of employer support.

When occupations within these three occupational groups are examined, important differences surface. Except for Teaching and, Medicine and Health occupations, the lack of time ranked first for all occupations. The proportion of individuals reporting this type of barrier ranged from 33% in Teaching to 60% in Managerial and Administrative occupations. In the case of Teaching, the lack of money was reported as a deterrent to training by 38% of the people in this occupation, while the time and location the courses were offered was a barrier for 44% of those in Medicine and Health occupations.

The cost factor ranked second in all occupations except in the Primary and in the Medicine and Health occupations where inconvenient time and location of courses offered was a major problem. In the case of Primary occupations, this illustrates accessibility problems encountered by people living in rural areas while for people in Medicine and Health occupations it may reflect their non standard work schedule.

The third most important barrier was the inconvenient time or location of training activities which prevented 25% of the individuals to meet all their training needs. Except for the two occupational groups mentioned before, differences among the various occupations were small.

Table 6.5

Proportion of workers reporting unsatisfied training needs by occupation and most important training barriers, Canada, 1993

	Lack of time	Lack of Money	Inconvenient time and location	Course not offered	Lack of employer support
	(%)	(%)	(%)	(%)	(%)
All occupations	**45**	**32**	**25**	**22**	**21**
Professional and Managerial	**49**	**32**	**27**	**20**	**23**
Managerial and Administrative	60	28	24	20	24
Natural Sciences and Engineering	45	32	24	18	25
Teaching	33	38	23*	21*	19*
Medicine and Health	43	30	44	22*	22*
Other occupations	43	39	29	23	19
Clerical, Sales and Services	**43**	**34**	**23**	**21**	**19**
Clerical	42	30	23	24	24
Sales	48	35	25	14*	15*
Services	41	40	21*	21*	**
Blue Collar Workers	**41**	**29**	**24**	**28**	**21**
Primary	57	28*	33*	**	**
Manufacturing	40	29	21	33	26
Construction and others	36	30	26	24	15*

Note: Due to multiple responses, the sums could exceed 100%.
* *Data have a coefficient of variation between 16% and 25%.*
** *Data are not reliable enough to be released.*

The non availability of courses and programs needed ranked fourth, with 22% of the individuals reporting this reason. Only 18% of the workers in Natural Sciences, Engineering and Mathematics occupations were not able to find the courses they required while this percentage increased to 33% for those in Manufacturing occupations.

The lack of employer support prevented some 21% of workers from taking all the training they felt was needed. Workers in Manufacturing occupations were those suffering the most from this barrier (26%) while those in Sales, Services and Construction occupations were less so.

Barriers to job-related training varied by employment status

The analysis shows that the employment status of a person is probably one of the most determinant factors in the importance of each barrier to training. Almost half of the employed population identified the lack of time as a barrier to training. The AETS reveals that this is a training impediment for 50% of full-time workers, whereas only 31% of part-time workers and 23% of non employed people mentioned this barrier (Table 6.6). As a consequence, any increase in participation of full-time workers in adult education and training activities would require either adapting work schedules to allow workers to attend training sessions or integrating more training during work hours.

The cost of training was a more important barrier for those without a full-time job. Close to one in two unemployed people found training too expensive to afford compared to less than one in three full-time workers who in a large proportion had access to training supported by employers. Nevertheless, over 1 in 5 full-time workers identified lack of employer support as a barrier to training.

The AETS results also show that one in four unemployed individuals were unable to obtain the course or program they needed. This probably reflects the difficulty in obtaining information on training activities being offered given the large diversity of activities and of suppliers. It may also indicate a lack in the supply of training activities offered or in the level of qualifications of potential trainees (9% of unemployed did not have the prerequisites to enrol in the needed training).

Barriers to job-related training by industry

Training impediments experienced by Canadian workers were rather similar in all industries. Ranking of the three most important impediments was the same in Goods-Producing and Service-Producing industries. However, some minor differences are worth mentioning, since they may reveal a situation or a problem specific to an industry.

A larger proportion of employees of the Goods-Producing sector cited the lack of money as a barrier to training than those of the Services sector (33% vs. 28%). This was compensated by a larger importance of the lack of course or program supply (27% vs. 20%) and to a lesser extent, to the lack of time (47% vs. 45%), the lack of employer support (23% vs. 20%) and

Table 6.6

Proportion of workers reporting unsatisfied training needs by labour force status and most important training barriers, Canada, 1993

	Lack of time	Lack of money	Inconvenient Time or location	Course not offered	Lack of employer support
	(%)	(%)	(%)	(%)	(%)
Total	**45**	**32**	**25**	**22**	**21**
Employed	**48**	**31**	**26**	**22**	**21**
Full-time	50	29	26	23	22
Part-time	31	43	28	16	16
Not Employed	**23**	**41**	**19**	**25**	**20**
Unemployed	25	48	21	27	23
Not in the Labour Force	22	30	17	23	16

Notes: Due to multiple responses, the sums could exceed 100%.
The unemployed population refers to people who were unemployed at the time of survey (January 1994) but hold a job for a period of time in 1993.

inconvenient time and location of training (27% vs. 24%) in the Services sector.

Within each sector, important differences were noted by industry. For instance, within the Service-Producing sector, the lack of time was a major factor for employees of the Finance, Insurance and Real Estate and the Services industries, reflecting their particular work schedule, but was much less felt by those in Public Administration industries (58% vs. 38%). The cost of training was almost as important as the lack of time for employees in Education, Health and Welfare industries but did not represent a major factor for those in Transportation and Communication and in Finance, Insurance and Real Estate industries (40% vs. 23% and 24% respectively). Compared to other industries of the sector, the inconvenience of time or location of training activities was below average in Finance, Insurance and Real Estate and in the Public Administration industries (18% and 17%, respectively). Transportation and Communications and the Public administration industries suffered the most from the non availability of the program or course needed and the lack of employer support, while the Business, Commercial and Personal Services industries was the least affected by the lack of employer support. This situation is rather surprising given that employees in Public Administration had one of the highest training rates at 43% and the Business, Commercial and Personal Services a lower than average rate at 14%.

Table 6.7

Proportion of workers reporting unsatisfied training needs by industry and most important training barriers, Canada, 1993

	Lack of time	Lack of money	Inconvenient time or location	Course not offered	Lack of employer support
	(%)	(%)	(%)	(%)	(%)
All industries	**45**	**32**	**25**	**22**	**21**
Goods-producing industries	**47**	**28**	**27**	**27**	**23**
Agriculture and Other primary	51	26	38	21*	**
Manufacturing	48	27	25	30	31
Construction and utilities	43	34	25	20*	**
Service-producing industries	**45**	**33**	**24**	**20**	**20**
Transportation & communications	40	23*	**	22*	25*
Trade	43	33	25	18	22
Finance, Insurance and Real Estate	58	24	18*	17*	18*
Education, Health and Welfare	41	40	29	21	21
Business, Comm. & Pers. Services	51	36	27	19	16
Public administration	38	26	17	27	24

Notes: Due to multiple responses, the sums could exceed 100%.
* *Data have a coefficient of variation between 16% and 25%.*
** *Data are not reliable enough to be released.*

C. Training wants

In addition to the training needs, the AETS asked respondents to indicate if there were any job-related, hobby, recreational or personal interest courses or programs that they wanted to take but did not. Close to 5.4 million or one in every four Canadian adults reported unsatisfied training wants. Training activities that were reported as wanted were probably judged desirable but less urgent (for job-related or career reasons) than those reported as needed. The relatively larger proportion of adults who expressed unsatisfied wants compared to those who reported unsatisfied needs could be explained by the greater difficulty for the respondents to define a need compared to a want. The unsatisfied training needs had either prevented him/her to perform a task at the level required or to accede to another position. A want is generally less imperative. The non satisfaction of a wanted training activity does not generally have a major impact on someone's job or career.

While an almost equal number of training participants and non participants reported unsatisfied training needs, 60% of the training wants were expressed by people who did not participate in any form of training activities in 1993.

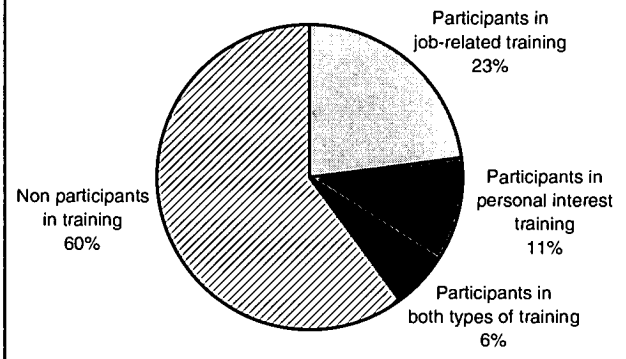
However, participation in training activities is still a determinant factor in the reporting of training wants. Some 37% of participants in job-related or personal interest training activities reported unsatisfied training wants compared to 21% of people who did not participate in any training activities.

Women expressed more training wants then men

While men reported slightly more unsatisfied training needs than women, a much larger proportion of women (29%) than men (23%) reported unsatisfied training wants. Some 41% of female participants in training and 24% among the non participants had unsatisfied training wants. Corresponding figures for men are 32% and 19%. This is consistent with the relatively greater participation by women in education and training for personal interest reasons (see Chapter 3). It also reveals that women are facing some important obstacles which prevent them from participating to the extent they wanted to.

Chart 6.4

Distribution of individuals with unsatisfied training wants by participation status in adult education and training, Canada, 1993



People with training wants are different from those with training needs

Characteristics of adults who wanted to enrol in further education and training are different from those who expressed a need for additional training (Table 6.9). A larger proportion of people with training wants were from both ends of age scale. In fact, 28% are either 17 to 24 years of age (15%) or 55 years or older (13%) compared with only 15% for those with training needs. These two age groups had much less attachment to the labour force than people aged 25 to 54. A large majority are either students, retired or close to retirement. The proportion of people with training wants in these two age groups is

Table 6.8

Number and proportion of individuals with unsatisfied training wants by sex and participation status in adult education and training activities, Canada, 1993

	Individuals with Training wants (In 000's)	Proportion of individuals with training wants		
		Total	Males	Females
All individuals with unsatisfied training wants	**5,363**	**26**	**23**	**29**
Participants with unsatisfied training wants	**2,149**	**37**	**32**	**41**
Participants in job-related training	1,234	37	31	43
Participants in personal interest training	592	35	34	36
Participants in both types of training	322	40	33	45
Non participants with unsatisfied training wants	**3,214**	**21**	**19**	**24**

Table 6.9

Distribution of individuals with unsatisfied training wants by participation status in adult education and training activities and selected variables, Canada, 1993

	Total	Participants in adult education and training	Non participant in adult education and training
	(%)	(%)	(%)
Total	100	100	100
Age group			
17-24 years	15	13	17
25-34	29	32	28
35-44	27	32	24
45-54	16	17	15
55 and over	13	7	16
Educational Attainment			
High School or less	39	24	49
Postsecondary non university	42	48	39
University	18	27	12
Income			
Less than $15,000	33	23	39
$15,000 -$29, 000	20	21	19
$30,000 -$59,999	24	33	18
$60,000 and over	6	9	3
Labour force Status			
Employed	66	80	57
Full-time	55	69	46
Part-time	11	12	10
Unemployed	10	7	12
Not in the labour force	24	13	31
Occupation			
Professional and Managerial	40	52	30
Clerical, Sales and Services	37	32	42
Blue Collar Worker	23	17	28

larger among those who did not participate in any training in 1993 (33%) than those who participated (20%).

In general, people reporting unsatisfied training wants had an educational attainment level lower than those reporting an unsatisfied training need. For instance, 18% of people with wants had a university degree compared to 25% for those with needs. This reflects the lower educational attainment of younger and older age groups who represented a larger proportion of people with unsatisfied training wants than those with training needs.

Close to one in four people with training wants were not in the labour force in 1993, compared to only 5% for those with needs. The labour force participation status had a clear impact on the income level. A third of people expressing training wants earned less than $15,000.

D. Barriers to training wants

Barriers that limited Canadians adults from taking all the education and training they wanted were very similar to those that prevented them from taking all the job-related training they needed. However their relative importance is somewhat different.

The lack of time is still the most important obstacle to training. One in every two individuals (50%) was unable to find necessary spare time to enrol in all the education and training activities wanted. Reflecting their higher participation in the labour market, more men (54%) than women (47%) felt that barrier.

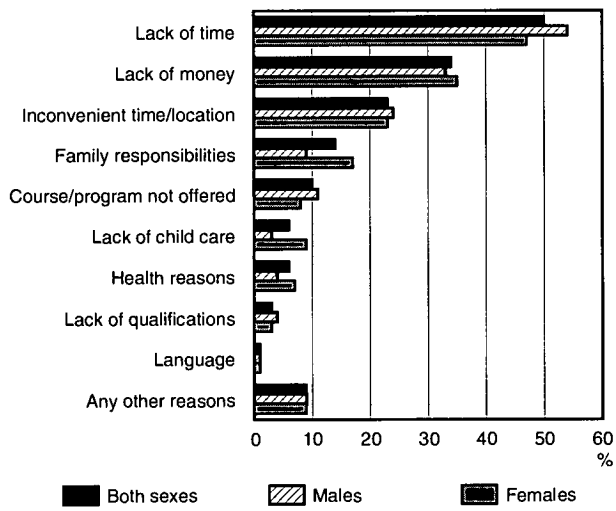
The lack of money (34%) and the inconvenient time and location of activities offered (23%) ranked second and third, respectively. Differences between men and women were rather small.

Since the education and training activities that people wanted to take are not generally offered at work and during the day but rather at night in schools and community centres, family responsibilities and the lack of child care are much more important deterrents that in the case of "needed" training. These two barriers were mentioned by 14% and 6% of adults with unsatisfied training wants compared to 9% and 3% of those with

training needs. Reflecting the traditional roles of men and women and the growing number of single-parent families headed by women, the lack of child care (9% vs. 3%) and other family responsibilities were a much important impediment for women than men (17% vs. 9%).

Chart 6.5

Proportion of canadian adults with unsatisfied training wants by sex and type of training barriers, Canada, 1993[1]



[1] *Due to multiple responses, the sums could exceed 100%.*

Barriers varied by age

Since the education and training people want to take is of a less compulsory nature than activities they need for their job, the age of the person has a great influence on the importance of each barrier.

At any age, except 55 and over, the lack of time was a more determinant barrier to training wants than it was for training needs. In the 17-24 age group, one in every two people with unsatisfied training wants blamed it on the lack of time while the proportion was one in three for those with unsatisfied training needs.

As observed in the discussion of the training needs, the importance of the lack of money decreased with age. However, probably because there is less urgency to fill a training want than a training need, the lack of money was a more serious deterrent than in the case of the training needs.

The impact of family responsibilities and of the lack of child care was determinant mainly for people age 25 to 44. The health situation of individuals was not a big factor for those aged 17 to 44. It was considered an obstacle for 3% or less of people aged 17 to 44 but if affected 8% of those aged 45 to 54 and 20% of those aged 55 years old and over. After the lack of time, health reasons was a barrier as important as the lack of money and the inconvenience of time and location for the 55 years and over age group.

The inconvenience of time or location of programs or courses and the non availability of courses were not correlated with age. At any age, these factors prevented approximately the same proportion of people from taking further training. This, however, might denote the existence of a problem in the delivery of education and training activities. Institutional barriers make it difficult to reach and satisfy all people, regardless of age.

Table 6.10

Proportion of individuals with unsatisfied training wants by age group and type of training barriers, Canada, 1993

	Total	17-24	25-34	35-44	45-54	55 or over
	(%)	(%)	(%)	(%)	(%)	(%)
Lack of time	50	50	49	56	53	34
Lack of money	34	45	40	34	25	20
Inconvenient time/ location	23	23	24	24	23	20
Family responsibilities	14	6	18	18	10	9
Course/program not offered	10	10	8	10	10	10
Lack of employer support	21	13	24	20	21	24
Lack of child care	6	4	12	7	1	-
Health reasons	6	2	2	3	8	20
Lack of qualifications	3	6	4	3	4	2
Language	1	**	2	**	**	**
Any other reasons	9	10	8	6	10	15

Note: *Due to multiple responses, the sums could exceed 100%.*
* *Data have a coefficient of variation between 16% and 25%.*
** *Data are not reliable enough to be released.*

CONCLUSION

The analysis of the 1994 AETS has shown that in 1993, 5.8 million people (or 28% of the adult population) were involved in adult education or training activities for job-related or personal interests reasons. However, access and participation in this training was unequal. More than 38% of employed population participated in adult education and training compared to 23% of the unemployed and only 13% of people out of the labour force. Among the workers, more white-collar workers than blue-collar workers and more employees from the public sector than from the private sector had participated in training. Even within these groups, access to adult education and training varied according to the educational attainment level, employment status and income of the individual, as well as the industrial sector and the size of firm the person was employed in. Important differences were also noted among the provinces. Participation rates ranged from 19% in Newfoundland to 35% in British Columbia.

On the supply side, the survey has also shown that the adult education and training sector is very diversified. In response to the varied needs of the adult students, a large number of providers exist. In addition to the school system which represents the most important provider with 34% of all training events, adult education and training activities were provided by employers, commercial schools, consultants, and non-profit organizations who offer similar or complementary services. These education and training events were also quite diversified in terms of content and duration. While some lasted only a few hours and did not lead to any recognition, others have been taken over a long period of time and have led to a diploma.

The study also revealed that training activities were in general judged relevant and useful, but many training needs and wants were not satisfied and obstacles to training were numerous. While some investment might be required to financially assist individuals or to encourage employers to train their employees, the analysis of the training barriers showed that their reduction or elimination could be achieved by reorganizing work schedules, by a greater use of new technologies in the delivery of education and training and by adapting available facilities. In other words, in order to implement a lifelong learning culture, adult education and training should be made more accessible to everybody, whatever their residence, their age or their employment status. Moreover, program content and their entrance requirements should also be developed to serve the various needs of adults with different backgrounds. To achieve this, efforts should be made not only to reduce the barriers to education and training but also to increase coherence between the different providers, facilitate linkages between education and work and improve recognition of acquired skills and competencies.

However, these solutions alone, will not yield lasting results if they are not coupled will policies aiming at increasing the educational attainment level of the general population. As this analysis has shown, the educational attainment level of an individual is a determinant factor in further participation in adult education and training. It means that the necessary conditions should be created for the implementation of a lifelong learning culture which sees training outcomes not only as employment-related but as essential elements of every person's life. For instance, to increase their chances of keeping their job or of finding one, people with low levels of education or lacking basic literacy skills should initially have a chance to access the educational tools which would enable them to adapt to the requirements of the new knowledge economy.

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APPENDIX A

Glossary of adult education and training terms

Adult Education (Éducation des adultes)
Denotes all educational processes followed by adults, whatever the content, level and method, which supplement or replace initial education. This may include part-time enrolment in day schools, evening schools, correspondence schools, and so on. Training offered may be of a credit or a non-credit nature and could be taken for job-related or personal interest reasons.

Adult Learner (Apprenant adulte)
In the AETS, adult learners have been defined as anyone aged 17 and over enrolled in a structured education or training activity. These learners are older than the compulsory school attendance age. For the purpose of this report, however, the definition has been restricted to adult learners registered in part-time education or training activities. Learners engaged in full-time activities were included only if these activities were sponsored by their employer.

Apprenticeship Program (Programme de formation d'apprenti)
Combines on-the job experience with short periods of formal, technical instruction in provincially-designated trades. This program is designed to produce a fully qualified journeypersons.

Attendance Status (Fréquentation, situation vis-à-vis la)
(See full-time/part-time education, full-time training, part-time training.)

Blue-Collar Occupations (Professions de col bleu)
Includes such occupations as construction, fabricating, farming, fishing, forestry, materials handling, mining, processing, service, transportation and other crafts.

Class of Worker (Catégorie de travaileurs)
This variable classifies working individuals into those who (i) worked mainly for someone else for wages, salaries, commissions or payments "in kind", (ii) worked without pay in a family farm, business, or professional practice owned or operated by a related household member, (iii) worked mainly for themselves, (self-employed) with or without paid help, alone or in a partnership.

Commercial School (École commerciale)
These are private schools, licensed by a province, which provide professional and vocational training for profit.

Community Colleges (Collèges communautaires)
Includes postsecondary, non-degree granting institutions such as colleges of applied arts and technology or CAATS (in Ontario), general and vocational colleges (Collèges d'enseignement général et professionel, CÉGEP in Québec) and technical institutes and other establishments that provide university transfer programs or specialized training in fields such as agriculture, the arts and forestry. Enrolment in these programs normally requires successful completion of secondary school.

Course (Cours)
A training or education event that attends to one specific area of study. It may be part of a larger program of study that is leading to a certificate, diploma or degree (i.e. Introductory Psychology at a university) or it may represent a complete learning event on its own (i.e. second language).

Duration of Course/Program (Durée d'un cours/programme)
Refers to the length of time that a course, program or training sessions will take for successful completion. This can be measured in terms of hours, days, weeks, months or years.

Demographic Variables (Variables démographiques)
A term given to a set of variables which includes age, sex, marital status, province, income, educational attainment, etc.

Distance Education (Éducation à distance)
Education conducted through the postal services, radio, television or newspaper, with little or without regular face-to-face contact between teacher and student. Usually the student must have completed a registration process to be regarded as a distance learner.

Education (Éducation)
Any activities whose purpose is to develop the knowledge, moral values and understanding required in all walks of life rather than to only the knowledge and skills relating to a limited field of activity.

Educational Attainment (Niveau de scolarité atteint)
Refers to the highest degree, certificate or diploma received by an individual.

Educational Completion (Niveau de scolarité complété)
This highest grade or level of schooling that the respondent completed or received credit for.

Enrolment (Effectif)
The number of people who have formally joined a course or program.

Field of Study (Champ d'études)
The specific subject area of the program of studies (e.g. medicine, economics, architecture, social work).

Formal Education (Éducation formelle)
Education which is formally structured and sequentially organized, in which learners follow a program of study planned and directed by a teacher and generally leading to some formal recognition of educational performance.

Formal Training (Formation formelle)
Structured and organized training that is provided at work or in an establishment designed or designated specifically for training and staffed for that purpose. It includes basic training given in specially equipped workshops, simulated training, any formal training offered throughout an apprenticeship program, and any structured training program offered by employers.

Full-Time/Part-Time Education (Études à temps plein/temps partiel)
In the AETS, the full-time or part-time student status was supplied by each respondent based on their main daily or weekly activities. In some cases, this status may be at variance with the status as determined by a particular educational institution. All institutions classify their students as full-time or part-time students depending on the number of courses in which they are enrolled.

Full-Time Training (Formation à temps plein)
A full-time training event occupies the equivalent of a full working day for each day of the training event (See also Part-Time Training).

Gross Domestic Product (Produit Intérieur Brut)
Measures the aggregate value of production originating within the geographical boundaries of a country, regardless of whether the factors of production are resident or non-resident.

Hobby or Recreational Courses (Cours portant sur un passe-temps ou...)
Courses taken for the purposes of learning a hobby, for physical, social or psychological development, pleasure or for personal interest in a particular subject matter.

Informal Education (Éducation informelle)
The lifelong process whereby an individual acquires attitudes, values, skills and knowledge from daily experience, educative influences and other resources in his/her environment. These learning experiences are not structured in the form of a class under the direction of a teacher nor organized in a progressive sequence. They are not intended to be recognized by a formal award.

Institution (Educational) (Établissement d'enseignement)
An organized body which is formally recognized as having the responsibility for the administration of a particular public education requirement (colleges, universities, school boards).

Job-Related Education or Training (Éducation ou formation liée à l'emploi)
Refers to any education or training activities taken for the development or upgrading of skills to be used in a present or future career/employment position.

Job Tenure (Durée d'emploi)
The length of time working for the same employer. Often used synonymously with seniority.

Labour Force (Population active)
The labour force is composed of that portion of the civilian, non-institutional population 15 years of age and over who form the pool of available workers in Canada. To be considered a member of the Labour Force an individual must be working (either full or part-time) or unemployed but actively looking for work. For the purpose of this survey, only the population 17 years and over have been considered.

Labour Force Participation Rate (Taux d'activité)
The participation rate represents the total labour force (both employed and unemployed) expressed as a percentage of the entire population 15 years of age and over (employed, unemployed and not in the labour force).

Labour Force Status (Situation vis-à-vis l'activité)
This variable classifies the working age population according to their connection to the Labour Force. A person may be either employed (full-time or part-time), unemployed or not in the Labour Force. The Canadian Labour Force, or the pool of available workers, is made up of the first three classifications, full-time and part-time workers, and the unemployed.

Lifelong Education (Éducation permanente)
The concept that education is not a once-and-for-all experience which is confined to the initial cycle of full-time formal education commenced in childhood. Rather it is seen as a process that continues throughout the entire life cycle and responds to different requirements throughout the working and life cycles.

Literacy Level (Niveau d'alphabétisation)
Literacy refers to the information processing skills (reading, writing, numeracy) necessary to use the printed material commonly encountered at work, at home and in the community. The literacy level refers to the degree of expertise that is exhibited by an individual, a group, a country, etc., in these skills.

Mature Student (Étudiant adulte)
This is the designation for a full-time student in higher or further education who, on completing his or her initial cycle of full-time education, has spent some time in another activity (employment, at-home parenting, extended travel, etc.) before undertaking the educational program or course in which he/she is presently engaged. (See also Returning Students/Returnees.)

Method of Instruction (Méthode pédagogique)
Refers to the techniques used to meet the objectives of the course or program. Possible methods are classroom instruction, seminars, workshops, educational software, radio or television broadcasting, audio-video cassettes, tapes or disks, reading material and on-the-job training.

On-the-job Training (Formation en cours d'emploi)
Vocational training given in the normal work situation. Training is generally given by the supervisor, an experienced fellow employee or an instructor.

Organizer (Organisateur)
The course, program or training organizer in the context of this survey is the person or organization who administers the educational activity.

Part-Time Training (Formation à temps partiel)
A training event that does not occupy the equivalent of a full working day for each day of the training. (See also Full-Time Training.)

Participation Rate (Taux de participation)
The participation rate represents the proportion of a population engaged in a specific activity. In this study, the participation rates are expressed as the proportion of the population 17 years of age and over who are engaged in adult education and training activities.

Personal Interest Courses (Cours suivi par intérêt personnel)
Courses taken as a hobby, for personal development or as a recreational activity.

Population (Population)
The total number of individuals (or households, employers, institutions, businesses, etc.) sharing some common characteristics that the researchers wishes to make inferences about.

PostSecondary Education (Études postsecondaires)
Refers to the kind of education generally obtained in community colleges or universities.

Primary Sector (Secteur primaire)
An industrial grouping which includes the agricultural, fishing, forestry and mining industries.

Private Sector Education or Training (Éducation ou formation dispensée par le secteur privé)
Refers to the education and training taken outside the jurisdiction of Provincial Ministries of Education. These may be business schools, private music schools, courses established by an employer within a firm, and the like, which receive no public funding.

Program (Programme)
A selection of courses taken for credit towards a degree, diploma or certificate.

Public Sector Education or Training (Éducation ou formation dispensée par le secteur public)
Refers to the education and training taken in educational institutions which come under the jurisdiction of Provincial Ministries of Education (elementary/secondary schools, universities and colleges, apprenticeship and trade/vocational programs, which are authorized and legislated by Provincial governments).

Returning Student/Returnees (Étudiant poursuivant/reprenant ses études)
A student who returns to school after working, raising a family, travelling or conducting some other activity that was not school related.

Secondary Sector (Secteur secondaire)
This industrial classification includes the manufacturing, construction and utilities industries.

Sponsor/Sponsorship (Parrain/Parrainage)
The course or program sponsor is the person or organization paying for tuition or other expenses such as transportation, course material, time off, etc. on behalf of the student.

Structured (Systematic) Education or Training (Éducation ou formation structurée)
Education in which the learning experience is under the direction of a teacher and organized in a progressive sequence and is intended to be recognized upon completion.

Student Participation Rate (Taux de participation des étudiants)
This rate expresses the number of students enrolled in a given program as a percentage of the overall population of a pre-determined group based on some variables (e.g. age, sex, income, etc.). For example, the participation rate in university programs is the ratio of the number of university students aged 18-24 divided by the total population aged 18 to 24.

Tertiary Sector (Secteur tertiaire)
The industrial classification which includes the retail and wholesale trade industries, the finance, insurance and real estate industries and the service industries.

Trade/Vocational Training or Education (Formation ou enseignement professionnel)
Activities and programs that provide the skills needed to function in a particular vocation. These programs emphasize manipulative skills and well-defined or well-established procedures, rather than the application of ideas and principles.

Training (Formation)
The systematic development of the attitudes, knowledge and skill patterns of an individual in order that he/she may perform a specific task at a particular level of competence.

Training Rate (Taux de formation)
This rate measures the number of employer-sponsored trainees per 100 employees in any specific firm, industry or sector.

Tuition (Droits de scolarité)
It is the amount of money charged by an educational institution for instruction.

Unemployment Rate (Taux de chômage)
The unemployment rate represents the number of unemployed persons expressed as a percentage of the total labour force.

Unstructured Education or Training (Éducation ou formation non structurée)
Refers to learning activities or on-the-job training that occur informally. Examples of unstructured education are: watching a television show on cooking or gardening, observing others perform a task at work, informal discussions or being shown how to do a task on a one-to-one basis.

White-Collar Occupations (Professions de col blanc)
An occupational classification which includes people in the artistic, clerical, managerial, medical, natural science, religion, sales, social science and teaching occupations.

APPENDIX B

Methodology

Survey objectives

The objectives of the 1994 Adult Education and Training Survey were:

- to measure the incidence of adult education and training in Canada in a comprehensive manner;
- to provide a socio/economic/demographic profile of individuals who participated and did not participate in education or training;
- to profile the types, durations and locations of education or training that individuals received;
- to profile employer involvement in the education/ training process;
- to identify barriers to education and training.

Survey design

The AETS was administered in January 1994 to a sub-sample of the dwellings in the Labour Force Survey (LFS) sample. The AETS sample design is thus closely tied to that of the LFS. The LFS target population includes all 10 provinces but excludes the Yukon and the Northwest Territories. Also excluded are inmates of institutions such as prisons or hospitals, residents of Indian reserves, and full-time members of the armed forces.

The AETS used five of the six rotation groups of the LFS. For the AETS, the coverage of the LFS was modified to include all members of the households 17 years of age and over. This included all household members who were 70 years of age and over. However, unlike the LFS where information is collected for all eligible household members, the AETS only collected information from one pre-selected household member. Proxy responses were not permitted.

Information was collected during the January 1994 LFS telephone interviews. Usable responses were acquired for 41,645 individuals, or 87% of the target population. These responses were weighted to represent a total population of 20,842,070.

Definition

Adult education and training includes all structured educational (credit and non-credit courses) and training activities taken by individuals aged 17 and over. These activities can be taken at work, at school or at other locations for job-related or personal interest reasons.

For the purposes of this report, on-the-job training activities (time spent at work learning new tasks or upgrading skills during normal working hours) and the full-time educational activities of students enrolled in a full-time program leading towards a degree, certificate or diploma, **unless they had been supported by an employer**, were excluded. Inclusion of these activities would have distorted the profile of adult learners, i.e. those enrolling in learning activities after leaving the initial cycle of formal education. The employer-supported full-time program student has been included to be able to discern the role employers take in the continuing education and training of employees.

Sampling error

The difference between estimates derived from a sample and those derived from a complete census taken under similar conditions is called the sampling error. As in any sample survey, some of the AETS estimates are subject to considerable sampling error or are based on too small a sample to be statistically reliable. These have been marked with the following notations:

* Numbers marked with this symbol have a coefficient of variation between 16 and 25% and are less reliable than unmarked numbers. Estimates which are marked with this symbol should be used with caution.

** This symbol indicates that the coefficient of variation for the estimate that would normally appear in this position in the table was greater than 25% and is therefore not publishable.

Historical comparisons

Since changes in survey methodology, conceptual definitions and questionnaire design have occurred since 1984, longitudinal analyses from 1984 to 1992 should not be undertaken. However, since the 1994 AETS uses substantially the same questionnaire and methodology as the 1992 AETS, comparative analyses across these two surveys are valid.

APPENDIX C

Statistical tables

Table C.1

Participation rates in adult education and training activities, Canada and provinces, 1991 and 1993[1]

	Total		Male		Female	
	Participation rates		Participation rates		Participation rates	
	1991	1993	1991	1993	1991	1993
	(%)	(%)	(%)	(%)	(%)	(%)
Canada	**27**	**28**	**26**	**27**	**28**	**29**
Provinces						
Newfoundland	17	19	18	20	16	17
Prince Edward Island	20	25	18	20	22	30
Nova Scotia	21	25	20	26	23	25
New Brunswick	18	20	19	21	17	20
Quebec	26	24	23	23	28	24
Ontario	28	29	28	28	28	30
Manitoba	29	30	31	30	28	30
Saskatchewan	26	27	25	28	27	27
Alberta	34	34	33	31	35	36
British Columbia	28	35	27	33	30	36

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*
Statistics Canada, Adult Education and Training Survey, 1992.

Table C.2

Participation rates in job-related and personal interest education and training activities, Canada and provinces, 1991 and 1993[1]

	Total		Job Related		Personal Interest	
	Participation rates		Participation rates		Participation rates	
	1991	1993	1991	1993	1991	1993
	(%)	(%)	(%)	(%)	(%)	(%)
Canada	**27**	**28**	**20**	**20**	**10**	**12**
Provinces						
Newfoundland	17	19	13	13	5	7
Prince Edward Island	20	25	14	19	7	10
Nova Scotia	21	25	15	18	8	11
New Brunswick	17	20	14	14	6	9
Quebec	26	24	17	15	11	11
Ontario	28	29	21	21	10	11
Manitoba	29	30	23	22	10	12
Saskatchewan	26	27	20	21	8	10
Alberta	34	34	26	26	13	13
British Columbia	28	35	21	25	10	16

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*
Statistics Canada, Adult Education and Training Survey, 1992.

Table C.3

Participants and participation rates in adult education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All participants[2]	**28**	**5,842**	**27**	**2,744**	**29**	**3,098**
Reason for education[3]						
Job-related	20	4,164	21	2,142	19	2,022
Personal interest	12	2,485	9	936	14	1,550
Marital status						
Married/Common-law	29	3,853	27	1,847	30	2,006
Single	32	1,477	29	747	35	730
Widow/Widower	8	99	**	**	8	86
Separated/Divorced	29	413	26	136	30	277
Age group						
17-24	31	942	30	452	33	490
25-34	36	1,631	34	777	37	853
35-44	37	1,663	35	783	39	880
45-54	31	1,038	30	487	33	551
55 and over	10	569	10*	245	11	324
Educational attainment						
High school or less:	17	1,811	16	834	17	977
0 to 8 years	5	125	5*	56*	6	70
Some secondary education	15	596	16	316	14	279
Graduated from high school	24	1,090	23	462	26	628
Postsecondary	41	4,031	39	1,910	43	2,120
Some Postsecondary	38	710	35	294	40	416
Postsecondary certificate or diploma	37	1,922	36	923	38	998
University degree	50	1,399	46	693	54	706
Presence of preschool children						
No preschoolers	27	4,703	25	2,164	28	2,539
1 Preschooler	34	765	35	378	34	387
2 or more preschoolers	33	373	36	202	30	172
Income						
No income	18	271	18*	58*	18	213
Under 5,000 dollars	25	371	24	105	25	267
5,000 to 9,999 dollars	20	407	22	168	19	239
10,000 to 14,999 dollars	20	407	18	144	22	263
15,000 to 19,999 dollars	23	313	18	109	28	204
20,000 to 24,999 dollars	28	381	19	124	36	257
25,000 to 29,999 dollars	38	433	28	171	48	262
30,000 to 34,999 dollars	38	463	27	187	54	276
35,000 to 39,999 dollars	43	352	31	167	63	185
40,000 to 49,999 dollars	46	582	40	357	62	225
50,000 to 59,999 dollars	50	392	49	288	56	104
60,000 to 74,999 dollars	58	281	53	208	75	74
75,000 or more dollars	60	222	60	197	**	**
Do not know / Not stated / Refused	19	966	19	462	20	504

Table C.3 – Concluded

Participants and participation rates in adult education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All participants[2]	**28**	**5,842**	**27**	**2,744**	**29**	**3,098**
Labour Force status						
Employed:	38	4,567	35	2,280	41	2,287
Full-time	39	3,861	35	2,085	44	1,776
Part-time	33	706	32	195	34	511
Not employed:	15	1,274	13	464	16	811
Unemployed	23	375	20	204	26	170
Not in labour force	13	900	10	260	14	640

[1] Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.
[2] Data may not add due to rounding.
[3] The total of the two categories is different from the overall total due the possibility for a participant to be in both categories.
** Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
*** Data are not reliable enough to be released; coefficient of variation greated than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

Table C.4

Labour force participants (employed and unemployed) and participation rates in adult education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All Individuals in Labour Force[2] [3]	**36**	**4,942**	**33**	**2,484**	**40**	**2,457**
Occupations						
Managerial and Professional:	52	2,261	48	1,026	55	1,235
Managerial and Administrative	50	907	46	472	55	436
Science and Engineering	54	293	53	236	59*	56*
Social Science and Religion	61	200	58	81	64	119
Teaching	56	368	53	109	57	259
Medicine and Health	53	381	56	88	52	292
Artistic, Literacy and Recreation	36	113	25*	41*	50	71
Clerical, Sales and Services:	32	1,691	32	611	32	1,079
Clerical and Office Operation	37	816	34	149	38	667
Sales	30	383	31	211	30	172
Services to Community and Individuals	27	491	31	251	24	240
Blue Collar:	24	975	24	840	25	135
Primary	22	138	21	108	27*	30*
Manufacturing and Processing	28	448	29	382	24	66
Construction and Transportation	21	270	21	253	**	**
Material Handling and Other Occupations	25	119	25	97	**	**
Employer type						
Employed in private sector	31	3,065	29	1,808	33	1,257
Employed in public sector	50	1,861	48	670	52	1,191
Unemployed	**	**	**	**	**	**

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*
[2] *Data may not add due to rounding.*
[3] *The differences between totals and sub-totals are due to not-stated answers.*
* *Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
** *Data are not reliable enough to be released; coefficient of variation greater than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

Table C.5

Employed participants and participation rates in adult education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All working individuals[2]	**38**	**4,567**	**35**	**2,280**	**41**	**2,287**
Industry						
Employed in Goods Producing Industry:	**31**	**945**	**29**	**692**	**38**	**253**
Agriculture	18	72	16*	44*	25*	28*
Other Primary	39	97	39	83	**	**
Manufacturing	33	572	32	402	38	169
Construction	19	103	18	92	**	**
Utilities	63	101	58	70	82*	31*
Employed in Service Producing Industry:	**40**	**3,623**	**38**	**1,588**	**42**	**2,034**
Transportation and Communication	30	241	29	172	33	69
Trade	30	626	31	354	29	271
Finance, Insurance and Real Estate	52	404	61	176	47	229
Education, Health and Welfare	48	1,197	45	326	50	870
Business, Personal and Misc. Services	32	671	33	310	32	360
Public Administration	60	484	58	249	62	235

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*
[2] *Data may not add due to rounding.*
* *Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
** *Data are not reliable enough to be released; coefficient of variation greater than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

Table C.6

Participants and participation rates in job-related education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All participants[2]	**20**	**4,164**	**21**	**2,142**	**19**	**2,022**
Marital status						
Married/Common-law	21	2,808	22	1,498	20	1,310
Single	22	1,004	21	530	23	474
Widow/Widower	3*	35*	**	**	2*	26*
Separated/Divorced	22	317	20	105	23	212
Age group						
17-24	20	610	21	315	20	296
25-34	27	1,256	29	656	26	601
35-44	29	1,298	29	650	29	648
45-54	24	778	24	398	23	380
55 and over	4	221	5	124	3	98
Educational attainment						
High school or less:	**11**	**1,195**	**12**	**639**	**10**	**555**
0 to 8 years	2*	59*	3*	31*	2*	28*
Some secondary education	9	369	12	228	7	141
Graduated from high school	17	766	19	379	16	386
Postsecondary	**30**	**2,970**	**30**	**1,503**	**30**	**1,466**
Some Postsecondary	27	509	25	211	29	298
Postsecondary certificate or diploma	27	1,422	29	743	26	679
University degree	37	1,039	37	550	38	489
Income						
No income	7	109	9*	29*	7	79
Under 5,000 dollars	14	214	18	80	13	135
5,000 to 9,999 dollars	12	248	14	111	11	137
10,000 to 14,999 dollars	14	281	14	113	14	169
15,000 to 19,999 dollars	14	194	11	71	17	123
20,000 to 24,999 dollars	19	260	13	90	24	171
25,000 to 29,999 dollars	28	324	21	127	36	197
30,000 to 34,999 dollars	29	354	22	151	40	202
35,000 to 39,999 dollars	36	300	27	143	54	157
40,000 to 49,999 dollars	39	495	34	307	52	188
50,000 to 59,999 dollars	43	337	43	255	44	82
60,000 to 74,999 dollars	51	247	48	185	64	62
75,000 or more dollars	45	166	45	148	**	**
Do not know / Not stated / Refused	13	635	13	333	12	302
Labour force status						
Employed:	**29**	**3,545**	**29**	**1,880**	**30**	**1,666**
Full-time	31	3,097	29	1,733	34	1,364
Part-time	21	448	24	147	20	302
Not employed:	**7**	**619**	**7**	**263**	**7**	**356**
Unemployed	16	270	15	151	18	118
Not in labour force	5	349	4	112	5	238

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*
[2] *Data may not add due to rounding.*
* *Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
** *Data are not reliable enough to be released; coefficient of variation greater than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

Table C.7

Labour force participants (employed and unemployed) and participation rates in job-related education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All individuals in labour force[2] [3]	**28**	**3,815**	**27**	**2,031**	**29**	**1,784**
Occupations						
Managerial and Professional:	**41**	**1,810**	**39**	**848**	**43**	**961**
Managerial and Administrative	42	763	39	400	46	363
Science and Engineering	46	252	45	201	54*	51*
Social Science and Religion	49	161	46	64	52	97
Teaching	40	263	39	81	40	182
Medicine and Health	42	303	48	75	40	228
Artistic, Literacy and Recreation	22	68	17*	28*	28*	39*
Clerical, Sales and Services:	**23**	**1,223**	**25**	**491**	**22**	**732**
Clerical and Office Operation	26	581	28	123	26	458
Sales	23	290	25	171	21	119
Services to Community and Individuals	19	352	24	196	15	155
Blue Collar:	**19**	**769**	**20**	**687**	**15**	**82**
Primary	14	89	14	74	**	**
Manufacturing and Processing	23	363	25	324	14*	38*
Construction and Transportation	17	216	17	203	**	**
Material Handling and Other Occupations	21	101	22	86	**	**
Employer type						
Employed in private sector	24	2,349	24	1,478	23	871
Employed in public sector	39	1,452	40	547	39	905
Unemployed	**	**	**	**	**	**

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*
[2] *Data may not add due to rounding.*
[3] *The differences between totals and sub-totals are due to not-stated answers.*
* *Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
** *Data are not reliable enough to be released; coefficient of variation greater than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

Table C.8

Employed participants and participation rates in job-related education and training activities by selected variables, Canada, 1993[1]

	Total		Male		Female	
	Participation rate	Participants	Participation rate	Participants	Participation rate	Participants
	(%)	('000)	(%)	('000)	(%)	('000)
All working individuals[2]	**29**	**3,545**	**29**	**1,880**	**30**	**1,666**
Industry						
Employed in Goods Producing Industry:	**25**	**756**	**25**	**591**	**25**	**165**
Agriculture	12*	47*	12*	33*	**	**
Other Primary	34	84	34	72	**	**
Manufacturing	26	453	27	350	23	103
Construction	15	82	15	74	**	**
Utilities	57	90	51	62	75*	28*
Employed in Service Producing Industry:	**31**	**2,789**	**31**	**1,289**	**31**	**1,500**
Transportation and Communication	26	206	25	150	27*	56*
Trade	23	471	24	281	21	190
Finance, Insurance and Real Estate	42	329	52	148	37	180
Education, Health and Welfare	36	905	34	248	37	657
Business, Personal and Misc. Services	23	476	25	240	21	236
Public Administration	50	402	51	220	48	182

[1] *Adult participants include all persons aged 17 years and older but exclude those still involved in their initial cycle of education.*
[2] *Data may not add due to rounding.*
* *Numbers marked with this symbol have a coefficient of variation between 16% and 25% and are less reliable than unmarked numbers.*
** *Data are not reliable enough to be released; coefficient of variation greater than 25%.*

Source: *Statistics Canada, Adult Education and Training Survey, 1994.*

APPENDIX D

A more detailed analysis of the learning activities

When the major fields of study are broken down into their component subject areas, large differences appear in the choices being made by males and females. These differences are inclined toward a more traditional division of personal and work-related interests between males and females. However, certain comparisons between male and female enrolments in specific subject areas seem to indicate that traditional interests are changing.

Commerce/Management and Business Administration

Of the six subheadings in this field of study, the first four are in managerial training area while the two others, marketing and secretarial sciences, consist in the acquisition of job skills. While male enrolment in the management and administrative subject areas represented 69% of their activities in this major group category, for females it represented half of their choices for this major group category. On the other hand, Secretarial Sciences represents 34% of the activities undertaken by females and only 8% of the activities undertaken by males. While enrolments in subject areas that lead to management/administrative positions as compared to office support positions lean toward traditional divisions along gender lines, the large number of women who chose activities outside support staff subject areas cannot be ignored.

Engineering and Applied Sciences Technologies and Trades

Although this field of study holds second position for males and fourth position for females overall, a disaggregation shows dramatic differences between the selection of subject areas for these two groups. Technologies and trades have traditionally been male dominated and the results of the AETS show a continuing trend. Female enrolment is almost exclusively (87%) linked to one area of study, Data processing and Computer Science Technologies and Trades. This subject area includes Information Systems Management and Data Entry and Processing activities, two areas which are closely tied to office support activities. This ties into the greater number of activities taken by females in the Secretarial Sciences, as highlighted in the previous discussion. Male activities across Engineering and Applied Sciences Technologies and Trades are clearly more dominant and more diverse (Table D.2).

Health Professions, Sciences and Technologies

Unlike Engineering/Applied Science Trades and Technologies, the Health Professions are more balanced in enrolments between the sexes. However, the various Doctors of Medicine degrees still show larger enrolments from males, while Nursing degrees and Nursing assistance certificates are still almost exclusively a female domain. Strong male enrolment in Public Health is a reflection of the large number of activities taken by males in Industrial Health and Safety. The large numbers of activities taken under Medical Lab/Diagnostic Tech. and Treatment Technologies reflects high enrolments by both males and females in CPR and St. John's Ambulance certificate courses. Training in these latter two fields of study is often undertaken in compliance with government regulations (Table D.3).

Table D.1

Enrolments in Commerce, Management and Business Administration by sex, Canada, 1993

	Both sexes		Males		Females	
	(In ooo's)	(%)	(In ooo's)	(%)	(In ooo's)	(%)
Total	**1,962**	**100**	**902**	**100**	**1,060**	**100**
Business and Commerce	303	15	180	20	123	12
Financial Management	370	19	174	19	196	18
Industrial Management and Administration	452	23	254	28	198	19
Institutional Management and Administration	50	3	**	2	32	3
Marketing, Merchandising, Retail and Sales	357	18	206	23	152	14
Secretarial Sciences-General Fields	430	22	71	8	359	34

Table D.2

Enrolments in Engineering and Applied Sciences Technologies and Trades by sex, Canada, 1993

	Males		Females	
	(In 000's)	(%)	(In 000's)	(%)
Total	**1,095**	**100**	**533**	**100**
Architectural, Chemical and Building Technologies	91	8	**	**
Data Processing and Computer Science Technologies	348	32	465	87
Electronic and Electrical Technologies	130	12	**	**
Environmental/Conservation Technologies and Primary Industries/Resource Processing Technologies	66	6	**	**
General and Civil Engineering Technologies	70	6	**	**
Industrial Engineering Technologies	54	5	**	**
Mechanical Engineering Technologies	191	17	**	**
Transportation Technologies	108	10	**	**
Other Engineering and Applied Science Technologies	36	3	**	**

Table D.3

Enrolments in Health Professions, Sciences and Technologies by sex, Canada, 1993

	Males		Females	
	(In ooo's)	(%)	(In ooo's)	(%)
Total	**462**	**100**	**608**	**100**
Dentistry, Optometry and Medicine	87	19	25	4
Paraclinical Sciences, Pharmacy and Pharmaceuticals	**	**	21	4
Nursing and Nursing Assistants	**	**	174	29
Public Health (including Industrial Health and Safety)	135	29	61	10
Medical Lab and Diagnostic Technologies and Treatment Technologies (incl. CPR and St. John's Ambulance Certificates)	201	44	265	44
Medical Equipment, Rehabilitation Medicine and Other Health Sciences and Technologies	**	**	61	10

Fine and Applied Arts

Placing 4th in overall activities, this field of study owes its position primarily to enrolments by women. Only in Music (primarily instrumental music), Other Performing Arts and in Commercial/RelatedArts was male enrolment high enough to be reported. The heavy enrolments of women in this Major Field of Study are a balance to males' heavier enrolment in Engineering and Applied Sciences Technologies and Trades. This balancing between these two fields of study lead to comparative figures in the total number of activities taken by each sex.

Table D.4

Enrolments in Fine and Applied Arts by sex, Canada, 1993

	Males		Females	
	(In ooo's)	(%)	(In ooo's)	(%)
Total	**160**	**100**	**566**	**100**
Fine arts	**	**	148	26
Music	45	28	76	14
Other Performing Arts	35	22	118	21
Creative and Design Arts	**	**	169	30
Commercial/Graphic and Audio-Visual Arts/Other Applied Arts	39	24	55	1

Social Sciences and Related Fields

This field of study, which placed 6th overall, shows both traditional splits in interests between the sexes and some movement away from these traditional interest. In the category labeled Social Work and Social Services, males enrolled heavily in Police/Fire/Other Security services. Females tended to enroll in Social work/Child care but almost 30,000 females also registered in Police/Fire/ Other Security Services. Almost 30% of the enrolments in Psychology and Sociology, traditionally female dominated fields of study, were made by males. In Law and Jurisprudence, a field that was once almost exclusively male, 55% of the activities were taken by males, 45% by females.

Computer-Related Fields

It is difficult to assess the impact of the computer age. We know that it is changing the face of school, business, industry and home life. The AETS gives some hint of the depth of activity that is stimulated by the computer phenomenon. In total, 12% of the 9.4 million activities taken in 1993 were clearly computer-related. The split between males and females in these activities was very uneven, with differences following the traditional split in interests highlighted in the previous discussions. Male registrants accounted for 39% of the activities taken in computer-related fields. They led the number of female registrants in computer programming and in mathematics based computer-related activities. Women, on the other hand, enrolled in 61% of the activities taken in this area and led males in two areas that are closely tied to office support activities, data entry/word processing and information systems management. The high number of male registrants in Information Systems Management and Technologies is perhaps a reflection of both the tendency to have a large number of male registrants in technology related areas and the pervasive requirement for computer skills (especially in terms of information management) across most businesses and industries.

Table D.5

Enrolments in Social Sciences and Related by sex, Canada, 1993

	Males		Females	
	(In 000's)	(%)	(In 000's)	(%)
Total	**290**	**100**	**292**	**100**
Economics	27	9	**	**
Geography/ Man and Environment Studies	**	**	**	**
Psychology/Sociology	41	14	95	33
Law and Jurisprudence	64	22	52	18
Social Work and Social Services	136	47	106	36
Other Social Sciences and Related	**	**	21	7

Table D.6

Enrolments in Computer-Related Fields by sex, Canada, 1993

	Males		Females	
	(In 000's)	(%)	(In 000's)	(%)
Total	**438**	**100**	**680**	**100**
Word Processing/Data Entry and Processing	56	13	224	33
Computer Programming (junior analyst)	53	12	**	**
Services and Technologies				
Information Systems Management and Technologies	269	61	403	59
Mathematics, Computer Science and Computer	60	14	34	5
Design, Programming and Analysis (senior analyst)				

APPENDIX E

Program activities by main field of study

Elementary/High School certificate

Two hundred and fifty-six thousand activities were classified to the elementary/high school program level in 1993. Although elementary, basic literacy, and second language training were also components of this category, the overwhelming majority of students were registered in high school academic programs (78% of all elementary/high school activities) and high school technical/ vocational programs (an additional 14% of all elementary/high school activities). Of all activities pursued by males at the elementary/secondary level, high school academic activities represented 74% of the activities and high school technical/vocational represented an additional 20%. For females high school academic activities accounted for 81% of all activities, while technical/vocational accounted for another 9% of activities.

Table E.1

Enrolments in elementary/secondary programs by sex and type of program, Canada, 1993

	Both sexes	Males	Females
	(%)	(%)	(%)
Total	100	100	100
Elementary	**	**	**
High School General Academic	78	74	81
High School Technical/Vocational	14	20	9
Literacy/Basic Skills	**	**	**
Second Language	**	**	**
Other programs	**	**	**
Total number of programs (in 000's)	256	130	126
Total number of hours (in millions)	66	36	30

More than half (57%) of the high school accreditation activities were taken by individuals who were between the ages of 17 and 24. An additional 33% were taken by individuals between the ages of 25 and 44 years of age.

More than 81% of the learners at the elementary/high school program level had some high school education or already held a high school graduation certificate. Those with some high school education may be a reflection of the number of high school dropouts who have returned to complete a high school accreditation program. The large number of enrolments in academic programs may suggest that these people are gathering high school accreditation in preparation for post-secondary studies. For those who already had a high school graduation certificate, 86 out of 100 took academic training. The students with previous high school certificates may have been switching from a vocational field of study to an academic field of study, or have been taking additional high school qualifications as preparation for entrance into a university program.

By definition these individuals were taking their studies either part-time or full-time with an employer's support. Nevertheless, although elementary/high school placed 11th in total number of activities undertaken overall, it placed first in average number of hours per activity. At an average of 292 hours per activity, elementary/high school studies more than doubled the amount of time devoted to professional upgrading which held second place in average hours per activity (111 hours per activity). Although 31% of all Canadians aged 17 and over have less than a high school graduation certificate, completing this accreditation requires a heavy commitment. This is probably one reason why participation rates at the elementary/high school level, and the number of activities undertaken, are still so low.

Apprenticeship qualifications

The male/female split between activities in Apprenticeship programs is quite dramatic. For every ten activities taken at this level seven were taken by males, three by females. This is also reflected in the overall number of hours of training received by males (26 million) compared to females (9 million) . Not only is the amount of interest expressed for this type of qualification quite different between the sexes, so too are the nature of activities that take place. For male apprentices, 85 out of every 100 activities were related to Engineering and Applied Science Technologies and Trades. Their most frequent choices were automotive/ welding/electronic trades and technologies. The high enrolment by men in these kinds of apprenticeship programs results in this field of study accounting for 60% of all apprenticeship programs taken in 1993. Women, in comparison took 5 out of every 10 of their apprenticeship activities in Commerce/ Management and Business Administration (almost exclusively in accounting).

Table E.2

Enrolments in apprenticeship programs by sex and field of study, Canada, 1993

	Total	Males	Females
	(%)	(%)	(%)
Total	100	100	100
Commerce, Management and Business	18	4	54
Engineering and Applied Sciences Technologies and Trades	60	85	9
Other Fields of Study	22	11	37
Total number of programs (in 000's)	103	74	30
Total number of hours (in millions)	35	26	9

Trade/Vocational certificates or diplomas

Trade/Vocational programs were more evenly split between males and females than were the apprenticeship programs both in terms of number of programs (52% vs. 48%) and in terms of hours of training (50% each). This program level was the second most popular choice for males and the third most popular choice for females. For males the primary focus for Trade/Vocational studies was once again in Engineering and Applied Science Technologies and Trades (automotive services and repair and computer information systems management) which accounted for 58 out of every 100 activities. The remaining activities were dispersed across the other fields of study. Females tended to diversify somewhat more with 35 of every 100 activities related to Commerce/Management/ Business Administration and 20 to Health Professions/ Sciences and Technologies (numbers too small to disaggregate). These three fields of study accounted 71 out of every 100 activities taken at the Trade/Vocational level.

Table E.3

Enrolments in trade/vocational programs by sex and field of study, Canada, 1993

	Total	Males	Females
	(%)	(%)	(%)
Total	100	100	100
Comm/Management/Business	23	13	35
Engineering and Applied Sciences Technologies and Trades	36	58	**
Health Professions, Sciences and Technologies	12	**	20
Other Fields of Study	29	29	33
Total number of programs (in 000's)	272	142	130
Total number of hours (in millions)	40	20	20

[1] *For both males and females the activities taken in these fields of study were too diverse to report individually and reliably.*

College certificates or diplomas

College programs were the second most popular program level for females, who took 6 out of every 10 college activities. In terms of hours of training, women were also much more active than men at this level of education, taking twice as much hours of training than men (39 vs. 20 million). Some overlap appears between male and female interests at this program level. For males, although Engineering and Applied Science Technologies and Trades still draws the highest number of enrolments (32%), Commerce/Management/Business Administration, in second place, accounts for another 23% of the male enrolments. Likewise, for females, while Commerce/ Management/Business Administration remains the first choice (40%), Engineering and Applied Science Technologies and Trades, their second choice at the college level, accounts for another 13% of their activities[1]. In combination, these two fields of study account for over half (54%) of the activities taken at the college level.

There is clearly more diversification across the various fields of study at the college level. It is important to note that four other fields of study each had enrolments that accounted for an additional 7-9% of total college enrolments. Although these cannot be broken down by sex, their contribution to the overall college enrolment totals is noteworthy.

Table E.4

Enrolments in college programs by sex and field of study, Canada, 1993

	Total	Males	Females
	(%)	(%)	(%)
Total	100	100	100
Humanities and Related fields	7	**	**
Social Sciences and Related Fields	9	**	**
Comm/Management/Business Admin	32	13	35
Engineering and Applied Sciences Technologies and Trades	21	58	**
Health Professions, Sciences and Technologies	7	**	20
Mathematics and Physical Sciences	7	**	**
Other Fields of Study	19	16	20
Total number of programs (in 000's)	291	117	174
Total number of hours (in millions)	59	0	39

University degrees

University accreditation is the most frequent choice of program level for both males and females and, overall, accounts for one in three of all program activities. For every 100 activities taken at the university level, 45 were taken by males, 55 by females. However, the overall number of hours of university training received by women was less than for men (47 vs. 52 million hours). For both

sexes almost half of all their activities were centered in the areas of Commerce/Management/Business Administration (27%) and Social Sciences and Related Fields (21%). In each of these fields the numbers were too diversified to be disaggregated.

Engineering and Applied Science Technologies and Trades are almost nonexistent at the university level, a reflection of the different orientations of the various program levels discussed previously. In its place, fields of study which typically contain large theoretical/research components become more evident. The diversification across fields of study is most clear at the university level, overall and for both sexes. However, traditional divisions between fields of interest are also apparent. Males have a much greater involvement in Mathematics and Physical Sciences, while females hold the greater portion of Health Professions, Sciences and Technologies programs (mostly as a consequence of Nursing studies).

Table E.5

Enrolments in university programs by sex and field of study, Canada, 1993

	Total	Males	Females
	(%)	(%)	(%)
Total	100	100	100
Education/Recreation/Counselling	12	9	14
Humanities and Related fields	13	10	21
Social Sciences and Related Fields	21	20	19
Comm/Management/Business	27	27	26
Health Professions, Sciences and Technologies	9	**	12
Mathematics and Physical Sciences	6	12	**
Other Fields of Study	12	16	6
Total number of programs (in 000's)	447	200	247
Total number of hours (in millions)	99	52	47