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2003, Vol. 9, no. 3

- Part-time university faculty
- Adult immigrants

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Maryanne Webber, Director

Culture, Tourism and the Centre for Education Statistics

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Marketing Co-ordinator:
Grafton Ross
E-mail: *grafton.ross@statcan.ca*

Production Co-ordinator:
Daniel Perrier
E-mail: *daniel.perrier@statcan.ca*

Design and composition:
Centre for Education Statistics

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From the Editor-in-Chief

Mission

Education Quarterly Review analyses and reports on current issues and trends in education using information from a variety of statistical sources. It serves as a focal point for education statistics and provides a forum for communication with stakeholders and the public. Our goal is to present information and analysis that are relevant, authoritative, timely and accessible.

The growing trend toward hiring of part-time staff to deliver courses in Canadian universities continues at the same time that full-time hiring declines. And while women represent over 40% of part-time faculty, only one of four full-time faculty members is female. These numbers are based on data from Statistics Canada's survey on part-time university and college staff. Age and gender of part-time faculty, as well as field of study taught are examined in this issue's first paper.

Using data from the Adult Education and Training Survey, the second paper finds evidence to suggest that immigrants are receiving nearly a third less work-related training than native-born Canadians. Differences between immigrants and native-born men and women are examined and reveal some interesting findings: immigrants are less likely to be employed, work fewer hours per week, have shorter job tenure and are less likely to be included in collective agreements. The study examines the relationship of these differences to the gap in work-related training between immigrants and native-born Canadians.

Check out other sections of EQR as well, including "Data releases" from the many surveys conducted by the Centre for Education Statistics, and "Education at a glance", a comprehensive set of social, economic and education indicators for Canada, its provinces and territories.

The **Cumulative index** at the back of the report lists, by title, all articles that have appeared in *EQR* since 1994. These articles are grouped under 12 categories, including 'Enrolment,' 'Flows and transition' and 'Training.' These categories are based

Please address all correspondence, in either official language, to

Jim Seidle, Editor-in-Chief
Education Quarterly Review
Centre for Education Statistics
Statistics Canada
Ottawa ON
K1A 0T6
Telephone: (613) 951-1500
Fax: (613) 951-3107
E-mail: *jim.seidle@statcan.ca*

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on education policy issues that were identified in the Centre for Education Statistics' *Strategic Plan*, a review of the Centre's statistical program, its objectives and priorities. The *Strategic Plan* is available free of charge at www.statcan.ca/cgi-bin/downpub/freepub.cgi on the Internet.

Highlights

Hiring of part-time university faculty on the increase

- Universities in Canada rely more and more on part-time faculty to deliver their programs. The number of part-time faculty hired by universities increased from 25,700 in academic year 1990–1991 to 28,200 in 1997–1998, a growth of nearly 10%. During the same time period, the number of full-time faculty hired by universities decreased about 8%.
- Men outnumber women in both part-time and full-time teaching positions in Canadian universities. In 1997–1998, some 58% of part-time faculty and 74% of full-time faculty were men. From 1990–1991 to 1997–1998, male faculty outnumbered female faculty in every province.
- Over the same eight-year period, Social Sciences and Humanities accounted for the largest number of both part-time and fu1l-time faculty in Canadian universities. About one-half of all part-time and full-time teachers taught in these fields.
- Part-time faculty were younger than full-time faculty. In 1997–1998, over one-third (37%) of part-time faculty were under 40 years of age, 33% were between 40 and 49 years old and those aged 50 years and older accounted for 30%. In comparison, 17% of full-time faculty were under 40 years of age, 33% fell between 40 and 49 years and the remaining 50% were 50 years and older.
- In 1997–1998, full-time faculty had higher levels of education than part-time faculty. Among full-time faculty, 82% had a PhD, compared with only 42% of part-time faculty. Another 38% of part-time faculty held a master's degree, compared with 15% of full-time faculty.

Adult immigrants: how well are they trained?

- Male immigrants, especially those who come to Canada as adults, train significantly less than their native-born counterparts.
- Age at migration is a consistent factor explaining the training disadvantages faced by immigrant men.
- Immigrant women, regardless of their age at immigration, train as much as Canadian-born women.
- Immigrant respondents, more frequently than Canadian-born respondents, identify financing, language and lack of recognition of previous qualifications as barriers to training. EQR

Articles

Hiring of part-time university faculty on the increase[1]

Teresa Omiecinski
Culture, Tourism and the Centre for Education Statistics
Telephone: (613) 951-5093
E-mail: *teresa.omiecinski@statcan.ca*

Introduction

In 1990, Statistics Canada conducted a survey to shed light on the increasing reliance of Canadian universities on part-time faculty to deliver their programs. Using data from the Part-time University and College Academic Staff Survey (PT-UCASS), this study provides a profile of this growing group of faculty over the period 1990–1991 to 1997–1998, and it includes a comparison of part-time and full-time faculty.

What you should know about ...

... the data

The Part-time University and College Academic Staff Survey (PT-UCASS) gathers information on part-time teaching staff. This survey, an annual census of Canadian degree-granting institutions, asks each institution to submit information on its part-time teaching staff.[2] It collects basic demographic information—such as age and gender—and job-related individual information—such as level of education and the year that the highest degree was earned. In addition, it gathers appointment-level information for up to five appointments that any individual may have held in a single year. Appointment-level information includes salary, type of appointment, status of the appointment, start and end date of the appointment, teaching load and subject taught.

In the PT-UCASS, 'part-time' staff includes staff appointed on a full-time basis whose term of appointment is less than 12 months; staff appointed on a part-time basis (fractional load); and full-time staff who have an overload appointment[3] (only the overload portion is reported to this survey). Teaching staff includes only those faculty teaching a credit course, whether it is taught on or off campus or during the intersession or summer session. This definition excludes graduate teaching assistants—unless they have a regular part-time teaching contract to teach a credit course; staff who are required to teach intersession or summer session as part of their regular duties; administrators responsible for university administration; librarians; and others.[4]

Information collected for each teacher includes age, highest degree earned, the year in which the highest degree was earned and whether the individual is represented by a bargaining agent. Information is also collected on the contracts or appointments that part-time faculty hold at an institution. Data specific to the contract are collected on up to five appointments, even though a part-time teacher could hold more than that five. Such information includes the salary, length of appointment, type of appointment, subject taught and number of courses taught.

... the analysis

Missing data were imputed using a regression procedure based on reported information for the following four elements: part-time staff, number of appointments, teaching load and full-time teaching equivalent at an institution level.

Findings

Part-time faculty growing

Canadian universities have been relying more and more on part-time faculty to deliver their educational programs. Between 1990–1991 and 1997–1998, the number of part-time faculty in Canada increased 10%—from 25,700 in 1990–1991 to 28,200 in 1997–1998.

Outside Quebec, the number of part-time faculty hired by universities increased from an estimated 16,289 in 1990–1991 to 17,535 in 1997–1998. This is equivalent[5] to 6,656 full-time staff in 1990–1991 or 7,102 in 1997–1998.

During the same period (1990–1997), the corresponding number of full-time faculty outside Quebec decreased by 9%, or 2,228 teachers. Enrolment, measured in full-time equivalents, rose 5% over the same period.

Between 1990–1991 and 1997–1998, part-time faculty increased in all provinces except Ontario. The largest increases occurred in Nova Scotia (33%), the remaining Atlantic provinces (27%) and British Columbia (25%).

The situation in Ontario was quite different. With the exception of 1997–1998, the number of part-time faculty decreased steadily since 1990–1991, dropping by more than 4%. Full-time teaching equivalents also declined (5%). In a survey of member institutions that had collected information on the total salary bill spent on part-time faculty salaries, the Council of Ontario Universities recorded a similar trend: a decrease of 7% between 1990–1991 and 1997–1998.[6]

Not only had part-time faculty declined in Ontario since 1990–1991, full-time faculty also dropped 13% between 1990–1991 and 1997–1998, while enrolment increased 1% over that period.

Table 1
Number of part-time teachers[1]

Province	1990–1991	1991–1992	1992–1993	1993–1994	1994–1995	1995–1996	1996–1997	1997–1998
Newfoundland and Labrador, Prince Edward Island and New Brunswick[2]	1,141	1,272	1,345	1,416	1,515	1,523	1,647	1,447
Nova Scotia	1,059	1,162	1,164	1,205	1,365	1,393	1,375	1,409
Quebec	9,383	9,621	9,686	9,526	9,771	10,196	10,040	10,687
Ontario	9,116	9,161	8,937	8,587	8,561	8,501	8,257	8,717
Manitoba	727	727	848	785	880	857	859	892
Saskatchewan	887	925	896	944	983	973	1,000	1,054
Alberta	1,612	1,543	1,577	1,625	1,694	1,729	1,726	1,838
British Columbia	1,747	1,883	1,974	1,979	2,146	2,043	1,997	2,178
Total	**25,672**	**26,294**	**26,427**	**26,067**	**26,915**	**27,215**	**26,901**	**28,222**

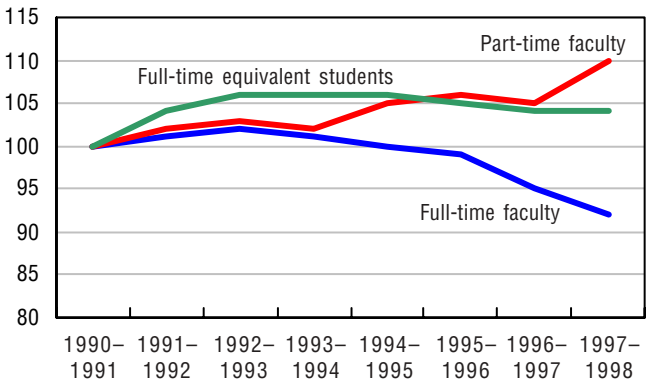
Notes:
1. Includes reported and estimated data.
2. Newfoundland and Labrador and Prince Edward Island have only one institution each that is included in the Part-time University and College Academic Staff Survey (PT-UCASS). To protect the confidentiality of information of these institutions, they have been aggregated with New Brunswick.
Source: *Part-time University and College Academic Staff Survey.*

Table 2
Full-time teaching equivalence[1]

Province	1990–1991	1991–1992	1992–1993	1993–1994	1994–1995	1995–1996	1996–1997	1997–1998
Newfoundland and Labrador, Prince Edward Island and New Brunswick[2]	476.51	533.29	501.79	578.83	632.29	619.58	649.02	588.03
Nova Scotia	431.38	458.31	439.33	495.93	559.41	572.33	540.20	554.85
Quebec[3]	..	..	..	..	..	..	..	..
Ontario	3,694.33	3,796.91	3,955.29	3,822.09	3,486.29	3,463.27	3,214.18	3,521.02
Manitoba	291.74	287.83	305.99	310.05	318.62	333.95	325.79	349.63
Saskatchewan	362.78	386.01	323.34	384.18	432.22	403.49	394.58	420.44
Alberta	674.79	645.00	577.11	649.74	678.49	720.83	680.32	741.98
British Columbia	724.91	790.37	734.61	765.00	883.25	856.71	766.36	926.34
Total	**6,656.44**	**6,907.72**	**6,837.46**	**7,005.82**	**6,990.57**	**6,970.16**	**6,570.45**	**7,102.29**

Notes:
.. Figures not available.
1. Includes reported and estimated data.
2. Newfoundland and Labrador and Prince Edward Island have only one institution each that is included in the Part-time University and College Academic Staff Survey (PT-UCASS). To protect the confidentiality of information of these institutions, they have been aggregated with New Brunswick.
3. Data are not available for Quebec.
Source: *Part-time University and College Academic Staff Survey.*

Graph 1
Indices of full-time and part-time faculty and full-time equivalent students, 1990 =100



Source: *Part-time University and College Academic Staff Survey.*

Typical full-time faculty members are middle-aged males …

In 1997–1998, the average full-time faculty member was a male between the ages of 40 and 59, who had a PhD and was teaching in the Social Sciences and Humanities field.

… but part-time faculty are more diverse

The typical part-time faculty member in 1997–1998 was not so easy to define. While males accounted for 74% of full-time faculty, they accounted for only 58% of part-time faculty. Likewise, while 72% of full-time faculty were between the ages of 40 and 59, only 55% of part-timers were of the same age. And while 82% of full-time faculty had a PhD, only 42% of their part-time colleagues held a PhD; another 38% of part-time faculty held just a master's degree.

However, one similarity existed between full-time and part-time faculty: at least half taught in the Social Sciences and Humanities field, 49% for full-time faculty and 58% for part-time. In 1997–1998, some 40% of undergraduate students were enrolled in this field.

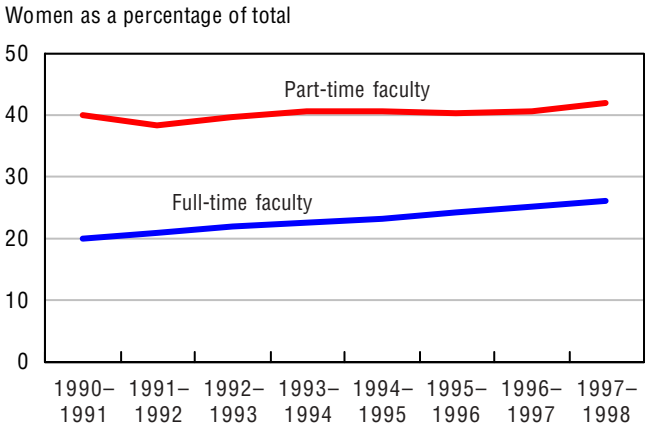
Men outnumbered women on faculties in all provinces

Male faculty outnumbered their female counterparts in both part-time and full-time positions. Men accounted for an average of 58% of part-time faculty and 74% of full-time faculty, outnumbering women in every province from 1990–1991 to 1997–1998.

The proportion of women in part-time positions remained relatively constant between 1990–1991 and 1997–1998. However, the proportion of female full-time faculty had steadily increased since 1990–1991. From 1990–1991, the proportion of women in full-time faculty increased by 6%, while the proportion of men decreased by the same percentage. During the same period, female full-time faculty numbers grew by 1,250 and those of their male counterparts dropped by 3,700. The growth in full-time faculty occurred mostly in the 50- to 59-year-old group; in

1997–1998, 32% of all women were in this age group, up from 22% in 1990–1991. During that period, the proportion of all women in the 30- to 39-year-old group dropped from 30% to 22%.

Graph 2
Proportion of females for part-time and full-time faculty



Source: *Part-time University and College Academic Staff Survey.*

Fields of study: men in sciences, women in health

Over the eight-year period, Social Sciences and Humanities accounted for the largest number of both part-time and full-time faculty. In fact, approximately half of part-time and full-time teachers taught in this field. The Social Sciences attracted the largest proportion of graduate and undergraduate students because they include popular courses of study such as Business Administration and Commerce, Administrative Studies (such as public and health administration), Economics, Law and Criminology, Environmental Studies, Psychology and Sociology.

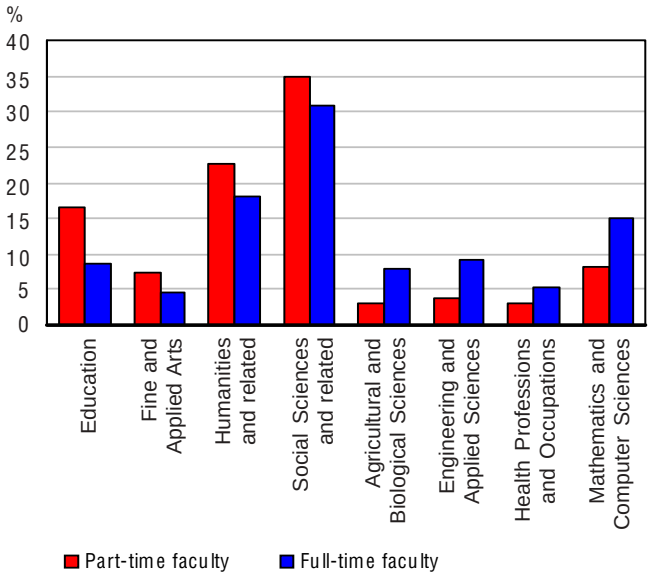
In 1997–1998, Social Sciences and Humanities was the most populous teaching field for both part-time and full-time faculty.

Engineering and Mathematics/Physical Sciences are subjects traditionally dominated by men (in 1997–1998, three-quarters of students registered in these fields were men). Male teachers also dominated these fields, although for both part-time and full-time faculty this gap between the sexes had narrowed over the eight-year period.

In 1997–1998, part-time male faculty outnumbered their female counterparts by almost 5 to 1 for Engineering and 3.5 to 1 for Mathematics and Physical Sciences. In 1990–1991, these ratios had been 10 to 1 and 4 to 1, respectively. The picture was much more dramatic for full-time faculty: in 1997–1998, females were outnumbered 12 to 1 in Engineering and almost 9 to 1 in Mathematics and Physical Sciences. In contrast, eight years earlier, men had vastly outnumbered women in these fields: 28.5 to 1 for Engineering and almost 14 to 1 for Mathematics and Physical Sciences.

Between 1990–1991 and 1997–1998, men outnumbered women in almost all teaching fields except Nursing, which was dominated by women, for both full-time and part-time faculty. Part-time female faculty slightly outnumbered men in Agricultural and Biological Sciences in 1992–1993, 1994–1995 and 1996–1997. In 1997–1998, for full-time faculty, the ratio of men to women ranged from a low of about 2 to 1 in Education to a high of 12 to 1 in Engineering; for part-time faculty, the ratio ranged from just over 1 to 1—with men barely outnumbering women—in Fine and Applied Arts to about 5 to 1 in Engineering. Although male faculty outnumbered female faculty in almost all fields, the reverse was true for full-time equivalent graduate and undergraduate enrolment, where women outnumbered male students in all faculties except Engineering and Mathematics/Physical Sciences.

Graph 3
Part-time and full-time faculty by subject, 1997–1998



Source: *Part-time University and College Academic Staff Survey.*

Part-time staff is younger

Part-time faculty tend to be younger than full-time faculty. In 1997–1998, 37% of part-time faculty were under 40 years of age, 33% were between 40 and 49 years of age and those 50 and older represented 30%. In comparison, 17% of the full-time faculty were under 40 years of age, 33% in their forties and the remaining 50% were 50 years and older. A higher percentage of female than male part-time faculty were under 40 years of age (41% versus 34%).

Part-time faculty members who were teaching on an overload contract were older, overall, than their part-time colleagues, mirroring the age distribution of full-time faculty: in 1997–1998, almost 80% were over 40 years of age, compared with over 50% of faculty members who had a full-time contract of less than 12 months and 61% who were teaching a fractional load.

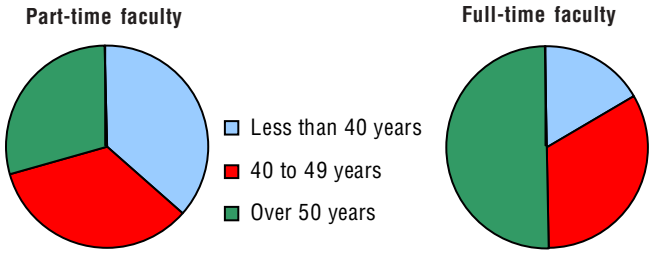
Over the eight years covered by this study, the numbers of men and women in part-time faculty were approximately equal among those who were less than 30 years old, but the proportion of men increased progressively as they got older.

Qualifications are higher for full-time faculty

In 1997–1998, full-time faculty had higher levels of education than part-time faculty: 82% of full-time faculty had a PhD, compared with only 42% of part-time faculty. Those who held a master's degree as their highest qualification made up 38% of part-time and 15% of full-time faculty.

Male faculty members also had higher levels of education than their female counterparts. For example, in 1997–1998, male part-time faculty who had a PhD accounted for 50% of the total male part-time faculty, while only 29% of female part-time faculty had a PhD. A similar trend appears for full-time faculty with a PhD: 85% of males, compared with 72% of females.

Graph 4
Part-time and full-time faculty by age, 1997–1998



Source: *Part-time University and College Academic Staff Survey.*

Most contracts are less than a year long

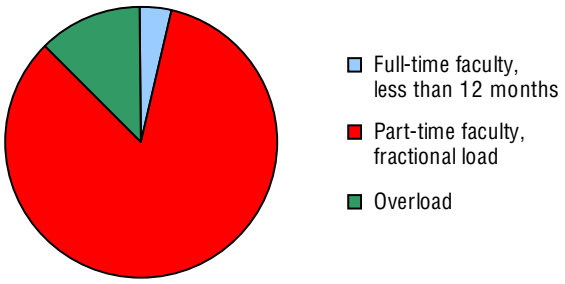
Most part-time faculty have contracts less than a year long. Just over 75% of contracts reported in 1997–1998 were up to four months' duration and 21% were for four to eight months. This coincides with the time normally required to complete a half or full course at the undergraduate level. These contracts paid average salaries of $4,366 and $8,423, respectively, levels that were then within the range generally paid for teaching one half or full course. Indeed, 85% of contracts reported by the survey in 1997–1998 had been to teach up to one course, suggesting that part-time faculty would likely have had to supplement their earnings in other ways. There are a variety of reasons for working part time, including supplementing income, meeting family commitments, staying abreast of developments in one's speciality—and even for the joy of teaching.

For some part-time faculty, teaching may not be the sole source of income, and it may not be a stepping stone for full-time tenured employment in the academic world. Of contracts reported to the survey, nearly 88% of the part-time faculty were hired for teaching only, compared with only 2% who had to teach with other related duties and 9% who were tenured or leading to tenure.

Part-time contracts: gender and age differences

In this survey, part-time contracts are categorized into three groups. The smallest group, representing approximately 4% of reported contracts in 1997–1998, consists of faculty members carrying what would be considered a full teaching load for less than 12 months. By far the largest group—over 80% of part-time contracts—contains staff teaching two courses or a 'fractional load.' The last group, which comprises faculty teaching an overload (usually full-time staff who teach additional courses), accounts for 13% of reported part-time contracts.

Graph 5
Faculty by status, 1997–1998



Source: *Part-time University and College Academic Staff Survey.*

From 1992–1993 to 1997–1998—information on overload was not collected in 1990–1991 and 1991–1992—men outnumbered women 3 to 1 for those staff who had an overload contract. This mirrored the gender split for full-time faculty, where men accounted for almost 75% of staff in 1997–1998. Men were generally 55% of part-time staff and women 45% in other faculty categories.

Part-time faculty members who carry a full teaching load for 12 months tend to be younger than other part-time staff. In 1997–1998, some 80% of these staff members were under 50 years of age, compared with 72% of staff who taught a fractional load and 54% who taught overload courses. On the other hand, part-time faculty members teaching overload courses reflected the older ages of full-time faculty: 41% of them were over 50, compared with 24% of faculty teaching a fractional load and only 18% teaching full time less that 12 months.

Most part-time faculty members teach less than one course per year. In 1997–1998, 87% of part-time fractional load contracts and 88% of overload contracts were for teaching up to one course. For those teaching full time less than 12 months, nearly 46% had contracts to teach up to one course, 14% taught two courses, 25% had three courses and 15% were teaching four or more courses.

The majority of staff teaching a fractional load—as well as faculty who had an overload contract—earned between $2,000 and $6,000 per contract. Almost two-thirds of staff teaching a full load for less than 12 months earned in excess of $10,000 per appointment.

Conclusion

The delivery of courses by part-time staff at Canadian universities is no longer a new phenomenon but a reality of university staffing. Part-time faculty hired by universities increased from 25,700 in 1990–1991 to 28,200 in 1997–1998, up nearly 10%. Full-time faculty hired by universities decreased about 8% over the same period. Men continued to outnumber women in both part-time and full-time positions in Canadian universities. In 1997–1998, some 58% of part-time faculty and 74% of full-time faculty were men. In terms of fields of study, over the same eight-year period Social Sciences and Humanities accounted for the largest number of both part-time and fu1l-time faculty in Canadian universities, where about one-half of all part-time and full-time teachers taught in this field.

This study used data from the PT-UCASS to provide a profile of part-time staff members. However, the survey is also a source of information to compare part-time staff with their full-time counterparts. In order to supplement this paper's statistical introduction to this group of faculty members, areas for future research could include an analysis of salaries of part-time staff and of level of education of part-time faculty by subject taught, and a comparison of part-time faculty in universities with part-time faculty in colleges. EQR

Notes

1. The author would like to thank Sandy Mac (Household Survey Methods Division) for the assistance and advice she provided in the preparation of this paper.
2. Other Statistics Canada surveys include the Full-time University and College Academic Staff Survey (FT-UCASS), which gathers information on full-time teaching staff, and the Annual Community College Educational Staff Survey (ACCESS), which gathers information on teaching staff at community colleges.
3. 'Overload' generally refers to full-time staff who teach additional courses.
4. This includes non-academic support staff, markers, demonstrators, lab assistants, clinicians, medical and dental faculties, those who teach preschool students and those who were teaching for 12 months but opted for a reduced load.
5. The full-time teaching equivalent relates the teaching load assignment of the part-time faculty—as opposed to total workload assignment—to the normal teaching load under regular conditions that may be assigned to a full-time teacher in the same discipline or faculty. These numbers exclude Quebec, for which data on the full-time teaching equivalents are not yet available.
6. www.cou.on.ca/publications/briefs_reports/facts_and_figures_2000/factsfigs2000.htm (last accessed August 12, 2003).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Adult immigrants: how well are they trained?[1]

Derek Hum
Department of Economics
University of Manitoba
dhum@cc.umanitoba.ca

Wayne Simpson
Department of Economics
University of Manitoba
simpson@ms.umanitoba.ca

This article was adapted from the report *Training Activity by Adult Immigrants in Canada* by Hum and Simpson. The full report is available from the authors.

Introduction

The perception that immigrants are denied the same opportunities in the labour market as their Canadian counterparts is frequently countered by the claim that immigrants do not acquire the same credentials through training, or alternatively do not train as intensely as a result of family responsibilities. But beyond anecdotal evidence and small case studies, little evidence exists to make such generalizations. By conducting a multivariate statistical study of the incidence and duration of training beyond formal schooling, and by comparing immigrants to non-immigrants, we hope to shed light on the important issues related to training. This report examines training incidence and duration (and their determinants) for immigrants, and compares their circumstances to those of Canadians in general.

What you should know about ...

... the data

Data for this article are taken from the master files of the 1998 Adult Education and Training Survey (AETS), which was the first year the survey distinguished immigrant and native-born participants. AETS gathers information on adult participation in formal education and training over the past 12 months.[2] Proxy responses are not allowed. The surveys cover learning obtained through training programs as well as courses, learning that is job related as well as that of personal interest, learning undertaken full time as well as part time, and learning that is employer sponsored as well as non-employer sponsored. The surveys cover training in universities and colleges, private and commercial institutions, on site at the workplace, and via distance learning, such as the Internet. Full- and part-time students are excluded from the survey in order to focus on post-school and work-related training. Limited information is also gathered about situational and institutional

barriers to participation, the subject matter of courses taken, and respondents' perceptions about the course. In short, the AETS provides information on the frequency and duration of formal adult learning, the sponsor of the learning event, why the learning was acquired, the training provider and content, and some of the possible barriers to participation.

The first question on the AETS asks respondents whether they have received any training or education including courses; private lessons; correspondence courses (written or electronic); workshops; apprenticeship training; arts, crafts, recreation courses; or any other training or education during the reference year (the past 12 months). The survey then records the total duration of all training or education taken during the reference year for all respondents who answered 'yes' to the first question. Additional questions permit training to be classified as 'work related' if it is either employer-sponsored or judged by the respondent to be taken for job or career reasons.

... the analysis

The variety of model specifications and data sets used make it difficult to draw general conclusions from these results. We have taken the approach of specifying an encompassing model that includes the core (human capital life cycle) elements of training decisions and additional factors available from the AETS that capture elements related to the person and the job. Most information on adult training, including training from the AETS, is obtained from household surveys that ask employed respondents whether they have engaged in formal training on the job during a specified period.[3]

Immigrants train less than persons born in Canada

Evidence suggests that immigrants may experience problems acquiring work-related training, which may in turn account for some of the difficulties they experience in achieving parity over time with their native-born counterparts. Some of these problems may depend on the age at which immigration occurs, in particular, whether immigration occurs in childhood (prior to entry into the labour market) or as adults.

Table 1 indicates the extent of training by immigration status for Canadian men and women who are not full- or part-time students. Since those who immigrate as adults (18 years of age or older) might have greater problems integrating into the Canadian culture and workplace, we treated this group separately in our empirical work. The results generally indicate that men and women born in Canada participated in post-school training at a higher rate than immigrants and that the gap was greater for those who immigrated as adults. Whereas 26.3% of Canadian-born men and 27.3% of Canadian-born women were active in education and training in 1997, only 22.9% of immigrant men and 22.1% of immigrant women participated. When only those immigrating as adults are considered, the figures decline to 17.2% for men and 19% for women. The pattern for work-related training is similar.

It is more interesting to consider training duration that encompasses both participation rates and the intensity of training activity among participants than the rate of training participation. For men, this pattern is comparable to the one for participation. The average duration of training is 36.3 hours per year for Canadian-born men, but only 28.0 hours for immigrant men and 19.7 hours for men who immigrate as adults. For work-related training, the average duration was 29.8 hours for native-born men compared with 23.4 hours for immigrants and 14.9 hours for men who immigrated as adults. In other words, age at immigration appears to matter a great deal: men who immigrated as adults received only half as much training, work-related or otherwise, as those born in Canada.

For women, the gap in training between those born in Canada and those born abroad is less apparent. Canadian-born women trained 31.9 hours on average in 1997 compared with 35.3 hours for immigrant women and 28.9 hours for women who immigrated as adults. For work-related training, Canadian-born women trained 19.3 hours as opposed to 15.4 hours for all immigrant women and 12.8 hours for women who immigrated as adults. Thus, some evidence of a training disadvantage for immigrants exists, at least for women who immigrate as adults, but it is clearly a weaker training discrepancy than that for men.

What factors lie behind the training gap?

The 1998 AETS provides a comprehensive set of questions on factors that might affect training decisions as well as asking, for the first time, whether respondents were immigrants or not. Since the labour activities of men and women differ considerably, their training decisions are analysed separately. Although we are primarily interested in work-related training opportunities, total training activity is reported as well. More than 80.0% of training for men and women is identified as work related.[4]

Table 1
Training activity among Canadian men and women by immigrant status

	Men				Women			
	All	Immigrants	Immigrants as adults[2]	Canadian born	**All**	Immigrants	Immigrants as adults[2]	Canadian born
Sample size	**12,423**	1,468	920	10,955	**15,706**	1,767	1,180	13,939
Population estimate (thousands)[1]	**9,279**	1,809	1,246	7,470	**9,645**	1,908	1,361	7,737
Trainees (thousands)	**2,382**	415	214.2	1,967	**2,537**	422.2	258.4	2,114
% training	**25.7**	22.9	17.2	26.3	**26.3**	22.1	19	27.3
Work-related trainees (thousands)	**1,926**	313.4	160.2	1,612	**1,783**	293.3	174.3	1,490
% of work-related training	**20.8**	17.3	12.9	21.6	**18.5**	15.4	12.8	19.3
Hours training (thousands)	**318,000**	50,240	24,350	267,800	**311,100**	66,980	39,290	244,100
Average hours	**34.6**	28	19.7	36.3	**32.6**	35.3	28.9	31.9
Hours of work-related training (thousands)	**262,900**	42,110	18,430	220,800	**252,700**	62,820	38,830	189,900
Average work-related hours	**28.6**	23.4	14.9	29.8	**26.4**	33.1	28.7	24.8

Notes:
1. Sample results were weighted to reflect the Canadian adult population, excluding full- and part time students.
2. Defined as immigrants after the age of 18.
Source: *Statistics Canada, 1998 Adult Education and Training Survey master (internal) file. Calculations by the authors.*

…Canadian-born men report an average of 8.3 hours, or 30.0%, more training than foreign-born men…

The average training gap is 6.4 hours (27.0%) per year for work-related training. For women, however, the pattern is reversed. Immigrant women trained an average of 3.4 hours (11.0%) more than Canadian-born women and an average of 8.3 hours (33.0%) more with respect to work-related training only.

…Immigrant men and women are less educated, older and work fewer hours per week…

There are a number of other differences among immigrant and native-born men and women. Among the core economic variables we identified, immigrant men and women are less educated (less postsecondary education), older, work fewer hours per week, are less likely to be employed, and have shorter average job tenure. Immigrants are also more likely to live in urban areas in Ontario and British Columbia. They are less likely to be French speaking,[5] have a full-time, permanent job or be self employed, be covered by a collective agreement, or work in the public sector. Any of these factors could account for the differences in training.

The data suggest that immigrant men who are already being given training (about one-quarter of all immigrant men) receive an annual average of 28.2 fewer hours of training per year, other factors considered. Immigrant men as a group receive 7.0 fewer hours of training than Canadian-born men.[6]

…Those who immigrate as children have superior training opportunities to those who are native born…

Next, we examine the effects of age on this data. Our results suggest a steady reduction in training opportunities for older immigrants. Based on these results, those who immigrate as children have superior training opportunities to those who are native born, but this advantage turns to a disadvantage by about 14 years of age. The results further indicate that men who immigrate in childhood receive 10.4 more hours of training that their Canadian-born counterparts, but men who immigrate as adults receive 19.4 fewer hours of training. Both effects are statistically significant. These results imply that training disadvantage for immigrants is entirely borne by those who immigrate at or near adulthood. Those who immigrate as children experience no disadvantage.

…Workers with permanent jobs, higher occupational standings, jobs in the public sector or larger firms train more...

Several other factors affect training duration. In particular, age (older respondents train less) and job tenure (new workers train more) are important determinants of training. Men who changed jobs in the previous year (and hence have lower job tenure) report more training. Respondents with a disability train less, as do black workers.[7] The training deficit for black men is large and statistically significant, which may explain the general wage disadvantage of black men found in our earlier work (Hum and Simpson 1999). Married men train more. Workers

with a permanent job, a higher occupational standing (supervisory and professional/managerial workers), or a job in the public sector train more, as do workers in larger firms. Self-employed and unionized workers train less, other factors considered.[8]

…Women who immigrate after approximately age 16 experience a training disadvantage…

The apparent training advantage for immigrant women disappears when we control for other factors. When we introduce age at immigration however, this factor becomes statistically significant, suggesting that women who immigrate after approximately age 16 experience a training disadvantage. Although the pattern of training by age at immigration is similar for men and women, it appears to be much weaker for women.

Other factors affecting the training of women are similar to men with some notable exceptions. The effect of age on training is still strong but training declines more slowly with age for women, consistent with the delayed career paths experienced by some married women. Also consistent with this interpretation is the negative impact of preschool children on training for women but not for men. The effect of education on training is noticeable for women; training rises with educational attainment, other factors considered. The training disadvantage for black women is not statistically significant, which is again consistent with our earlier findings that the wage gap between immigrant and native-born women is similar for racial groups (Hum and Simpson 1999).

Work-related training

Training is classified as work related if respondents indicate that the training was taken for job or career reasons. The extent to which this response provides a meaningful distinction of training that is related to work and leisure is unclear. Nevertheless, it may be useful to exclude training related to leisure in our analysis. We therefore repeated our analysis for work-related training.

The results for work-related training are quite similar to those for all training, but the disadvantage for male immigrants is somewhat larger. The results indicate that immigrant men who are already being trained receive 41.0 fewer hours of work-related training (other factors considered) than their Canadian-born counterparts. For immigrant men as a whole, this amounts to 8.2 fewer hours of training than Canadian-born men. The results further indicate that adult immigrants receive 25.9 fewer hours of training per year. Both of these results are statistically significant. Men who immigrate as adults have a statistically significant disadvantage of 18.8 hours when compared with men who immigrated as children. No statistically significant difference appears in work-related training between Canadian-born women and women who immigrated as children or adults.

Barriers to training

What accounts for the apparent training disadvantage of men who migrated to Canada as adults? The AETS asks respondents to identify perceived barriers to their undertaking training; specifically: (1) was there any training or education needed for job-related or career reasons that was not taken? and (2) was there any job-related, hobby, recreational, or interest courses that the respondent wanted to take but did not? If the answer to either question was affirmative, the survey inquired as to reasons why the training, education or course was not taken.

A slightly higher percentage of immigrant men and women compared with Canadian-born men and women indicated that there was training or education needed for job-related or career reasons that was not taken. Among men who immigrated as adults, however, the figure was lower when compared with those Canadian born (and the same for women). An examination of differences in the reasons for not taking the training or education led to three potential explanations.

…Immigrants experience financial, language and qualification constraints to training…

First, immigrants, especially those who have immigrated as adults, are more likely to indicate a financial constraint, that is, the training or education required is either too expensive or they do not have sufficient funds to finance it. Of immigrant men, 3.4% indicated this reason as the barrier to their training compared with 2.2% of those Canadian born; for men who immigrated as adults, the figure rose to 3.8%.

Second, a small percentage of male immigrants (0.2%) and male immigrants as adults (0.3%) indicated language as a barrier to further training and education, whereas this was not a consideration among Canadian-born men. In both these cases, a similar pattern was observed for women, although there is no statistically significant evidence that immigrant women are at a disadvantage in training.

Third, men who immigrated as adults are more likely to indicate insufficient qualifications or prerequisites for needed training. While this was a barrier for only 0.2% of Canadian-born men, the figure was 3.8% for men who immigrated as adults. And although the lack of qualifications or prerequisites may reflect training disadvantages associated with insufficient financing or language skills, other explanatory factors may be at play, including difficulty in transferring credentials from abroad.

…but Canadian-born men and women experience barriers to taking courses

When we turn the focus to taking courses, a somewhat different pattern emerges. Both Canadian-born men and women are more likely to cite barriers to taking courses, job related or otherwise. Moreover, the financial and qualification or prerequisite constraints that were more likely to deter immigrants from new job-related program training are not apparent for courses. This is not unexpected, since programs generally require prior qualifications and a greater investment over a longer period of time. On the other hand, barriers associated with language are accentuated; about 1% of immigrants cited this as a barrier to taking courses. The figure is slightly higher for immigrants as adults and slightly lower for women.

Conclusion

The AETS does not follow individual respondents over time to assess their further training experiences. However, the finding that male immigrants receive less training than their counterparts suggests a policy direction toward improving accessibility to training for this group. Evidence of greater incidence of problems for immigrants in the areas of financing, language and the recognition of previous qualifications also suggest areas where accessibility might be improved.

The additional finding that those immigrants who arrive in Canada as adults (over 18 years of age) receive less training and have more difficulties, corroborates the view that human capital, which is typically accumulated early in the life cycle, holds the key for economic assimilation in the workplace. A strategy to maximize the economic contribution, as well as workplace integration of immigrants to Canada, could look to the design of programs to enhance training opportunities for adult male immigrants in the shorter term, with long-term policies to enhance opportunities for all. EQR

Notes

1. This research was made possible by a grant from Metropolis, Prairie Centre of Excellence for Research on Immigration and Integration (PCERII). We thank Statistics Canada for granting access to the AETS data, Lisa Shipley and Jim Seidle of Statistics Canada for technical support and Peter Schnabl for research assistance. The views expressed in this paper are those of the authors.

2. Since the AETS is a supplement to the Labour Force Survey (LFS), its design is closely tied to the LFS. The LFS is a household survey whose sample of individuals is representative of the civilian, non-institutionalized population 15 years of age or over in the 10 provinces. Excluded are residents of the Yukon and Northwest Territories (as well as Nunavut, as the territory did not exist at the time of the survey), persons living on Indian reserves, full-time members of the armed forces and inmates of institutions. These groups represent an exclusion of approximately 2% of the population aged 15 or over. The LFS consists of approximately 52,000 occupied dwellings from which information is collected from approximately 102,000 civilians aged 15 or over. For the AETS, the LFS is modified to include all members of the household 17 years of age or older (including those over 70). However, upon completion of the LFS, the AETS is administered to only one randomly selected individual per household.

3. An exception is the Panel Study of Income Dynamics, which asked the question: "On a job like yours, how long would it take the average new person to become fully trained and qualified?" (Duncan and Hoffman 1979). A question of this nature might be useful to capture the largely informal nature of much adult training (Rosen 1982).

4. Average training for men is 34.6 hours each year, of which 28.6 hours (82.7%) are deemed to be work related; the corresponding figures for women are 32.6 hours, of which 26.4 hours (81.0%) are work related. Comparable figures are contained in Table 1.

5. This is based on the respondent's preferred official language for the AETS questionnaire.

6. Since 24.9% of all men in the AETS sample received training, the effect of immigrant status on the expected duration of training in the tobit model is 24.9% of -28.2 or -7.0 hours. For more examples, see McDonald and Moffitt (1980).

7. The AETS questions on ethnicity and race do not allow us to identify other visible minority groups, as we did in our earlier work using the Survey of Labour and Income Dynamics (Hum and Simpson 1999).

8. One possible explanation for less training among immigrants might be limited access to unionized jobs. If unionized jobs generated more training opportunities, then immigrants could have access to more training, but our results imply that unionized jobs involve less training, not more.

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McDonald, John F., and Robert A. Moffitt. 1980. "The Uses of Tobit Analysis." *The Review of Economics and Statistics.* 62: 318–321.

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Data availability

announcements

Data releases

In the section "Data releases" we provide the titles of data released by the Centre for Education Statistics since the publication of the previous issue of *Education Quarterly Review*. Details on each release can be accessed free-of-charge from Statistics Canada's website www.statcan.ca. Click on "The Daily" and "Previous issues".

- Access to college and university: Does distance matter? (released June 4, 2003)
- University finance (released June 11, 2003)
- Paths to post-secondary education among 20-year-olds (released July 4, 2003)
- University degrees, diplomas and certificates awarded (released July 8, 2003)
- University tuition fees 2003-2004 (released August 12, 2003)
- Education Price Index (released September 4, 2003)
- Postsecondary Education Participation Survey 2002 (released September 10, 2003)
- School enrolments and teaching staff 1999-2000 (released September 18, 2003) EQR

Current data

Data series	Most recent data: Final[1]	Most recent data: Preliminary or estimate[2]
A. Elementary/secondary		
Enrolment in public schools	1999–2000	2000–2001[e]
		2001–2002[e]
Enrolment in private schools	1999–2000	
Enrolment in minority and second language education programs	1999–2000	
Secondary school graduation	1999–2000	
Educators in public schools	1999–2000	2000–2001[e]
		2001–2002[e]
Educators in private schools	1999–2000	
Elementary/secondary school characteristics	1999–2000	
Financial statistics of school boards	1999–2000	
Financial statistics of private academic schools	1997–1998	1998–1999[p]
		1999–2000[e]
		2000–2001[e]
Federal government expenditures on elementary/secondary education	1999–2000	2000–2001[e]
		2001–2002[e]
Consolidated expenditures on elementary/secondary education	1999–2000	1999–2000[p]
		2000–2001[e]
		2001–2002[e]
Education Price Index	2001	
B. Postsecondary		
University enrolments	1999–2000	2000–2001[p]
University degrees granted	2000	discontinued
University continuing education enrolment	1996–1997	discontinued
Educators in universities	2000–2001	
Salaries and salary scales of full-time teaching staff at Canadian universities	2000–2001	2001–2002[p]
		2002–2003[p]
Tuition and living accommodation costs at Canadian universities	2003–2004	
University finance	2001–2002	
College finance	2000–2001	2001–2002[e]
Federal government expenditures on postsecondary education	2000–2001	2001–2002[e]
Consolidated expenditures on postsecondary education	2000–2001	2001–2002[e]
Community colleges and related institutions: enrolment and graduates	1999–2000	2000–2001[e]
Trade/vocational enrolment	1999–2000	
College/trade teaching staff	1997–1998	1998–1999[p]
		1999–2000[p]
International student participation in Canadian universities	1998–1999	

See notes at end of this table.

Current data (concluded)

Data series

C. Publications[3]

Education in Canada (2000)

South of the Border: Graduates from the class of '95 who moved to the United States (1999)

After High School, the First Years (1996)

Participation in postsecondary education and family income (1998)

A report on adult education and training in Canada: Learning a living (1998)

Education Price Index – methodological report

A Guide to Statistics Canada Information and Data Sources on Adult Education and Training (1996)

A Statistical Portrait of Elementary and Secondary Education in Canada – Third edition (1996)

A Statistical Portrait of Education at the University Level in Canada – First edition (1996)

The Class of '90: A compendium of findings (1996)

The Class of '90 Revisited (1997)

The Class of '95: Report of the 1997 National Survey of 1995 Graduates (1999)

Education indicators in Canada: Report of the Pan–Canadian Indicators Program (1999)

Education at a Glance: OECD Indicators (2000)

In Pursuit of Equity in Education: Using International Indicators to Compare Equity Policies (2001)

Literacy Skills for the Knowledge Society (1997)

Literacy in the Information Age (2000)

International Adult Literacy Survey Monograph Series

Benchmarking Adult Literacy in North America: An International Comparative Study (2001)

Measuring up: The performance of Canada's youth in reading, mathematics and science (2000)

Growing Up in Canada: National Longitudinal Survey of Children and Youth (1996)

Children and youth at risk: Symposium report

At a crossroads: First results for the 18- to 20-year-old cohort of the Youth in Transition Survey (2000)

Current trends in teacher education and training: A symposium report (2001)

Canadian education and training services abroad: the role of contracts funded by international financial institutions (2003, no. 2)

National Graduates Survey: A profile of young Canadian graduates (2000)

Education in Canada: Raising the standard (2001 Census)

Notes:

1. *Indicates the most recent calendar year (e.g., 2000) or academic/fiscal year (e.g., 2000–2001) for which final data are available for all provinces and territories.*
2. *Indicates the most recent calendar year (e.g., 2000) or academic/fiscal year (e.g., 2000–2001) for which any data are available. The data may be preliminary (e.g., 2000^{p}), estimated (e.g., 2000^{e}) or partial (e.g., data not available for all provinces and territories).*
3. *The year indicated in parentheses denotes the year of publication. Some of these publications are prepared in co-operation with other departments or organizations. For information on acquiring copies of these reports, please contact Client Services, Culture, Tourism and the Centre for Education Statistics. Telephone: (613) 951-7608, toll free 1 800 307-3382; Fax: (613) 951-9040) or E-mail: educationstats@statcan.ca.*


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Education at a glance

This section provides a series of social, economic and education indicators for Canada and the provinces/territories. Included are key statistics on the characteristics of the student and staff populations, educational attainment, public expenditures on education, labour force employed in education, and educational outcomes.

Table 1
Education indicators, Canada, 1986 to 2001

Indicator[1]	1986	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
							thousands					
Social context												
Population aged 0–3	1,475.0	1,573.4	1,601.7	1,610.6	1,596.1	1,595.1	1,578.6	1,560.7	1,550.7	1,453.9	1,390.6	1,366.8
Population aged 4–17	5,204.7	5,395.4	5,437.7	5,484.7	5,536.4	5,620.7	5,691.4	5,754.0	5,795.7	5,725.6	5,723.7	5,723.2
Population aged 18–24	3,286.3	2,886.1	2,869.2	2,869.6	2,852.0	2,823.4	2,816.8	2,833.0	2,865.4	2,895.9	2,921.2	2,948.7
Total population	26,203.8	28,120.1	28,542.2	28,940.6	29,248.1	29,562.5	29,963.7	30,358.5	30,747.0	30,553.8	30,769.6	31,081.9
Youth immigration[r]	25.9	61.2	61.2	73.1	68.3	65.9	66.3	70.4	61.2	..	..	..
							%					
Lone-parent families	18.8	15.3	14.4	14.8	14.9	15.1	14.8	14.9	15.4	15.7	..	..
Economic context												
GDP: Real annual percentage change	3.1	-1.8	-0.6	2.2	4.1	2.3	1.5	..	..	..	..	..
CPI: Annual percentage change	4.2	5.6	1.5	1.8	0.2	2.2	1.7	1.7	1.0	1.9	..	..
Employment rate	59.6	59.7	58.4	58.0	58.4	58.8	58.5	59.0	59.7	60.6	..	..
Unemployment rate	9.7	10.3	11.2	11.4	10.4	9.4	9.7	9.1	8.3	7.6	6.8	7.2
Student employment rate	34.4	38.0	35.1	34.0	34.2	33.3	34.8	32.5[2]	..	..	..	..
Families below low income cut-offs:												
Two-parent families	10.9	10.8	10.6	12.2	11.5	12.8	11.8	12.0	..	..	..	..
Lone-parent families	52.5	55.4	52.3	55.0	53.0	53.0	56.8	51.1	..	..	..	..
Enrolments							thousands					
Elementary/secondary schools	4,938.0	5,218.2	5,284.1	5,327.8	5,362.8	5,430.8	5,414.6	5,386.3	5,369.7	5,397.1	5,389.3[e]	5,385.2[e]
							%					
Percentage in private schools	4.6	4.7	4.9	5.0	5.1	5.1	5.2	5.3	5.5	5.6	..	..
							thousands					
College/trade/vocational, full-time[3]	238.1	275.9	266.7	306.5	298.8	269.1	261.4	250.0	240.3[r]	234.3	..	..
College/postsecondary, full-time	321.5	349.1	364.6	369.2	380.0	391.3	397.3	398.6	403.5	407.0[e]	..	..

See notes at end of this table.

Table 1
Education indicators, Canada, 1986 to 2001 (concluded)

Indicator[1]	1986	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	thousands											
College/postsecondary, part-time[4]	96.4 e	125.7 e	106.6 e	98.4	90.8	87.7	87.1	91.6	91.4	91.4 e	..	..
Full-time university	475.4	554.0	569.5	574.3	575.7	573.2	573.6	573.1	580.4	590.7 e	..	..
Part-time university	287.5	313.3	316.2	300.3	283.3	273.2	256.1	249.7	246.0	257.5 e	..	..
Adult education and training	..	5,504	..	5,842	..	..	..	6,069	..	..	..	..
	%											
Participation rate	..	27	..	28	..	..	..	26	..	..	..	..
Graduates	thousands											
Secondary schools[5]	..	260.7	272.9	281.4	280.4	301.7	304.5	307.8	310.6	317.0 r	..	..
College/trade/vocational[6]	145.0	159.7	158.8	163.9	151.1	144.2	141.5 e	138.7 e	..	..	..	..
College/postsecondary	82.4	83.8	85.9	92.5	95.3	97.2	101.0	105.0	113.1	..	..	..
University/Bachelor's	101.7	114.8	120.7	123.2	126.5	127.3	128.0	125.8	124.9	127.1 e	..	..
University/Master's	15.9	18.0	19.4	20.8	21.3	21.4	21.6	21.3	22.0	23.2 e	..	..
University/Doctorate	2.2	2.9	3.1	3.4 e	3.6	3.7	3.9	4.0	4.0	4.0 e	..	..
Full-time educators												
Elementary/secondary schools	269.9	302.6	301.8	295.4	295.7	298.7	294.4	296.9	300.3	303.0	304.2	305.7
College/postsecondary/trade/vocational	30.6 7	31.7 7	31.8 7	32.2 7	31.0 7	30.9 7	31.5	31.0	31.2	27.8	..	..
University	35.4	36.8	37.3	36.9	36.4	36.0	34.6	33.7	33.7	33.8	..	..
	ratio											
Elementary/secondary pupil–educator ratio	16.5	15.5	15.7 e	16.1 e	16.1 e	16.1 e	16.1 e	16.3 e	16.4 e	15.9 e	15.9	..
Education expenditures	$ millions											
Elementary/secondary	22,968.0	33,444.9	34,774.5	35,582.3	35,936.0	36,425.3	36,804.8	37,163.6	38,709.4	39,321.7 p	39,738.9 e	..
Vocational	3,275.1	4,573.8	5,380.9	5,631.2	6,559.0	6,185.2	5,301.8	7,953.4	8,946.2	8,391.9 p	8,669.9 e	..
College	2,999.0	3,870.7	4,075.3	4,105.9	4,207.1	4,531.8	4,477.9	4,689.5	4,781.7	5,498.5 p	4,923.2 e	..
University	7,368.7	11,254.8	11,569.8	11,736.8	11,857.9	11,802.0	11,600.7	12,220.3	12,863.2	14,549.0 p	13,168.3 e	..
Total education expenditures	36,610.8	53,144.2	55,800.5	57,056.2	58,560.0	58,944.3	58,185.2	62,026.7	65,300.4	67,761.1 p	66,500.2 e	..
	%											
As a percentage of GDP	7.3	7.9	8.0 r	7.9 r	7.7 r	7.3 r	7.0 r	7.1 r	7.1 r	..	..	..

Notes:
.. *Figures not available.*
r *Revised figures.*
e *Estimated figures.*
1. *See 'Definitions' following Table 2.*
2. *The figure is for April 1997.*
3. *The enrolments have all been reported as full-time based on a'full-day' program, even though the duration of the programs varies from 1 to 48 weeks.*
4. *Excludes enrolments in continuing education courses, which had previously been included.*
5. *Source: Canadian Education Statistics Council. (Excludes adults for Quebec, Ontario and Alberta equivalencies.)*
6. *The majority of trade and vocational programs, unlike graduate diploma programs which are generally two or three years' duration, are short programs or single courses that may require only several weeks. A person successfully completing these short-duration programs or courses is considered a completer, not a graduate. These completers do not include persons in part-time programs.*
7. *Figures have been revised to include a complete count of staff in trade programs.*

Table 2
Education indicators, provinces and territories

Indicator[1]	Canada	Newfound-land and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
				%			
Social and economic context							
Educational attainment[2], 2001							
Less than secondary diploma	24.4	35.7	30.9	27.4	30.6	31.4	21.5
Graduated from high school	19.6	15.0	15.3	13.6	19.4	15.7	21.7
Some postsecondary	7.0	4.8	6.4	7.1	5.2	5.6	6.8
Postsecondary certificate, diploma or university degree	48.9	44.6	47.4	51.9	44.8	47.2	50.0
Labour force participation rates by educational attainment, 2001							
Total	**66.3**	**58.7**	**67.5**	**62.1**	**61.8**	**63.8**	**67.6**
Less than secondary diploma	38.8	33.7	46.4	35.2	37.0	37.0	39.0
Graduated from high school	69.1	60.8	77.0	66.4	69.0	70.9	68.3
Some postsecondary	69.9	64.2	74.1	65.1	65.3	67.5	71.1
Postsecondary certificate, diploma or university degree	78.3	77.4	77.4	74.7	75.3	78.8	79.2
Unemployment rate, 2001	6.1	14.5	10.9	8.1	10.0	7.8	5.1
Costs							
Public and private expenditures on education as a percentage of GDP, 1994–1995	7.0	9.9	7.6	7.6	7.4	7.6	6.8
Public expenditures on education as a percentage of total public expenditures, 1994–1995	13.6	16.9	10.8	9.7	11.2	13.8	14.2
Elementary/secondary pupil–educator ratio, 1998–1999	15.9[e]	14.5	16.6	16.5	16.9	14.4	16.4
Educational outcomes							
Secondary school graduation rates, 1999	76.7	79.5	81.3	80.4	84.8	84.2[3,4]	77.3[5]
University graduation rate, 1998–1999	35.0	32.2	21.8	53.5	33.7	41.7	36.8
Unemployment rate by level of educational attainment, 2001							
Less than secondary diploma	10.1	27.6	20.0	11.7	19.6	13.0	6.9
Graduated from high school	5.8	14.3	13.1	8.1	9.6	7.5	5.2
Some postsecondary	6.7	14.4	11.6	8.7	9.2	9.5	5.6
Postsecondary certificate, diploma or university degree	5.1	10.0	6.6	7.1	7.0	6.1	4.7

See notes at end of this table.

Table 2
Education indicators, provinces and territories (concluded)

Indicator[1]	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories
			%			
Social and economic context						
Educational attainment[2], 2001						
Less than secondary diploma	27.8	28.6	19.3	18.5	..	..
Graduated from high school	21.0	20.6	19.2	22.5	..	..
Some postsecondary	6.6	7.0	9.1	9.8	..	..
Postsecondary certificate, diploma or university degree	44.6	43.9	52.3	49.2	..	..
Labour force participation rates by educational attainment, 2001						
Total	**67.2**	**66.0**	**72.7**	**64.8**	**..**	**..**
Less than secondary diploma	42.1	40.3	47.1	38.2	..	..
Graduated from high school	74.0	74.5	75.5	63.8	..	..
Some postsecondary	75.7	73.0	75.0	66.9	..	..
Postsecondary certificate, diploma or university degree	78.5	77.7	80.8	74.7	..	..
Unemployment rate, 2001	3.9	4.5	3.6	6.6	..	..
Costs						
Public and private expenditures on education as a percentage of GDP, 1994–1995	7.8	7.4	5.4	6.5	11.3	16.6
Public expenditures on education as a percentage of total public expenditures, 1994–1995	12.9	13.8	13.2	12.2	10.4	12.0
Elementary/secondary pupil–educator ratio, 1998–1999	15.6	16.2	16.8	16.9	12.7	13.5[e]
Educational outcomes						
Secondary school graduation rates, 1999	74.3	75.0	63.3	73.4	60.4	40.1[6]
University graduation rate, 1998–1999	31.5	33.1	25.2	24.6	..	..
Unemployment rate by level of educational attainment, 2001						
Less than secondary diploma	6.3	7.7	5.2	11.5	..	..
Graduated from high school	3.2	3.9	3.4	6.5	..	..
Some postsecondary	4.2	6.4	4.1	7.3	..	..
Postsecondary certificate, diploma or university degree	3.4	3.5	3.2	5.5	..	..

Notes:
.. *Figures not available.*
[r] *Revised figures.*
[e] *Estimated figures.*
1. *See 'Definitions' following Table 2.*
2. *Parts may not add up to 100% due to rounding.*
3. *Starting in 1995, Quebec graduate data for regular day programs include individuals over the age of 20 who graduated from regular day programs.*
4. *Excludes "Formation professionnelle."*
5. *Excludes night school and correspondence courses for Ontario adults.*
6. *Includes graduates from Nunavut.*

Definitions

Education indicators, Canada Table 1.

Year references are as follows: (1) *population* refers to July of the given year; (2) *enrolment* and *staff* refer to the academic year beginning in September of the given year; (3) *graduates* refers to number of persons graduating in the spring or summer of the given year; (4) *expenditures* refers to the fiscal year beginning in April of the given year.

1. Youth immigration

The number of persons aged 0 to 19 who are, or have been, landed immigrants in Canada. A landed immigrant is a person who is not a Canadian citizen by birth, but who has been granted the right to live in Canada permanently by Canadian immigration authorities.

2. Lone-parent families

The number of lone-parent families expressed as a percentage of the total number of families with children. A lone parent refers to a mother or a father, with no spouse or common-law partner present, living in a dwelling with one or more never-married sons and/or daughters. Sources: Statistics Canada, 1971 to 1986: *Lone-parent families in Canada*, Catalogue no. 89-522-XPE; 1991 to present: Small Area and Administrative Data Division.

3. Gross domestic product

The unduplicated value of production originating within the boundaries of Canada, regardless of the ownership of the factors of production. GDP can be calculated three ways: as total incomes earned in current production; as total final sales of current production; or as total net values added in current production. It can be valued either at factor cost or at market prices. Source: Statistics Canada, Industry, Measures and Analysis Division.

4. Consumer Price Index

An indicator of changes in consumer prices. It is defined as a measure of price change obtained by comparing, over time, the cost of a specific basket of commodities. Figures are annual averages.

5. Employment rate

The number of persons employed expressed as a percentage of the population 15 years of age and over, excluding institutional residents. Figures are annual averages.

6. Unemployment rate

The number of unemployed persons expressed as a percentage of the labour force.

7. Student employment rate

The number of persons aged 15 to 24 attending school on a full-time basis who were employed during the calendar year (excluding May through August), expressed as a percentage of the total number of full-time students 15 to 24 years of age.

8. Families below low income cut-offs

Low income cut-offs are a relative measure of the income adequacy of families. A family that earns less than one-half of the median adjusted family unit income is considered to be in difficult circumstances. The set of low income cut-offs is adjusted for the size of the area of residence and for family size. Source: Statistics Canada, *Low Income Persons, 1980 to 1995*, December 1996, Catalogue no. 13-569-XPB/XIB.

9. Adult education participation rate

The number of persons 17 years of age or over participating in adult education or training activities, expressed as a percentage of the total population 17 years of age or over. Excludes regular full-time students who are completing their initial schooling.

10. Elementary/secondary pupil–educator ratio

Full-time equivalent enrolment (enrolment in grades 1 to 12 [including Ontario Academic Credits] and ungraded programs, pre-elementary enrolment in provinces where attendance is full time, and half of the pre-elementary enrolment in other provinces) divided by the full-time equivalent number of educators.

11. Education expenditures

Includes expenditures of governments and of all institutions providing elementary/secondary and postsecondary education, and vocational training programs offered by public and private trade/vocational schools and community colleges.

Education indicators, provinces and territories Table 2.

The methodologies used to derive the indicators in Table 2 may differ from those used in other statistical tables of this section.

12. Educational attainment and labour force participation rates

Refers to the population aged 25 and over. Source: Statistics Canada, Labour Statistics Division.

13. Secondary school graduation rate

Source: Statistics Canada, 2001, Centre for Education Statistics, *Education in Canada 2000*, Catalogue no. 81-229-XPB.

14. University graduation rate

Number of degrees awarded at the undergraduate level, as a percentage of the population aged 22.

15. Unemployment rate by level of educational attainment

The number unemployed with a given level of education expressed as a percentage of the labour force with the same education for the population aged 25 and over. Upper secondary includes the final grade of secondary school.

EQR

In upcoming issues

The following article is scheduled to appear in upcoming issues of *Education Quarterly Review:*

A profile of linguistic school systems

This study profiles students in English- and French-language school systems. The analysis includes the following variables from PISA (2000) : province, performance in reading and science, family socio-economic status and wealth, educational attainment of parents, rural/urban breakdown, and time spent on homework and reading. EQR


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