



Chapter

3

Education

Overview

Education level is positively associated with health status and health behaviours. Moreover, educational attainment is widely acknowledged as an important determinant of socio-economic status and income, which are both key determinants of health.

Many factors contribute to how well children perform in the formal education system. Parents' education level and involvement in their child's schooling, as well as overall readiness for school are all contributors to the child's level of achievement in school and to how long he or she stays in school. Early school leavers fare poorly in the job market compared with youth with high school or university education.



Relationship to Healthy Child Development

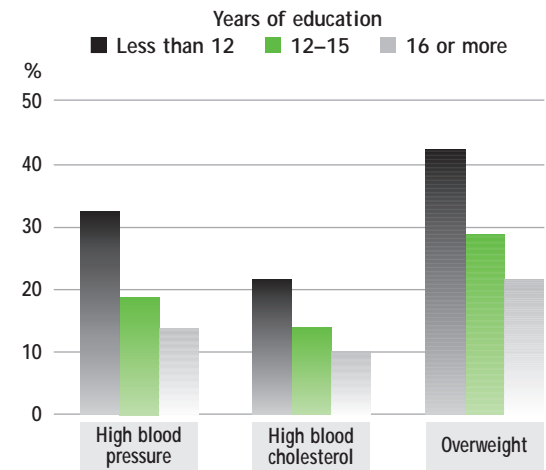
Education is a tool for life.

Education contributes to health and prosperity by equipping people with the knowledge and skills needed for problem solving and by giving them a sense of control over their life circumstances. Education also improves people's ability to access and understand information that can keep them healthy (Federal, Provincial and Territorial Advisory Committee on Population Health, 1994, pp. 17–18). In fact, research demonstrates a two-way connection between health and learning — doing poorly and/or expecting to do poorly in school are associated not only with school failure, but also with such behaviours as delinquency, substance abuse and teen pregnancy (Dryfoos, 1990, p. 94).

More education means better health.

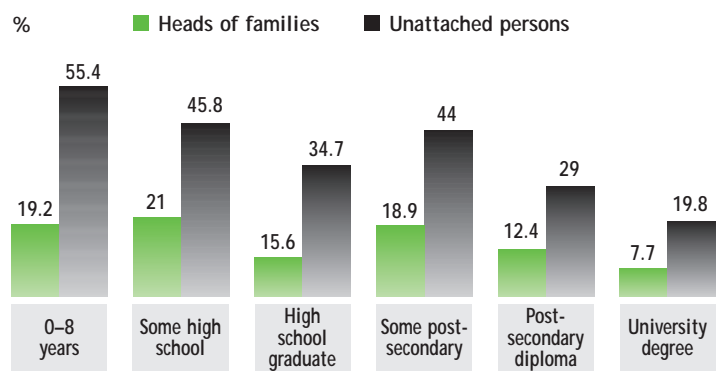
Health status improves with level of education. In general, as education increases, “self-rated health status improves, while activity limitation and the number of workdays lost due to illness or injury decreases. People with a university degree are about half as likely to have high blood pressure, high blood cholesterol, or to be overweight, as are those with less than high school education” (Federal, Provincial and Territorial Advisory Committee on Population Health, 1996, p. 29). See **Exhibit 3.1**. The highest educated group is also the least likely to live in poverty (National Council of Welfare, 1998, p. 44). See **Exhibit 3.2**.

3.1 Proportion of adults aged 15+ with selected health risk factors, by number of years of education, Canada, 1994–95



Source: Federal, Provincial and Territorial Advisory Committee on Population Health (1996). *Report on the Health of Canadians*. Catalogue No. H39-385/1996-1E. Ottawa: Health Canada, p. 29.

3.2 Poverty rates^a among adults aged 15+, by highest level of education completed, 1996



a. As defined by Statistics Canada's low income cut-offs.

Source: National Council of Welfare (1998). *Poverty Profile, 1996*. Ottawa: National Council of Welfare, p. 44.



Children need to be ready for school.

There is good evidence that early childhood intervention programs can be successful in promoting children's capacity to learn, their social success and their success in school. The effects of these programs are most dramatic with disadvantaged children (Hertzman, 1996).

The impact of school readiness goes well beyond early academic and social accomplishments. Children who have the appropriate level of cognitive, emotional, language and physical skills are more likely to stay in school, graduate from high school, find employment, and contribute to society as caring individuals and taxpayers (Doherty, 1996).

Preschool ability sets the stage for children's transition into the formal school system. Children who have not learned skills such as colour naming, sorting, counting, letters and the names of everyday objects are at a disadvantage compared with children who have mastered these skills. Teachers tend to rate children in these skills early on (Entwistle and Alexander, 1989).

Young people need to stay in school.

A positive and supportive learning environment is essential for acquiring the skills and social capacities children need to make their way through adolescence. Youth who do not complete school are more likely to be at a disadvantage regarding employment, income and life opportunities (Statistics Canada, 1993a, p. 2).

The personal costs of premature departure from school are an increased likelihood of poor health, delinquency, crime, substance abuse and economic dependency, and a lower quality of life (Statistics Canada, 1993a, p. 4).



Literacy and Age

People with high literacy skills are more likely to hold high-paying jobs. A 1997 international study on adult literacy shows a dramatic link between age and literacy levels. This link is largely accounted for by differences in education levels attained. In addition, for young people (aged 16 to 25 years), mothers' education level and fathers' occupation are both strong predictors of literacy levels (Willms, 1997).

A *positive and supportive learning environment is essential for acquiring the skills and social capacities children need to make their way through adolescence.*



Conditions and Trends

Education Level of Parents

Parents' education — together with income and labour-market status — is associated with a variety of child outcomes, including academic achievement (Ross, Scott and Kelly, 1996, p. 36). Generally speaking, children's early educational performance is influenced by the education level of their mothers (Willms, 1996, p. 73).



The education level of Canadians is increasing.

The number of people 15 years of age and older without a Grade 9 education fell from more than 30% in 1971 to just less than 14% in 1991 (Federal, Provincial and Territorial Advisory Committee on Population Health, 1996, p. 37). See **Exhibit 3.3**. In 1971, nearly one quarter of 15- to 24-year-olds had at least some post-secondary education — this rose to well over one third (39%) by 1996 (Statistics Canada, 1998a).

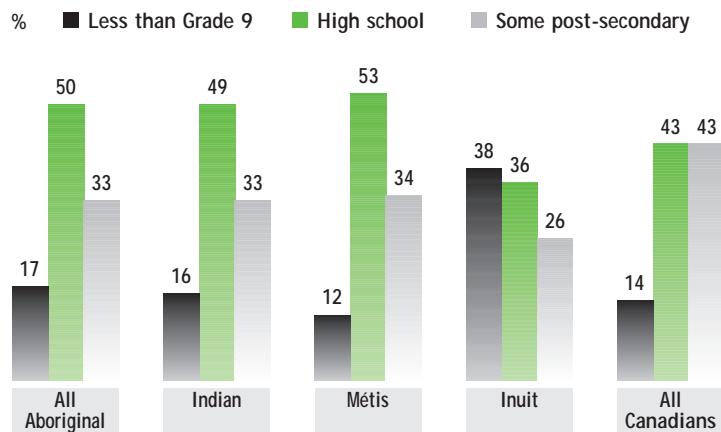
3.3 Population aged 15+, by highest level of education completed, Canada, selected years

	1976	1981	1986	1991	1996
	Number				
Total	16,890,350	18,609,285	19,634,100	21,304,740	22,628,925
Less than Grade 9	4,285,390	3,851,285	3,473,640	3,051,900	2,812,015
Grades 9 to 13	7,440,765	8,122,465	8,354,030	9,071,580	9,131,775
Some post-secondary	4,077,825	5,145,355	5,927,950	6,761,505	7,684,435
University degree	1,086,370	1,490,180	1,878,480	2,419,750	3,000,695

Source: Adapted from the Statistics Canada Web site: www.statcan.ca

While there have been steady improvements in educational achievement over the years, Aboriginal peoples still have lower education levels than non-Aboriginal Canadians. According to the Aboriginal Peoples Survey, in 1991, 17% of 15- to 64-year-old Aboriginal people had fewer than nine years of schooling, 50% had completed high school, and one third had some post-secondary education (Statistics Canada, 1993b, p. 2). See **Exhibit 3.4**.

3.4 Highest level of educational attainment achieved, adults aged 15 to 64, by Aboriginal peoples and all Canadians, Canada, 1991



Source: Statistics Canada. *Schooling, Work and Related Activities, Income, Expenses and Morbidity, 1991 Aboriginal Peoples Survey, 1993*. Cited in Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: CICH, p. 137.



Women's overall level of education is increasing. In 1992–93, women represented 53% of all undergraduate students, 46% of full-time master's degree students and 35% of full-time doctoral students, an increase from 43%, 27% and 19%, respectively, in 1972–73 (Normand, 1995, p. 19).

Parents' education level affects children's academic achievement.

The National Longitudinal Survey of Children and Youth (NLSCY) found that the education level of the person most knowledgeable about the child (most often the mother) was a significant predictor of children's verbal ability at ages 4 and 5, and of children's mathematics achievement in grades 2 and 4 (Willms, 1996, p. 73).

Parents' level of education is also associated with the value placed on education within the family. "Parents with higher levels of education tend to place a greater value on the importance of academic achievement and are likely to spend more time reading to their children and helping them do their homework." In 1994–95, the vast majority (83.7%) of children under age 12 lived with parents who had at least a high school diploma (Ross, Scott and Kelly, 1996, p. 37). See **Exhibit 3.5**.

Immigrant Children and Education

Immigrant youth often experience disruptions in their education. In some cases, they may be too old to enter the school system in Canada and, at the same time, be unqualified to begin work (Multiculturalism and Citizenship Canada, 1988, p. 65).

More than half of immigrant children between 4 and 17 years of age who came to Canada between 1981 and 1988 did not speak either official language. While these children may obtain lower marks in English than do Canadian-born children, they perform very well in mathematics (Samuel and Verma, 1992, pp. 53–56).

3.5 Distribution of children aged 0 to 11, by mothers' and fathers' education level, Canada, 1994–95

Level of education	Mother's education (%)	Father's education (%)
Less than high school	16.3	16.3
High school graduate	46.4	40.5
Diploma/certificate from trade or business school	8.9	13.2
Degree/diploma from university or college	28.3	29.9
Total	100.0	100.0

Source: Adapted from D.P. Ross, K. Scott and M.A. Kelly (1996). "Overview: Children in Canada in the 1990s." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, p. 37.

Role of Families

Parents' involvement in preparing their children for school provides children with a stronger base for learning from their school experience, while continued parental interest in schooling can have a positive effect on children's academic performance. School-aged children whose parents are involved in such activities as helping with homework and assisting in the classroom tend to do better academically. We know that:

Most parents are involved in preparing their children for school.

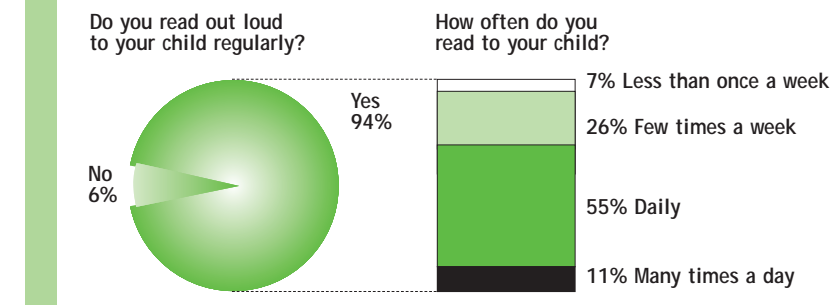
In 1994–95, parents of more than half of infants and toddlers up to age 2 showed their youngsters picture books daily, and most (94%) read aloud to their children every day. See **Exhibit 3.6**. The parents of more than 50% of children aged 2 to 5 also helped them with writing every day, while another 30% did so a few times a week (CCSD, 1997, pp. 45–46).

Teachers surveyed in 1994–95 as part of the NLSCY reported that two thirds of their students had parents who were “very involved” in their children's education, suggesting that these parents recognize the vital role they play in their children's learning (CCSD, 1997, p. 46).

Parents' involvement affects children's achievement.

Children whose parents had little interest in their schooling were seven times more likely to have repeated a grade than children whose parents placed a great deal of importance on education. Children who failed at math were more likely to have parents who did not take an active interest in their education (CCSD, 1997, p. 46).

3.6 Distribution of parent(s) who read to their children aged 2 to 5, by frequency of reading, Canada, 1994



Source: Prepared by the Canadian Council on Social Development using data from Statistics Canada's National Longitudinal Survey of Children and Youth, 1994. In Canadian Council on Social Development (1997). *The Progress of Canada's Children — 1997*. Ottawa: CCSD, p. 46.



School Readiness

Being ready for school helps to set the stage for success in school as well as in future work and social life. Children who do well in school often approach school “ready to learn.” These children have already been exposed to books and numbers, they have been introduced to problem-solving techniques, and they have developed the social skills needed in group settings (Ross, Scott and Kelly, 1996, p. 24).

Overall, most children who enter school are “ready to learn.” Children from higher income families, and those whose parents have more education, tend to be ready more so than other children.

Children with Disabilities and Education

*“In April 1991, almost 90% of 5- to 14-year-old children with disabilities were in school. Of the 9,550 (3.1%) who were not in school or being tutored, 6,325 had never attended school and 3,225 had attended school before April 1991” (CICH, 1994, p. 158). See **Exhibit 3.7**.*

According to the NLSCY, 4% of Canadian children under age 12 have a learning disability (CCSD, 1997, p. 50). The Health and Activity Limitation Survey (HALS) estimates that learning disabilities are the most common disabilities among children under age 15 (Statistics Canada, 1994, p. xxxv). Yet these disabilities often are undiagnosed until a child has failed at school. The school drop-out rate for children with learning disabilities is 35% — twice that of their non-disabled peers (Bullivant, 1997, pp. 1-2).

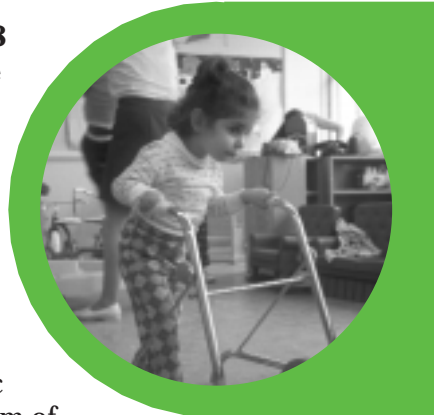
Parents’ education and income have an impact on school readiness.

Results of the NLSCY show no significant differences between boys and girls on one measure of school readiness — the Peabody Picture Vocabulary Test (PPVT). However, there were differences among

children according to the educational attainment of their parents. **Exhibit 3.8** shows that children who lived with one or two highly educated parents were more likely to do well on the PPVT than children who lived with one or two parents who had not graduated from high school (Ross, Scott and Kelly, 1996, p. 24).

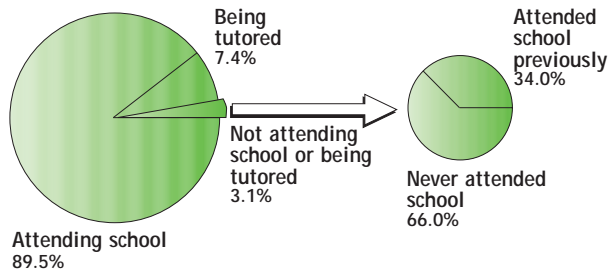
Compared with their peers from the highest socio-economic group, children from the lowest socio-economic group are more likely to be at the bottom of their class in reading, writing and math abilities (Lipps and Frank, 1997).

Nationally, one quarter of children from low-income families were verbally delayed in their development, compared with one sixth of the children in middle-income families, and less than one tenth of those from families with the highest incomes (Ross, Scott and Kelly, 1996, p. 42).



In April 1991, almost 90% of 5- to 14-year-old children with disabilities were in school.

3.7 Distribution of children with disabilities aged 5 to 14, by those attending school or being tutored, Canada, April 1991



Source: Canadian Institute of Child Health using Statistics Canada's Health and Activity Limitation Survey (HALS) 1991 unpublished data. In Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: CICH, p. 158.

3.8 Distribution of children aged 4 to 5, by child's school readiness^a and parents^b education, 1994–95

Child outcome on PPVT ^c (4 to 5 years)	Less than high school graduate (%)	High school graduate (%)	Diploma/certificate from trade or business school (%)	Degree/diploma from university or college (%)
Advanced development	7.6 ^d	10.4 ^d	12.0 ^d	22.5
Normal development	57.4	73.1	72.6	66.0
Delayed development	35.0	16.6	15.4	11.6 ^d

- a. As measured by the Peabody Picture Vocabulary Test (PPVT) or the Echelle de vocabulaire en images Peabody (EVIP).
 b. Based on the spouse with the highest education credential (in two-parent families).
 c. Peabody Picture Vocabulary Test.
 d. Estimate less reliable due to high sampling variability.

Source: Adapted from D.P. Ross, K. Scott and M.A. Kelly (1996). "Overview: Children in Canada in the 1990s." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, p. 24.

Provincial governments play a role.

Funding for kindergarten programs is being cut in many provinces; therefore, fewer children aged 3 to 5 have access to high-quality preschool learning programs. Ontario's government has made junior kindergarten optional, and some school boards have cancelled the program altogether. The Newfoundland government has "frozen" funds for kindergarten programs, while Alberta has reduced the number of kindergarten program hours from 480 to 400. In Nova Scotia, half-day rather than full-day kindergarten programs are provided (CCSD, 1996, p. 29).

Staying in School

More young people are attending school, which is a positive trend particularly in light of the fact that it is becoming increasingly difficult for young people who drop out of high school to succeed in a highly competitive job market.

More young people are staying in school.

The proportion of young men and women (aged 15 to 19) attending school has been steadily increasing in Canada. In 1961, 62% of young men and 56% of young women were attending school. By 1991, the percentages had risen to 79% and 80%, respectively (Normand, 1995, p. 20).

Young people (aged 18 to 20 years) who stay in school are more likely than their counterparts who drop out to believe that school is relevant to their lives (Statistics Canada, 1993a, p. 28).

Some people are more likely than others to drop out of school.

- In 1991, poor¹ youth were almost three times more likely to drop out of school than non-poor youth (CICH, 1994, p. 122). See **Exhibit 3.9**.
- The school drop-out rate in 1991 among 20-year-olds was 22% for males and 14% for females (Statistics Canada, 1993a, p. 17).
- Aboriginal youths experienced particularly high rates of early school leaving; in fact, 40% of all 18- to 20-year-olds in this group drop out of high school (Statistics Canada, 1993a, p. 23).
- The school drop-out rate for children with learning disabilities (the most common long-term disability suffered by children under age 15) is 35% (Bullivant, 1997, pp. 1-2).
- Young people who drop out of school are more likely: to be living with neither parent; to come from single-parent homes; to have parents who have low levels of education or blue-collar jobs; to be married; to have children; or to have disabilities (Statistics Canada, 1993a, p. 24).

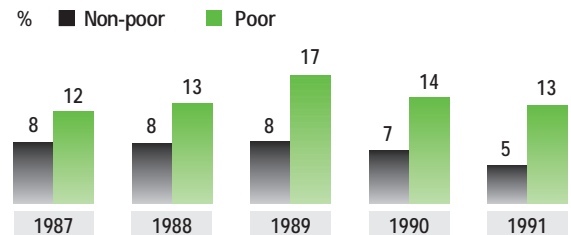
Who's Ready for School?

School readiness refers to a child's ability to meet the demands of school and to learn the content of the curriculum that is appropriate for his or her grade at the time of entry into the school system (Kagan, 1992). Research has identified five components of school readiness:

- *physical well-being and motor development,*
- *emotional health and positive approach to new experiences,*
- *social knowledge and competence,*
- *language skills, and*
- *general knowledge and cognitive skills* (Kagan, 1992, p. 50).

3.9

School drop-out rates for poor^a and non-poor youth aged 16 and 17, Canada, 1987 to 1991



a. Youth living below Statistics Canada's low income cut-offs.

Source: Prepared by the Canadian Council on Social Development, Centre for International Statistics on Economic and Social Welfare for Families and Children, Newsletter No. 1, July 1993. In Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: CICH, p. 122.

1. Based on the CICH definition of "poor" child — a child who lives in a family whose total income is below Statistics Canada's low income cut-off (LICO).



Women's enrollment in first-year medical school programs has been steadily increasing.

The Gender Barrier

Young women remain underrepresented in physical science courses, including physics and chemistry, and are underrepresented in undergraduate engineering and applied sciences. In 15 major trades, just 1% of all apprentices registered in 1992 were women.

At the community college level, in 1991–92, women accounted for only 32% of enrollment in natural science and primary industry programs, 30% in maths/computer science, and 12% in engineering and other technologies. In contrast, women made up 96% of enrollees in secretarial science, 89% in nursing and 90% in education and counselling services (Statistics Canada, 1995, pp. 59–61).

Women's enrollment in first-year medical school programs has been steadily increasing. In the 1996–97 academic year, women composed 50.5% of first-year medical school enrollees, up from 45.5% in 1990–91, 40% in 1980–81, and 21% in 1970–71 (Association of Canadian Medical Colleges, 1997, Table 18).

Dropping out costs money.

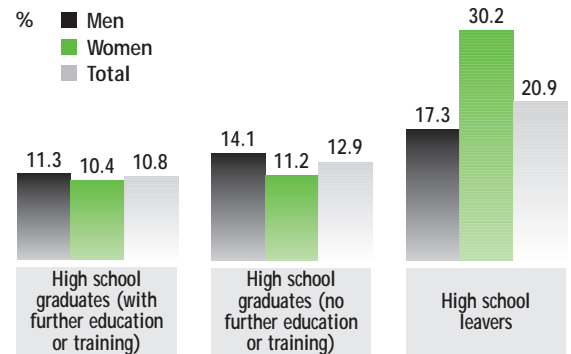
A 1992 study calculated that, over their collective lifetimes, all children dropping out of school in Canada in 1989 would cost Canadian taxpayers a cumulative total of \$4 billion (Lafleur, 1992).

Young women who drop out of high school are more likely than young male leavers to be unemployed; in fact, 30% of young female drop-outs were unemployed in 1995, compared with 17% of male drop-outs (HRDC and Statistics Canada, 1996, p. 5). See

Exhibit 3.10.

3.10

Unemployment rates among high school graduates and leavers, by sex, Canada, 1995



Source: Adapted from Human Resources Development Canada and Statistics Canada (1996). *After High School: The First Years — The First Report of the School Leavers Follow-up Survey, 1995*. Catalogue No. MP78-4/12-1996. Ottawa: Human Resources Development Canada and Statistics Canada, p. 5.



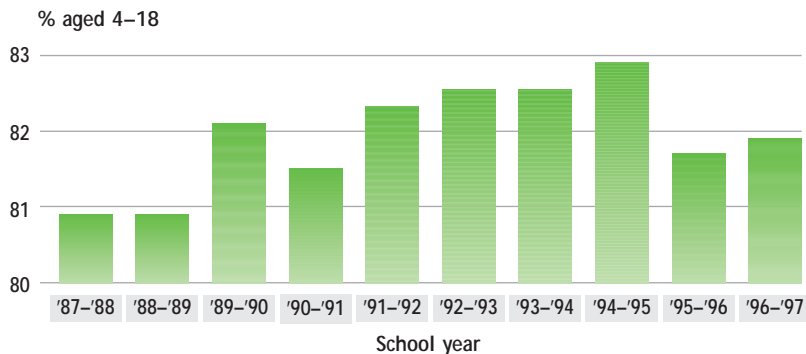
More on-reserve Aboriginal children are in school.

The total number of on-reserve children enrolled in kindergarten programs and elementary and secondary schools increased 33% between 1987–88 and 1996–97, from 84,271 to 112,060 (DIAND, 1998, p. 30).

The percentage of Registered Indian school-aged children on reserve enrolled in kindergarten programs and elementary and secondary schools increased marginally, from 80.9% in 1987–88 to 82% in 1996–97 (DIAND, 1998, p. 30). See **Exhibit 3.11**.

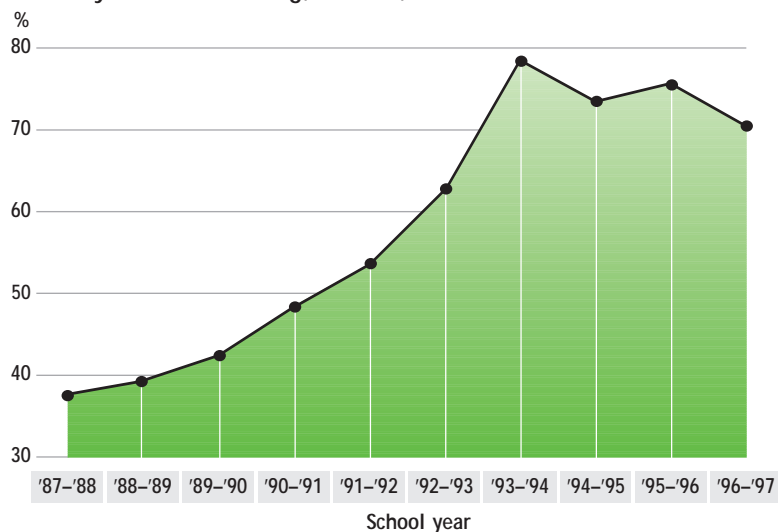
Moreover, on-reserve Indian children are remaining in school longer. The proportion of Aboriginal children who remain in school until Grade 12 almost doubled between 1987–88 (37%) and 1996–97 (71%) (DIAND, 1998, p. 31). See **Exhibit 3.12**.

3.11 Proportion of on-reserve registered Indian population aged 4 to 18 enrolled in kindergarten, elementary and secondary schools, Canada, 1987–88 to 1996–97



Source: Department of Indian Affairs and Northern Development (1998). *Basic Departmental Data 1997*. QS3575-000-BB-A1, Catalogue No. R12-7/1997. Ottawa: DIAND, p. 30.

3.12 Proportion of on-reserve students remaining until Grade 12 for consecutive years of schooling, Canada, 1987–88 to 1996–97



Source: Department of Indian Affairs and Northern Development (1998). *Basic Departmental Data 1997*. QS-3575-000-BB-A1, Catalogue No. R12-7/1997. Ottawa: DIAND, p. 31.



University enrollment is decreasing — slightly.

From 1993 to 1996, full-time post-secondary enrollment in university declined for males, from 272,644 in 1993–94 to 260,436 in 1997–98. However, during the same period, full-time enrollment for females steadily increased — from 301,670 in 1993–94 to 312,663 in 1997–98 (Statistics Canada, 1998b).

For Registered Indians and Inuit, the story is different. The number of Registered Indians and Inuit enrolled in post-secondary institutions almost doubled between 1987–88 and 1996–97, rising from 14,242 to 27,487. In 1996–97, enrollment increased an additional 304 from the previous year (DIAND, 1998, p. 32).

University Tuition Fees

Over the last decade, every province has increased university tuition fees in response to funding constraints. As a result, more students are seeking financial assistance from federal and provincial loans programs, and the average debt load for a four-year graduate has grown from \$8,700 in 1990 to \$22,000 in 1997. Access to post-secondary education could be constrained by rising costs and concerns about student debt (CCSD, 1997, p. 49).

Undergraduate enrollment at Canadian universities has declined over the past five years (8.6% between 1992–93 and 1997–98). This decline is due entirely to the sharp drop in enrollment of part-time undergraduates. Full-time undergraduate enrollment has remained steady (Statistics Canada, 1998c).



Education and Other Determinants

Income

The results of teachers' assessments of reading, writing and mathematical abilities revealed that children from families in the lowest quintile of socio-economic status fared worse than children from the highest quintile. They also showed that when children in elementary schools were ranked by socio-economic group, those in the lowest income group were three times more likely to be placed in remedial education classes and twice as likely to repeat a grade. Conversely, children from families with the highest socio-economic status were twice as likely to be in gifted education programs (Lipps and Frank, 1997, p. 56). See **Exhibit 3.13**. Another study demonstrated that growing up in persistent or concentrated poverty is related to school failure, which in turn can lead to truancy, dropping out of school, behaviour problems and delinquency (Evans, 1995, pp. 19, 24).

A 1998 study showed the poverty rate for families led by single-parent mothers with less than a high school education was 87.2% — by far the highest rate among all those who did not graduate from high school. Single-parent mothers who did graduate had a poverty rate of 51.8% — again the highest of any family type (National Council of Welfare, 1998, p. 43).

There is evidence that people with fewer than nine years of education are more likely to have unrewarding, low-paying jobs. They are also more likely to have jobs that are characterized by a high rate of occupational injuries, to experience periods of unemployment, and to rely on social assistance (Chevalier et al., 1995, as cited in Working Group on Community Health Information Systems, 1995, p. 72).

Employment

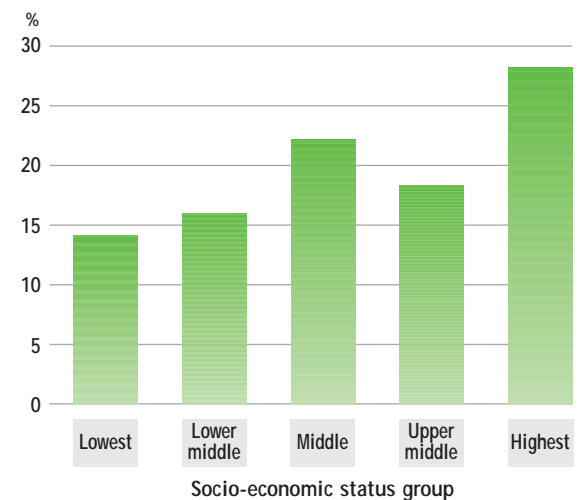
A 1995 study revealed that young people aged 22 to 24 without a high school diploma were more likely to be unemployed than high school graduates. The unemployment rate among those without a high school diploma was 21%, compared with 13% for those with a high school diploma but no further education. Individuals with both a high school diploma and further education had the lowest unemployment rate (11%) (HRDC and Statistics Canada, 1996, p. 5).

Social Environment

The family environment appears to play an important role in preparing children for school. The NLSCY reports that positive parenting is associated with normal and advanced scores on school readiness tests (Ross, Scott and Kelly, 1996, p. 42).

3.13

Proportion of children aged 4 to 11 scoring in the top 20% of mathematics computation test scores, by socio-economic status group, Canada, 1994–95



Source: Adapted from G. Lipps and J. Frank (1997). "The National Longitudinal Survey of Children and Youth, 1994–95: Initial results from the school component." *Education Quarterly Review*, Vol. 4, No. 2: 43–57. Catalogue No. 81-003-XPB. Ottawa: Statistics Canada, p. 56.

On-Reserve Enrollment and First Nations Control of Education

According to federal government data, the government's commitment to increased First Nations control of on-reserve education is reflected in enrollment trends. The proportion of children enrolled in band-operated elementary and secondary schools is increasing while the proportion enrolled in schools operated by federal or other authorities is declining. More specifically:

- The proportion of children enrolled in band-operated schools increased from 31.4% in 1987–88 to 57.3% in 1996–97.
- The proportion of children enrolled in federal schools dropped to less than 2% in 1996–97 from 20.6% in 1987–88.
- The proportion of students enrolled in provincial/private schools dropped from 48% in 1987–88 to 41% in 1996–97 (DIAND, 1998, p. 36).



References

- Association of Canadian Medical Colleges (1997). *Canadian Medical Education Statistics*, Vol. 19.
- Bullivant, G. (1997). "Editors Comments." *The National* (Spring 1997). Ottawa: Learning Disabilities Association of Canada.
- Canadian Council on Social Development (1996). *The Progress of Canada's Children — 1996*. Ottawa: Canadian Council on Social Development.
- Canadian Council on Social Development (1997). *The Progress of Canada's Children — 1997*. Ottawa: Canadian Council on Social Development.
- Canadian Institute of Child Health (1994). *The Health of Canada's Children: A CICH Profile*, 2nd edition. Ottawa: Canadian Institute of Child Health.
- Chevalier, S., et al. (1995). Cited in *Community Health Indicators: Definitions and Interpretations*. Ottawa: Working Group on Community Health Information Systems, Canadian Institute for Health Information.
- Department of Indian Affairs and Northern Development (1998). *Basic Departmental Data 1997*. QS-3575-000-BB-A1, Catalogue No. R12-7/1997. Ottawa: Department of Indian Affairs and Northern Development.
- Doherty, G. (1996). *Zero to Six: The Basis for School Readiness*. Catalogue No. R-97-8E. Ottawa: Human Resources Development Canada.
- Dryfoos, J.G. (1990). *Adolescents at Risk: Prevalence and Prevention*. New York: Oxford University Press.
- Entwistle, D.R., and K.L. Alexander (1989). "Early Schooling as a 'Critical Period' Phenomenon." *Research in Sociology of Education and Socialization*, Vol. 8: 27-55.
- Evans, P. (1995). *Children and Youth at Risk*. In Organisation for Economic Cooperation and Development (1995). "Our Children at Risk." Paris: Organisation for Economic Cooperation and Development, pp. 13-50.
- Federal, Provincial and Territorial Advisory Committee on Population Health (1994). *Strategies for Population Health: Investing in the Health of Canadians*. Catalogue No. H39-316/1994E. Ottawa: Health Canada.
- Federal, Provincial and Territorial Advisory Committee on Population Health (1996). *Report on the Health of Canadians*. Catalogue No. H39-385/1996-1E. Ottawa: Health Canada.
- Hertzman, C. (1996). *Child Development and Long-Term Outcomes: A Population Health Perspective and Summary of Successful Interventions*. Working Paper No. 4. Toronto: Canadian Institute for Advanced Research.
- Human Resources Development Canada and Statistics Canada (1996). *After High School: The First Years — The First Report of the School Leavers Follow-up Survey, 1995*. Catalogue No. MP78-4/12-1996. Ottawa: Human Resources Development Canada and Statistics Canada.
- Kagan, S.L. (1992). "Readiness Past, Present and Future: Shaping the Agenda." *Young Children* (November 1992): 48-53.
- Lafleur, B. (1992). "Dropping Out: The Cost to Canada." Conference Board of Canada Report, No. 83-92E. Cited in S. Davidson and I.G. Manion (1996). "Facing the Challenge: Mental Health and Illness in Canadian Youth." *Psychology, Health and Medicine*, 1(1) (1996): 41-56.
- Lipps, G., and J. Frank (1997). "The National Longitudinal Survey of Children and Youth, 1994-95: Initial results from the school component." *Education Quarterly Review*, Vol. 4, No. 2: 43-57. Catalogue No. 81-003-XPB. Ottawa: Statistics Canada.



- Multiculturalism and Citizenship Canada (1988). *After the Door Has Been Opened: Mental Health Issues Affecting Immigrants and Refugees in Canada: Report of the Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees*. Catalogue No. Ci96-38/1988E. Ottawa: Multiculturalism and Citizenship Canada.
- National Council of Welfare (1998). *Poverty Profile, 1996*. Ottawa: National Council of Welfare.
- Normand, J. (1995). "Education of Women in Canada." *Canadian Social Trends*, Vol. 39 (Winter 1995): 17–21. Catalogue No. 11-008E. Ottawa: Statistics Canada.
- Ross, D.P., K. Scott and M.A. Kelly (1996). "Overview: Children in Canada in the 1990s." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, pp. 15–45.
- Samuel, J., and R.B.P. Verma (1992). "Immigrant Children in Canada: A Demographic Analysis." *Canadian Ethnic Studies*, 24(3): 51–57.
- Statistics Canada (1993a). *Leaving School: Results from a National Survey Comparing School Leavers and High School Graduates 18–20 Years of Age*. Catalogue No. LM294-07-93E. Ottawa: Statistics Canada.
- Statistics Canada (1993b). *Schooling, Work and Related Activities, Income, Expenses and Mobility: 1991 Aboriginal Peoples Survey*. Catalogue No. 89-534. Ottawa: Statistics Canada.
- Statistics Canada (1994). "Selected Characteristics of Persons with Disabilities Residing in Households." *Health and Activity Limitation Survey (HALS)*. Catalogue No. 82-555. Ottawa: Statistics Canada.
- Statistics Canada (1995). *Women in Canada: A Statistical Report*. Catalogue No. 89-503E. Ottawa: Statistics Canada.
- Statistics Canada (1998a). *The Daily*, May 12, 1998.
- Statistics Canada (1998b). Statistics Canada Web site:
<http://www.statcan.ca/english/Pgdb/People/educat.htm>
- Statistics Canada (1998c). *The Daily*, October 14, 1998.
- Willms, J.D. (1996). "Indicators of Mathematics Achievement in Canadian Elementary Schools." In *Growing Up in Canada: National Longitudinal Survey of Children and Youth*. Catalogue No. 89-550-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada, pp. 69–82.
- Willms, J.D. (1997). *Literacy Skills of Canadian Youth — International Adult Literacy Survey (IALS)*. Catalogue No. 89-552-MPE, No. 1. Ottawa: Human Resources Development Canada and Statistics Canada.