

Wednesday, June 7, 2006 Released at 8:30 a.m. Eastern time

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### Releases

### Study: Relationship between reading literacy and education outcomes

2004

Young Canadians who have high levels of proficiency in reading are more likely to graduate from high school, and to pursue postsecondary education, according to a new study.

The study found that proficiency in reading literacy plays a role in both high school graduation and postsecondary participation. It examined the reading skills of a group of young people at the age of 15, and their educational status four years later when they were 19, linking information from two surveys.

One was the 2004 Youth in Transition Survey, a longitudinal survey designed to examine the major transitions in the lives of youths, particularly between education, training and work. The second was the Organisation for Economic Co-operation and Development Programme for International Student Assessment (PISA), which assessed the achievement of young people in reading, and mathematical and scientific skills.

The study found that students with higher levels of reading competency were more likely to graduate from high school.

On the other hand, those in the lowest two levels of reading literacy were more likely to drop out of high school or still be in high school at 19.

Similarly, postsecondary participation rates increased progressively with higher levels of reading literacy. This pattern remained strong even after controlling for other important factors related to postsecondary participation.

While the majority of youth with the knowledge and skills to pursue postsecondary education do so, a small proportion of youth with very high reading proficiency levels did not pursue postsecondary education by the age of 19.

The study noted that effective literacy skills and education credentials do not guarantee success in later life. However, without them, there are greater risks of facing barriers to employment, reduced financial security and poorer social outcomes.

## Young people who had dropped out of high school by 19 had lower reading scores at 15

A total of 87% of Canadian youth who were 15 years old in 2000 had graduated from high school four years

#### Note to readers

This release is based on the report Educational Outcomes at Age 19 Associated with Reading Ability at Age 15, available today. It uses data from two surveys.

The Youth in Transition Survey (YITS) is a longitudinal survey designed to examine the patterns of, and influences on, major transitions in young people's lives, particularly with respect to education, training and work. YITS was first implemented in 2000 with two cohorts of youth: a group aged 15 and a group aged 18 to 20. Among its objectives was to gain a better understanding of the determinants of postsecondary participation.

With this in mind, it was decided to link YITS to a well recognized measure of knowledge and skills: the Organisation for Economic Co-operation and Development Programme for International Student Assessment (PISA), which is an internationally recognised assessment of youth knowledge and skills. Among other things, it was designed to evaluate if youth are able to analyse, reason and communicate their ideas effectively.

Linking the two surveys provides a unique opportunity to better understand major transitions in youth life, including participation in postsecondary education.

The first cycle of YITS was collected in 2000. Youth aged 15 also participated in PISA. In 2004, when they participated in YITS for the third time, these young people were aged 19. This report is the first to take advantage of the unique feature of the YITS/PISA study. It examines the relationship between reading ability at age 15 and educational outcomes, namely high school completion and postsecondary participation.

later, by 19. Another 5% were still enrolled in high school and 7% had left high school before completion.

The study found that reading ability at 15 affected the subsequent status of students in high school by the time they had reached 19. (Reading proficiency was rated on the basis of levels one to five, that is, lowest to highest.)

Those who had dropped out of high school by the age of 19 had an average reading score of 457 at 15. This compared with a score of 547 for those who had graduated, which is equivalent to level 3. This means that, on average, high school dropouts were performing more than a full reading proficiency level below graduates.

A difference of one proficiency level can be considered comparatively large, and indicates a substantive difference in the nature of reading tasks that students can perform. These students may lack the higher order skills for further education.

On a provincial basis, high school dropouts had significantly lower average reading scores than graduates in all provinces, except Alberta and British Columbia. In these two provinces, the difference in the average scores of dropouts and graduates was not statistically different.

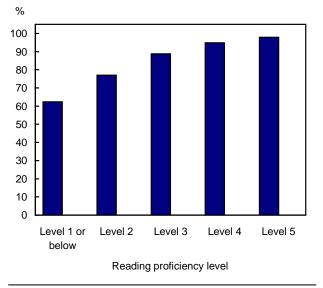
This may reflect a variety of factors, including sampling error associated with these estimates and labour market opportunities available to youth in these two provinces.

## Proportion of youth who finished high school by age 19 rose with reading proficiency

Another way of exploring the link between high school status and reading performance is to examine high school completion rates on the basis of reading proficiency.

The proportion of students who completed high school increased with their proficiency level as measured at the age of 15. While 87% had completed high school by 19, only 62% of those at Level 1 and 77% at Level 2 had done so. Almost all students who were at levels 4 and 5 had completed high school by 19.

The proportion of students who completed high school increased with their reading proficiency at the age of 15



Reading proficiency had an impact on high school graduation even after taking into account the effects of gender, mother tongue, parental education, family income, location of residence, and academic and social engagement.

The findings suggest a threshold effect, with those at level 2 and below at particular risk of not completing high school by age 19.

However, the relationship between reading ability at 15 and high school completion by 19 was not necessarily deterministic. Over half of students at level 1 or below and level 2 graduated from high school.

At the other end of the scale, a notable proportion of students with higher levels of reading ability had not graduated from high school at 19 - 11% of those at level 3, 5% of those at level 4 and 2% of those at level 5.

# Reading proficiency related to pursuit of postsecondary education

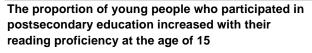
Proficiency in reading at 15 was related to the pursuit of postsecondary education by 19.

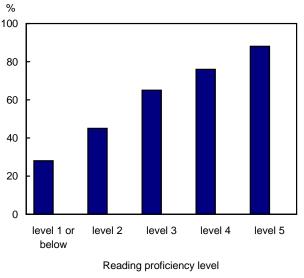
On average, students who had not pursued postsecondary education by 19 were performing more than a full proficiency level below those who had pursued postsecondary education.

In total, 65% of youth who participated in PISA in 2000, and who were not still enrolled in high school, had enrolled in some form of postsecondary education by the age of 19.

In contrast, only 28% of young people with the lowest proficiency in reading (level 1 and below) had pursued some form of postsecondary education. This rose to 45% at level 2, and 65% at level 3.

Postsecondary participation rates increased significantly after that — 76% for those at level 4 and 88% for those at level 5.





The study found that gender, parental education, household income and mother tongue were also significantly related to postsecondary education, but not location of residence. As was the case with finishing high school, the relationship between reading literacy at 15 and postsecondary participation by 19 was not necessarily deterministic. More than one-quarter of youth who were at the lowest level of reading proficiency had pursued postsecondary education by 19.

At the other end of the spectrum, 12% of youth with the highest level of reading proficiency had not yet pursued postsecondary education by time they were 19.

It should be noted that the transition from high school to postsecondary education is a process and does not necessarily follow a traditional linear trajectory. Consequently, youth who are not currently participating may still do so later on. Definitions, data sources and methods: survey numbers, including related surveys, 4435, 5058 and 5060.

The report *Educational Outcomes at Age 19 Associated with Reading Ability at Age 15* (81-595-MIE2006043, free) is now available from the *Our products and services* page of our website.

For more information, or to enquire about concepts, methods or data quality of this release, contact Information and Client Services (1-800-307-3382), Culture, Tourism and Centre for Education Statistics. ■

### Study: Employment and earnings among lone mothers

1980 to 2000

Two major demographic developments have been behind big gains in employment and earnings during the past two decades among lone mothers aged 40 and over, according to a new study.

The study found that rising earnings among these individuals since 1980 were the result of aging among the baby boom generation and the postwar revolution in the educational attainment of women.

Among younger lone mothers, economic outcomes have been relatively stagnant.

Using census data, this study is the first to explore why employment and earnings have improved recently among lone mothers.

Like married mothers, lone mothers were much better educated and significantly older in 2000 than in 1980. Gains in their aggregate employment and earnings reflected this.

In 1980, the population of lone mothers consisted predominantly of cohorts of women born before 1950. However, during the 1980s and 1990s, they were replaced by the very large baby boom cohorts born in the 1950s and early 1960s, composed of women with much higher levels of education and labour force attachment.

In 1981, three-quarters (76%) of all lone mothers had been born before 1950; by 2001, this proportion had plunged to only 7%. During the same time frame, the proportion of lone mothers with postsecondary or university education increased from 28% to 49%. Generally speaking, the more highly educated are more likely to work and earn higher wages than their less-educated counterparts.

Furthermore, during the 1990s, baby boom mothers began entering their 40s, an age when both employment and earnings tend to be higher. The proportion of all lone mothers who were aged 40 to 49 rose from 25% to 38%, while the proportion under 30 declined from 25% to 18%.

Older more experienced workers also tend to earn more than their less-experienced counterparts.

Largely as a result of these changes, employment rates among all lone mothers went up by 12 percentage points. At the same time, annual earnings among those employed rose by 16%, producing a substantial decline in the low-income rate of lone mothers.

These gains were concentrated among older lone mothers. Employment rates among older lone mothers (aged 40 and over) rose by 18 percentage points, while annual earnings increased by 26%.

Among lone mothers under 40, however, the employment rate rose by only 8 percentage points, while earnings among those with jobs fell. The decline in the relative earnings of young lone mothers reflected a general erosion of earnings experienced by all young workers over the past several decades.

The revolution in female education levels that divides the postwar generations from their predecessors may be reaching maturity. By 2001, almost 70% of women aged 25 to 29 had completed university or held a postsecondary certificate: there may be little room for further gains. Hence, rising educational attainment may not be a source of economic gains for lone mothers in the future as it was in the past.

Just as important, the aging of the baby boom mothers was a one-time event that will not be repeated. This factor may also have a one-time effect on the economic outcomes for lone mothers.

The research paper "Why did employment and earnings rise among lone mothers during the 1980s and 1990s?" is now available as part of the *Analytical Studies Branch Research Paper Series* (11F0019MIE2006282, free) from the *Our products and services* page of our website.

Related studies from the Business and Labour Market Analysis Division can be found at *Update on analytical studies* (11-015-XIE, free) on our website.

For more information, or to enquire about the concepts, methods or data quality of this release, contact John Myles (613-951-1656) or Garnett Picot (613-951-8214), Business and Labour Market Analysis Division.

#### **Population of businesses with employees** First quarter 2006

There were just over 1,066,000 businesses with employees in the first quarter of 2006, up 1.1% from the previous quarter when the number of employer businesses was approximately 1,054,000.

Provincially, Alberta, Ontario and British Columbia reported the highest increases in businesses with payroll deduction accounts compared with both the previous quarter and same period a year earlier. Decreases were reported for Newfoundland and Labrador as well as in the Northwest Territories.

Information on Nunavut and the Northwest Territories will be available individually when sufficient quarterly observations are collected. Currently, counts for Northwest Territories include those for Nunavut.

#### Available on CANSIM: table 178-0001.

## Definitions, data sources and methods: survey number 1105.

For more information or to enquire about the concepts, methods or data quality of this release, contact Beau Cinnamon (613-951-9021; fax: 613-951-0104; *beau.cinnamon@statcan.ca*), Business Register Division.

### Taxi and limousine service industry

2004 (preliminary)

The operating margin in the taxi and limousine service industry tightened in 2004 as revenue growth flattened and expenses increased.

At \$1.3 billion, overall operating revenue in the taxi and limousine service industry was up less than 1% from 2003. However, operating expenses increased 2%, which resulted in the operating margin falling 4%.

The taxi and limousine industry is divided into two major segments: associations and companies, and self-employed drivers.

Associations and companies realized operating revenues of \$530 million in 2004, down 1% from the previous year. Operating expenses, on the other hand, rose 3% to \$512 million, leaving these businesses with an average operating margin of \$10,000. Over one-half

of operating expenses of associations and companies went to salaries, wages and benefits (34%) and other purchased services (21%) such as telecommunications costs.

Operating revenue of self-employed drivers was \$735 million, up 3% from 2003. Operating expenses increased 2%. The result was an average operating margin of \$5,600. While over 95% of the businesses in the industry were self-employed drivers, this segment only generated 58% of the operating revenue.

### Available on CANSIM: table 407-0001.

## Definitions, data sources and methods: survey number 4707.

For general information or to order data, contact the Dissemination Unit (1-866-500-8400; *transportationstatistics*@*statcan.ca*), Transportation Division. To enquire about the concepts, methods or data quality of this release, contact Jan Patenaude (613-951-4889; *jan.patenaude*@*statcan.ca*), Transportation Division.

### Supply and disposition of refined petroleum products January 2006

Data on the supply and disposition and domestic sales of refined petroleum products are now available for January.

#### Available on CANSIM: tables 134-0001 to 134-0004.

## Definitions, data sources and methods: survey number 2150.

The January 2006 issue of *The Supply and Disposition of Refined Petroleum Products in Canada*, Vol. 61, no. 1 (45-004-XIE, free) is now available online from the *Our products and services* page of our website.

For more information, or to enquire about the concepts, methods or data quality of this release, contact, Marketing and Dissemination Section (613-951-9497; 1-866-873-8789; *energ@statcan.ca*), Manufacturing, Construction and Energy Division.

### Natural gas transportation and distribution October to December 2005

Data on natural gas transportation and distribution from October to December are now available.

Available on CANSIM: tables 129-0001 to 129-0004.

Definitions, data sources and methods: survey number 2149.

For more information, to order data, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (1-866-873-8789; 613-951-9497; *energ@statcan.ca*), Manufacturing, Construction and Energy Division.

### **New products**

Analytical Studies Branch Research Paper Series: "Why did employment and earnings rise among lone mothers during the 1980s and 1990s?", no. 282 Catalogue number 11F0019MIE2006282 (free).

The Supply and Disposition of Refined Petroleum Products in Canada, January 2006, Vol. 61, no. 1 Catalogue number 45-004-XIE (free).

Building Permits, April 2006, Vol. 50, no. 4 Catalogue number 64-001-XIE (free).

Exports by Country, January-March 2006, Vol. 63, no. 1 Catalogue number 65-003-XMB (\$67/\$221).

Exports by Country, January-March 2006, Vol. 63, no. 1 Catalogue number 65-003-XPB (\$133/\$441). Culture, Tourism and the Centre for Education Statistics: Research Papers: Educational Outcomes at Age 19 Associated with Reading Ability at Age 15, 2000 to 2003 Catalogue number 81-595-MIE2006043 (free).

All prices are in Canadian dollars and exclude sales tax. Additional shipping charges apply for delivery outside Canada.

Catalogue numbers with an -XWE, -XIB or an -XIE extension are Internet versions; those with -XMB or -XME are microfiche; -XPB or -XPE are paper versions; -XDB or -XDE are electronic versions on diskette; -XCB or -XCE are electronic versions on compact disc and -XBB or -XBE a database.

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MAJOR RELEASES	
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