

# Skill Deficits Among The Young

by Sid Gilbert and Jeff Frank

**A**dvancing technology has made adaptability a key component of success in the workplace. And while young people need the technical knowledge provided by an education to succeed in the job market, generic skills are also highly valued by employers. Some of these skills, such as literacy and numeracy, are formally taught by the education system. Others are acquired through experience and upbringing, including oral and written communication; thinking skills such as creativity, critical thinking and problem-solving; and “soft skills” such as interpersonal abilities, learning and team work.

These generic skills are maintained and improved with practice, and young people who rarely use them may face a more difficult transition from school to work. Indeed, they may also be vulnerable over the long-term, since having weaker generic abilities may make it harder to adapt to the changing requirements of the job market. This article focuses on the key factors associated with infrequent use of basic skills, and then examines the role of educational attainment in the application of these skills.

## CST What you should know about this study

Conducted by Statistics Canada on behalf of Human Resources Development Canada, the 1995 School Leavers Follow-up Survey (SLF) continued an ongoing survey of young people's lives as they finish their education and enter the workforce. The first survey, the 1991 School Leavers Survey (SLS), was designed to determine high school leaving rates (“drop-out” rates), and to compare young people who had successfully completed high school (graduates) with those who were still attending (continuers) and those who had left school before graduating (leavers). The SLS collected information from almost 9,500 young people aged 18 to 20 living in private dwellings in the ten provinces.

In 1995, the SLF revisited over 6,000 of the original respondents, now aged 22 to 24, to focus on school-to-work transitions of young adults by gathering information on education and work activities beyond high school. This article examines the generic skills respondents possessed, as measured by the frequency with which they performed these skills activities. Although this measure of skill use should not be interpreted as a direct indicator of proficiency, it is assumed that a skill performed frequently is less likely to be lost. Nevertheless, people may not use some of their skills because of the nature of their work, schooling or personal circumstances.

**Skill sets:** Skills were grouped into six categories, or sets: reading, writing, numeracy, communication, learning, and group or team work.

**Skill use:** Respondents were asked about the frequency with which they used the six basic skill sets during the 12 months preceding the survey. There was no restriction on the context in which these skills may have been used, allowing respondents to include activities at work, at school or in their personal life. For each of the six skill sets, respondents were asked four questions about the frequency with which they performed various skill-related activities. Responses ranged from never (least frequent) to more than three times a week (most frequent).

**Self-assessment of ability:** Respondents were asked to rate their abilities for each of the six skill activities on a scale of one to ten, that is, from very basic to very advanced.

**Odds ratios:** In this article odds ratios are used to assess whether, all other things being equal, people with a specific characteristic (say, employed) are more or less likely to report infrequent use of skills than a benchmark group of people (say, unemployed). An odds ratio close to 1.0 means there is little or no difference in skill use between the groups, but an odds ratio of 0.5 means the odds of low skill use are only half as high for the comparison group as for the benchmark group.

### What factors are associated with having insufficient skills?

Who is most likely to have a low level of skill use? Using a statistical technique called odds ratios, which examines the relationship between frequency of skill use and some key socio-economic characteristics, six skill sets were analyzed: reading, writing, numeracy, verbal communication, learning, and group or team work.

Three factors — education, employment and student status — were consistently related to the low use of all six skill sets. For example, infrequent use of skills was associated with relatively low levels of education. In contrast, having a job or attending college or university decreased the odds of reporting low skill use. These findings suggest that without appropriate environments conducive to using

their skills, some young people risk losing the generic skills they already have, or may fail to develop new ones.

Even though women are widely believed to have better developed “soft skills,” the analysis shows that after controlling for selected factors gender did not play an important role in low skill use. For instance, men are no more likely than women to report that they rarely read or use verbal

CST Odds of rarely using basic skills are much higher for high school leavers						
Never or seldom used skills						
	Reading	Writing	Numeracy	Verbal communication	Learning	Team work
<b>Education</b>						
School leaver	1.9	2.7	1.4	2.3	1.4	1.7
<i>Not school leaver</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<b>Employment status</b>						
Employed	1.1*	1.1*	0.7	0.6	0.8	0.6
<i>Not employed</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<b>Student status</b>						
Postsecondary student	0.4	0.4	0.8	0.8	0.7	0.8
<i>Not postsecondary student</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<b>Gender</b>						
Male	1.0*	1.3	0.4	1.0*	0.8	0.7
<i>Female</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<b>Family structure</b>						
Lone parent	1.0*	1.1*	1.0*	1.2	0.9	1.1
<i>Two parents</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
<b>Socio-economic status<sup>1</sup></b>						
Lower	1.3	1.4	1.0*	1.2	1.1*	1.1*
<i>Higher</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>

Note: Benchmark group shown in italics. An odds ratio of close to 1.0 for the comparison group means there is little or no difference in skill use between the comparison and the benchmark groups, when the effects of other factors shown in the table are controlled for.

\* Not statistically significant.

1. Measured using mother's level of education as a proxy.

Source: Statistics Canada, School Leavers Follow-up Survey, 1995.

communication. On the other hand, they are considerably less likely than women to demonstrate low use of numeracy and teamwork skills.

Not unexpectedly, being a school leaver (not completed high school) was associated with low skill use, most notably in the areas of writing, reading and verbal communication. What seems more surprising, given conventional wisdom, is that after controlling for other factors, there were only very modest positive relationships between low skill use and living in a lone-parent family or a family with lower socio-economic status.

#### **But how important was education?**

The odds-ratio analysis shows that education is by far the most important predictor of a young person's skill use, but different patterns exist at different levels of education. Infrequent skill use was quite common among high school leavers, ranging from 55% for teamwork to 88% for verbal communication. As might be expected, high

*Low skill use is only modestly associated with living in a lone-parent family, or in a family with lower socio-economic status.*

school graduates had higher levels of skill use than school leavers. Even among these young people, though, skills were not used frequently: the proportion of graduates who never or seldom used skills ranged from 37% for reading to 73% for verbal communication skills. Interestingly, the skill-use patterns of graduates with high school only more closely resembled those of leavers than of graduates who went on to further education.

#### **How do youth rate their skills?**

When asked to rate their skills, there was some noticeable dissonance between self-assessment and frequency of skill use, especially among

## **CST** Literacy skills “mismatch” in the Canadian workplace

According to the 1994 International Adult Literacy Survey (IALS), about three-quarters of Canadian workers report there is a reasonable fit between their job requirements and their literacy skills (reading, writing and numeracy). Nevertheless, a significant number of people are a literacy “mismatch” with the work they do: one in five had higher level skills than were demanded by their job (literacy surplus), and as many as one in ten had insufficient skills to do their jobs adequately (literacy deficit).

Certain groups of workers are more likely to have a literacy surplus. Since the level of literacy among young Canadians is high, and yet many have difficulty finding satisfactory employment, it was not surprising that 16- to 24-year-olds were most likely (33%) to have a literacy surplus.

Among other factors, the extent of a worker's interaction with co-workers seems to influence literacy fit. Workers with limited or no supervisory responsibilities, the self-employed and those who worked part-time or in temporary jobs were more likely to find that their literacy skills were under-used. Jobs with these characteristics are often held by young people.

Having high literacy skills and not using them could have serious long-term consequences not only for individuals, but also for the overall level of human capital in the Canadian labour force. Analysis of the IALS data provides some support for the “use it or lose it” hypothesis, showing that under-using literacy skills in the workplace has a negative, if small, effect on literacy.

- For more information, see Harvey Krahn, and Graham Lowe, *Literacy Utilization in Canadian Workplaces*. Human Resources Development Canada, National Literacy Secretariat and Statistics Canada. Catalogue no. 89-552-MPE.

	Never or seldom used skills					
	Reading	Writing	Numeracy	Verbal communication	Learning	Team work
	%					
High school leavers	58	82	58	88	64	55
High school graduates	37	58	51	73	55	41
no post-secondary education	56	77	58	80	61	48
with some postsecondary	41	65	51	75	58	43
with university degree	24	37	47	61	53	31
with other postsecondary completion	42	63	49	74	54	39
Postsecondary students	21	41	47	70	50	40

Source: Statistics Canada, School Leavers Follow-up Survey, 1995.

those with less education. The self-assessments were more positive than the frequency of skill use would indicate. Also, high school graduates with no further education were less likely than leavers to rate their skills as low, even though their skill use patterns were quite similar. University graduates and postsecondary students were least likely to view their skills as being only basic.

**Summary**

Young people were most likely to use basic skills infrequently if they had less than high school completion. They were also more likely to rate their abilities as low-level. These findings suggest that in an increasingly well-educated society, which demands a wide array of formal and informal skills, young people without postsecondary training face, and know they face, a difficult transition from school to work.

In contrast, young people with postsecondary qualifications assessed their abilities highly, even though their use of basic skills was lower than might

be expected. This may indicate that although they possess the necessary skills, they are not yet employed in jobs that require them to exercise their abilities to the fullest extent. In other words, people in their 20s are still very much in the midst of maturing from students into workers.

- This article is adapted from *High School May Not Be Enough: An Analysis of Results from the School Leavers Follow-up Survey*, 1995. Human Resources Development Canada, Catalogue No. SP-105-05-98E and Statistics Canada, Catalogue No. 81-585-XPE.



Sid Gilbert is Director of the Centre for Educational Research and Assessment, University of Guelph, and Jeff Frank is a senior analyst with the Centre for Education Statistics, Statistics Canada.

Need more information from Statistics Canada?



Call our NATIONAL ENQUIRIES LINE:  
**1-800-263-1136**

To order publications,  
NATIONAL ORDER LINE: 1-800-267-6677  
INTERNET: order@statcan.ca  
National TDD Line: 1-800-363-7629

**STATISTICS CANADA HAS 9 REGIONAL REFERENCE CENTRES TO SERVE YOU:**

- Newfoundland, Labrador**
- Nova Scotia, New Brunswick and Prince Edward Island**  
Halifax, Nova Scotia – (902) 426-5331  
Fax number (902) 426-9538
- Quebec**  
Montreal, Quebec – (514) 283-5725  
Fax number (514) 283-9350
- Ontario**  
Toronto, Ontario – (416) 973-6586  
Fax number (416) 973-7475
- Manitoba**  
Winnipeg, Manitoba – (204) 983-4020  
Fax number (204) 983-7543
- Saskatchewan**  
Regina, Saskatchewan – (306) 780-5405  
Fax number (306) 780-5403
- Alberta and Northwest Territories**  
Edmonton, Alberta – (403) 495-3027  
Fax number (403) 495-5318
- Southern Alberta**  
Calgary, Alberta – (403) 292-6717  
Fax number (403) 292-4958
- British Columbia and Yukon**  
Vancouver, British Columbia – (604) 666-3691  
Fax number (604) 666-4863
- National Capital Region**  
(613) 951-8116  
Fax number (613) 951-0581

**STANDARDS OF SERVICE TO THE PUBLIC**

To maintain quality service to the public, Statistics Canada follows established standards covering statistical products and services, delivery of statistical information, cost-recovered services and service to respondents. To obtain a copy of these service standards, please contact your nearest Statistics Canada Regional Reference Centre.

**If You're On the Move...**

Make sure we know where to find you by filling out the inserted reply card in the centre of the publication. If the reply card is no longer attached, please forward the necessary information (subscriber's name, old address, new address, telephone number and client reference number) to:

Operations and Integration Division  
Circulation Management  
Statistics Canada  
120 Parkdale Avenue  
Ottawa, Ontario  
K1A 0T6



We require six weeks advance notice to ensure uninterrupted delivery, so please keep us informed when you're on the move!