

INVESTING IN
UPSKILLING:
Gains for
Individuals,
Employers and
Government



Summary British Columbia



The Benefits of Investing in Literacy Skills

Canadians share a common interest in finding ways to raise incomes and reduce dependence on income support programs. Canadian Literacy and Learning Network (CLLN) and DataAngel Policy Research Incorporated have produced a report that explores the potential of an investment in adult literacy to simultaneously raise Canadians earnings and reduce government expenditures on Employment Insurance, Workers Compensation and Social Assistance benefits. This summary presents highlights from the main report and key findings for Canada.

Summary: Purpose of the report

The research literature suggests that a literacy investment would precipitate economic benefits for *three* constituencies.

Individuals receiving skill upgrading stand to:

- ▶ Increase their market earnings,
- ▶ Reduce the burden of unemployment and illness on their quality of life,
- ▶ Reduce their need for, and dependence upon, the Employment Insurance, Workers Compensation and Social Assistance systems for income support.

Employers stand to gain:

- ▶ Access to a more productive, globally competitive workforce,
- ▶ Access to a larger pool of skilled workers from which to recruit,
- ▶ Fewer days lost to workplace illness or accident,
- ▶ The possibility of reduced premiums for Employment Insurance and Workers Compensation systems and lower taxes to support the Social Assistance system.

Federal and Provincial/Territorial governments stand to gain from:

- ▶ A more productive and participatory citizenry,
- ▶ Reduced income support payments,
- ▶ Reductions in premium and program costs to support the Employment Insurance, Workers Compensation and Social Assistance systems.

Overall, increased literacy skills would create a healthier, wealthier, more engaged and more equitable society.

Summary: Methodology

The analysis is based upon statistically matched data from the 2003 International Adult Literacy and Skills Survey and the 2005 to 2009 Surveys of Labour and Income Dynamics. The analysis examined the costs and savings associated with moving every Canadian with a Level 1 or 2 rank on the international scale of literacy achievement to Level 3. Research suggests that Level 3 proficiency is needed for Canada to compete on global markets. The methods provide a mechanism to explore the relationships between benefit receipt and literacy skill.

Summary: Highlights of Findings

The analysis establishes several facts:

- ▶ There is a strong relationship between receipt of benefits and literacy skills. A large body of research suggests that these relationships are causal. Determining whether a relationship is causal is important to be able to establish what expected benefits and rates of return associated with a given investment in literacy would be.
- ▶ Assuming “best practice” instruction, a one-time investment of \$2.897 billion over 5 years would be required to raise the skills of all adults in British Columbia to Level 3.

- ▶ Applying the relationships between earnings and literacy skills yield estimates of the implied increases in earnings that would be associated with an investment that increased literacy skill.

If that \$2.897 billion investment were made, earnings for british columbian adults who receive literacy upgrading are estimated to rise by \$8.967 billion, or an average of \$2,607/worker annually.

- ▶ Nationally, for each additional point of literacy increase, Employment Insurance expenditures would be reduced by \$0.61, Social Assistance expenditures by \$3.85 and Workers Compensation expenditures by \$0.90. Assuming the \$2.987 billion investment were made, total savings of \$310 million could be realized in British Columbia: \$35 million in Employment Insurance, \$52 million on Workers Compensation, and \$223 million on Social Assistance.

The estimates of potential earnings increases and Employment Insurance, Social Assistance and Workers Compensation savings imply significant rates of return on investment even under the most conservative assumptions. The analysis suggests:

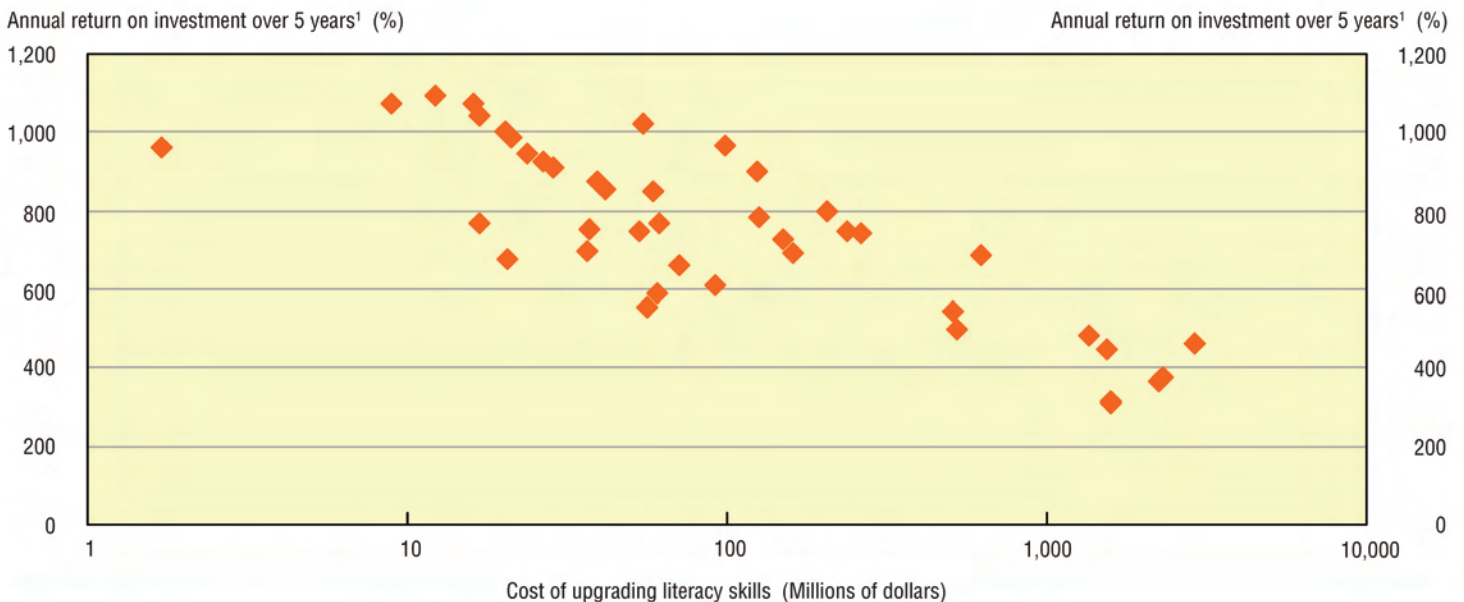
An annual rate of return of 1,501% in British Columbia under the assumption that the benefits of higher skills only last for 5 years.

An estimated annual fiscal rate of return of 464% for governments in Canada from additional tax revenue and program saving.

These estimated rates of return exclude the value of reduced health costs and other benefits, including the benefits of having a more equitable society, improvements in the quality of life and the significant increase in GDP and productivity growth rates that would result from increasing the skill levels of all Canadians to a minimum of Level 3.

Figure 1

Annual return on investment for British Columbia by cost of upgrading literacy, selected groups



1. Return includes 33% of earnings.

Source: 2003 IALSS and 2005 to 2009 SLID.

Returns on investment vary by demographic group, industry and occupation. Investments would best be targeted on those sectors yielding the highest rates of return. In general, rates of return fall with rising investment size. The following chart and associated table identifies where skill investments would yield the highest returns in British Columbia. The most

important conclusion is that the top 50% of investments yield strong positive returns. Investments in Natural and Applied Science occupations and in Occupations in Art, Culture, Recreation and Sport would yield the highest annual rates of return, 1,094% and 1,074% respectively.

Investment yielding the highest rates of return on investment
All ages, British Columbia

Sum of return on investment over 5 years ¹		Return on investment-quartile		
Cost order of magnitude	Cost	Label	Quartile 1	Quartile 2
Millions of dollars	Millions of dollars		Percent	
0 to 9		Utilities	961	n/a
	10	Occupations in art, culture, recreation and sport	1,074	n/a
10 to 99	10	Natural and applied science	1,094	n/a
	20	Educational services	986	n/a
	20	Public administration	1,042	n/a
	20	Forestry, fishing, mining, oil and gas	n/a	767
	20	Professional, science and technical services	999	n/a
	20	Information, culture and recreation	948	n/a
	20	Occupations in social science, education, government and related occupations	1,072	n/a
	30	Health occupations	n/a	911
	30	Finance, insurance, real estate and leasing	927	n/a
	40	Transport and warehousing	n/a	852
	40	Management occupations	n/a	874
	40	Occupations unique to primary industry	n/a	753
	50	Graduate degree	n/a	746
	50	Business, finance and administrative occupations	1,024	n/a
	60	Health care and social assistance	n/a	851
60	Accommodation and food services	n/a	769	
100 to 999	100	Trade	966	n/a
	120	25 to 34	n/a	901
	130	Bachelors degree	n/a	784
	200	Sales and services occupations	n/a	797

1. Return includes 33% of earnings.

Source: 2003 IALSS and 2005 to 2009 SLID.

The report’s conclusions depend upon the reasonable, but unproven, assumption that literacy skill is a fundamental determinant of benefit receipt, employment and of long term rates of GDP and labour productivity growth. Assuming this to be true the estimated rates of return are high enough to warrant further research.

For a copy of the full report please visit
www.literacy.ca/research-and-resources
 or www.dataangel.ca

For additional information contact:

Canadian Literacy and Learning Network
 Annette Hegel, Manager of Communications
 E-mail: ahegel@literacy.ca
 Tel: 613-563-2464
 DataAngel Policy Research Incorporated
 E-mail: dataangel@mac.com
 Tel: 613-240-8433