

Rapid changes in the global economy have changed what it takes for Canadian workers and firms to remain competitive in global markets. These changes have served to increase the importance of basic skills to economic success. Faced with competitors who can buy all of the key production inputs at the same prices on global markets – raw materials, financial capital, advanced production technologies and leading-edge research and development – the ability of firms to compete will increasingly depend on the basic skills of the average worker. Workers with high literacy levels will be better able to apply the most efficient production technologies, to function in knowledge- and

information-rich work environments and with demanding work processes, to limit waste and workplace illness and accident and to thrive in the flattest of work organizations. Recent research suggests a need for workers, employers and communities to invest in literacy. Governments have a role in making certain that the demand for literacy skill is high enough to ensure that all of the available literacy supply gets put to good use, that there is a sufficient supply of literacy to satisfy expected demand and that the markets that match workers with jobs ensure a good fit between workers' skills and what their job requires. This report card ranks every riding in Canada on several dimensions of literacy.

## Literacy Report Card for Nanaimo - Cowichan, British Columbia

### Literacy Demand and Supply

Indicator	Aggregate Value	Grade	Rank	Recommended Policy Response
The economic demand for literacy (in points). Reflects what current jobs require of workers.	16,600,000	D	212 / 308	Increase the quantity and quality of jobs, particularly in ridings with Grade C, D or E.
The supply of literacy skill (in points).	29,600,000	A	-	Increase the skills of adults, particularly in ridings with Grade C, D or E.
The employed supply (in points per worker). A workforce with average scores above 275 is needed to compete in global markets.	17,700,000	303	-	Increase the skills of employed workers through training, particularly in ridings with scores lower than 275.
Untapped literacy potential and literacy utilization rate. Unused supply represents untapped economic potential. Higher utilization rates translate into higher incomes.	11,900,000	60%	-	Increase the level of employment and the skill quality of jobs.

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### Costs and Benefits

Indicator	Aggregate Value	\$ per learner	Recommended Policy Response
Number of workers with literacy skills below what their occupation demands.	22,000		
Number of adults in need of skill upgrading by literacy market segment.	<i>See table below</i>		Assess learning needs and offer a personalized instructional response.
Aggregate cost of eliminating literacy skill shortages in the work force, i.e. what it would take to give every worker the literacy skill level demanded by his/her occupation.	\$27 M	\$1,210	Offer incentives to have workers learning needs assessed and to upgrade skills.
Number not employed with Level 1 and 2 skills.	23,000		Offer incentives to those outside the labour force to have learning needs assessed and to upgrade skills.
Aggregate cost of raising the skills of those not employed to Level 3.	\$67 M		Fund skill upgrading.
Aggregate benefit from eliminating literacy skill shortages i.e. how much workers earnings would be expected to rise.	\$127 M	\$5,700	Use increased tax revenue to offer incentives to employers to assess and train.
Aggregate benefit from using literacy skill surpluses.	\$83 M	-	Create incentives for employers to make their jobs more knowledge- and skill-intense.

Note: “-“ intentionally left blank

The **rank** is this riding’s score relative to all the Canadian ridings with this information.

**Grade A** is assigned to ridings in the highest quintile, B in the 2<sup>nd</sup> highest quintile, C in the middle quintile, D in the 2<sup>nd</sup> lowest quintile and E in the lowest quintile.

Explanations of each of the indicators and advice about what communities can do to solve their literacy problems follows. For additional information please contact:

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## **The economic demand for literacy skill      Grade: D**

Occupations differ in the level of literacy needed to satisfy the demands of the job. Differences in the occupational distribution of employment translate into large differences in the demand for literacy skill from community to community. Raising the overall level of literacy skill demand has to be a priority for employers and local governments.

The aggregate demand for literacy skill in **Nanaimo - Cowichan** is 16,600,000 points for an average of 284 literacy points per job. This average falls in Level 3 near the national average and near the provincial average.

Communities can increase the demand for literacy skill by encouraging employers to create knowledge- and information-rich jobs.

## **The supply of literacy skill      Grade: A**

Communities differ in the supply of literacy skill that they possess. While most of these differences can be traced back differences in the education levels, the amount that adults read on the job and for leisure also matters.

**Nanaimo - Cowichan** has an average prose literacy score of 287. This score places it in Level 3 in the highest quintile, above the national average and near the provincial average. The aggregate supply of literacy skill is 29,600,000 points.

Employed workers in **Nanaimo - Cowichan** have an average prose literacy score of 303. This score places it in Level 3 in the highest quintile, above

the national average and near the provincial average. The aggregate supply of literacy skill of employed workers is 17,700,000 points.

Communities can increase the supply of literacy skill by reducing high school dropout rates, increasing the quality of secondary education and by funding remedial literacy instruction for adults.

## **Literacy utilization rates**

Communities differ in the degree to which they utilize the available supply of literacy skill in work. These differences reflect differences in the employment rate and how well workers skills match the demands of their occupations.

The **Nanaimo - Cowichan** economy currently makes use of 60% of the available supply. This utilization rate falls in the lowest quintile of rates and leaves 11,900,000 literacy points unused.

Communities can increase their literacy utilization rates by finding ways to increase overall employment rates and by encouraging employers to make full use of the available supply of skill.

## **Literacy skill shortages in the labour market**

Literacy skill shortages are created when workers do not have the level of literacy associated with their occupation.

Of the 58,300 workers in **Nanaimo - Cowichan**, 22,000 or 38% of workers have literacy skills below the level required by their occupations, a percentage below the national average and near their provincial/territorial

average. An additional 23,000 adults who are not employed have literacy skills below Level 3, the level needed for full and active participation.

The adults in need of literacy skill upgrading can be classified into 7 literacy market segments, each with a distinct set of learning needs. The following table describes each literacy market segment and shows the numbers in each segment in the riding.

Communities can reduce literacy skills shortages by encouraging skill testing and the provision of remedial instruction.

### **The costs of eliminating literacy skill shortages through instruction**

Increasing the supply of literacy is best achieved through instruction that responds to the needs of learners and their characteristics. Research has identified 6 distinct literacy learner profiles each of which would benefit from different types and amounts of instruction. These differences translate into different unit costs for different types of learners. The distribution of potential learners by learner segment have been used to estimate the aggregate cost, and the costs per learner, of eliminating literacy skill shortages through instruction. The total cost of eliminating literacy skill shortages in **Nanaimo - Cowichan** is \$27 M or \$463 per worker.

### **The potential economic benefits of eliminating literacy skill shortages**

Literacy skill shortages reduce productivity and expose workers to higher levels of workplace illness and absence. Research suggests that each literacy point gained yields an additional \$155 in additional earnings per year. For **Nanaimo - Cowichan** this translates into a potential direct economic return of \$127 M or \$5,700 per worker in literacy skill shortage.

The same research suggests that finding a way to make use of literacy skill surpluses would also yield economic benefits. For **Nanaimo - Cowichan** this translates into a potential direct economic return of \$83 M or \$5,500 per worker in literacy skill surplus.

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### **Population by Market Segment**

The following chart displays the distribution of adults by literacy market segment. As outlined below, literacy market segments are defined by patterns of strength and weakness in their mechanics of reading. Each segment has a unique set of learning needs and thus each demands a different instructional response. Literacy market segments also differ greatly in their demographic composition.

## Population by Market Segment

	Number of Learners*
A1:	1,600
A2:	1,600
B1:	1,100
B2:	600
C:	15,300
D:	18,800
E:	8,100
F:	1,500
* zero represents an estimate below 50.	

**Literacy market segment A:** This class has moderate scores on the vocabulary test with the average near 70%. Scores on the word recognition tests (54% and 26%) are well below the 80% criterion and are the lowest of the four classes. The average for spelling at just 25% is also the lowest. These class characteristics suggest that a key characteristic is difficulty in using vocabulary knowledge in reading. This class includes those with **moderate vocabulary but poor decoding skills**. Segment A1 is dominated by Canadian-born men with less than a high school education, segment A2 by immigrant women with limited or no formal education.

**Literacy market segment B:** This class has a low average vocabulary score (just over 60%), much like Latent Class A. Unlike Class A, however, the average scores for the word recognition tests are much higher; on real word recognition the average is 84%, higher than the 80% criterion score, while for pseudo-word recognition it is 59%. In both cases this average is slightly higher than Latent Class C. Those in this class also do

poorly on the spelling test. This suggests that the key characteristics of this class are some control of decoding, but a lack of language knowledge to allow those skills to be used effectively. This class includes those with **moderate vocabulary and moderate decoding skills**. Segment B1 is dominated by Canadian-born men who are high school graduates, segment B2 by immigrant women with some formal education.

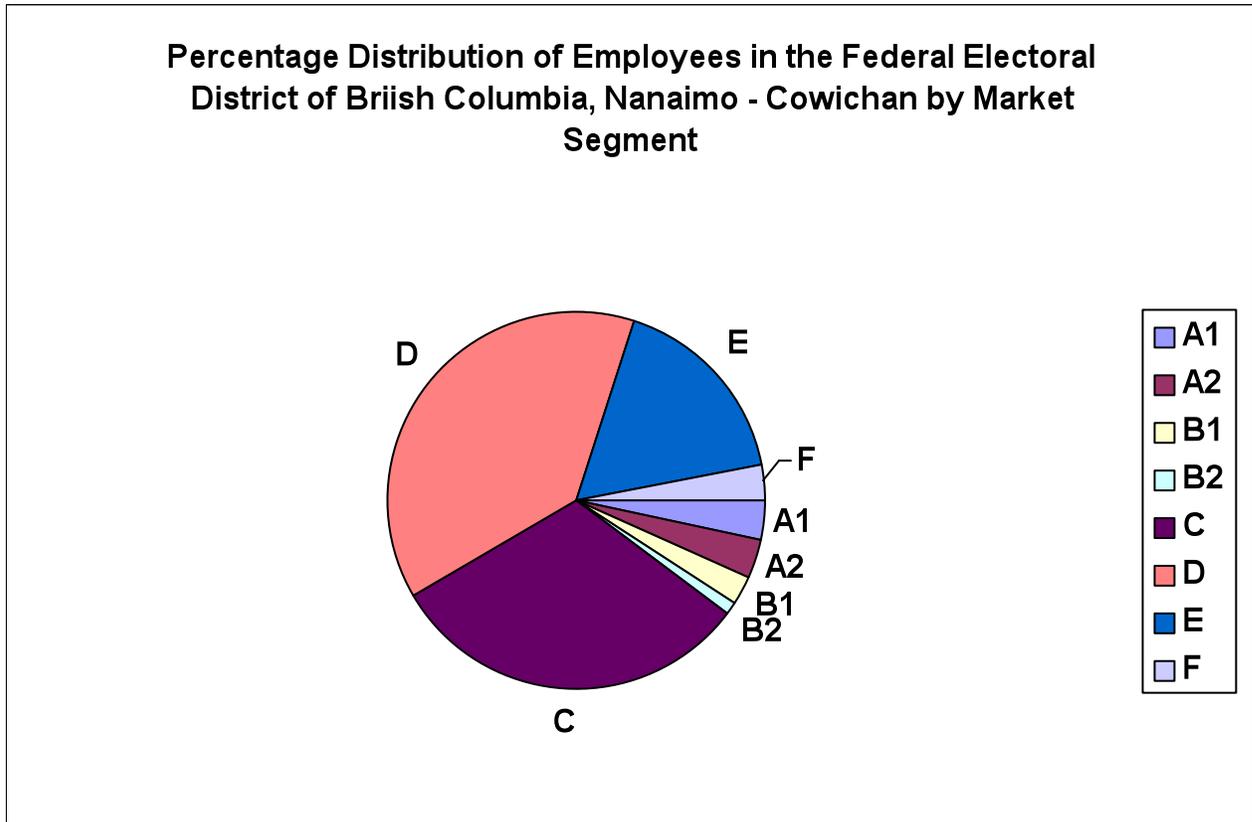
**Literacy market segment C:** The vocabulary score for Class C is high, at 90%, well over the 80% criterion score, and the average for spelling (76%) is near the criterion. However, the decoding scores are more modest, 78% for real word recognition and just 54% for pseudo-word recognition. This is lower than the decoding scores for class B. This class can be characterized by very high language knowledge, but weaker decoding skills that may limit the ability to use all the language knowledge in effective reading. This class includes those with **high vocabulary knowledge and moderate decoding skills**.

**Literacy market segment D:** The average scores for every component are highest for this class, over 80% on every component except pseudo-word recognition, which at 79% is very close to criterion. This is the class that has the decoding skills to make use of the strong language knowledge its members possess. It includes those with **high vocabulary and high decoding skill**.

**Literacy market segment E** includes adults who have Level 3 literacy skill but whose occupations demand Levels 4 or 5.

Literacy market segment F includes adults who have Level 4 literacy skill

but whose occupations demand Level 5 skill.



**Related reading:**

Learning Literacy in Canada: Evidence from the International Survey of Reading Skills, [www.statcan.gc.ca](http://www.statcan.gc.ca)

Reading the Future: Planning to meet Canada's Future Literacy Needs, [www.ccl-cca.ca](http://www.ccl-cca.ca)

Addressing Canada's Literacy Challenge: A Cost-benefit Analysis, [www.dataangel.ca](http://www.dataangel.ca)

