

# Ontario

## Literacy Report Card for the Census Subdivision of Whitchurch-Stouffville

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. This report card ranks virtually every community in Canada on several dimensions of literacy.

Literacy Report Card for Whitchurch-Stouffville, Ontario		
Indicator	Grade	Rank
The economic demand for literacy	D	257 / 328
The supply of literacy skill (in points)	5,500,000	-
The employed supply (in points per worker)	291	-
Literacy utilization rate	69%	-
Costs and benefits		
	Millions of \$	\$ per learner
Aggregate cost of eliminating literacy skill shortages	8	1,162
Aggregate benefit from eliminating literacy skill shortages	44	6,900
Aggregate benefit from using literacy skill surpluses	10	-

Note: “-” intentionally left blank.

The **rank** is this location's score relative to all the Canadian locations with this information.

**Grade A** is assigned to communities 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:

T. Scott Murray  
DataAngel Policy Research Incorporated  
19 McIntosh Way  
Kanata, Ontario K2L 2N9  
Email: [dataangel@mac.com](mailto:dataangel@mac.com)

### 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 **Whitchurch-Stouffville** is 3,300,000 points for an average of 256 literacy points per job. This average falls in Level 2 below the national average and below 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: B

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.

**Whitchurch-Stouffville** has an average prose literacy score of 281. This score places it in Level 3 in the 2<sup>nd</sup> highest quintile, above the national average and above the provincial average. The aggregate supply of literacy skill is 5,500,000 points.

Employed workers in **Whitchurch-Stouffville** have an average prose literacy score of 291. This score places it in Level 3 in the 2nd highest quintile, near the national average and near the provincial average. The aggregate supply of literacy skill of employed workers is 3,800,000 points.

Communities can increase the supply of literacy skill by reducing high school drop out 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 **Whitchurch-Stouffville** economy currently makes use of 69% of the available supply. This utilization rate falls in the 2nd highest quintile of rates.

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 13,000 workers in **Whitchurch-Stouffville**, 6,000 or 49% of workers have literacy skills below the level required by their occupations, a percentage near the national average and near their provincial/territorial average.

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 **Whitchurch-Stouffville** is \$8 M or \$578 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 **Whitchurch-Stouffville** this translates into a potential direct economic return of \$44 M or \$6,900 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 **Whitchurch-Stouffville** this translates into a potential direct economic return of \$10 M or \$4,600 per worker in literacy skill surplus.

### The 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 demand a different instructional response. Literacy market segments also differ greatly in their demographic composition.

**Literacy market segment A:** This class has moderate scores on the vocabulary test with the average near 70 percent. Scores on the word recognition tests (54% and 26%) are well below the 80 percent criterion and are the lowest of the four classes. The average for spelling at just 25 percent 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 percent, higher than the 80 percent criterion score, while for pseudo-word recognition it is 59 percent. 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

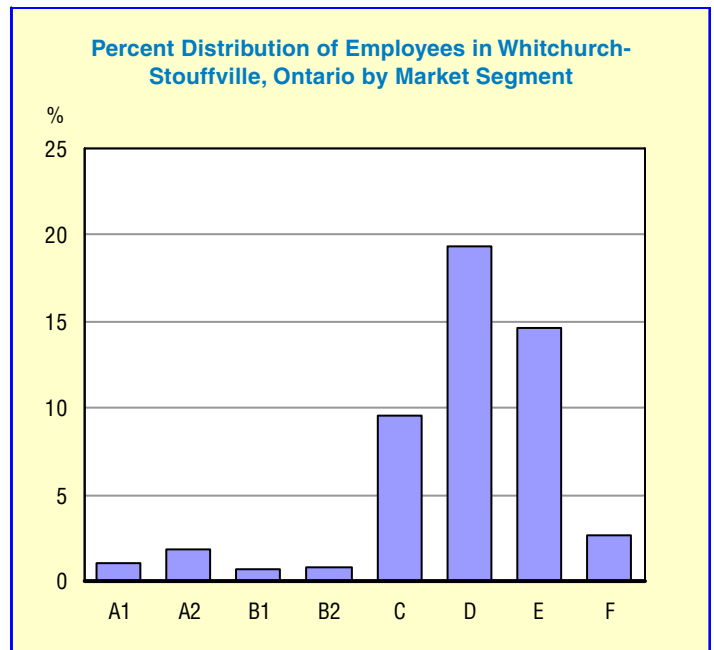
who are high school graduates, segment B2 by immigrant women with some formal education.

**Literacy market segment C:** The vocabulary score for Class C is high, at 90 percent well over the 80 percent criterion score and the average for spelling (76%) is near the criterion. However, the decoding scores are more modest, 78 percent for real word recognition and just 54 percent 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 percent on every component except pseudo-word recognition, which at 79 percent is very close to criterion. This is the class that has the decoding skills to make use of 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)