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ABSTRACT

This study develops a literacy profile of Ontario's youth (ages 17-25) using data from the International Adult Literacy Survey (IALS). Following an introductory section, Section 2 provides a background on the IALS database and discusses key methodological issues. Section 3 presents an overview of basic literacy statistics. Section 4 compares results across four Canadian regions and across different countries. Section 5 explores differences in literacy among selected youth characteristics. Section 6 looks into the impact of extracurricular activities on the literacy levels of Ontario's youth. Section 7 addresses consequences of low literacy among youth. Section 8 identifies the main conclusions, including the following: (1) Ontario youth have better literacy skills than older Ontarians; (2) the rate of Ontario youth who exceed level 2 in document literacy is about the same as the national average; (3) relative to the national average, Ontario's youth skills are weaker in prose and quantitative literacy; (4) the strongest determinant of youth literacy is the individual's level of education, the second strongest is the mother's education; (5) activities with the strongest positive effect on the document literacy score are attending or participating in sports, using public libraries, taking courses, attending movies, plays, or concerts at least monthly, and limiting time spent watching television; and (6) literacy has an economic payoff. (Data tables are appended.) (YLB)

Literacy Ontario

Literacy Profile of Ontario's Youth

Literacy and Basic Skills Section
Workplace Preparation Branch
Ministry of Training, Colleges and Universities

Ontario

LITERACY PROFILE OF ONTARIO'S YOUTH

Literacy and Basic Skills Section
Workplace Preparation Branch
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EXECUTIVE SUMMARY

This study develops a literacy profile of Ontario's youth (ages 17 to 25) using data from the International Adult Literacy Survey. The analysis concentrates on Canadian-born youth only. Because of sample limitations, it was not possible to explore the literacy skills of foreign-born youth.

IALS classifies respondents into 5 levels of literacy, across 3 literacy domains: document, prose, and quantitative literacy. Most researchers consider level 3 as the minimum necessary literacy level. Individuals scoring at the lowest two levels may be expected to face significant literacy barriers at the workplace and in everyday life. The main findings of the study are:

BASIC STATISTICS

- ***Youth Literacy:*** Among the Canadian-born population, Ontario youth have better literacy skills than older Ontarians. For example, 72% of youth exceeded level 2 in document literacy, compared to 65% for Ontarians age 26 to 65.
- ***Provincial Comparisons:*** The rate of Canadian-born Ontario youth who exceed level 2 in document literacy (72%) is about the same as the national average (70%): it is higher than the Atlantic (57%) and Quebec rate (69%), and marginally lower than the Western rate (75%).
- ***Prose and Quantitative Literacy***: Relative to the national average, Ontario's youth skills are weaker in prose (65% vs. 69%) and quantitative literacy (60% vs. 64%).

KEY DETERMINANTS

- ***Importance of Youth's Education***: The strongest determinant of youth literacy is the individual's level of education: 52% of those with no high school diploma failed to exceed level 2 in document literacy; the rate declines to 23% for high school graduates, and to 12% for post-secondary graduates.
- ***Importance of Mother's Education***: The second strongest determinant of youth literacy was found to be the mother's education. The percentage of youth who exceeded level 2 document literacy was significantly lower when the mother had not completed secondary education. These results show that high school drop-outs not only suffer themselves the consequences of low literacy, but often the problem affects their children.

- ***Importance of Youth Activities***: The activities that have the strongest positive effect on the document literacy score are: (a) attending or participating in sports; (b) using public libraries; (c) taking courses; (d) attending movies, plays or concerts; and (e) limiting the time spent watching TV. These results are an indication that an active life is healthy for literacy.

THE IMPORTANCE OF LITERACY

- ***Benefits of High Literacy***: The IALS data provide clear evidence of the economic pay-off of literacy. In adulthood, Ontarians with high literacy levels enjoy more stable employment and higher levels of earnings. At the same time, they make a greater economic contribution (in the form of higher wages and income taxes) and draw less on social transfers, such as social assistance or employment insurance.
- ***Consequences of Low Literacy***: The percentage of youth who need help with literacy tasks (like reading business documents or filling out applications) rises significantly at lower levels of document literacy skills. However, the consequences of low literacy are probably even more serious. The reason is that many youth with low literacy skills may avoid the need for relying on others for literacy tasks by simply staying away from jobs or activities that require higher literacy skills.

1. INTRODUCTION

IALS was developed by Statistics Canada with the co-operation of the Organisation for Economic Cooperation and Development. The first round was conducted in the fall of 1994 and involved seven countries, including Canada. Five more countries have since participated in IALS, and several more countries are currently being involved. The Ontario Ministry of Education and Training supported IALS in order to ensure valid data for Ontario in formulating policy and in developing programming.

The objective of this study is to develop a profile of Ontario youth's literacy skills, relying primarily on the IALS data base. The youth literacy profile will serve as a basis for future policy formulation and program development by the Ontario Ministry of Training, Colleges, and Universities. The study also attempts to address important policy questions, such as:

- what are the literacy levels of those dropping out of school?
- what is the effect of education on literacy skills?
- what other factors, besides education, affect literacy?
- how important are family background and literacy activities at home?
- which youth groups (linguistic status, family income) are at greater risk of having low literacy skills?

The report is organised in several sections. Following this introductory section:

- Section 2 provides a background on the IALS database, including basic concepts and definitions, and discusses key methodological issues.
- Section 3 presents an overview of basic literacy statistics.
- Section 4 compares results across four Canadian regions and across different countries.
- Section 5 explores differences in literacy among selected youth characteristics.
- Section 6 looks into the impact of reading and writing tasks on everyday life and extra curricular activities in general on the literacy levels of Ontario's youth.
- Section 7 looks at the consequences of low literacy among youth.
- Section 8 draws together the main conclusions and implications.

2. BACKGROUND

2.1 BASIC CONCEPTS

IALS conducted an in-depth assessment of the literacy skills of a random sample of adults in each participating country. This assessment involved visiting people at their homes and administering different tests aimed at assessing their ability to process textual and quantitative information.

IALS did not establish a minimum literacy standard. "Such a standard would not only be arbitrary, but would fail to acknowledge the multifaceted nature of literacy and complexity of the literacy problem." Instead, IALS defined literacy in terms of a mode of adult behaviour, namely: "using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential." [1]

Literacy scores were converted by IALS researchers into 5 levels of literacy, ranging from level 1 (lowest) to level 4/5 (highest).[2] Literacy scores or levels are mostly useful in a comparative sense -- such as measuring the relative literacy strengths of individuals or countries, or ranking the importance of various factors influencing literacy. Nevertheless, most researchers consider level 3 as a minimum required literacy level and individuals scoring at the lowest two levels are expected to face significant literacy barriers at the workplace and everyday life.

IALS recognises that literacy cannot be narrowed down to a single skill. Instead the IALS team defined literacy in terms of three domains, each encompassing a common set of skills relevant for diverse tasks. The three literacy domains are briefly explained in Box 1.

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[1] See *Literacy, Economy and Society*, p.14.

[2] Levels 4 and 5 were collapsed by Statistics Canada into a single level for statistical reasons.

Box 1: Definition of Literacy

Three types of literacy were tested by the IALS:

(a) document literacy refers to the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics;

(b) prose literacy refers to the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems, and fiction; and

(c) quantitative literacy refers to the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

In each of the three literacy domains, a scale from 0 to 500 was constructed, upon which tasks of varying difficulty were placed. The range of scores corresponding to each level are as follows: level 1 (0-225); level 2 (226-275); level 3 (276-325); level 4 (326-375); and level 5 (376-500).

2.2 Methodological Considerations

An important methodological challenge facing this study is the small size of the IALS sample of Ontario youth respondents (age 16 to 25). The total number of Ontario youth respondents is 338, of whom 21 were born outside Canada.

The analysis here is therefore restricted to Canadian-born youth. It is known from other studies that, in general, foreign-born adults have lower literacy skills than Canadian-born adults. The exclusion of foreign-born youth from the analysis makes it easier to compare results across regions.

In addition to cross-tabulations, regression analysis was used to make sure that differences in literacy scores among youth with different characteristics or in different regions are in fact statistically significant and not due to the random variability of a small sample. In order to make the study accessible to a wide audience, regression results appear in appendices.

Table 1: IALS Sample Size
Youth (Ages 16-25) by Region

	Canadian-born	Foreign-born	Both
Atlantic	298	4	302
Quebec	197	8	205
Ontario	317	21	338
West	381	33	414
Canada	1,193	66	1,259

3. OVERVIEW OF YOUTH LITERACY

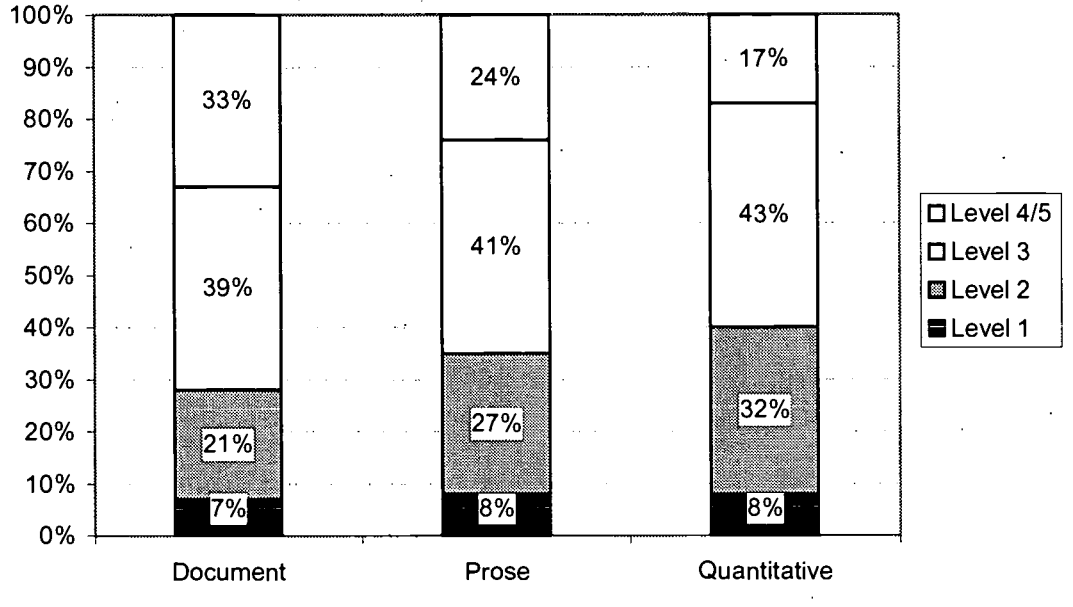
3.1 LITERACY LEVEL OF ONTARIO'S YOUTH

Literacy is a key skill for employment and independence. Chart 1 shows that 28% of Ontario's Canadian-born youth scored below level 3 in document literacy. However, level 3 literacy skills are widely considered as necessary for everyday life.

The corresponding percentages of those who scored below level 3 in prose and quantitative literacy were 35% and 40% respectively.[3] These figures indicate that quantitative skills present a greater challenge for Ontario's youth than reading comprehension. An estimated 23% of Ontario's youth scored below level 3 in all three literacy domains.

The results suggest that many of Ontario's youth do not have the literacy skills for today's labour market. Later in the study, the consequences of low literacy will be explored and the factors that can help improve literacy will be identified.

Chart 1: Distribution by Literacy Levels
(Canadian-born Ontario Youth)



[3] See Appendix A for detailed tables.

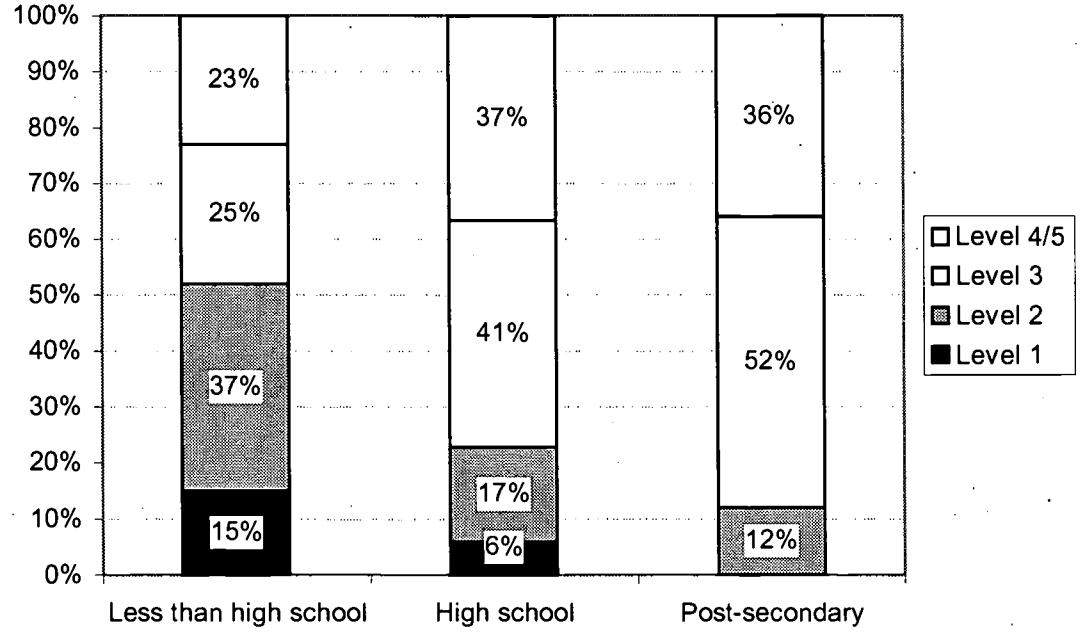
3.2 Literacy by Level of Education

The most important determinant of literacy is education. Chart 2 shows the distribution of youth by document literacy level within different levels of education. The incidence of low literacy (below level 3) is highest among those without a high school diploma. However, most individuals in this group are still students and their literacy scores will likely improve as they continue their schooling.

While high school graduation is not a guarantee of strong literacy skills, only 23% of those with a high school diploma scored below document literacy level 3. However, the incidence of low literacy is higher for the two remaining literacy domains: 32% for prose literacy and 42% for quantitative literacy.

Among those with post-secondary education, literacy levels are considerably higher. However, even in this category, 12% scored below level 3 in document literacy, while 26% scored below level 3 in prose and quantitative literacy. These results suggest that education is a strong determinant of literacy, but it is not a guarantee of adequate literacy. There are clearly many other factors at play, including literacy activities at the workplace and in everyday life.

Chart 2: Document Literacy by Level of Education
(Canadian-born Ontario Youth)

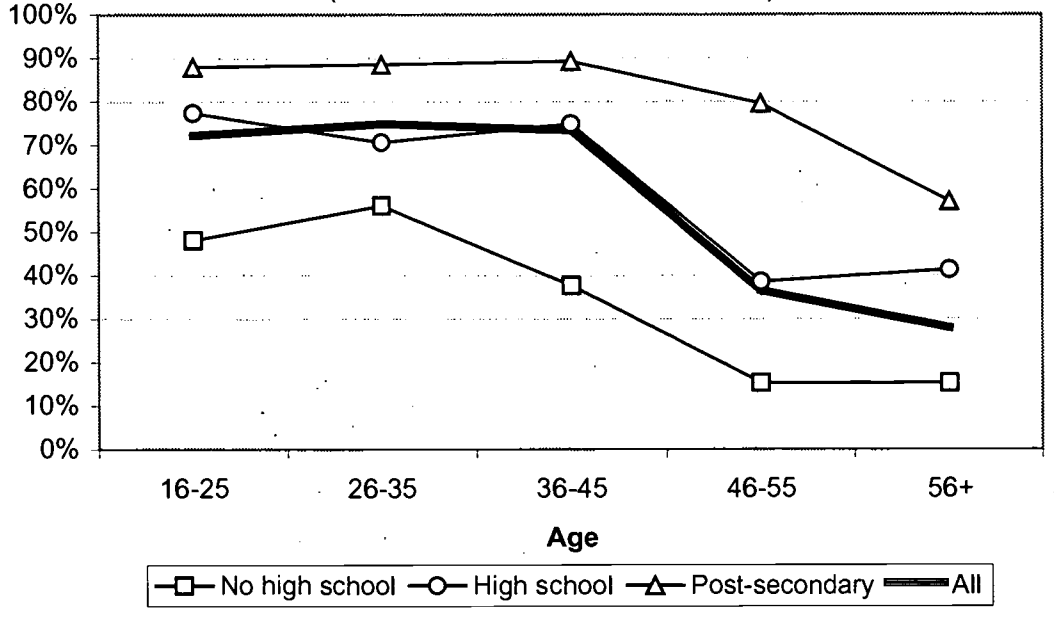


3.3 LITERACY OVER THE LIFE CYCLE

The development of literacy skills does not end with the completion of schooling. While the focus of the study is on youth, it must be emphasised that literacy is a life-long process. High literacy levels at early ages may erode unless further developed though life-long learning and continuous use at work and in everyday activities. Chart 3 suggests that most Ontarians fail to maintain their literacy levels throughout their lives.

The level and quality of the education of youth, the educational level of their parents, or literacy activities in everyday life are all key factors in determining the literacy level at which individuals begin their working lives. They are also key in determining the success of the transition from school to work. However, like physical capital, human capital needs continuous updating and upgrading in order to maintain productivity.

Chart 3: Document Literacy Above Level 2 by Age and Level of Education,
(Canadian-born Ontario Adults)



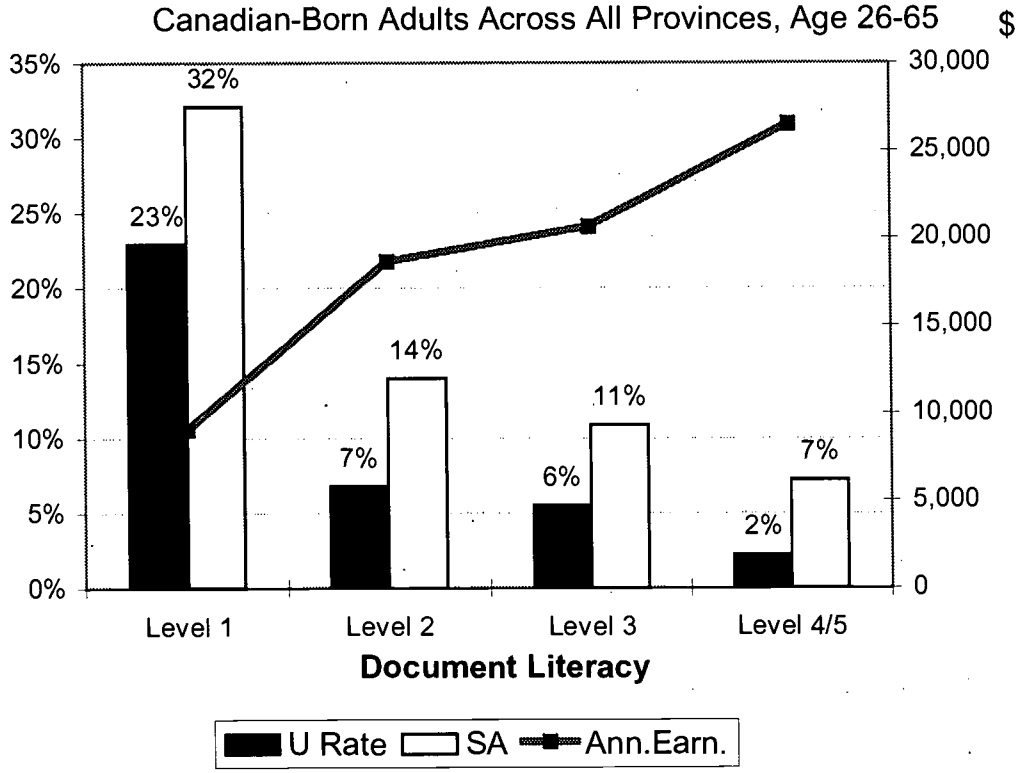
3.4 The Economic Pay-Off of Literacy

Literacy has become key to the economic performance and social functioning of modern nations. As the original IALS study observed, "Today, adults need a higher level of literacy to function well: society has become more complex and low-skill jobs are disappearing. Therefore, inadequate levels of literacy among a broad section of the population potentially threaten the strength of economies and the social cohesion of nations."[4]

The IALS data provide clear evidence of the economic pay-off of literacy. As Chart 4 demonstrates, adults with high literacy levels enjoy more stable employment and higher levels of earnings through their working-age lives.[5] At the same time, they make a greater economic contribution (in the form of higher wages and income taxes) and draw less on social transfers, such as social assistance or employment insurance. It is such statistics which bring home forcefully the importance of literacy to youth and society as a whole.

Chart 4: The Pay-Off of Literacy in Adulthood

Canadian-Born Adults Across All Provinces, Age 26-65



[4] See *Literacy, Economy and Society*, p.13.

[5] Chart 4 refers to individuals age 26 to 65, individuals past the typical formal stage of education. The estimates are based on Canadian-born individuals across all regions, rather than just in Ontario in order to achieve higher accuracy of estimates.

4. PROVINCIAL AND INTERNATIONAL COMPARISONS

4.1 PROVINCIAL COMPARISONS

Differences in literacy scores among the regions may be the result of differences in, for example: the years of schooling of youth, the quality of education they receive, or their parents' level of education.[6]

In this section, we compare literacy results across regions on the basis of simple charts. In the following section, we use regression analysis to probe regional differences.

Document literacy is the most comprehensive of the three literacy domains since it involves elements of both prose and quantitative literacy. In this domain, Ontario's performance is equal to the national average. Chart 5a shows that the rate of Canadian-born Ontario youth who exceed level 2 in document literacy (72%) is about the same as the national average (70%); it is higher than the Atlantic (57%) and Quebec rates (69%), and marginally lower than the Western rate (75%).

In terms of prose and quantitative literacy, on the other hand, the results are less satisfactory relative to other regions. Using as a yardstick the percentage of youth exceeding level 2, Ontario's youth rated slightly below the national average in prose (65% vs. 69%) and quantitative literacy (60% vs. 64%) (Charts 5b-5c).

[6] It is important to recognise that the sample size, on which our estimates are based, is small and all results are subject to a significant margin of error due to sampling variability.

Chart 5a: Document Literacy Above Level 2

Canadian-born Youth by Region

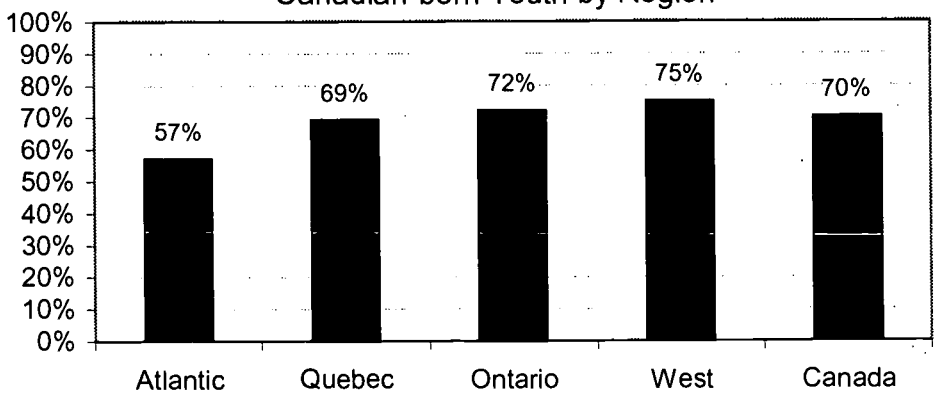


Chart 5b: Prose Literacy Above Level 2

Canadian-born Youth by Region

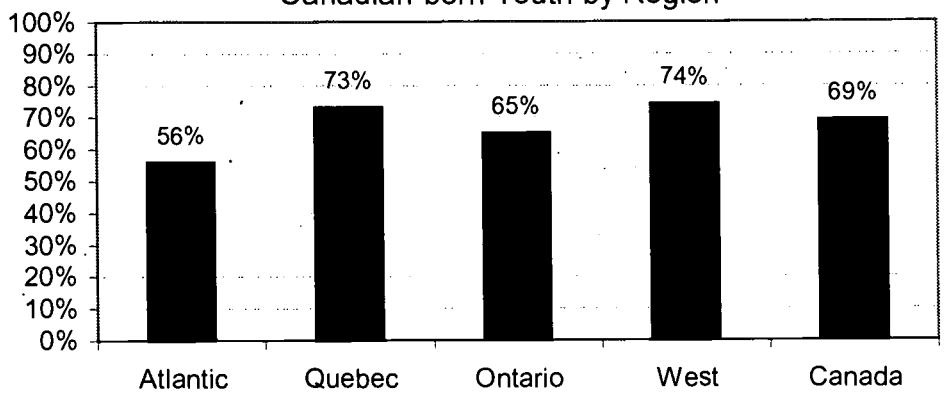
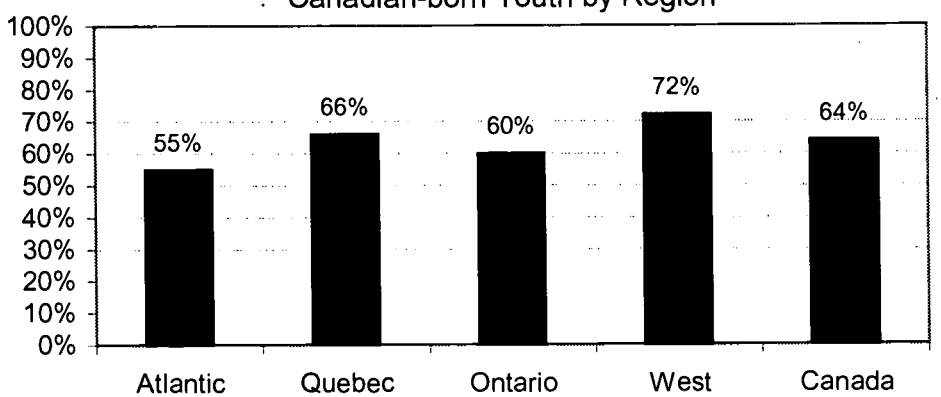


Chart 5c: Quantitative Literacy Above Level 2

Canadian-born Youth by Region



4.2 Regional Regressions

In order to assess more fully the inter-regional differences in literacy scores, regression analysis was used. The dependent variable is the actual literacy score of each survey respondent. Three separate regressions were estimated, one for each literacy domain.

The independent variables are: the years of schooling of the respondents; the level of education of their parents; gender; and presence of disabilities. The results are summarised in Table 2, while detailed regression results are shown in Appendix C.

The regression results show the following differences between Canadian-born youth in Ontario and Canadian-born youth in the rest of the regions:

- Western youth have a statistically higher average score in all three literacy domains: document literacy 3.3%; prose literacy 6.2%; and quantitative literacy 5.8%.
- Atlantic youth have a statistically lower average score in document literacy (6.1%), while differences in the other two literacy domains are not statistically significant.
- Quebec youth have a statistically higher average score in prose literacy (6.2%) and quantitative literacy (5.1%), while the difference in document literacy is not statistically significant.
- Ontario youth have higher document literacy skills than in Quebec and Atlantic Canada. In the case of prose and quantitative literacy, the differences favour Quebec and the Atlantic region, but these differences are small and within the margin of error due to sampling variability.

Table 2: Regression Estimates of Effect of Region on Literacy Scores Expressed as a Deviation from Ontario's Average Literacy Score

After Controlling for Differences in Years of Schooling and Other Factors Among Canadian-born Youth

	Actual average literacy score	Regression Results: Deviation from Ontario's score due to region	Regression Results: t-statistic of region variable	
Document Literacy				
Atlantic	284	-2.7%	-2.080	
Quebec	295	-0.9%	-0.623	*
Ontario	304	na	na	
West	305	3.3%	2.698	
Prose Literacy				
Atlantic	284	0.6%	0.597	*
Quebec	292	2.6%	2.270	
Ontario	291	na	na	
West	302	6.0%	6.157	
Quantitative Literacy				
Atlantic	277	0.1%	0.057	*
Quebec	289	2.8%	2.120	
Ontario	286	na	na	
West	294	5.6%	5.054	

(*) Percentage difference from Ontario's literacy score not statistically significant (the difference is within the commonly used margin of error of plus or minus two standard errors).

Example: The average document literacy score in the West (305) is only 0.3% higher than the corresponding Ontario score (304). After regression analysis removes the influence of differences in years of education and several other factors, the difference in average scores increases from 0.3% to 3.3%. This is because Ontario has a higher average number of years of education than the West.

Source: Appendix C.

4.3 International Comparisons

In addition to enabling researchers to study the factors that affect literacy or the consequences of low literacy, IALS provides a common yardstick for comparing literacy levels across different countries. Such comparisons are useful in assessing a country's comparative advantage in human resources relative to its competitors. They can also be useful in motivating a closer examination of the practices in countries with higher literacy levels.

Chart 6a shows that there are three clusters. The top cluster includes Sweden, the Netherlands, and Belgium. The middle cluster consists of Ontario, Canada and three other countries (with an incidence ranging from 33% to 35%). The remaining countries have a higher incidence of low literacy skills.

Chart 6b ranks Ontario and Canada second to Sweden only with respect to the incidence of the highest levels (4 and 5) of document literacy. These results suggest that Canada and Ontario are doing a better job at the upper end than at the lower end of the literacy scale.

The quantitative literacy results are less favourable. However, both in terms of the percentage with low quantitative literacy (levels 1 and 2) and high quantitative literacy (levels 4 and 5), Ontario and Canada still ranked in the middle of the countries which participated in IALS.[7]

Finally, the IALS results indicate that Ontario and Canada compare very favourably to the United States. This consideration is important since the United States is Ontario's principal trade partner. Increasingly, competitiveness reflects the relative strength of the human capital of a country.

[7] See Appendix B for detailed tables,.

Chart 6a: Low Document Literacy (Levels 1/2)
Among All Youth (Including Foreign-born) by Country

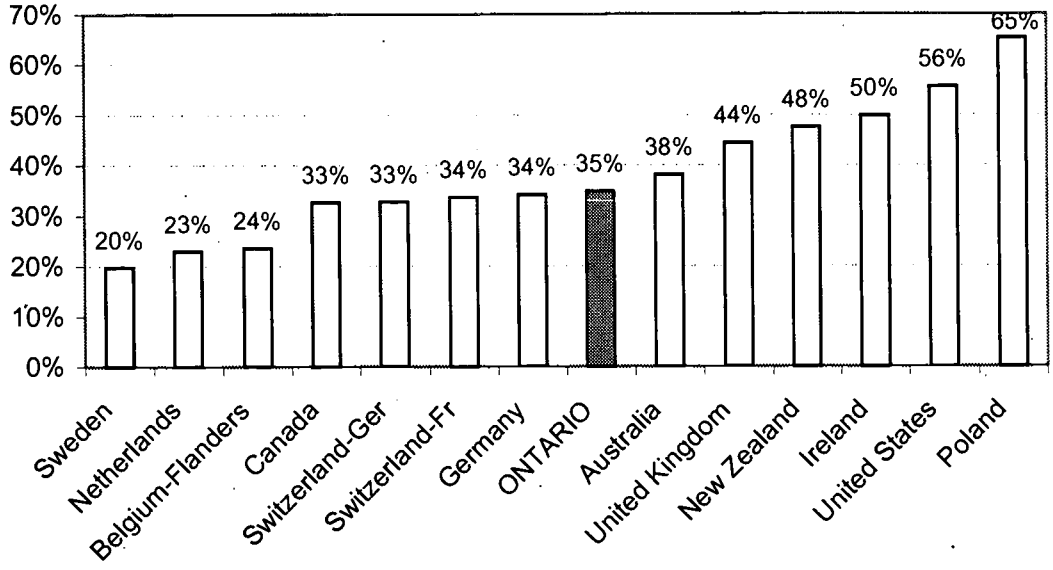
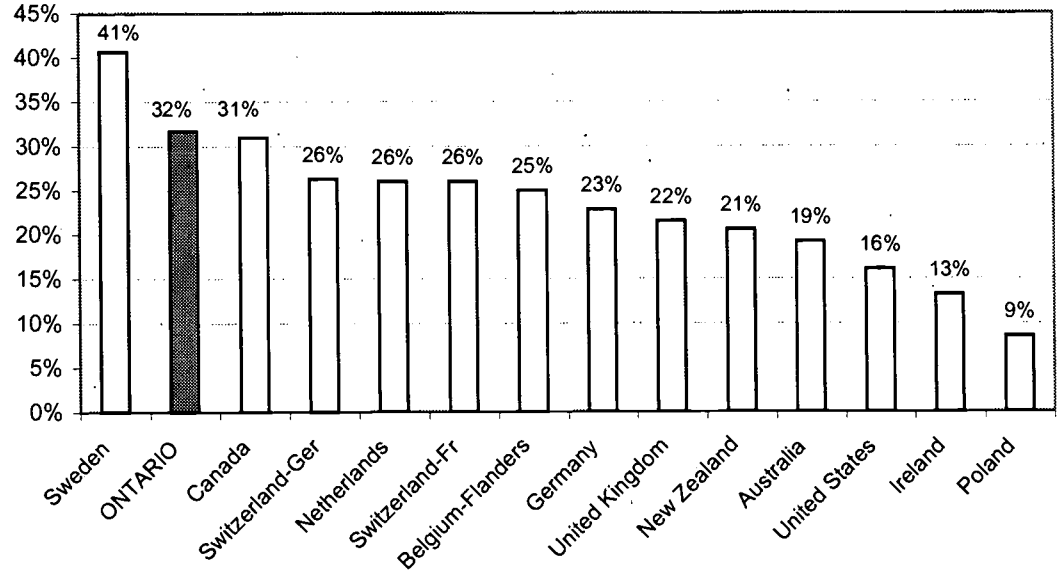


Chart 6b: High Document Literacy (Levels 4/5)
Among All Youth (Including Foreign-born) by Country



5. LITERACY BY YOUTH CHARACTERISTICS

5.1 INTRODUCTION

The objective of this section is to explore the level of literacy of Canadian-born youth in Ontario by different personal and family characteristics. The focus of the analysis is on the percentage of youth with a literacy score above level 2.[8]

The analysis is complex for two reasons:

(a) The small sample of Ontario youth makes it difficult to conduct precise literacy comparisons among different characteristics because estimates are often subject to a wide margin of error due to sampling variability.

(b) Even when accurate estimates are possible, it is necessary to determine the extent to which the results may reflect the influence of other characteristics. For example, lower literacy among individuals with disabilities may in part be due to differences in education.

These challenges were addressed as follows:

(a) All literacy comparisons among different youth characteristics were tested to see if observed differences were statistically significant.[9]

(b) The relationship between literacy and youth characteristics was probed using regression analysis, which helps disentangle the effect of various characteristics.[10]

(c) Finally, the Ontario results were compared to the national result to see if they lead to comparable conclusions or not.

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[8] See Appendix D for detailed tables.

[9] Differences in the incidence of literacy above level 2 among different characteristics were tested using the standard binomial distribution test for comparing two ratios.

[10] See Appendix E for regression results.

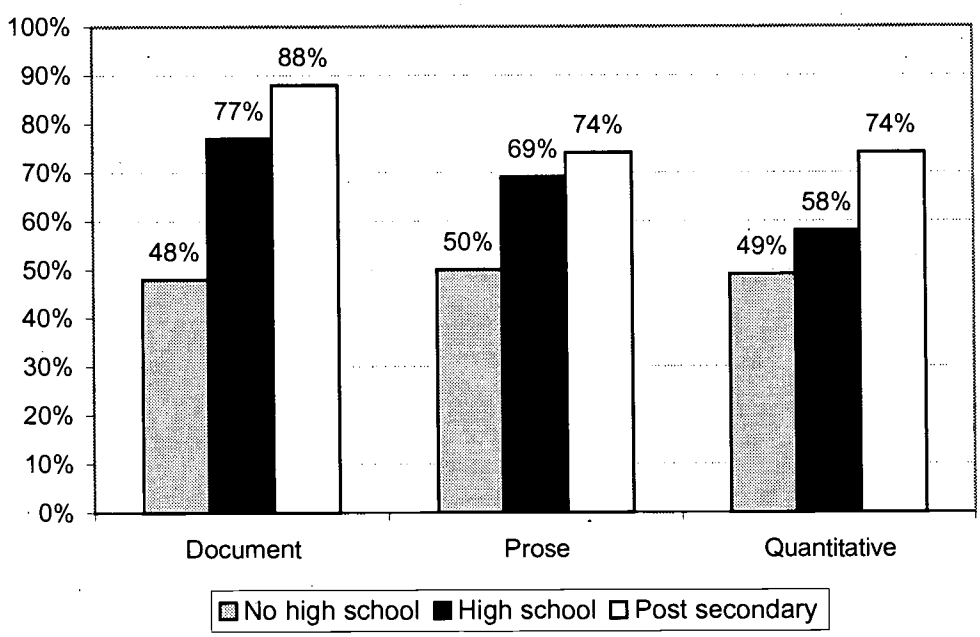
5.2 DETAILED RESULTS

Education

As noted earlier, education is by far the most important determinant of literacy. Chart 7 shows a steep increase in the percentage of youth who exceed level 2 literacy at higher levels of education. It highlights two important aspects:

- Only 48% of those without high school diploma have document literacy above level 2, compared to 77% among those with high school graduation. These results emphasise the importance of encouraging youth to complete secondary education.
- Even post-secondary graduation, however, is not a guarantee of meeting minimum literacy needs: 12% failed to exceed level 2 in document literacy, while 26% failed to exceed level 2 in prose and quantitative literacy. These findings emphasise the importance of factors other than education that may be having an impact on literacy.

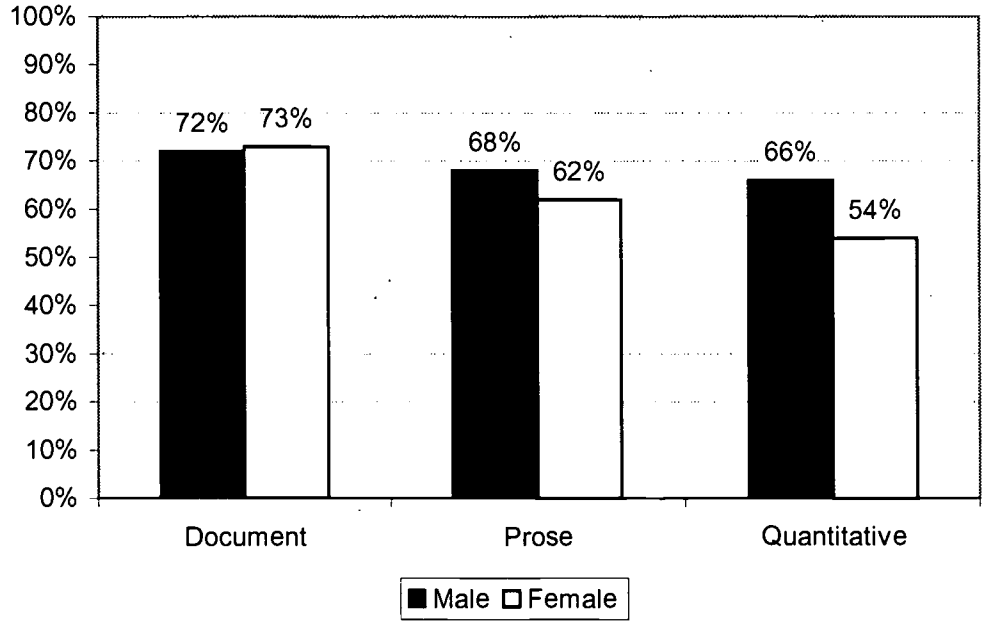
Chart 7: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Level of Education



Gender

Chart 8 shows small differences in literacy skills between Canadian-born male and female youth in Ontario. However, these differences are statistically significant only in the case of quantitative literacy (a 12% gap in favour of male youth). Similar results were observed at the national level (Appendix D). Both the Ontario and Canadian results were confirmed by regression analysis (Appendix E).

Chart 8: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Gender

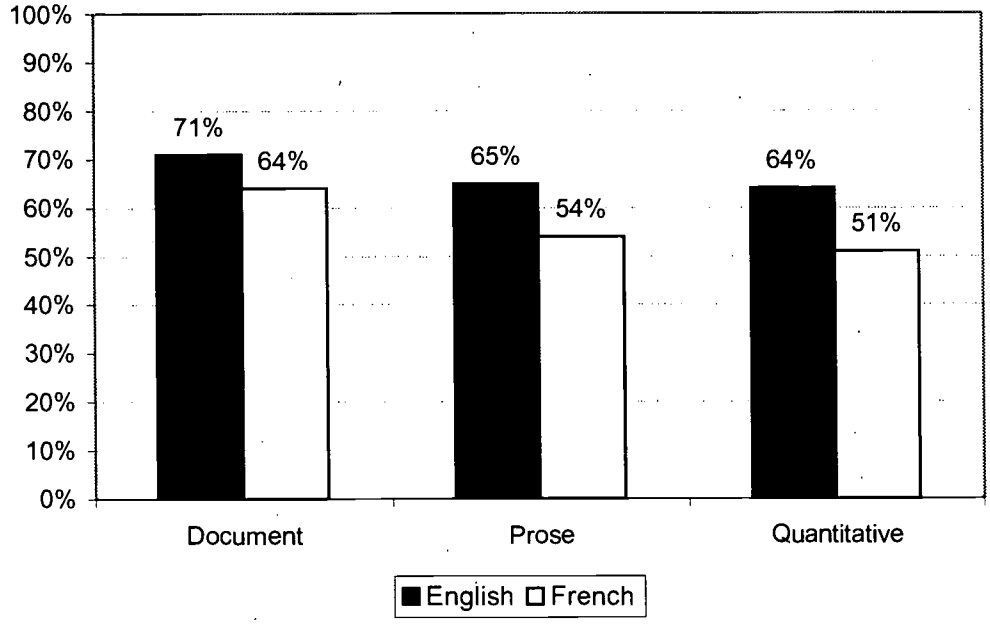


Language

Chart 9 compares the level of literacy skills between Anglophone and Francophone, Canadian-born youth in Ontario. The results indicate that Francophone youth in Ontario have somewhat lower literacy skills than Anglophone youth.

However, with the possible exception of quantitative literacy, the above differences in literacy skills are not statistically significant. Furthermore, regression analysis shows that when differences in the level of education and other characteristics are factored in, literacy differences between the two linguistic groups are in all cases not statistically significant.

Chart 9: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Language First Spoken

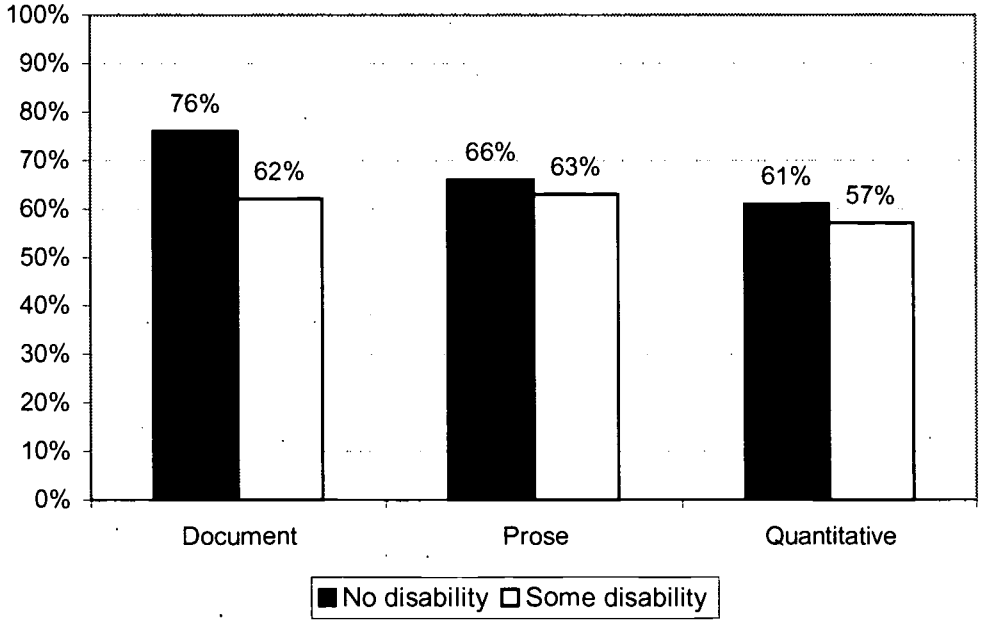


Presence of Disabilities

Chart 10 shows that literacy skills are relatively lower among those with disabilities. Regression analysis confirms that the presence of disabilities has a negative effect on literacy skills, even after one accounts for possible differences in level of education or other factors between those with and without disabilities.

However, because of the small sample size and the inability to distinguish among different types of disabilities, the above conclusions are only suggestive. More conclusive evidence requires using surveys that are targeted to specific disabilities. An example of such a survey is the recently released study, *Literacy Profile of Ontario's Deaf and Hard of Hearing Adults* (1998).

Chart 10: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Presence of Disabilities

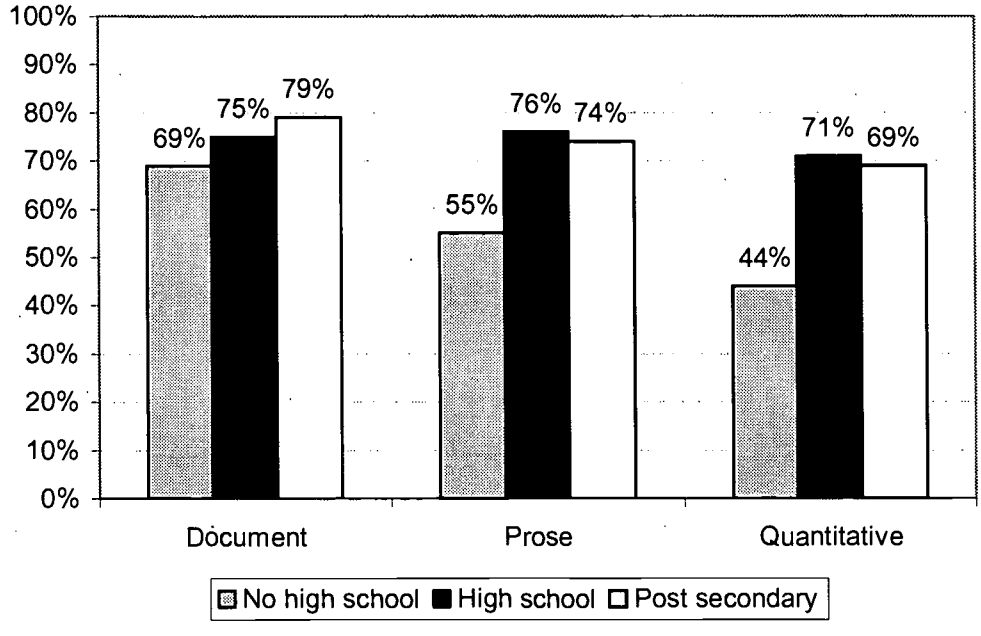


Mother's Education

The IALS data show that low parental literacy tends to have a negative effect on children's literacy. Chart 11 shows that the literacy level of youth whose mothers have not completed secondary education is lower than for other youth. This result is confirmed by regression analysis. By contrast, the difference of results between mothers with secondary education and post-secondary education is statistically insignificant.

These results provide new evidence of the importance of reducing the number of drop-outs. High school drop-outs not only face the consequences of low literacy, but often the problem affects their children.

Chart 11: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Mother's Education



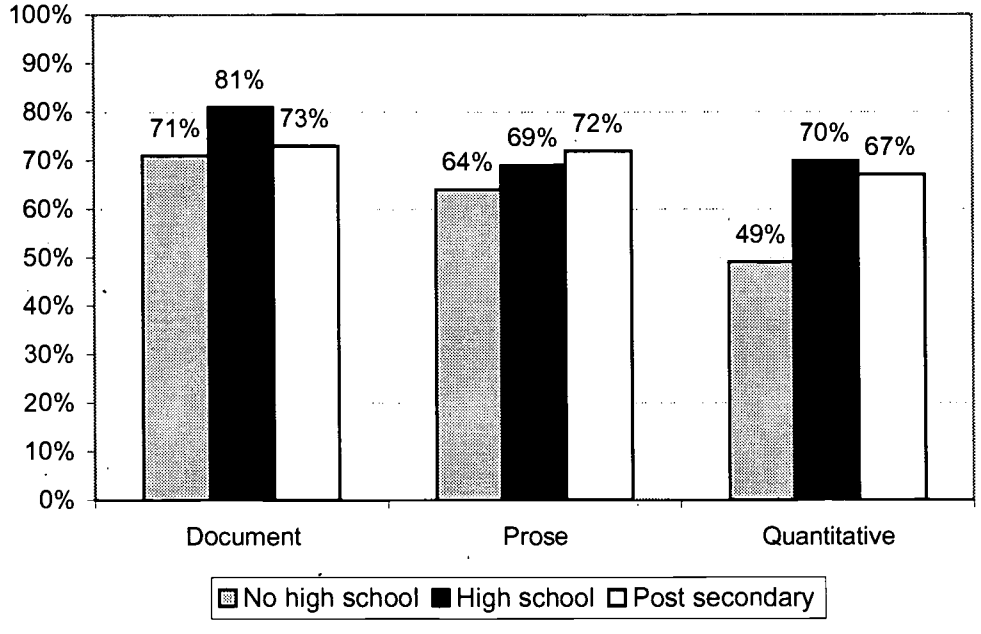
28

Father's Education

Chart 12 shows that the father's education may also be an important factor in influencing youth's literacy. However, the connection is much weaker than in the case of the mother's level of education. In fact, in most cases the differences by level of education of the father were within the margin of sampling variability.

The greater importance of mothers' education is probably a reflection of women's traditional family responsibilities: women are more likely than men to stay home with their children or generally be involved with the day-to-day education activities of their children.

Chart 12: Percentage with Literacy Above Level 2
Canadian-born Ontario Youth by Father's Education



6. IMPORTANCE OF YOUTH ACTIVITIES ON LITERACY

This section examines the importance of everyday activities. Because of the small size of the sample, the Ontario estimates are subject to a wide margin of error. As a result, estimates are based on the impact of everyday activities on all Canadian-born youth, regardless of province of residence. The impact was estimated using both simple charts and regression analysis.

The importance of various everyday activities on the literacy skills of youth were assessed by comparing the average literacy score of participants to non-participants. For example, Chart 13a shows that those who attended or participated in sports at least occasionally during the year had a 11% higher document literacy score than the remaining youth.

In order to isolate the effect of everyday activities on literacy from the effect of the level of education and other factors, regression analysis was used.[11]

According to the regression results, the activities that have the strongest positive effect on the document literacy score are:

- attending or participating in sports;
- using public libraries;
- taking courses;
- attending movies, plays, or concerts at least monthly; and
- watching TV for fewer than 3 hours daily.

Finally, Chart 13b shows that the above listed everyday activities tend to be more frequent in Ontario than the rest of the country. Particularly noticeable are the differences with respect to the use of public libraries (72% vs. 62%) and attendance of movies, plays, or concerts (70% vs. 64%).

[11] Detailed tables and regression results are shown in Appendices F and G.

Chart 13a: Impact of Literacy Activities on the Average Document Literacy Score
Canadian-born Youth Across All Provinces

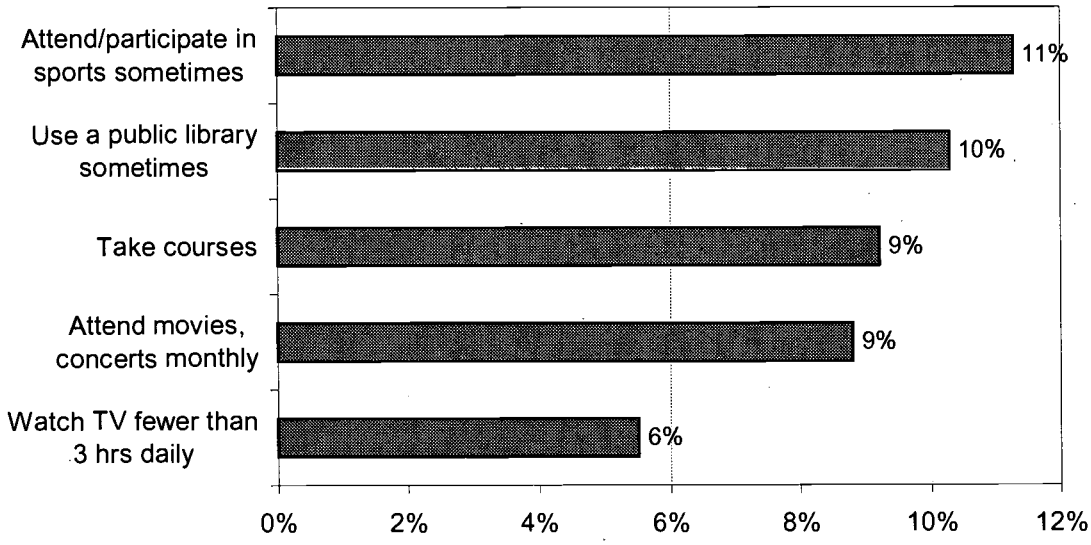
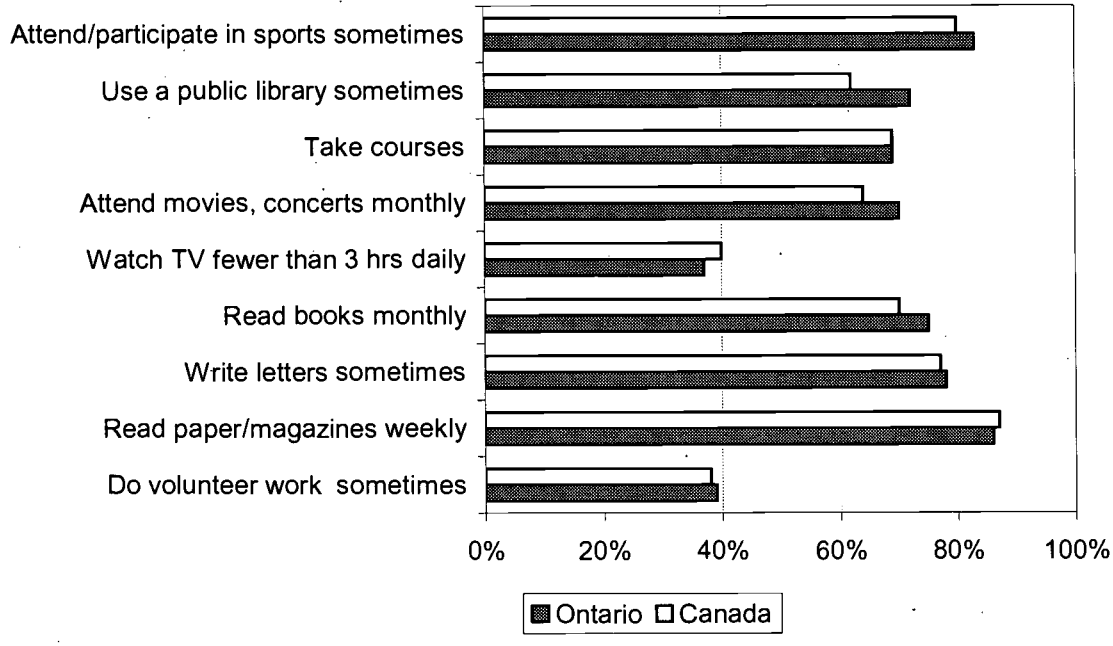


Chart 13b: Incidence Literacy Activities in Every-day Life
Canadian-born Youth



7. CONSEQUENCES OF LOW LITERACY SKILLS

As discussed earlier, there is an economic pay-off to high literacy skills. Evidence shows that adult Ontarians with high literacy skills enjoy more stable employment and higher levels of earnings. At the same time, they make a greater economic contribution (in the form of higher wages and income taxes) and draw less on social transfers, such as social assistance or employment insurance.

Further evidence is now provided of other consequences. Table 3 shows that Ontarian youth with document literacy below level 3 are more likely to need help, particularly reading government or business documents, filling out applications, or doing basic math.

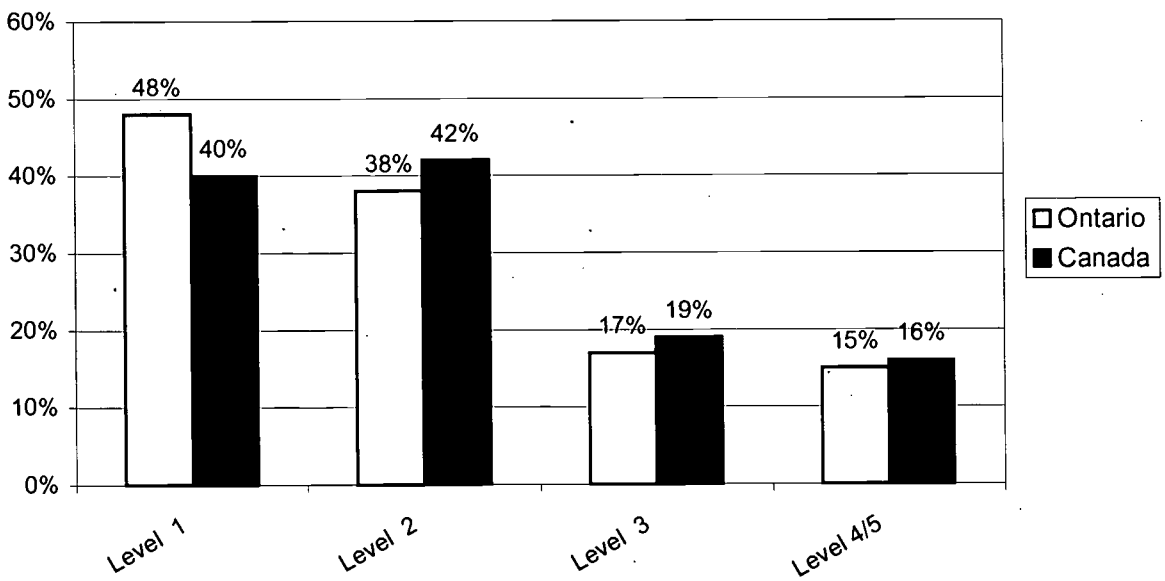
Chart 14 shows that the percentage of youth who need help at least occasionally with any of these three types of tasks rises significantly at lower levels of document literacy skills. In particular, about half of the Ontario youth in the lowest two document literacy levels need help at least sometimes.

However, the consequences of low literacy are more serious than suggested by Chart 14. Many youth with low literacy skills may avoid the need for relying on others in literacy tasks by simply staying away from jobs or activities requiring higher literacy skills.

Table 3: Need Help with Literacy Tasks Often or Sometimes
By Document Literacy Level - Ontario' Canadian-born Youth

	Level 1 or 2	Above level 2	All
Reading newspaper articles	9%	0%	3%
Reading government/ business documents	27%	13%	17%
Filling out applications bank deposit slips	19%	5%	9%
Reading medical instructions	8%	4%	5%
Reading instructions on packaged goods in stores	7%	1%	2%
Doing basic math	16%	1%	5%
Writing notes or letters	12%	2%	5%

Chart 14: Need Help Often/Sometimes with Reading, Filling out Forms, or Doing Basic Math
Canadian-born Ontario Youth



8. CONCLUSION

Literacy is key to youth's ability to live full lives and enjoy a successful economic future. Adult Ontarians with high literacy levels enjoy more stable employment and higher levels of earnings. At the same time, they make a greater economic contribution (in the form of higher wages and income taxes) and draw less on social transfers, such as social assistance or employment insurance.

Education is by far the strongest contributor to literacy skills. Youth who enter their working lives without high school education are likely to face the most serious literacy problems. However, even high school graduation is not a guarantee for adequate literacy skills: 23% of graduates have low literacy skills and more are likely to fall in this category as they age.

While education is important, an active life -- using public libraries, attending concerts, or participating in sports -- is also significant in contributing to higher literacy skills. The results of the study suggest that strategies aimed at improving the literacy skills of youth should be broadly based.

Analysing the skill levels of youth literacy in Ontario require looking at family background, first language, and the culture in which youth live, as well as years of education. Youth literacy levels represent an indicator of Ontario's future economic performance and social life. Addressing the issue continues to be a challenge for Ontario society.

APPENDICES

APPENDIX A: YOUTH LITERACY - ONTARIO AND CANADA TABLES

Table A1: Ontario Literacy Levels by Age
Canadian-born Population

	Youth (16-25)	Non-Youth (26-65)	Older (66+)	All
Document Literacy				
Level 1	7%	13%	40%	15%
Level 2	21%	22%	32%	23%
Level 3	39%	36%	28%	36%
Level 4/5	33%	29%	0%	26%
Average score	304	297	231	290
Prose Literacy				
Level 1	8%	11%	35%	13%
Level 2	27%	28%	34%	28%
Level 3	41%	34%	30%	35%
Level 4/5	24%	28%	1%	24%
Average score	291	295	237	287
Quantitative Literacy				
Level 1	8%	12%	40%	15%
Level 2	32%	22%	36%	26%
Level 3	43%	39%	23%	38%
Level 4/5	17%	27%	1%	22%
Average score	286	298	236	288

Table A2: Ontario Youth Literacy by Level of Education

Canadian-born Youth

	Less than high school	Completed high school	Post-secondary education	All
Document Literacy				
Level 1	15%	6%	0%	7%
Level 2	37%	17%	12%	21%
Level 3	25%	41%	52%	39%
Level 4/5	23%	37%	36%	33%
Average score	278	312	320	305
Prose Literacy				
Level 1	17%	7%	0%	8%
Level 2	33%	25%	26%	27%
Level 3	31%	49%	38%	41%
Level 4/5	20%	20%	36%	24%
Average score	275	294	304	291
Quantitative Literacy				
Level 1	16%	8%	0%	8%
Level 2	36%	34%	26%	32%
Level 3	34%	42%	53%	43%
Level 4/5	15%	16%	21%	17%
Average score	270	287	303	287

Table A3: Literacy Scores by Region

Canadian-born Youth

	Atlantic	Quebec	Ontario	West	Canada
Document Literacy					
Level 1	14%	9%	7%	4%	8%
Level 2	29%	22%	21%	21%	22%
Level 3	40%	42%	39%	38%	40%
Level 4/5	17%	27%	33%	37%	31%
Average score	284	295	304	305	300
Prose Literacy					
Level 1	11%	6%	8%	3%	7%
Level 2	32%	20%	27%	23%	25%
Level 3	41%	59%	41%	44%	47%
Level 4/5	15%	15%	24%	29%	22%
Average score	284	292	291	302	293
Quantitative Literacy					
Level 1	11%	7%	8%	6%	8%
Level 2	35%	26%	32%	22%	28%
Level 3	43%	56%	43%	47%	47%
Level 4/5	12%	10%	17%	25%	17%
Average score	277	289	286	294	288

APPENDIX B: YOUTH LITERACY - INTERNATIONAL TABLES

Table B1: Youth Literacy by Country (Including Foreign-born)

	Document Literacy Level				
	1	2	3	4/5	3+
	%	%	%	%	%
Sweden	3	17	40	41	80
Netherlands	6	17	51	26	77
Belgium (Flanders)	6	18	51	25	76
Canada	10	22	36	31	67
Switzerland (German)	7	26	41	26	67
Switzerland (French)	9	25	40	26	66
Germany	5	29	43	23	66
Ontario	**12**	**22**	**33**	**32**	**65**
United Kingdom	18	27	34	22	56
New Zealand	18	29	32	21	53
Ireland	17	33	37	13	50
United States	25	31	28	16	45
Poland	32	33	26	9	35

Note: sorted by decreasing order of the percentage of youth who scored at level 3 or above

Table B2: Youth Literacy by Country (Including Foreign-born)					
	Prose Literacy Level				
	1	2	3	4/5	3+
	%	%	%	%	%
Sweden	4	17	40	40	79
Netherlands	8	22	50	19	70
Belgium (Flanders)	8	24	48	21	69
Canada	11	26	44	20	64
Germany	9	29	46	15	62
Ontario	**17**	**24**	**39**	**21**	**60**
Switzerland (French)	10	31	43	15	59
Switzerland (German)	7	35	43	14	57
New Zealand	18	26	34	21	56
Ireland	16	29	40	15	56
United Kingdom	17	30	33	20	53
United States	24	31	33	13	46
Poland	27	38	29	6	35

Note: sorted by decreasing order of the percentage of youth who scored at level 3 or above

Table B3: Youth Literacy by Country (Including Foreign-born)					
	Quantitative Literacy Level				
	1	2	3	4/5	3+
	%	%	%	%	%
Sweden	5	18	39	38	77
Switzerland (French)	6	21	47	25	72
Belgium (Flanders)	7	21	43	29	72
Netherlands	8	21	50	21	71
Switzerland (German)	7	22	48	23	71
Germany	4	26	47	22	69
Canada	10	29	45	17	61
Ontario	**13**	**32**	**37**	**18**	**55**
Ireland	18	30	36	15	52
New Zealand	20	30	33	17	50
United Kingdom	22	29	33	16	49
United States	27	31	29	13	43
Poland	30	33	31	7	38

Note: sorted by decreasing order of the percentage of youth who scored at level 3 or above

APPENDIX C: EFFECT OF REGION ON LITERACY - REGRESSIONS

Regression Variables

Dependent Variables: (1) Natural log of document literacy score
(2) Natural log of prose literacy score
(3) Natural log of quantitative literacy score

Independent Variables:

Personal Characteristics

EDUCYRS	Years of education
GENDER1	Male (reference category: female)
DISAB1	Presence of disabilities (reference category: no disabilities)

Region

REGION1	Atlantic
REGION2	Quebec
REGION3	Ontario (reference category)
REGION4	West

Mother's education:

MOTHEDU1	Less than high school (reference category)
MOTHEDU2	High school
MOTHEDU3	Post-secondary education
MOTHEDU9	Information missing

Father's education:

FATHEDU1	Less than high school (reference category)
FATHEDU2	High school
FATHEDU3	Post-secondary education
FATHEDU9	Information missing

Sample: Canadian-born youth across all provinces.

(1) Dependent Variable: Natural Logarithm of Document Literacy

Multiple R	.57914
R Square	.33540
Adjusted R Square	.32856
Standard Error	.15738
Observations	1178

Variable	B	SE B	Beta	T	Sig T
REGION1	-.027258	.013105	-.061145	-2.080	.0378
REGION2	-.009077	.014560	-.017495	-.623	.5331
REGION4	.033086	.012264	.080601	2.698	.0071
EDUCYRS	.040574	.002193	.465289	18.498	.0000
GENDER1	.004220	.009272	.010990	.455	.6491
DISAB1	-.045244	.011264	-.096820	-4.017	.0001
MOTHEDU2	.042091	.012061	.105399	3.490	.0005
MOTHEDU3	.038592	.014465	.086392	2.668	.0077
MOTHEDU9	-.054448	.023657	-.064333	-2.302	.0215
FATHEDU2	.047192	.013172	.102890	3.583	.0004
FATHEDU3	.027537	.013306	.064926	2.070	.0387
FATHEDU9	-.045172	.017341	-.074753	-2.605	.0093
(Constant)	5.141525	.031192		164.833	.0000

(2) Dependent Variable: Natural Logarithm of Prose Literacy

Multiple R	.58317
R Square	.34009
Adjusted R Square	.33330
Standard Error	.12554
Observations	1178

Variable	B	SE B	Beta	T	Sig T
REGION1	.006239	.010454	.017484	.597	.5507
REGION2	.026368	.011614	.063482	2.270	.0234
REGION4	.060235	.009783	.183302	6.157	.0000
EDUCYRS	.031905	.001750	.457048	18.235	.0000
GENDER1	-.031990	.007396	-.104076	-4.325	.0000
DISAB1	-.027414	.008986	-.073284	-3.051	.0023
MOTHEDU2	.057494	.009621	.179847	5.976	.0000
MOTHEDU3	.032597	.011539	.091156	2.825	.0048
MOTHEDU9	-.042071	.018871	-.062097	-2.229	.0260
FATHEDU2	.041396	.010507	.112744	3.940	.0001
FATHEDU3	.032515	.010614	.095766	3.063	.0022
FATHEDU9	.001569	.013833	.003244	.113	.9097
(Constant)	5.219570	.024882		209.775	.0000

(3) Dependent Variable: Natural Logarithm of Quantitative Literacy

Multiple R	.58574
R Square	.34309
Adjusted R Square	.33633
Standard Error	.14109
Observations	1178

Variable	B	SE B	Beta	T	Sig T
REGION1	.000672	.011749	.001671	.057	.9544
REGION2	.027677	.013053	.059152	2.120	.0342
REGION4	.055574	.010995	.150133	5.054	.0000
EDUCYRS	.037446	.001966	.476202	19.042	.0000
GENDER1	.027304	.008313	.078858	3.285	.0011
DISAB1	-.052314	.010099	-.124147	-5.180	.0000
MOTHEDU2	.036879	.010813	.102409	3.411	.0007
MOTHEDU3	.027135	.012968	.067362	2.092	.0366
MOTHEDU9	-.078345	.021209	-.102655	-3.694	.0002
FATHEDU2	.035423	.011809	.085646	3.000	.0028
FATHEDU3	.032579	.011929	.085182	2.731	.0064
FATHEDU9	-.001066	.015547	-.001956	-.069	.9453
(Constant)	5.117129	.027965		182.986	.0000

APPENDIX D: YOUTH LITERACY BY CHARACTERISTICS - TABLES

Table D1: Percentage of Youth with Literacy Above Level 2: Ontario: Canadian-born Youth

	DOCUMENT LITERACY	PROSE LITERACY	QUANTITAT. LITERACY	POPULATION DISTRIBUT.	SAMPLE SIZE
GENDER					
Male	72%	68%	66%	49%	137
Female	73%	62%	54%	51%	180
EDUCATION					
Not stated	73%	63%	63%	1%	7
Less than high school	48%	50%	49%	27%	108
Completed high school	77%	69%	58%	46%	135
Post-secondary education	88%	74%	74%	26%	67
STUDENT STATUS					
Completed high school	81%	70%	64%	73%	209
Still student	56%	58%	57%	22%	85
Dropped-out	8%	12%	5%	4%	23
FIRST SPOKEN LANGUAGE					
English	71%	65%	64%	83%	216
French	64%	54%	51%	5%	89
Other	85%	68%	36%	13%	12
PRESENCE OF DISABILITY					
Some disability	62%	63%	57%	28%	92
No disability	76%	66%	61%	72%	225
MOTHER EDUCATION LEVEL					
Not stated	43%	19%	41%	7%	21
No high school diploma	69%	55%	44%	32%	103
High school diploma	75%	76%	71%	33%	97
Post-secondary education	79%	74%	69%	29%	96
FATHER EDUCATION LEVEL					
Not stated	52%	40%	44%	11%	37
No high school diploma	71%	64%	49%	31%	113
High school diploma	81%	69%	70%	27%	78
Post-secondary education,	73%	72%	67%	31%	89
WORK SITUATION					
Employed	80%	71%	57%	58%	184
Unemployed	57%	58%	50%	3%	18
Student	63%	62%	66%	34%	101
Homemaker/Other	57%	23%	58%	5%	14
ALL	72%	65%	60%	100%	317

Table D2: Percentage of Youth with Literacy Above Level 2: Canada: Canadian-born Youth

	DOCUMENT LITERACY	PROSE LITERACY	QUANTITAT. LITERACY	POPULATION DISTRIBUT.	SAMPLE SIZE
GENDER					
Male	70%	67%	68%	50%	536
Female	71%	70%	60%	50%	657
EDUCATION					
Not stated	59%	55%	55%	1%	10
Less than high school	47%	54%	43%	31%	454
Completed high school	77%	71%	69%	44%	496
Post-secondary education	89%	83%	81%	25%	233
STUDENT STATUS					
Completed high school	81%	75%	73%	69%	739
Still student	60%	63%	56%	18%	280
Dropped-out	29%	42%	25%	13%	174
FIRST SPOKEN LANGUAGE					
English	71%	67%	67%	64%	799
French	66%	71%	63%	29%	361
Other	84%	69%	47%	7%	33
PRESENCE OF DISABILITY					
Some disability	65%	66%	60%	22%	283
No disability	72%	69%	65%	78%	910
MOTHER EDUCATION LEVEL					
Not stated	52%	43%	48%	6%	73
No high school diploma	63%	59%	52%	34%	446
High school diploma	74%	76%	71%	34%	393
Post-secondary education	80%	79%	76%	25%	281
FATHER EDUCATION LEVEL					
Not stated	46%	54%	53%	11%	139
No high school diploma	68%	62%	58%	35%	473
High school diploma	79%	72%	68%	23%	281
Post-secondary education	77%	79%	72%	30%	300
WORK SITUATION					
Employed	74%	70%	65%	54%	588
Unemployed	50%	48%	38%	5%	98
Student	71%	74%	69%	36%	429
Homemaker/Other	48%	37%	50%	5%	78
ALL	70%	69%	64%	100%	1,193

APPENDIX E: EFFECT OF CHARACTERISTICS ON LITERACY - REGRESSIONS

Regression Variables

Dependent Variables: (1) Natural log of document literacy score
(2) Natural log of prose literacy score
(3) Natural log of quantitative literacy score

Independent Variables:

Personal Characteristics

EDUCYRS	Years of education
GENDER1	Male (reference category: female)
DISAB1	Presence of disabilities (reference category: no disabilities)

Language first spoken:

FSTLANG2	French (reference category: English)
FSTLANG3	Other than English or French

Mother's education:

MOTHEDU1	Less than high school (reference category)
MOTHEDU2	High school
MOTHEDU3	Post-secondary education
MOTHEDU9	Information missing

Father's education:

FATHEDU1	Less than high school (reference category)
FATHEDU2	High school
FATHEDU3	Post-secondary education
FATHEDU9	Information missing

Samples: (1) Canadian-born youth in Ontario
(2) All Canadian-born youth

Ontario: Canadian-born Youth

(1) Dependent Variable: Natural Logarithm of Document Literacy

Multiple R	.54187
R Square	.29363
Adjusted R Square	.26798
Standard Error	.15927
Observations	314

Variable	B	SE B	Beta	T	Sig T
GENDER1	.023261	.018466	.062555	1.260	.2088
EDUCYRS	.031084	.004271	.364886	7.278	.0000
DISAB1	-.069143	.020350	-.166707	-3.398	.0008
FSTLANG2	-.061057	.042917	-.069269	-1.423	.1559
FSTLANG3	.047078	.029684	.084400	1.586	.1138
MOTHEDU2	.048956	.024463	.123651	2.001	.0463
MOTHEDU3	.046554	.028224	.113691	1.649	.1001
MOTHEDU9	-.127012	.045949	-.170179	-2.764	.0061
FATHEDU2	.025158	.025290	.059856	.995	.3206
FATHEDU3	.017921	.027548	.044568	.651	.5158
FATHEDU9	-.036689	.037064	-.061785	-.990	.3230
(Constant)	5.268830	.059791		88.120	.0000

(2) Dependent Variable: Natural Logarithm of Prose Literacy

Multiple R	.59842
R Square	.35810
Adjusted R Square	.33480
Standard Error	.12468
Observations	314

Variable	B	SE B	Beta	T	Sig T
GENDER1	-.006081	.014456	-.019912	-.421	.6743
EDUCYRS	.028745	.003343	.410902	8.598	.0000
DISAB1	-.047909	.015931	-.140660	-3.007	.0029
FSTLANG2	-.055372	.033596	-.076498	-1.648	.1004
FSTLANG3	.012292	.023237	.026834	.529	.5972
MOTHEDU2	.092462	.019150	.284388	4.828	.0000
MOTHEDU3	.071883	.022095	.213773	3.253	.0013
MOTHEDU9	-.096819	.035970	-.157970	-2.692	.0075
FATHEDU2	.016966	.019798	.049156	.857	.3921
FATHEDU3	-.006600	.021565	-.019987	-.306	.7598
FATHEDU9	-.019364	.029015	-.039710	-.667	.5050
(Constant)	5.256945	.046806		112.313	.0000

(3) Dependent Variable: Natural Logarithm of Quantitative Literacy

Multiple R	.56423
R Square	.31835
Adjusted R Square	.29361
Standard Error	.14862
Observations	314

Variable	B	SE B	Beta	T	Sig T
GENDER1	.036605	.017231	.103632	2.124	.0345
EDUCYRS	.033065	.003985	.408608	8.297	.0000
DISAB1	-.068141	.018989	-.172954	-3.588	.0004
FSTLANG2	-.005909	.040047	-.007057	-.148	.8828
FSTLANG3	.020933	.027699	.039507	.756	.4504
MOTHEDU2	.075887	.022827	.201782	3.324	.0010
MOTHEDU3	.039407	.026337	.101314	1.496	.1356
MOTHEDU9	-.102277	.042877	-.144265	-2.385	.0177
FATHEDU2	.036751	.023599	.092050	1.557	.1204
FATHEDU3	.013279	.025706	.034765	.517	.6058
FATHEDU9	-.006333	.034585	-.011228	-.183	.8548
(Constant)	5.163702	.055793		92.551	.0000

All Provinces: Canadian-born Youth

(1) Dependent Variable: Natural Logarithm of Document Literacy

Multiple R	.57446
R Square	.33000
Adjusted R Square	.32369
Standard Error	.15795
Observations	1178

Variable	B	SE B	Beta	T	Sig T
GENDER1	.005533	.009326	.014411	.593	.5531
EDUCYRS	.040413	.002167	.463445	18.645	.0000
DISAB1	-.043123	.011257	-.092281	-3.831	.0001
FSTLANG2	-.018998	.011337	-.041214	-1.676	.0941
FSTLANG3	.063639	.019282	.081050	3.300	.0010
MOTHEDU2	.048701	.012016	.121952	4.053	.0001
MOTHEDU3	.044207	.014595	.098961	3.029	.0025
MOTHEDU9	-.047039	.023627	-.055580	-1.991	.0467
FATHEDU2	.042376	.013134	.092390	3.226	.0013
FATHEDU3	.030547	.013313	.072023	2.295	.0219
FATHEDU9	-.044493	.017445	-.073629	-2.550	.0109
(Constant)	5.141101	.028964		177.498	.0000

(2) Dependent Variable: Natural Logarithm of Prose Literacy

Multiple R	.56211
R Square	.31596
Adjusted R Square	.30952
Standard Error	.12776
Observations	1178

Variable	B	SE B	Beta	T	Sig T
GENDER1	-.031728	.007544	-.103224	-4.206	.0000
EDUCYRS	.030800	.001753	.441225	17.568	.0000
DISAB1	-.029021	.009105	-.077580	-3.187	.0015
FSTLANG2	-.009957	.009170	-.026983	-1.086	.2778
FSTLANG3	.026788	.015596	.042618	1.718	.0861
MOTHEDU2	.064445	.009719	.201591	6.631	.0000
MOTHEDU3	.036022	.011806	.100733	3.051	.0023
MOTHEDU9	-.037974	.019111	-.056049	-1.987	.0472
FATHEDU2	.034140	.010624	.092982	3.214	.0013
FATHEDU3	.033004	.010768	.097206	3.065	.0022
FATHEDU9	5.10759E-04	.014110	.001056	.036	.9711
(Constant)	5.257602	.023428		224.414	.0000

(3) Dependent Variable: Natural Logarithm of Quantitative Literacy

Multiple R	.56988
R Square	.32476
Adjusted R Square	.31839
Standard Error	.14299
Observations	1178

Variable	B	SE B	Beta	T	Sig T
GENDER1	.027577	.008443	.079646	3.266	.0011
EDUCYRS	.036519	.001962	.464413	18.611	.0000
DISAB1	-.053402	.010190	-.126728	-5.241	.0000
FSTLANG2	3.09140E-04	.010263	7.437E-04	.030	.9760
FSTLANG3	.028280	.017455	.039941	1.620	.1055
MOTHEDU2	.044214	.010877	.122779	4.065	.0001
MOTHEDU3	.031818	.013213	.078989	2.408	.0162
MOTHEDU9	-.073595	.021389	-.096432	-3.441	.0006
FATHEDU2	.028988	.011890	.070087	2.438	.0149
FATHEDU3	.033159	.012052	.086699	2.751	.0060
FATHEDU9	-.001163	.015792	-.002134	-.074	.9413
(Constant)	5.146949	.026221		196.294	.0000

APPENDIX F: IMPORTANCE OF COMMON ACTIVITIES - TABLES

Table F1: Effect of Common Activities on Literacy Skills
Ontario: Canadian-born Youth
Detailed Frequency of Activities

	DOCUMENT LITERACY SCORE	DOCUMENT LITERACY ABOVE LEVEL 2	POPULATION DISTRIBUTION	SAMPLE SIZE
TOOK COURSES IN 1994				
No	299	74%	31%	75
Yes	307	72%	69%	242
USE A PUBLIC LIBRARY				
Daily	365	100%	4%	6
Weekly	306	81%	10%	32
Monthly	306	58%	18%	67
Once or more a year	309	84%	40%	107
Never	291	59%	28%	104
ATTEND MOVIE, PLAY OR CONCERT				
Weekly	318	79%	21%	63
Monthly	305	69%	49%	141
Once or more a year	299	74%	24%	90
Never	282	71%	6%	21
ATTEND/PARTICIPATE IN SPORTS				
Daily	323	84%	14%	25
Weekly	298	64%	24%	88
Monthly	315	68%	19%	57
Once or more a year	311	81%	27%	79
Never	279	69%	17%	66
WRITE LETTERS ETC.				
Daily	292	46%	7%	20
Weekly	317	75%	25%	67
Monthly	318	85%	20%	86
Once or more a year	299	74%	25%	79
Never	291	66%	22%	63
DO VOLUNTEER WORK				
Daily	324	100%	1%	1
Weekly	324	91%	10%	21
Monthly	306	66%	10%	30
Once or more a year	319	80%	17%	68
Never	298	68%	62%	195
READ NEWSPAPERS/ MAGAZINES				
Daily	301	67%	51%	163
Weekly	314	84%	35%	98
Monthly	308	82%	10%	33
Once or more a year	270	27%	2%	12
Never	242	21%	2%	8
READ BOOKS				
Daily	311	76%	42%	116
Weekly	322	82%	14%	48
Monthly	310	78%	19%	59
Once or more a year	291	62%	14%	51
Never	270	55%	11%	41
HOURS OF TV DAILY				
Not daily	334	89%	12%	26
Up to 1 hour	301	66%	21%	54
1-2 hours	315	75%	30%	103
3-4 hours	292	71%	33%	109
5+ hours	273	57%	5%	24
ALL	304	72%	100%	317

Table F2: Effect of Common Activities on Literacy Skills
Ontario: Canadian-born Youth
Grouped by Frequency of Activities

	DOCUMENT LITERACY SCORE	DOCUMENT LITERACY ABOVE LEVEL 2	POPULATION DISTRIBUTION	SAMPLE SIZE
TOOK COURSES IN 1994				
No	299	74%	31%	75
Yes	307	72%	69%	242
USE A PUBLIC LIBRARY SOMETIMES				
No	291	59%	28%	104
Yes	309	77%	72%	213
ATTEND MOVIE, PLAY, CONCERT AT LEAST MONTHLY				
No	296	74%	30%	111
Yes	308	72%	70%	206
ATTEND/PARTICIPATE IN SPORTS SOMETIMES				
No	279	69%	17%	66
Yes	309	73%	83%	251
WRITE LETTERS ETC. SOMETIMES				
No	291	66%	22%	63
Yes	308	74%	78%	254
DO VOLUNTEER WORK SOMETIMES				
No	298	68%	61%	195
Yes	315	78%	39%	122
READ NEWSPAPERS/MAGAZINES AT LEAST WEEKLY				
No	295	67%	14%	53
Yes	306	73%	86%	264
READ BOOKS AT LEAST MONTHLY				
No	281	59%	25%	92
Yes	312	77%	75%	225
3+ HOURS OF TV DAILY				
No	313	74%	63%	184
Yes	290	69%	37%	133
ALL	304	72%	100%	317

Table F3: Effect of Common Activities on Literacy Skills
All Provinces: Canadian-born Youth
Detailed Frequency of Activities

	DOCUMENT LITERACY SCORE	DOCUMENT LITERACY ABOVE LEVEL 2	POPULATION DISTRIBUTION	SAMPLE SIZE
TOOK COURSES IN 1994				
No	282	60%	31%	361
Yes	308	75%	69%	832
USE A PUBLIC LIBRARY				
Daily	341	100%	2%	21
Weekly	310	78%	12%	112
Monthly	319	77%	17%	188
Once or more a year	306	81%	32%	344
Never	282	56%	38%	525
ATTEND MOVIE, PLAY OR CONCERT				
Daily	329	98%	0%	4
Weekly	315	81%	21%	221
Monthly	307	73%	42%	444
Once or more a year	289	66%	30%	407
Never	258	41%	7%	111
ATTEND/PARTICIPATE IN SPORTS				
Daily	315	79%	11%	113
Weekly	300	72%	24%	302
Monthly	309	72%	18%	175
Once or more a year	308	76%	27%	317
Never	275	57%	20%	282
WRITE LETTERS ETC.				
Daily	302	68%	7%	89
Weekly	317	82%	21%	233
Monthly	305	75%	22%	286
Once or more a year	299	73%	27%	295
Never	282	54%	23%	285
DO VOLUNTEER WORK				
Daily	306	71%	1%	20
Weekly	315	86%	9%	100
Monthly	309	76%	9%	99
Once or more a year	309	78%	19%	280
Never	294	65%	63%	689
READ NEWSPAPERS/ MAGAZINES				
Daily	304	72%	48%	563
Weekly	301	74%	39%	441
Monthly	298	63%	9%	108
Once or more a year	274	56%	3%	43
Never	236	29%	1%	29
READ BOOKS				
Daily	306	74%	36%	386
Weekly	312	80%	17%	221
Monthly	305	75%	18%	218
Once or more a year	292	64%	15%	184
Never	275	54%	14%	180
HOURS OF TV DAILY				
Not daily	319	81%	11%	102
Up to 1 hour	307	74%	19%	184
1-2 hours	302	68%	30%	362
3-4 hours	294	70%	35%	431
5+ hours	264	53%	5%	111
ALL	300	70%	100%	1,193

Table F4: Effect of Common Activities on Literacy Skills
All Provinces: Canadian-born Youth
Grouped by Frequency of Activities

	DOCUMENT LITERACY SCORE	DOCUMENT LITERACY ABOVE LEVEL 2	POPULATION DISTRIBUTION	SAMPLE SIZE
TOOK COURSES IN 1994				
No	282	60%	31%	361
Yes	308	75%	69%	832
USE A PUBLIC LIBRARY SOMETIMES				
No	282	56%	38%	525
Yes	311	79%	62%	668
ATTEND MOVIE,PLAY,CONCERT AT LEAST MONTHLY				
No	284	61%	36%	518
Yes	309	75%	64%	675
ATTEND/PARTICIPATE IN SPORTS SOMETIMES				
No	275	57%	20%	282
Yes	306	74%	80%	911
WRITE LETTERS ETC. SOMETIMES				
No	282	54%	23%	285
Yes	305	75%	77%	908
DO VOLUNTEER WORK SOMETIMES				
No	294	65%	62%	689
Yes	309	78%	38%	504
READ NEWSPAPERS/MAGAZINES AT LEAST WEEKLY				
No	286	57%	13%	180
Yes	302	72%	87%	1,013
READ BOOKS AT LEAST MONTHLY				
No	283	59%	30%	364
Yes	307	75%	70%	829
3+ HOURS OF TV DAILY				
No	306	72%	60%	651
Yes	290	68%	40%	542
ALL	300	70%	100%	1,193

APPENDIX G: IMPORTANCE OF COMMON ACTIVITIES - REGRESSION

Dependent Variable: Natural log of document literacy score

Independent Variables:

Effect of Everyday Activities on Literacy Skills

ZTRAIN	Participated in training or education activities in 1994.
ZHPUB	Use a public library sometimes
ZHMOVIE	Attend movies, plays, concerts at least monthly
ZHSPORT	Attend/participate in sports sometimes
ZHLETTE	Write letters/notes sometimes
ZHVOLU	Do volunteer work sometimes
ZHMAGAZ	Read newspapers/magazines at least weekly
ZHBOOK	Read books at least monthly
ZHTV	Watch TV 3+ hrs daily

Personal Characteristics

EDUCYRS	Years of education
GENDER1	Male (reference category: female)
DISAB1	Presence of disabilities (reference category: no disabilities)

Region

REGION1	Atlantic
REGION2	Quebec
REGION3	Ontario (reference category)
REGION4	West

Mother's education:

MOTHEDU1	Less than high school (reference category)
MOTHEDU2	High school
MOTHEDU3	Post-secondary education
MOTHEDU9	Information missing

Father's education:

FATHEDU1	Less than high school (reference category)
FATHEDU2	High school
FATHEDU3	Post-secondary education
FATHEDU9	Information missing

Sample: Canadian-born youth across all provinces.

Results

Dependent Variable.. LNDOC

Multiple R	.63022
R Square	.39717
Adjusted R Square	.38419
Standard Error	.15417
No of Observations	1091

Variable	B	SE B	Beta	T	Sig T
ZTRAIN	.040130	.011210	.096214	3.580	.0004
ZHPUB	.028955	.011213	.072749	2.582	.0099
ZHMOVIE	.031362	.010852	.077019	2.890	.0039
ZHSPORT	.055575	.012639	.115782	4.397	.0000
ZHLETTE	.012242	.012907	.026339	.949	.3431
ZHVOLU	-.028716	.010297	-.071865	-2.789	.0054
ZHMAGAZ	.000225	.015042	3.806E-04	.015	.9881
ZHBOOK	.008292	.011955	.019084	.694	.4881
ZHTV	-.019839	.009867	-.049898	-2.011	.0446
REGION1	.001574	.014113	.003563	.112	.9112
REGION2	.020259	.022598	.038793	.896	.3702
REGION4	.037749	.012981	.088705	2.908	.0037
GENDER1	-.000849	.009968	-.002161	-.085	.9322
EDUCYRS	.035821	.002294	.414820	15.614	.0000
DISAB1	-.043307	.011640	-.090357	-3.720	.0002
FSTLANG2	-.016483	.018621	-.035519	-.885	.3763
FSTLANG3	.050774	.021062	.061585	2.411	.0161
MOTHEDU2	.029482	.012556	.072045	2.348	.0191
MOTHEDU3	.024058	.015133	.052397	1.590	.1122
MOTHEDU9	-.066892	.024450	-.076435	-2.736	.0063
FATHEDU2	.040590	.013505	.087091	3.006	.0027
FATHEDU3	.010721	.013941	.024604	.769	.4420
FATHEDU9	-.039841	.017770	-.064296	-2.242	.0252
(Constant)	5.101524	.033321		153.101	.0000

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