# Measuring up: Canadian Results of the OECD PISA 2015 Study

The Performance of Canadian 15-Year-Olds in Financial Literacy







### Measuring up: Canadian Results of the OECD PISA 2015 Study

# The Performance of Canadian 15-Year-Olds in Financial Literacy

Authors

Tanya Scerbina, Council of Ministers of Education, Canada Rebecca Kong, Financial Consumer Agency of Canada Marie-Anne Deussing, Employment and Social Development Canada Kathryn O'Grady, Council of Ministers of Education, Canada Bruno Levesque, Financial Consumer Agency of Canada Steve Trites, Financial Consumer Agency of Canada Gulam Khan, Council of Ministers of Education, Canada



Canada

f Conseil des ministres ion, de l'Éducation (Canada)



The Council of Ministers of Education, Canada (CMEC) was formed in 1967 by the jurisdictional ministers responsible for education to provide a forum in which they could discuss matters of mutual interest, undertake educational initiatives cooperatively, and represent the interests of the provinces and territories with national educational organizations, the federal government, foreign governments, and international organizations. CMEC is the national voice for education in Canada and, through CMEC, the provinces and territories work collectively on common objectives in a broad range of activities at the elementary, secondary, and postsecondary levels.

Through the CMEC Secretariat, the Council serves as the organization in which ministries and departments of education undertake cooperatively the activities, projects, and initiatives of particular interest to all jurisdictions. One of the activities on which they cooperate is the development and implementation of pan-Canadian testing based on contemporary research and best practices in the assessment of student achievement in core subjects.

#### Note of appreciation

The Council of Ministers of Education (Canada) thanks the students, teachers, and administrators whose participation in the Programme for International Student Assessment ensured its success. The quality of your commitment has made this study possible. We are truly grateful for your contribution to a pan-Canadian understanding of educational policy and practices in science, reading, and mathematics of 15-year-olds.

Council of Ministers of Education, Canada 95 St. Clair West, Suite 1106 Toronto, Ontario M4V 1N6

Telephone: (416) 962-8100 Fax: (416) 962-2800 E-mail: cmec@cmec.ca © 2017 Council of Ministers of Education, Canada

ISBN 978-0-88987-243-1

Ce rapport est également disponible en français.

# Table of Contents

Introduction	1
What is PISA?	1
What is financial literacy?	2
The PISA framework for financial literacy	3
The 2015 financial literacy test	4
Chapter 1: Canadian Students' Performance in Financial Literacy in an International Context	7
PISA achievement results by proficiency levels in financial literacy	7
Canadian students achieve a high level of proficiency in financial literacy	9
PISA achievement results by average scores in financial literacy	10
Canadian students perform well in financial literacy in a global context	
There are marked variations between provinces	12
Although Canadian students performed well, there is a large gap between those	
with the highest and lowest scores	13
In most Canadian provinces, students in majority-language school systems have higher	
performance in financial literacy than students in minority-language school systems	14
Across Canada, there is no gender gap in financial literacy	15
There is no performance gap between immigrant and non-immigrant students in	
financial literacy	15
Higher levels of parental educational attainment are strongly associated with	10
students' higher proficiency in financial literacy in most provinces	16
Socioeconomically advantaged students outperform disadvantaged students in financial literacy	17
Performance in financial literacy relates positively to performance in other PISA subject are	
Summary	
Chapter 2: Students' Experiences with Money and Their Performance in Financial Literacy	
Most 15-year-olds in Canada save money regularly	
Most students said they would save up to buy something they really wanted	
Across Canada, discussing money matters with parents is associated with higher financial literacy	
Students who reported having occasional jobs tended to have higher financial literacy score	
On average, students with a bank account had higher financial literacy than students	23 27
without one	29
Summary	
Conclusion	
Final statement	
References	
Appendix A: Sample Questions in the 2012 PISA Financial Literacy Assessment	
Appendix B: PISA 2015 Financial Literacy—Data Tables	

### List of Tables

Introduction		1
Table 1	Sample size for financial literacy assessment for Canada and the provinces	2
Table 2	Distribution of score points within financial literacy assessment and sample	
	questions, by content, processes, and context	5
Chapter 1: Canad	dian Students' Performance in Financial Literacy in an International Context	7
Table 1.1	PISA 2015 financial literacy proficiency levels—Summary description	8
Table 1.2	Estimated average scores in financial literacy by language of the school system	15
Table 1.3	Correlation of financial literacy performance with performance in mathematics,	
	reading, and science	. 19
Chapter 2: Stude	ents' Experiences with Money and Their Performance in Financial Literacy	21
Table 2.1	Percentage of students by saving behaviour	. 22
Table 2.2	Percentage of students by sources of money	. 28
Appendix B: PIS	A 2015 Financial Literacy—Data Tables	42
Table B.1.1	Percentage of students at each proficiency level in financial literacy	42
Table B.1.2	Estimated average scores and confidence intervals in financial literacy	43
Table B.1.3	Variation in student performance in financial literacy	. 44
Table B.1.4	Estimated average scores in financial literacy by language of the school system	45
Table B.1.5	Estimated average scores in financial literacy by gender	. 46
Table B.1.6	Percentage of males and females who performed below Level 2 and at Level 5 in financial literacy	47
Table B.1.7	Percentage of immigrant and non-immigrant students	
Table B.1.8	Estimated average scores in financial literacy by immigrant status	
Table B.1.9	Percentage of students by parental educational attainment	. 50
Table B.1.10	Estimated average scores in financial literacy by parental educational attainment	51
Table B.1.11	Estimated average index of economic, social and cultural status (ESCS), by	
	national and provincial quarters	. 52
<b>Table B.1.12</b>	Estimated average scores in financial literacy by socioeconomic status	. 53
Table B.1.13	Correlation of financial literacy performance with performance in mathematics,	
	reading and science	
Table B.2.1	Percentage of students by saving behaviour	
Table B.2.2	Estimated average scores in financial literacy by saving behaviour	
Table B.2.3	Estimated score-point differences in financial literacy by saving behaviour	
Table B.2.4	Percentage of students by spending behaviour	
Table B.2.5	Estimated average scores in financial literacy by students' spending behaviour	59
Table B.2.6	Estimated score-point differences in financial literacy by students' spending behaviour	60
Table B.2.7	Percentage of students who reported each type of spending behaviour by	. 00
	proficiency level in financial literacy	61

Table B.2.8	Percentage of students discussing money matters with parents or other adults	62
Table B.2.9	Estimated average scores in financial literacy by students discussing money matters with parents or other adults	63
Table B.2.10	Estimated score-point differences in financial literacy by discussing money matters with parents or other adults	64
Table B.2.11	Percentage of students by sources of money	65
Table B.2.12	Estimated average scores in financial literacy by students' sources of money	66
Table B.2.13	Estimated score-point differences in financial literacy by students' sources of money	68
Table B.2.14	Percentage of students who do and do not hold a bank account	69
Table B.2.15	Estimated average scores in financial literacy for students who do and do not hold a bank account	70

### List of Figures

Chapter 1: Cana	dian Students' Performance in Financial Literacy in an International Context	7
Figure 1.1	Distribution of students by proficiency level on the financial literacy scale	10
Figure 1.2	Estimated average scores and confidence intervals in financial literacy	12
Figure 1.3	Difference between high and low achievers in financial literacy	14
Figure 1.4	Distribution of students by parental educational attainment	16
Figure 1.5	Average scores in financial literacy by socioeconomic status	18
Chapter 2: Stude	ents' Experiences with Money and Their Performance in Financial Literacy	21
Figure 2.1	Average scores in financial literacy by students' saving behaviour for Canada	23
Figure 2.2	Percentage of students by spending behaviour	24
Figure 2.3	Average scores in financial literacy by students' spending behaviour	25
Figure 2.4	Percentage of students who reported each type of spending behaviour	
	by proficiency level in financial literacy for Canada	26
Figure 2.5	Frequency of students discussing money matters with parents	27
Figure 2.6	Average scores in financial literacy by sources of money for Canada	29
Figure 2.7	Percentage of students who held bank accounts	30
Figure 2.8	Difference in financial literacy scores between students who do and do not	
	hold a bank account	30

### Introduction

This report provides a high-level description of the Canadian results from the financial literacy component of the 2015 Program for International Student Assessment (PISA). Financial literacy encompasses an important set of life skills for all Canadians. These skills enable citizens to fully participate in modern society, managing their financial well-being knowledgably and confidently. Financial literacy is a vital skill for individuals' financial well-being and can also have broader economic implications: poor financial knowledge and decision making can affect both the individual's future and the national economy (FCAC, 2017). Many youth make financial decisions for themselves, have their own bank accounts, and have access to on-line payment methods. As youth near the end of their compulsory education, it is important that they have financial literacy to guide their everyday choices and major life decisions (OECD, 2014a). Results from the 2015 financial literacy component of the PISA assessment provide an important baseline measure of the financial literacy level of 15-year-olds in Canada.

This chapter describes what PISA is, how financial literacy is defined, and how it is measured in the survey. The PISA 2015 test questions are highly confidential and cannot be shared. Instead, the description of the PISA framework for financial literacy is included in this chapter, which provides detailed information about how the questionnaire is designed to ensure the questions provide adequate coverage of the domain. An overview of the response formats, descriptions of how the questions are scored, and sample questions are also provided.

Chapter 1 provides information on the general performance of Canadian 15-year-old students on the PISA 2015 assessment in financial literacy and by language of the school system, gender, immigrant status, parental education, and socioeconomic status (SES). Chapter 1 also explores to what extent students' performance in reading, mathematics, and science is associated with their performance in financial literacy.

Chapter 2 presents results on the performance in financial literacy in relation to students' experience with money, such as saving and spending behaviours, based on comparing the results of the assessment and results of the student questionnaire. The major findings and opportunities for further study are discussed in the conclusion.

#### What is PISA?

PISA is a collaborative effort among member countries of the Organisation for Economic Co-operation and Development (OECD).<sup>1</sup> Conducted every three years, it is a survey of 15-year-old students from around the world. PISA assesses the students' levels of key knowledge and skills that are essential for full participation in modern societies. The survey measures the core subject areas of reading, mathematics, and science, as well as an innovative domain (in 2015, this innovative domain was computer-based collaborative problem solving). In 2012, an optional financial literacy assessment was introduced. Canada participated in this optional component for the first time in 2015.

PISA does not measure academic achievement in relation to specific school curricula. Instead, it focuses on students' abilities to apply knowledge and skills and to analyze, reason, and communicate effectively as they examine, interpret, and solve problems. PISA also asks students about their motivations, beliefs about

<sup>&</sup>lt;sup>1</sup> For further details about PISA, see O'Grady et al., 2016.

themselves, and learning strategies. The PISA results can help educators, policy-makers, and the public identify how education systems are similar and different, but these results cannot directly identify cause-and-effect relationships between policies and student performances.

In 2015, 72 countries and economies participated in PISA's core domains of reading, mathematics, and science. Approximately 540,000 students completed this assessment, representing about 29 million 15-year-olds (OECD, 2017).

Close to 137,000 students from 15 countries and economies,<sup>2</sup> representing approximately 11 million 15-year-olds, took part in the financial literacy assessment. In Canada, approximately 3,400 15-year-olds from seven provinces (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia) participated.<sup>3</sup> Afterwards, this sample was used to calculate the financial literacy scores for all PISA participating students across the seven provinces (Table 1).<sup>4</sup>

		Table 1								
Sample size for financial literacy assessment for Canada and the provinces										
Canada and provinces	Number of students sampled in financial literacy (unweighted)	Number of students sampled in financial literacy (weighted)	Number of participating students in PISA (unweighted)	Number of participating students in PISA (weighted)						
Newfoundland and Labrador	310	1,277	1,203	5,052						
Prince Edward Island	102	356	392	1,339						
Nova Scotia	371	2,240	1,439	8,611						
New Brunswick	406	1,846	1,555	6,991						
Ontario	1,123	36,388	4,223	138,756						
Manitoba	593	3,116	2,317	12,004						
British Columbia	504	10,714	1,953	40,810						
Canada	3,409	55,936	13,082	213,562						

*Note*: Participating students in PISA have scores in the core domains of mathematics, reading, and science, and where available, the optional domain of financial literacy.

### What is financial literacy?

Policy-makers around the world are increasingly seeing financial literacy as essential for the economic and financial well-being of their citizens. This view is evident in the fact that many countries are developing national strategies for financial education (OECD, 2016a). Canada launched its national strategy for financial literacy in 2014. Because the precise definition of the skill varies slightly by organization it is important to be clear about how PISA defines financial literacy and how that compares to Canada's definition.

<sup>&</sup>lt;sup>2</sup> This includes ten OECD countries or economies (Australia, Canada, Chile, Flanders [Belgium], Italy, the Netherlands, Poland, Slovak Republic, Spain, and United States) and five partner countries or economies (Brazil, BSJG–China, Lithuania, Peru, and Russian Federation).

<sup>&</sup>lt;sup>3</sup> No data were collected in the three territories or in First Nations schools (or in Quebec, Saskatchewan, and Alberta). In this report, Canadian provinces are ordered from east to west, with some exceptions.

<sup>&</sup>lt;sup>4</sup> Further information on the sample for the financial literacy option can be found in Appendix A2 of OECD (2017).

#### How PISA defines financial literacy

The PISA Financial Literacy Assessment Framework defines financial literacy as "knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life" (OECD, 2016a). The first part of PISA's definition outlines the kind of thinking and behaviour expected and the second part refers to the purposes for developing financial literacy.

#### A Canadian definition of financial literacy

Canada's Task Force on Financial Literacy defined financial literacy as "having the knowledge, skills and confidence to make responsible financial decisions" (Task Force on Financial Literacy, 2010). Knowledge refers to an *understanding* of personal and broader financial matters. Skills refer to the ability to *apply* that financial knowledge in everyday life. Confidence involves having the self-assurance to make important decisions. Responsible financial decisions refers "to the ability of individuals to use the knowledge, skills and confidence they have gained to make choices appropriate to their own circumstances" (Task Force on Financial Literacy, 2010).

The main difference between the definitions lies in the purpose of financial literacy. The Canadian definition concludes by saying that the purpose of financial literacy is "to make responsible financial decisions," whereas the PISA definition extends into intermediate and long-term outcomes of improving the financial well-being of individuals and society and enabling participation in economic life. At their core, both definitions involve having knowledge, skills, and confidence related to financial matters and applying these in the real world. The overlap in definitions provides a level of assurance that the PISA financial literacy assessment is indeed referring to similar concepts as Canada's Task Force on Financial Literacy.

In some cases, provincial ministries of education have also developed their own definitions of financial literacy to guide their financial literacy education initiatives. Some of these definitions include components of the federal task force definition and the OECD definition, and may also include economic understanding, consumer awareness, and engaged citizenship.

#### The PISA framework for financial literacy

The PISA financial literacy test was designed using an assessment framework to ensure adequate coverage from three key perspectives: content, processes, and contexts. The definitions of these three perspectives provide a fairly detailed picture of what the PISA financial literacy questions cover.

#### Content

Financial literacy is defined as involving the areas of knowledge and understanding that are required to perform a particular financial task. PISA's financial literacy content areas are: money and transactions (e.g., knowledge of how to manage simple monetary transactions such as everyday payments); planning and managing finances (e.g., the process of managing, planning, and monitoring income and expenses and understanding how to enhance wealth and financial well-being); risk and reward (e.g., the ability to identify ways of balancing and covering risks); and the financial landscape (e.g., knowing the rights and responsibilities of consumers in the financial marketplace).

#### Processes

A financially literate individual relies on a number of cognitive processes such as recognizing and applying relevant concepts, understanding, analyzing, reasoning about, evaluating, and suggesting solutions. The PISA financial literacy process categories are: identify financial information; analyze information in a financial context; evaluate financial issues; and apply financial knowledge and understanding.

#### Contexts

The context or situation in which an issue is presented can often affect how an individual thinks about it and consequently the decision he or she makes. Some situations will also be more familiar to some individuals than others. The PISA financial literacy context areas involve: education and work, home and family, individuals (related to the individual consumers), and society.

#### The 2015 financial literacy test

The PISA financial literacy test items include a stimulus followed by one or two questions based on it. The stimulus material may include prose, a diagram, a table, a chart, or illustrations. Some items can be answered by checking a box, while others require a calculation or a short written response. Most items are scored as either correct (full credit) or incorrect (no credit), but the coding scheme allows for partial credit on items where an incomplete answer demonstrates a higher level of financial literacy than an inaccurate or incorrect answer. The assessment is designed to include a broad sample of items to measure the strengths and weaknesses of students.

Final test items had been assessed in a field trial prior to the 2012 assessment and were selected based on their psychometric properties, such as ensuring that each item distinguished between high- and lowscoring students. New items in financial literacy were also developed for the PISA 2015 field trial to replace items that were released in PISA 2012. The 2015 financial literacy assessment was made up of 43 test items and was administered as a one-hour computer-based exercise. Table 2 summarizes the financial literacy assessment coverage by content, processes, and context. See Appendix A for sample questions (OECD, 2016a, 2017).

#### Table 2

### Distribution of score points within financial literacy assessment and sample questions, by content, processes, and context

Content, processes, and contexts	Distribution of score points	Sample questions* (see Appendix A)			
Content					
Money and transaction	30-40 per cent	Invoice, Pay slip			
Planning and managing finances	25–35 per cent	New offer			
Risk and reward	15–25 per cent	Shares			
Financial landscape	10–20 per cent	N/A			
Processes					
Identify financial information	15–25 per cent	Invoice, Pay slip			
Analyze information in a financial context	15–25 per cent	Shares, New offer			
Evaluate financial issues	25–35 per cent	N/A			
Apply financial knowledge and understanding	25–35 per cent	N/A			
Contexts					
Education and work	10-20 per cent	Pay slip			
Home and family	30–40 per cent	N/A			
Individuals	35–45 per cent	Invoice, Shares, New offer			
Society	5–15 per cent	N/A			

\* See Appendix A.

### Chapter 1

### Canadian Students' Performance in Financial Literacy in an International Context

This chapter presents results of the PISA 2015 assessment in the optional domain of financial literacy. In Canada, seven provinces (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia) participated in the 2015 PISA financial literacy assessment. The performance on the financial literacy assessment of 15-year-old students across the seven provinces is compared to that of the other participating countries and economies in terms of the five proficiency levels, average scores, and variation of performance. The performance of students enrolled in anglophone and francophone school systems is presented next, for the provinces of Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia, in which the two groups were sampled separately. Given that all ministries and departments of education in Canada have an administrative unit in charge of educational services for official-language minorities, this is an important area of analysis.

The next section examines the differences in financial literacy performance between boys and girls, in part because gender gaps in performance across Canada were found in the core domains of mathematics and reading in PISA 2015 and earlier. Following this, the key background characteristics of 15-year-old Canadian students (including immigrant status, parental education, and socioeconomic status [SES]) are reported because students' success may be affected to a great extent by their individual and family characteristics.

According to the OECD, some level of mathematical literacy and a basic reading proficiency are prerequisites for financial literacy (OECD, 2016a). Therefore, students' financial literacy performance is compared with mathematics, reading, and science performance in the chapter's final section.

#### PISA achievement results by proficiency levels in financial literacy

PISA's continuous scale of financial literacy is divided into five levels to provide an overall picture of students' accumulated knowledge and skills in this domain at age 15. The scale and the five proficiency levels were originally constructed for the PISA 2012 assessment of financial literacy and remain valid for the 2015 assessment. Tasks at the lower end of the scale (Level 1) are deemed easier and less complex than tasks at the higher end (Level 5). Each level represents 75 score points, which means that there are 75 points between the top of one level and the top of the next. Table 1.1 summarizes the tasks that students are able to do at the five proficiency levels of financial literacy along with the corresponding lower score limit for the level. Students classified at a given proficiency level can perform most of the tasks at that level as well as the tasks at the preceding levels.

			Table 1.1
	1	PISA 2015 fi	nancial literacy proficiency levels—Summary description*
Level	Lower score limit	Percentage of students able to perform tasks at this level or above	Task characteristics
5	624.63	11.8% of students across the OECD and 21.8% in Canada	<ul> <li>Students at Level 5 of the PISA financial literacy assessment are able to successfully complete the most difficult PISA items.</li> <li>At Level 5, students can: <ul> <li>apply their understanding of a wide range of financial terms and concepts to contexts that may become relevant to their lives only in the long term;</li> <li>analyze complex financial products and take into account features of financial documents that are significant but unstated or not immediately evident, such as transaction costs; and</li> <li>work with a high level of accuracy and solve nonroutine financial problems, and describe the potential outcomes of financial decisions, showing an understanding of the wider financial landscape, such as income tax.</li> </ul> </li> </ul>
4	549.86	31% of students across the OECD and 45.7% in Canada	<ul> <li>At Level 4, students can:</li> <li>apply their understanding of less-common financial concepts and terms to contexts that will be relevant to them as they move towards adulthood, such as bank account management and compound interest in saving products;</li> <li>interpret and evaluate a range of detailed financial documents, such as bank statements, and explain the functions of less commonly used financial products; and</li> <li>make financial decisions, taking into account longer-term consequences such as understanding the overall cost implication of paying back a loan over a longer period, and solving routine problems in less-common financial contexts.</li> </ul>
3	475.10	55.9% of students across the OECD and 70.2% in Canada	<ul> <li>At Level 3, students can:</li> <li>apply their understanding of commonly used financial concepts, terms, and products to situations that are relevant to them;</li> <li>begin to consider the consequences of financial decisions and make simple financial plans in familiar contexts;</li> <li>make straightforward interpretations of a range of financial documents and apply a range of basic numerical operations, including calculating percentages; and</li> <li>choose the numerical operations needed to solve routine problems in relatively common financial literacy contexts, such as budget calculations.</li> </ul>
2	400.33	77.7% of students across the OECD and 87.3% in Canada	<ul> <li>Level 2 is considered the baseline level of financial literacy proficiency that is required to participate fully in modern society.</li> <li>At Level 2, students can: <ul> <li>apply their knowledge of common financial products and commonly used financial terms and concepts;</li> <li>use given information to make financial decisions in contexts that are immediately relevant to them;</li> <li>recognize the value of a simple budget and interpret prominent features of everyday financial documents;</li> <li>apply single basic numerical operations, including division, to answer financial questions; and</li> <li>show an understanding of the relationships between different financial elements, such as the amount of use and the costs incurred.</li> </ul> </li> </ul>
1	325.57	91.6% of students across the OECD and 95.6% in Canada	<ul> <li>At Level 1, students can:</li> <li>identify common financial products and terms and interpret information relating to basic financial concepts;</li> <li>recognize the difference between needs and wants and make simple decisions on everyday spending; and</li> <li>recognize the purpose of everyday financial documents such as an invoice and apply single and basic numerical operations (addition, subtraction, or multiplication) in financial contexts that they are likely to have experienced personally.</li> </ul>

#### \* Adapted from OECD (2017).

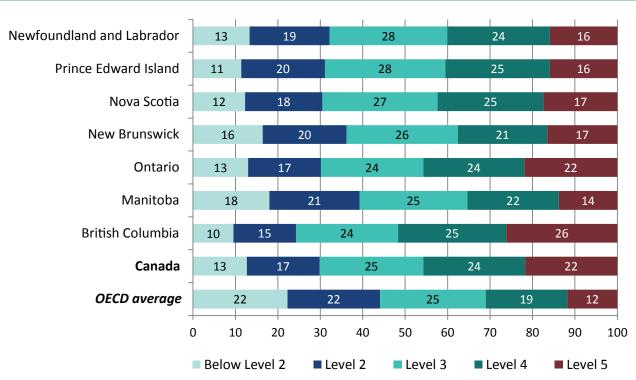
#### Canadian students achieve a high level of proficiency in financial literacy

In PISA 2015, 87 per cent of Canadian students performed at or above Level 2 in financial literacy, which the OECD considers a baseline level of financial literacy proficiency (Table 1.1). This compares to an average of 78 per cent of students in OECD countries performing at or above Level 2. Of all of the participating countries and economies, only Beijing, Shanghai, Jiangsu, Guangdong [BSJG]–China (91 per cent) had a significantly higher proportion of students performing at or above Level 2 than Canada. At the provincial level, British Columbia (90 per cent) had a higher proportion of students than the Canadian average scoring at or above the baseline level of performance and Manitoba (82 per cent) had a lower proportion (Figure 1.1). No statistically significant differences were found in other provinces.

In this report, performing below Level 2 corresponds to low achievement, whereas performing at Level 5 corresponds to high achievement. Figure 1.1 shows that 22 per cent of Canadian students and 12 per cent of students in OECD countries performed at Level 5. The highest proportion of top achievers across all participating countries was found in BSJG–China (33 per cent), followed by Flanders (Belgium) (24 per cent) and Canada (22 per cent) (Appendix B.1.1). In Canada, there is a lot of variability among the provinces. British Columbia (26 per cent) had a higher proportion of students who scored at Level 5 in financial literacy than the Canadian average while Newfoundland and Labrador (16 per cent), Nova Scotia (17 per cent), New Brunswick (17 per cent), and Manitoba (14 per cent) had a lower proportion. The proportion of students who scored at Level 5 in Ontario (22 per cent) and Prince Edward Island (16 per cent) was not statistically significantly different from the Canadian average.

At the lower end of the financial literacy scale, 13 per cent of Canadian students did not reach the baseline Level 2, compared with 22 per cent for the OECD on average. BSJG–China had the smallest proportion (9 per cent) of low achievers, Flanders (Belgium) (12 per cent) and the Russian Federation (11 per cent) had a proportion of low-achieving students similar to Canada, and the remaining 11 participating countries and economies had a higher proportion of low achievers than Canada, ranging from 19 per cent in the Netherlands to 53 per cent in Brazil (Appendix B.1.1). Within Canada, British Columbia (10 per cent) had a lower proportion of low-achieving students than the Canadian average while Manitoba had a higher proportion (18 per cent) (Figure 1.1).

Only 4 per cent of Canadian students did not achieve Level 1 in financial literacy compared to 8 per cent of students across the OECD. Provincially, this proportion ranged from 3 per cent of students in Nova Scotia and British Columbia to 6 per cent in New Brunswick and Manitoba (Appendix B.1.1).



#### Distribution of students by proficiency level on the financial literacy scale

Figure 1.1

Note: Percentages may not add up to 100 because of rounding.

#### PISA achievement results by average scores in financial literacy

A continuous financial literacy scale was constructed for the 2012 PISA assessment, with an average or mean of 500 points for the OECD countries and a standard deviation of 100. In the 2015 PISA financial literacy assessment, the OECD average was 489, with one standard deviation of 110.<sup>5</sup> This means that approximately two-thirds of all students in OECD countries scored between 379 and 599 on the financial literacy scale (i.e., within one standard deviation of the average) on this PISA 2015 assessment.

International studies such as PISA summarize student performance in terms of the relative standing of countries based on their average test scores. It is important to keep in mind that there is a margin of error associated with each score (see the following note) and therefore only those differences between countries that are statistically significant should be considered when interpreting average performances.

<sup>&</sup>lt;sup>5</sup> The composition of the OECD average on financial literacy assessment is somewhat different between the two cycles of PISA. In PISA 2012, OECD countries included Australia, Czech Republic, Estonia, Flanders (Belgium), France, Israel, Italy, New Zealand, Poland, Slovak Republic, Slovenia, Spain, and United States. In PISA 2015, OECD countries included Australia, Canada, Chile, Flanders (Belgium), Italy, the Netherlands, Poland, Slovak Republic, Spain, and United States.

#### A note on statistical comparisons

The average proportions of students at proficiency levels and mean scores were computed from the scores of random samples of students from each country and not from the population of students in each country. Consequently, it cannot be said with certainty that a sample average has the same value as the population average that would have been obtained had all 15-year-old students been assessed. Additionally, a degree of error is associated with the scores describing student performance because these scores are estimated based on student responses to test items. Thus a statistic, called the standard error, is used to express the degree of uncertainty associated with both sampling and measurement error. The standard error can be used to construct a confidence interval, which provides a means of making inferences about the population averages and proportions in a manner that reflects the uncertainty associated with sample estimates. A 95 per cent confidence interval is used in this report and represents a range of plus or minus about two standard errors around the sample average. When using this confidence interval it can be inferred that the population proportion or mean would lie within the confidence interval in 95 out of 100 replications of the measurement, using different samples randomly drawn from the same population.

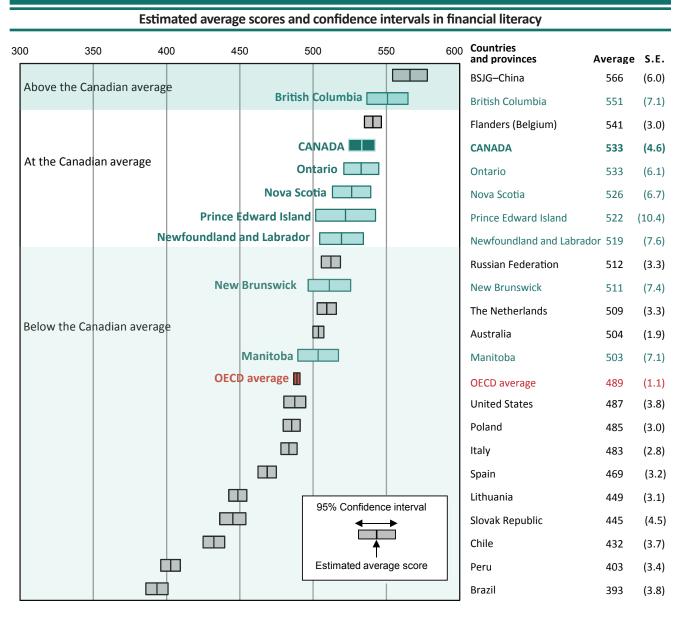
When comparing scores among countries, provinces, or population subgroups, readers should consider the degree of error in each average to determine whether averages are significantly different from each other. Standard errors and confidence intervals may be used as the basis for performing these comparative statistical tests. Such tests can identify, with a known probability, whether there are actual differences in the populations being compared.

For example, when an observed difference is significant at the .05 level, it implies that the probability is less than .05 that the observed difference could have occurred because of sampling or measurement error. When comparing countries, economies, and provinces, researchers make extensive use of this type of statistical test to reduce the likelihood that differences resulting from sampling or measurement errors will be interpreted as real.

A test of significance (t-test) was conducted to determine whether the difference was statistically significant. In case of multiple t-tests, no corrections were made to reduce the false positive, or Type-I error rate. **Only statistically significant differences at the .05 level are noted in this report, for proportions of students at proficiency levels and mean scores, unless otherwise stated.** 

#### Canadian students perform well in financial literacy in a global context

Overall, Canadian 15-year-old students achieved a mean score of 533 in financial literacy, which is well above the OECD average of 489. As Figure 1.2 illustrates, among the 15 countries and economies that participated in the 2015 PISA financial literacy assessment, only one, BSJG–China, outperformed Canada, while Flanders (Belgium) performed as well as Canada, and the remaining 12 countries performed below Canada.



#### Figure 1.2

#### There are marked variations between provinces

As Figure 1.2 shows, only students in British Columbia performed above the Canadian average in financial literacy. With an average score of 551, they performed as well as BSJG–China and Flanders (Belgium), and surpassed all other participating countries. Students in Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and Ontario performed at the Canadian average, while New Brunswick and Manitoba were below the Canadian average. Furthermore, all provinces scored above the OECD average in financial literacy (Appendix B.1.2).

When interpreting provincial and international results, readers should keep in mind that PISA students were aged between 15 years and 3 months and 16 years and 2 months in participating countries and economies, which means that not all students were in the same grade. Students in higher grades have received more formal education and might score higher because of the skills they have learned through this additional schooling. In the seven provinces participating in financial literacy, 95 per cent of students were at the Grade 10 level and they achieved a mean score of 535. Grade 9 students (4 per cent) achieved a mean score of 476. Small proportions of students participating in financial literacy in PISA 2015 were in lower or higher grades.

### Although Canadian students performed well, there is a large gap between those with the highest and lowest scores

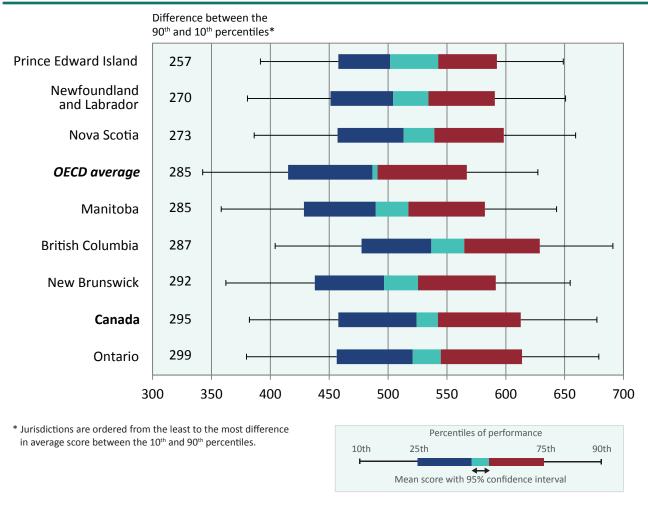
Another way of studying differences in achievement is to look at the distribution of scores within a population. Equity, or the gap between students with the highest and those with the lowest scores, is an important indicator of education outcomes. This gap, expressed as a score-point difference between the 90<sup>th</sup> and 10<sup>th</sup> percentiles, demonstrates the disparity in performance between the students who scored highest and lowest. Figure 1.3 shows the difference in average scores between highest and lowest achievers in financial literacy in Canada, the provinces, and in the OECD. For Canada overall, the top 10 per cent of students scored 295 points higher than the bottom 10 per cent of students. This gap compares to 285 across OECD participating countries, which puts Canada among jurisdictions with above-average financial literacy performance but also with an above-average level of disparity in student performance. Students in the 10<sup>th</sup> percentile and those in the 90<sup>th</sup> percentile in Canada and most provinces scored higher than their corresponding peers across OECD countries on average. The larger disparities in Canada are in part observed because Canada's top 10 per cent of students achieved higher scores than top performers in other OECD countries.

Among the five countries and economies (Australia, Brazil, BSJG–China, the Netherlands, and Slovak Republic) that had larger gaps than Canada between the students who scored highest and lowest, the average performance in financial literacy varied widely (Appendix B.1.3).

At the provincial level, we observe the smallest gap in Prince Edward Island at 257 score points (more equity) while the largest gap is in Ontario at 299 (less equity). Provinces with smaller gaps than the OECD average include Newfoundland and Labrador, Prince Edward Island, and Nova Scotia. Although high-achieving countries tend to have a larger gap between the top scores and lowest scores, high achievement does not necessarily mean less equity.

#### Figure 1.3





### In most Canadian provinces, students in majority-language school systems have higher performance in financial literacy than students in minority-language school systems

Students belonging to the majority-language school system are those in the anglophone schools in all provinces except Quebec. Because Quebec did not participate in the financial literacy assessment, comparisons in this section refer to the anglophone majority-language school systems and francophone minority-language school systems. For this reason, readers should exercise caution when comparing the majority- and the minority-language systems. Of the seven provinces that participated in financial literacy assessment, five (Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia) had sufficiently large samples to allow for separate reporting for students in the anglophone and francophone school systems.<sup>6</sup>

In financial literacy, students in the majority-language school system (536) outperformed students in the minority-language school system (473) by 62 points in Canada overall (Table 1.2). Provincially, the same pattern was observed in Nova Scotia, Ontario, and British Columbia, where the differences between the systems ranged from 53 to 79 points. No statistically significant difference in performance between the two language school systems was found in New Brunswick or Manitoba.

<sup>&</sup>lt;sup>6</sup> Within anglophone school systems, students in French Immersion programs completed the financial literacy component in English.

#### Table 1.2 Estimated average scores in financial literacy by language of the school system **Anglophone school Francophone school Difference between** system system systems\* Score S.E. S.E. Average Average S.E. difference Nova Scotia 529 (7.1)449 (18.4)79 (22.7)New Brunswick 520 (8.8)485 (16.6)35 (19.4)Ontario 536 (6.3)470 (11.6)65 (13.4)47 Manitoba 505 (7.2)457 (23.0)(24.3)**British Columbia** 551 (7.2)497 (22.4)53 (23.4)473 62 Canada 536 (4.8)(10.2)(12.0)

\* Results in bold indicate a statistically significant difference between the two systems. The Canadian results include students from the seven participating provinces.

### Across Canada, there is no gender gap in financial literacy

PISA found no difference between boys and girls in average financial literacy scores in Canada or the provinces (Appendix B.1.5). There was a small gender gap in OECD countries on average whereby girls outperformed boys by a small margin (five points). These are encouraging findings given that adult males have frequently outperformed adult females (OECD, 2016b). There was some variability between participating countries: girls outperformed boys in five countries (Australia, Lithuania, Poland, Slovak Republic, and Spain), while boys outperformed girls only in Italy.

The proportion of students who scored at below Level 2 in financial literacy was higher for boys (14 per cent) than girls (11 per cent) in Canada, with the same finding observed in Ontario (14 per cent and 12 per cent respectively). No gender differences were observed in Canada overall or in any of the provinces at the highest level of proficiency (Level 5). In the participating OECD countries, there was a higher proportion of boys than girls performing at both the highest level and lowest levels of proficiency in financial literacy on average (Appendix B.1.6).

# There is no performance gap between immigrant and non-immigrant students in financial literacy

Across OECD countries participating in financial literacy assessment, 13 per cent of 15-year-old students identified themselves as having an immigrant background. Canada stands out for having over a third of its student population made up of immigrants (34 per cent), which is above other countries with high immigration rates, such as Australia (25 per cent) and United States (23 per cent), and well above the OECD average. Provincially, the highest proportion of immigrant students are in British Columbia (39 per cent) and Ontario (37 per cent), followed by Manitoba (24 per cent). (See Appendix B.1.7.)

In PISA 2015, students were grouped into three categories, corresponding to the following definitions:

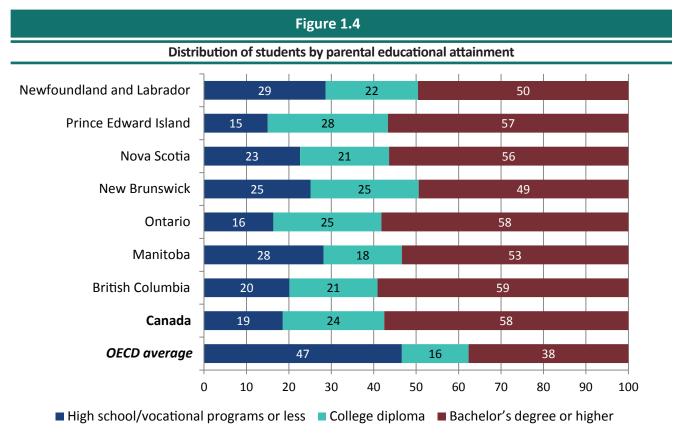
• **Non-immigrant** students have at least one parent who was born in the country in which the assessment was administered, regardless of whether the student himself or herself was born in that country.

- **Second-generation immigrant** students were born in the country in which the assessment was administered but have foreign-born parents.
- First-generation immigrant students are foreign-born students whose parents are also foreign-born.

In Canada and the provinces there was no difference between immigrant and non-immigrant students in average financial literacy scores (Appendix B.1.8). In contrast, non-immigrant students scored 33 points higher than second-generation or first-generation students across OECD countries. Notable differences across other countries include second-generation immigrant students in Australia who outperformed the other two groups, and non-immigrant students in the United States who outperformed immigrant students.

### Higher levels of parental educational attainment are strongly associated with students' higher proficiency in financial literacy in most provinces

PISA 2015 classified parents' highest educational attainment using International Standard Classification of Education (ISCED-97; UNESCO, 1997) based on students' responses on the student questionnaire.<sup>7</sup> At the Canadian level, 81 per cent of students have at least one parent with tertiary education (college or university). This was much higher than the numbers of their international counterparts where, across the OECD countries, only 53 per cent were estimated to have this level of parental educational attainment (Figure 1.4). Provincially, this proportion ranged from 71 per cent in Newfoundland and Labrador to 85 per cent in Prince Edward Island.



*Note:* Percentages may not add up to 100 because of rounding. Vocational programs refer to trade/vocational diplomas or certificates, or an apprenticeship.

For further details about student questionnaires in PISA 2015, see O'Grady et al., 2016.

Students whose mother and/or father completed college or university performed significantly better on the financial literacy test than students whose parents did not attain this level of education in OECD countries, Canada, and all provinces—except Prince Edward Island where this difference was not statistically significant. In Canada, students whose parents' highest educational attainment is high school/ vocational programs or less scored 21 points lower on the financial literacy assessment than students whose parents' highest educational attainment is college and 41 points lower than students whose parents' highest educational attainment is a bachelor's degree or higher. Across the OECD countries, the gaps were 19 points and 46 points, respectively (Appendix B.1.10). Also of note is that students whose parents have a bachelor's degree or higher outperformed students whose parents have a college diploma, in OECD countries, Canada, and Ontario.

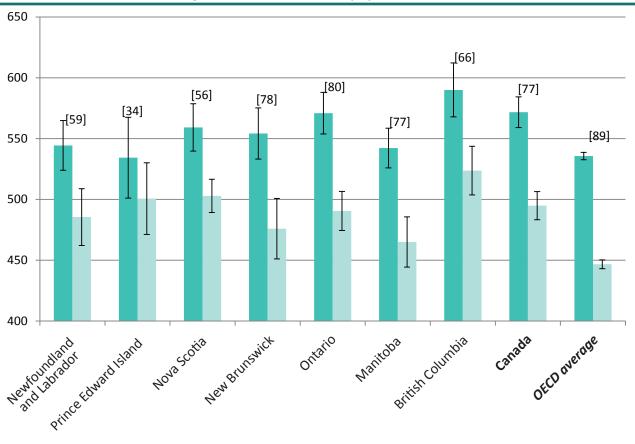
### Socioeconomically advantaged students outperform disadvantaged students in financial literacy

In PISA, socioeconomic status is measured by an index of economic, social, and cultural status (ESCS). Based on students' responses on the student questionnaire, this index was constructed from the following variables: parents' highest occupational status, parents' highest educational level, a number of home possessions that can be used as proxies for material wealth, and the number of books and other educational resources available in the home.

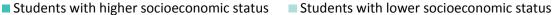
The average ESCS index of OECD countries was –0.03 (with a higher index signifying a higher average socioeconomic status), while Canada's ESCS index was 0.54—the highest in all of the participating countries and economies. At the provincial level, the ESCS index varied from a high of 0.61 in British Columbia to a low of 0.34 in Newfoundland and Labrador and New Brunswick (Appendix B.1.11).

According to the OECD, socioeconomically advantaged students were the top 25 per cent of the ESCS index whereas socioeconomically disadvantaged students were defined as the bottom 25 per cent of the ESCS index (OECD, 2017). The socioeconomically advantaged students outperformed the disadvantaged students in financial literacy across OECD countries and in all participating provinces in Canada, except Prince Edward Island where the disparity in average financial literacy scores between the two groups was not statistically significant (Figure 1.5).

#### Figure 1.5



#### Average scores in financial literacy by socioeconomic status



*Note:* Score-point differences between students with higher socioeconomic status and lower socioeconomic status are displayed in brackets.

In line with these findings, the relationship between students' socioeconomic status and their performance in financial literacy was positive in Canada, but not as strong as in other OECD countries. The ESCS index explained 9.9 per cent of the variation in financial literacy achievement results among OECD countries, with Canada registering a smaller effect at 6.9 per cent. Socioeconomic status explained less of the variation in financial literacy scores in the Russian Federation and Slovak Republic compared with Canada, and a similar proportion of variation in Brazil, Italy, and Lithuania. The variation in achievement in financial literacy explained by ESCS ranged between 1.7 per cent in Prince Edward Island and 7.2 per cent in Ontario and Manitoba (Appendix B.1.12).

### Performance in financial literacy relates positively to performance in other PISA subject areas

Some aspects of financial literacy can be directly related to mathematical skills, such as number sense; familiarity with multiple representations of numbers; and skills in mental calculation, estimation, and assessing the reasonableness of results. However, other skills related to successfully navigating personal finances are equally if not more important. Out of the four content areas in mathematics in PISA, only *quantity* directly intersects with the content in financial literacy (the other three content areas in

mathematics are: change and relationships, space and shape, and uncertainty) and the questions in this area of financial literacy assessment require more financial knowledge than those in the mathematical assessment. In the financial literacy assessment, the mathematical skills expected are basic arithmetic: addition; subtraction; multiplication; and division with whole numbers, decimals, and common percentages.

Similarly, some reading skills are necessary to successfully complete the financial literacy assessment, but the test's designers make efforts to minimize the level of reading literacy required. The tasks are designed to be as clear, simple, and brief as possible, with the exception of tasks designed to test the capacity to read and interpret the language of financial documents or pseudo-financial documents, which is a skill considered to be part of financial literacy.

Thus, a positive relationship between students' scores in financial literacy and mathematics and reading can be expected, but the tasks are designed not to overlap to a great extent. The relationship between scientific literacy and financial literacy is less direct because there are no specific scientific skills that are required to complete the financial literacy assessment. It is likely, however, that there is some overlap of the underlying skills that contribute to performance in both areas.

Looking at the correlation between financial literacy and mathematics, reading, and science, we might understand how achievement in these areas can influence performance in financial literacy. For OECD countries, the correlation between the performance in financial literacy and science was 0.78, followed by reading (0.75) and mathematics (0.74). Although these correlations are fairly high, they are lower than those between the three core areas in PISA (Table 1.3).

Table 1.3										
Correlation of financial literacy performance with performance in mathematics, reading, and science										
OECD average Canada										
	Mathematics	Reading	Science	Mathematics	Reading	Science				
Financial literacy	0.74	0.75	0.78	0.68	0.70	0.74				
Mathematics		0.80	0.89		0.78	0.88				
Reading			0.87			0.87				

In Canada, the correlations were slightly lower: 0.68 for mathematics, 0.70 for reading, and 0.74 for science (Table 1.3). Provincially, the findings were similar (Appendix B.1.13). While these correlations are still fairly high, they are far from being absolute determinants of performance: students who do well in mathematics, reading, or science will not necessarily do well in financial literacy. Also, as the international PISA report notes, performance in mathematics and reading explains 54 per cent of the variation in financial literacy in Canada (OECD, 2017). This figure is relatively low—over 60 per cent of variation in financial literacy is explained by performance in mathematics and reading in the majority of other participating countries and economies. This means that even though Canadian students' performance in financial literacy, the financial literacy result also captures unique skills not measured by the other domains.

#### **Summary**

Canadian students' performance in financial literacy was measured for the first time in PISA 2015. Globally, Canada is one of the top-performing countries in financial literacy. Across the country, over 80 per cent of Canadian students reached the baseline level of financial literacy proficiency required to participate fully in modern society (Level 2) while about one in five students reached Level 5.

In Canada overall and in Nova Scotia, Ontario, and British Columbia, students in majority-language school systems achieve higher results in financial literacy compared with students in minority-language school systems. Canadian students whose parents' highest educational attainment is a bachelor's degree or higher outperform their counterparts whose parents' highest educational attainment is high school/ vocational programs or less in Canada and across all provinces except Prince Edward Island where the difference was not statistically significant. As well, socioeconomically advantaged students outperform disadvantaged students in Canada and all provinces but Prince Edward Island, where the difference was again not statistically significant. No gaps in financial literacy performance are observed between girls and boys, or between immigrant and non-immigrant students in Canada.

These results serve as an important baseline measure of the financial literacy levels of Canadian youth. As Canada participates in subsequent cycles of financial literacy assessment in PISA over time, it will be possible to track any changes and observe trends as they occur, providing potentially even more valuable information to educators and policy-makers.

### Chapter 2

### Students' Experiences with Money and Their Performance in Financial Literacy

PISA data do not allow for the assignment of causal relationships. However, as we learn more about financial literacy in Canada, it is useful to examine how factors relate to one another, even if it is not yet possible to explain *why* these relationships exist. To put the findings in context, it is also useful to know what other researchers have found when examining these topics and understand the current theories behind why these factors may be important in financial literacy.

Parents, educators, and policy-makers alike are interested in how financial literacy skills are related to experiences with money matters. Research shows that students develop financial and economic understanding through a variety of means. Students can learn directly from their parents either through discussions about money management or simply observing their parents' behaviour. Students can also learn through personal experiences handling money (Otto, 2013; Shim et al., 2010; Whitebread & Bingham, 2013). Among Canadian adults, learning by doing appears to be key in building financial confidence, and financial confidence was found to be an important predictor of day-to-day money and debt management (Palameta et al., 2016).

#### Most 15-year-olds in Canada save money regularly

Saving and spending behaviours are habits that tend to be formed at a young age (Whitebread & Bingham, 2013), and are correlated with later behaviour in young adulthood and beyond (Ashby, Schoon, & Webley, 2011; Friedline, Elliott, & Nam, 2011). According to PISA 2015, in Canada, 33 per cent of 15-year-old students saved varying amounts of money each week or month, 20 per cent saved the same amount of money each week or month, 20 per cent saved money only when they wanted to buy something, and 17 per cent saved money only when they have some to spare. Only 4 per cent reported they do not save any money and 7 per cent reported that they do not have any money so they do not save. This pattern is similar to the OECD average. Table 2.1 presents the percentage of students who reported each type of savings behaviour for Canada, the provinces, and the OECD average.

#### Table 2.1

#### Percentage of students by saving behaviour I save I save some I save I save the same money each money money only I have no I do not save amount of week or when I have only when I money so I month, but money each any money some to want to buy do not save the amount week or spare something month varies % S.E. % S.E. % S.E. % S.E. % S.E. % S.E. Newfoundland **7**‡ (1.9)4<sup>‡</sup> 18 (2.6)36 (3.2)(2.2)23 (3.0)(1.3)12 and Labrador Prince Edward 15<sup>‡</sup> (4.2)41 (5.7)U‡ (3.6)23<sup>‡</sup> (4.7)U‡ (1.2)U‡ (3.1)Island Nova Scotia (2.1)(2.7)(1.9)(2.5)5<sup>‡</sup> (1.2)8<sup>‡</sup> (1.7)18 28 18 23 New Brunswick 19 (2.3)29 (2.8)(2.4)18 (2.0)4<sup>‡</sup> (1.0)12 (2.0)18 Ontario 20 (1.7)32 (1.7)(1.3)(1.4)4 (0.8)7 (0.9)17 21 Manitoba (2.3)32 (2.6)(3.0)19 (1.7)(1.9)(1.6)18 18 6 6 (2.1)7 **British Columbia** 19 (1.9)38 (2.4)17 16 (2.3)3‡ (1.0)(1.4)(1.0)7 Canada 20 (1.2)33 (1.1)17 (1.0)20 4 (0.6)(0.7)**OECD** average 19 (0.3)29 (0.4)20 (0.3)22 (0.3)6 (0.2)5 (0.2)

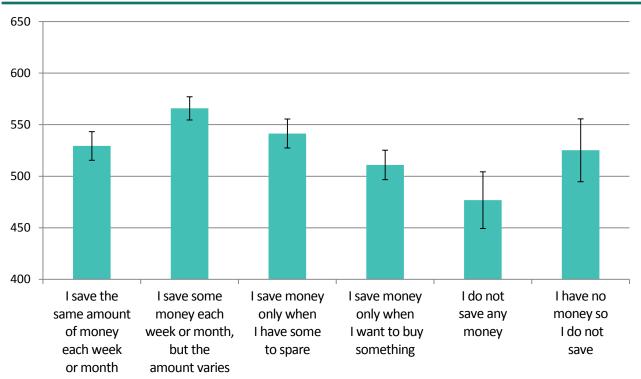
<sup>‡</sup> There are fewer than 30 observations.

U Too unreliable to be published.

Having savings in the bank can allow an individual more freedom in their spending choices and can be one way of developing financial independence (Coleman & Hendry, 1999; Otto, 2013). Figure 2.1 shows how financial literacy performance related to savings behaviour. Students who reported that they "save some money each week or month but the amount varies" had the highest financial literacy scores. These students achieved higher scores (Canada—566; OECD average—513) than the students who reported all other types of savings behaviour.

Among those students who reported access to money, the opposite is also true: students who reported not saving any money scored lower (Canada—477; OECD average—458) than students in all other categories. Financially literate students may be more likely to recognize the value of saving and have the skills to flexibly determine the amount to save. It could also be, however, that students with a preference for savings or a better ability to delay gratification become more financially literate through their money-management experience. The average score of students who reported not saving because they have no money was relatively high, and thus it is important to ascertain students' access to money when examining their saving behaviour. Results in other countries and Canadian provinces are reported in Appendix B.2.2 and B.2.3.

#### Figure 2.1



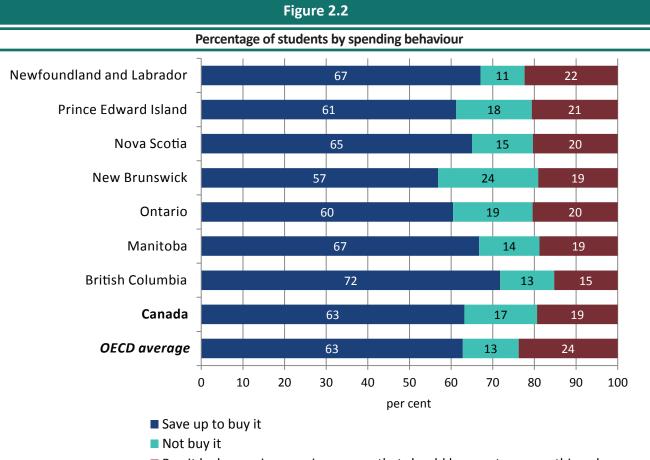
#### Average scores in financial literacy by students' saving behaviour for Canada

#### Most students said they would save up to buy something they really wanted

Purchasing items with savings is generally less risky than relying on credit or simply hoping that the future will take care of itself. The importance of establishing saving as a habit early in life is paramount because these behaviours tend to persist into young adulthood and beyond (Ashby, Schoon, & Webley, 2011; Friedline, Elliott, & Nam, 2011).

In PISA 2015, students were given a hypothetical scenario where they did not have enough money to buy something they really wanted (e.g., an item of clothing or sports equipment). They were asked to choose among various strategies to acquire the desired object, including buying the item anyway with money that should be used for something else; trying to borrow from a family member; trying to borrow from a friend; saving up money; or not buying it at all.<sup>8</sup> In Canada, 63 per cent of students said that they would save up to buy it, 19 per cent said they would buy it by borrowing or using money that should be spent on something else, and 17 per cent said they would not buy it. These results were similar to OECD averages, but somewhat varied in the provinces (Figure 2.2).

<sup>&</sup>lt;sup>8</sup> As a result of small sample sizes, "buy it with money that really should be used for something else," "try to borrow money from a family member," and "try to borrow money from a friend" categories were combined into "buy it by borrowing or using money that should be spent on something else" category.

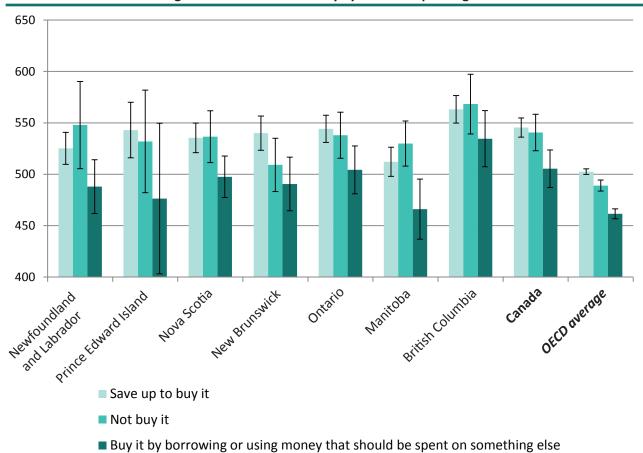


#### Buy it by borrowing or using money that should be spent on something else

Note: Percentages may not add up to 100 because of rounding.

Figure 2.3 shows how financial literacy results related to students' expected spending behaviour in a hypothetical scenario. Across Canada and OECD countries on average, the financial literacy scores of students who would save up to buy an item they really wanted and those who would not buy it were similar. However, students who would save up to buy the item scored 40 points higher on the financial literacy assessment than those who would buy it by borrowing or using money that should be spent on something else. This gap was observed both in Canada and on average across OECD countries.

#### Figure 2.3



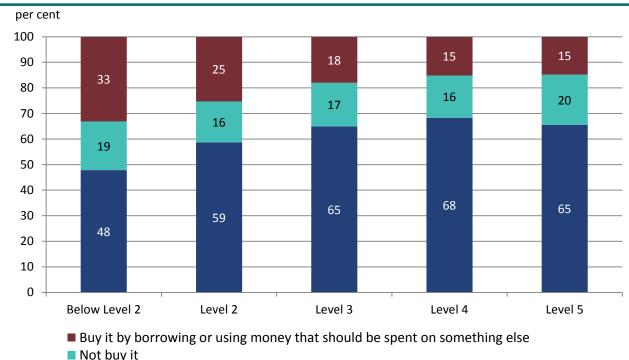
Average scores in financial literacy by students' spending behaviour

Figure 2.4 shows how Canadian students at each proficiency level responded to the hypothetical scenario.<sup>9</sup> The pattern shown in Figure 2.4 suggests that students who have achieved a high level of financial literacy may be more likely to prefer saving to overspending than students who have achieved a lower level of financial literacy. However, it could also be that students with a preference for saving or better ability to delay gratification may be more financially literate through money management experience. The US Consumer Financial Protection Bureau (CFPB) has found that personal traits such as impulse control and the ability to delay gratification are important factors in financial capability (CFPB, 2017). It is also worth noting that at any given proficiency level not all students responded the same way, and so financial literacy alone did not dictate students' choices.

<sup>&</sup>lt;sup>9</sup> Recall that proficiency levels provide an indication of the types of questions students in that score range are able to successfully answer, and consequently the types of skills they have mastered. Level 2 is considered the baseline level of financial literacy proficiency that is required to participate fully in modern society.

#### Figure 2.4





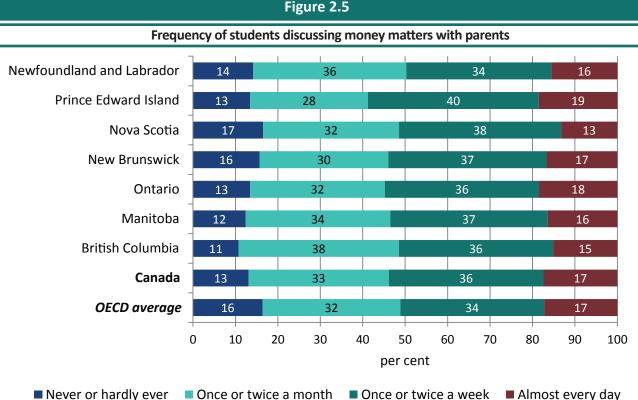
Save up to buy it

Note: Percentages may not add up to 100 because of rounding.

### Across Canada, discussing money matters with parents is associated with higher financial literacy

In some studies, students indicate that their parents are the most important source of learning about how to manage money (BCSC, 2011; Charles Schwab & Co., 2011; MAS, 2013). Students learn from parents not only through direct instruction, but also through observing their parents as role models (Gudmondson & Danes, 2011; Otto, 2013). Parents' attitudes and behaviours have an impact on their children's economic behaviour, both in the short and long term (Bucciol & Veronesi, 2014; Grintein-Weiss et al., 2012; Kim & Chatterjee, 2013; Tang, 2016; Webley & Nyhus, 2006, 2013).

PISA 2015 provides information about how frequently students discuss money matters, such as spending, saving, banking, and investment, with their parents. Figure 2.5 shows that most Canadian students discuss money matters with their parents between once a month and twice a week. In PISA 2015, Canadian students who discussed money matters with their parents once or twice a week scored the highest in financial literacy. These students scored significantly higher than those who never or hardly ever discussed money with their parents in OECD countries on average, and in Canada, Manitoba, and British Columbia (Appendix B.2.9 and B.2.10).



Never or hardly ever
Once or twice a monit

Note: Percentages may not add up to 100 because of rounding.

Although PISA data do not make it possible to assign causal relationships, this pattern suggests that one of the following is possible: (1) students may acquire financial skills by discussing money matters with their parents, or (2) more financially literate students ask questions and seek advice from their family more often than less financially literate ones.

### Students who reported having occasional jobs tended to have higher financial literacy scores

Another potential way to develop financial literacy skills is by gaining experience with handling one's own money. Through acquiring, spending, and saving money, children develop a sense of how to manage their own money (CFPB, 2016). Research has also demonstrated that learning can be influenced by the sources and amounts of money that children have access to (Doss, Marlowe, & Godwin, 1995; Furnham 1999; Meeks 1998). The PISA assessment included content related to "planning and managing finances," that assessed the ability to monitor income and expenses in the short and long term, including being able to identify various types and measures of income (OECD, 2013, 2016). PISA 2015's financial literacy background questionnaire asked students to indicate all sources they received money from. Students chose from a list of seven common sources that included gifts of money, earnings from occasional informal jobs, earnings from working outside of school hours in part-time or holiday jobs, allowance either for regularly doing chores at home or without having to do chores, selling things, and working in a family business.

In all countries and economies that participated in the PISA financial literacy assessment and in all participating Canadian provinces, the most frequent source of money was gifts from friends or relatives. In Canada, 90 per cent of students reported receiving gifts of money, compared to the OECD average of 84 per cent. More than half of Canadian students also reported earning money through occasional informal

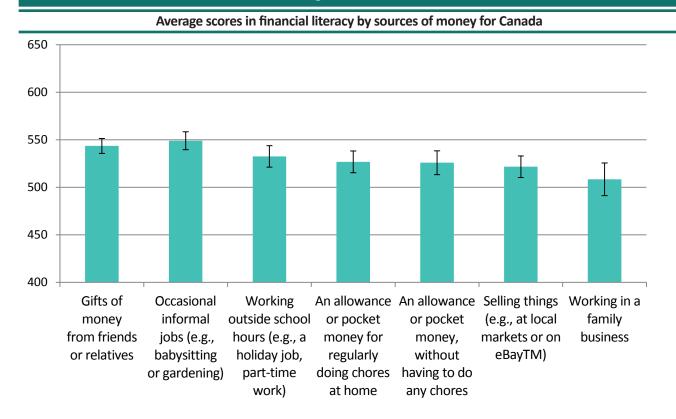
jobs such as babysitting or gardening (55 per cent). This is significantly higher than the average across the OECD, where only 39 per cent of students earn money through occasional jobs. Students in Canada were also more likely to report working outside school hours in part-time or holiday jobs (47 per cent) than on average in the OECD (39 per cent). Students also reported access to money through an allowance either for regularly doing chores at home (41 per cent) or without having to do any chores (34 per cent), selling things (e.g., at local markets or on eBay; 32 per cent) and working in a family business (17 per cent). Across the OECD, the corresponding rates were 43, 42, 33, and 18 per cent, respectively. Socioeconomic status likely influences students' access and sources of money, and should be investigated in future studies. See Table 2.2 for provincial results.

Table 2.2														
Percentage of students by sources of money														
	Gifts of money from friends or relatives		info jobs baby	sional rmal (e.g., sitting or ening)	out sch hours a ho job,	rking side nool s (e.g., oliday part- work)	allov or p mon regu do cho	An vance ocket ey for ularly bing res at ome	allov or po mo witi havi do	n vance ocket ney, hout ng to any ores	thi (e at l mark	lling ings .g., ocal æts or æBay)	in a f	rking amily iness
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
Newfoundland and Labrador	93	(1.8)	66	(3.9)	50	(3.5)	55	(3.5)	50	(3.5)	35	(3.6)	17	(2.3)
Prince Edward Island	85	(4.5)	51	(6.0)	67	(5.7)	43	(6.0)	24 <sup>‡</sup>	(6.0)	37	(5.7)	26 <sup>‡</sup>	(5.0)
Nova Scotia	92	(1.5)	66	(2.9)	47	(2.9)	39	(2.7)	27	(2.6)	41	(3.1)	13	(1.9)
New Brunswick	93	(1.9)	62	(3.1)	50	(3.2)	37	(3.4)	29	(2.6)	36	(3.6)	18	(2.5)
Ontario	91	(1.1)	52	(2.4)	47	(2.6)	40	(2.0)	34	(1.9)	31	(2.0)	17	(1.2)
Manitoba	88	(2.4)	60	(3.0)	47	(3.2)	44	(3.5)	27	(2.0)	32	(3.2)	19	(2.3)
British Columbia	88	(1.8)	56	(2.9)	45	(2.9)	41	(2.2)	38	(2.8)	31	(2.6)	19	(2.5)
Canada	90	(0.8)	55	(1.8)	47	(1.8)	41	(1.5)	34	(1.3)	32	(1.3)	17	(0.8)
OECD average	84	(0.3)	39	(0.4)	39	(0.5)	43	(0.5)	42	(0.4)	33	(0.4)	18	(0.3)

<sup>‡</sup> There are fewer than 30 observations.

According to the literature, the relationship between performance in financial literacy and the source of students' money is not clear. The research on the relationship between students earning money from small jobs and their financial literacy is conflicting (Grohmann, Kouwenberg, & Menkhoff, 2015; Shim et al., 2010). Theoretically, earning money through a job or chores may be one way of developing experience with managing money (Shim et al., 2010) and could, therefore, increase financial literacy scores. However, the time students dedicate to earning money could also be time taken away from studying to improve their abilities in mathematics and reading (Oettinger, 1999; Payne, 2003)—skills that can contribute to financial literacy. Figure 2.6 shows students' average financial literacy scores by source of money in Canada overall. Further investigation into how socioeconomic status is related to students' sources of money may provide further insight into the observed differences.

#### Figure 2.6



Canadian students who received gifts of money performed higher in financial literacy than those who did not receive cash as gifts. It could also be that those receiving gifts of money are socioeconomically advantaged, and advantaged students tend to outperform disadvantaged students (O'Grady et al., 2016). Results in other countries and Canadian provinces were varied (Appendix B.2.12 and B.2.13).

### On average, students with a bank account had higher financial literacy than students without one

As Figure 2.7 indicates, across Canada the majority (78 per cent) of 15-year-old students held bank accounts. This is significantly higher than the OECD average of 57 per cent. Across the provinces, this percentage ranged from 73 to 90 per cent of students. Holding a bank account from a young age can be one way of becoming familiar with financial products (Friedline & Elliott, 2013). Students can gain financial literacy skills through activities such as making simple monetary transactions and handling simple products like bank cards. Holding a bank account is also one way of being included in formal financial systems, and being included as a youth may assist a young person to remain in the system through their transition to adulthood (Friedline & Elliott, 2013).

Figure 2.8 illustrates the difference in average financial literacy scores for students who held bank accounts compared to those who did not. Students holding bank accounts outperformed those without on the financial literacy assessment in four (Newfoundland and Labrador, Ontario, Manitoba, and British Columbia) of the seven participating provinces. This difference was also significant across participating OECD countries and economies.

## Figure 2.7

Percentage of students who held bank accounts

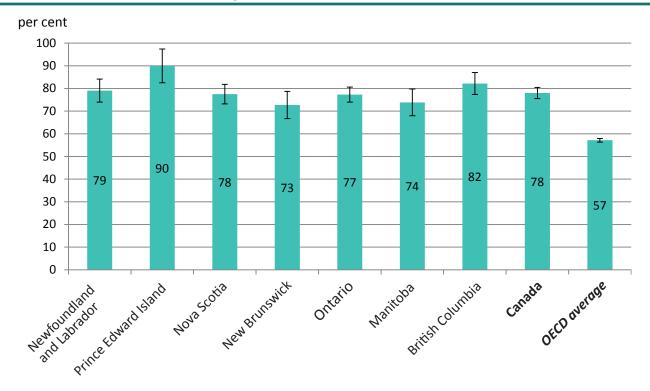
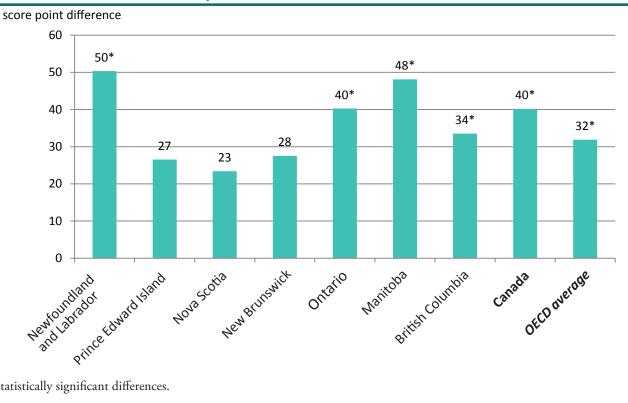


Figure 2.8

Difference in financial literacy scores between students who do and do not hold a bank account



\* Statistically significant differences.

## **Summary**

There are four key findings from the first administration of PISA financial literacy in Canada. First, most 15-year-olds in Canada saved money regularly, which is a positive sign that they have started to develop savings habits that will serve them well in the future. Not surprisingly, saving money was associated with high financial literacy. Second, if they were to not have enough money to buy something they really wanted, most students would save up to buy it. Again, this indicates that, on average, Canadian students have the intention to manage their money wisely, and these behaviours are also associated with higher financial literacy. Third, in every province that participated, over 70 per cent of students held a bank account, which was related to higher financial literacy. PISA data do not allow for the assignment of causal relations, but further investigation into the relationship between students' discussions about money with their parents and their financial literacy may provide insights into how to support the development of financial literacy among Canadian youth. Further analysis into how students' socioeconomic factors affect their relationship with money could also prove informative.

## **Conclusion**

The Program for International Student Assessment (PISA) is an international study that measures trends in learning outcomes for students at age 15. The Organisation for Economic Cooperation and Development (OECD) has organized this study every three years since 2000. In 2015, the optional financial literacy component was administered in 15 countries and economies, including Canada. Approximately 3,400 15-year-old Canadians in seven province (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia) participated in the financial literacy assessment. This sample was used to calculate the financial literacy scores for all PISA participating students across the seven provinces.

PISA provides comparative information on the abilities of students near the end of their compulsory education. Not only do PISA data allow researchers and others to compare provinces, countries, and economies on the knowledge and skills of youth, the data also provide information for us to monitor change in performance over time.

According to the results of PISA 2015, Canada is one of the top-performing countries in financial literacy among 15-year-old students. Seventy-eight per cent of students in OECD countries performed at or above Level 2 in financial literacy, which is the baseline level of financial literacy proficiency required to participate fully in modern society. In Canada, 87 per cent of students reached the baseline level. At the provincial level, the percentage of Canadian students at or above the baseline level of performance ranged from 82 per cent in Manitoba to 90 per cent in British Columbia. At the lower end of the PISA financial literacy scale, 13 per cent of Canadian students performed below the baseline compared with 22 per cent of students across the OECD countries.

Twenty-two per cent of Canadian students performed at the highest proficiency level (Level 5) compared to 12 per cent performing at this level for the OECD. The proportion of high-performing students was more than 10 per cent in all participating provinces and more than 20 per cent in Ontario and British Columbia.

Overall, Canadian 15-year-old students achieved a mean score of 533 in financial literacy, 44 points above the OECD average. They were surpassed by students from BSJG–China. Flanders (Belgium) performed as well as Canada, and the remaining 12 countries performed below Canada's score. At the provincial level, students in British Columbia achieved higher average scores than the Canadian average.

While Canada had above-average financial literacy performance, it also had an above-average level of disparity in student performance, meaning that the gap between the students with the highest and lowest scores is larger in Canada than the average gap size across countries that participated in the assessment. The larger gaps were observed in part because Canada's top 10 per cent of students achieved higher scores than top performers in other OECD countries. The disparity cannot be explained by differences in performance between genders or students' immigration status, because neither of these factors were found to be significantly related to performance. Differences were found by parental education and socioeconomic status, indicating that these could be potential sources of the differences that led to the large range of scores in Canada. Both of these patterns were also found across OECD countries. In fact, the relationship between students' socioeconomic status and their performance in financial literacy was more pronounced in other OECD countries than in Canada. This indicates that more research is required to understand why the disparity in student performance is relatively large in Canada.

Most 15-year-old students in Canada reported having a bank account, saving money regularly, and discussing money matters with their parents on a regular basis. Four out of five students also reported that if they did not have enough money to buy something they really wanted, they would either save up to buy it (63 per cent) or not buy it (17 per cent). All of these behaviours were related to higher financial literacy performance.

It is encouraging that Canadian students have demonstrated a high level of financial literacy compared to their peers internationally, but results also show that there are some students in Canada who are not performing as well. Further investigation into the characteristics of the students who are struggling could help determine the best ways of helping them attain the knowledge and skills required to make good financial decisions.

## **Final statement**

The results of this assessment suggest that in Canada, a majority of students have attained a level of financial literacy that enables them to use their knowledge and skills to participate fully in modern society. Canadian youth have demonstrated a high level of financial literacy proficiency compared to the other countries that participated in this assessment.

The comparative approach taken in this report does not lend itself to developing causal explanations for the observed results. The report provides information for policy-makers, ministries, and departments of education as well as for education partners to work together in validating current education approaches, strategies, and resources to ensure that they continue meeting the needs of our society.

Today's teenagers will eventually become adults responsible for the success of our economy, so it is important to both celebrate the successes and address the challenges highlighted by the 2015 PISA assessment.

## References

- Ashby, J.S., Schoon, I., & Webley, P. (2011). Save now, save later? Linkages between saving behaviour in adolescence and adulthood. *European Psychologist*, *16*(3), 227–237.
- British Columbia Securities Commission (BCSC). (2011). *National report card on youth financial literacy*. Vancouver, BC: British Columbia Securities Commission.
- Bucciol A., & Veronesi, M. (2014), Teaching children to save: What is the best strategy for lifetime savings? *Journal of Economic Psychology*, *45*, 1–17.
- Charles Schwab & Co. (2011). 2011 Teens and money survey findings: Insights into money attitudes, behaviors and expectations of 16- to 18-year-olds. San Francisco, CA: Charles Schwab & Co. Retrieved from http://www.schwabmoneywise.com/public/file/P-4192268/110526-SCHWAB-TEENSMONEY.pdf.
- Coleman, J.C., & Hendry, L.B. (1999). The nature of adolescence (3rd ed.). London: Routledge.
- Consumer Financial Protection Bureau (CFPB). (2016), Building blocks to help youth achieve financial capability: A new model and recommendations. Retrieved from https://s3.amazonaws. com/files.consumerfinance.gov/f/documents/092016\_cfpb\_BuildingBlocksReport\_ ModelAndRecommendations\_web.pdf.
- Consumer Financial Protection Bureau (CFPB). (2017). Youth personal finance pedagogy: A research based model. Retrieved from https://s3.amazonaws.com/files.consumerfinance.gov/f/ documents/092016\_cfpb\_PedagogyModel.pdf.
- Doss, V.S., Marlowe, J., & Godwin, D.D. (1995). Middle school children's sources and uses of money. *Journal of Consumer Affairs*, 29(1), 219–241.
- Financial Consumer Agency of Canada (FCAC). (2017). Strengthening financial literacy in Canada. Retrieved from https://www.canada.ca/en/financial-consumer-agency/programs/financial-literacy. html.
- Friedline, T., & Elliott, W. (2013). Connections with banking institutions and diverse asset portfolios in young adulthood: Children as potential future investors. *Children and Youth Services Review*, 35(6), 994–1006. doi:10.1016/j.childyouth.2013.03.008
- Friedline, T.L., Elliott, W., & Nam, I. (2011). Predicting savings from adolescence to young adulthood: A propensity score approach. *Journal of the Society for Social Work and Research*, 2(1), 1–22.
- Grinstein-Weiss, M., Spader, J.S., Yeo, Y.H., Key, C.C., & Freeze, E.B. (2012). Loan performance among low-income households: Does prior parental teaching of money management matter? *Social Work Research*, 36(4), 257–270. Doi: 10.1093/swr/svs016.
- Grohmann, A., Kouwenberg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology*, *51*(C), 114–133.
- Gudmondson, C.G., & Danes, S.M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues*, 32(4), 644–667.

- Kim, J., & Chatterjee, S. (2013). Childhood financial socialization and young adults' financial management. *Journal of Financial Counseling and Planning*, 24(1), 61–79.
- Money Advice Service (MAS). (2013). *The financial capability of 15–17 year olds*. London: Money Advice Service.
- Meeks, C.B. (1998). Factors influencing adolescents' income and expenditures. *Journal of Family and Economic Issues*, 19(2), 131–150.
- O'Grady, K., Deussing, M., Scerbina, T., Fung, K., & Muhe, N. (2016). *Measuring up: Canadian Results of the OECD PISA study.* Toronto: Council of Ministers of Education, Canada. Available at http://www.cmec.ca/Publications/Lists/Publications/Attachments/365/PISA2015-CdnReport-EN.pdf.
- Organisation for Economic and Cultural Development (OECD). (2013). Financial literacy framework. In *PISA 2012 assessment and analytical framework: Mathematics, reading, science, problem solving and financial literacy.* Paris: OECD Publishing. Retrieved from http://dx.doi. org/10.1787/9789264190511-7-en.
- OECD. (2014). PISA 2012 results: Students and money—Financial literacy skills for the 21st century (Volume 6). Paris: OECD Publishing. Retrieved from http://www.oecd.org/pisa/keyfindings/PISA-2012-results-volume-vi.pdf.
- OECD. (2016a). PISA 2015 assessment and analytical framework: Science, reading, mathematic and financial literacy. Paris: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264255425-en.
- OECD. (2016b). *OECD/INFE International survey of adult financial literacy competencies. Paris:* OECD Publishing. Retrieved from http://www.oecd.org/daf/fin/financial-education/OECD-INFE-International-Survey-of-Adult-FInancial-Literacy-Competencies.pdf.
- OECD. (2017a). PISA financial literacy questions and answers. Paris: OECD Publishing. Retrieved from http://www.oecd.org/pisa/pisaproducts/PISA-2012-FINANCIAL-LITERACY-QUESTIONS-AND-ANSWERS.pdf.
- OECD. (2017b). PISA 2015 results (Volume 4): Students' financial literacy. Paris: OECD Publishing.
- Oettinger, G.S. (1999). Does high school employment affect high school academic performance? *Industrial and Labor Relations Review*, *53*(1), 136–151.
- Otto, A. (2013). Saving in childhood and adolescence: Insights from developmental psychology. *Economics* of *Education Review*, 33, 8–18.
- Palameta, B., Nguyen, C., Shek-wai, H., & Gyarmati, D. (2016). The link between financial confidence and financial outcomes among working-aged Canadians. Executive Summary for the Financial Consumer Agency of Canada. Retrieved from https://www.canada.ca/content/dam/canada/financialconsumer-agency/migration/eng/resources/researchsurveys/documents/link-confidence-outcomes.pdf.
- Payne, J. (2003). The impact of part-time jobs in years 12 and 13 on qualification achievement. *British Educational Research Journal*, 29(4), 599–611.
- Shim S., Barber, B.L., Card, N.A., Xiao, J.J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, *39*(12), 1457–1470.

- Tang, N. (2016). Like father like son: How does parents' financial behavior affect their children's financial behavior? *Journal of Consumer Affairs*, doi:10.1111/joca.12122
- Task Force on Financial Literacy. (2010). *Canadians and their money: Building a brighter financial future*. Retrieved from http://financialliteracyincanada.com/report/report-011-eng.html
- UNESCO. (1997). International standard classification of education 1997. Available at http://uis.unesco. org/sites/default/files/documents/international-standard-classification-of-education-1997-en\_0.pdf.
- Webley, P., & Nyhus, E.K. (2013). Economic socialization, saving and assets in European young adults. *Economics of Education Review*, 33(C), 19–30.
- Whitebread, D., & Bingham, S. (2013). *Habit formation and learning in young children*. London: The Money Advice Service.

## Appendix A Sample questions in the 2012 PISA financial literacy assessment

PISA questions often refer to situations that take place in the fictional country of Zedland, where the Zed is the unit of currency.

#### **QUESTION LEVEL 1: INVOICE**

Sarah receives this invoice in the mail

BC				
Breezy Cloth	ing			Invoice ice Number: 2034 sued: 28 February
Sarah Johans 29 Worthill Ro Kensington Zedland 3122				Breezy Clothing 498 Marple Lane Brightwell Zedland 2090
Product code	Description	Quantity	Unit cost	Total (excluding tax)
T011	T-shirt	3	20	60 zeds
J023	jeans	1	60	60 zeds
S002	scarf	1	10	10 zeds
		Total Ir	kcluding Ta Tax 10 Postag ncluding Ta Already Pa Total du Date du	%:         13 zeds           ge:         10 zeds           ax:         153 zeds           id:         0 zeds

#### QUESTION

Why was this invoice sent to Sarah?

- A. Because Sarah needs to pay the money to Breezy Clothing.
- B. Because Breezy Clothing needs to pay the money to Sarah.
- C. Because Sarah has paid the money to Breezy Clothing.
- D. Because Breezy Clothing has paid the money to Sarah.

## **QUESTION LEVEL 2: INVOICE**

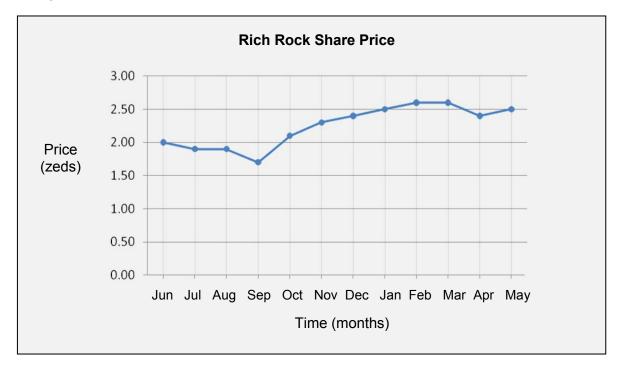
Breezy ClothingInvoice Invoice Number: 2034 Date issued: 28 FebruarySarah Johanson 29 Worthill Rd Kensington Zedland 3122Breezy Clothing 498 Marple Lane Brightwell Zedland 2090ProductDescriptionQuantityUnitTotal											
Product code	Description	Quantity	Unit cost	Total (excluding tax)							
T011	T-shirt	3	20	60 zeds							
J023	jeans	1	60	60 zeds							
S002	scarf	1	10	10 zeds							
		Total Ir	ccluding Ta Tax 10 Postag Including Ta Including Ta Including Ta Total du Date du	%:       13 zeds         ge:       10 zeds         ax:       153 zeds         id:       0 zeds         ue:       153 zeds							

## QUESTION

How much has Breezy Clothing charged for delivering the clothes? Delivery charge in zeds:

.....

## **QUESTION LEVEL 3: SHARES**



This graph shows the price of one Rich Rock share over a 12-month period.

## QUESTION

Which statements about the graph are true?

Statement	Is the statement true or false?
The best month to buy the shares was September.	True / False
The share price increased by about 50% over the year.	True / False

## QUESTION LEVEL 4: PAY SLIP

Each month, Jane's salary is paid into her bank account. This is Jane's pay slip for July.

EMPLOYEE PAY SLIP: Jane Citizen	
Position: Manager	1 July to 31 July
Gross salary	2800 zeds
Deductions	300 zeds
Net salary	2500 zeds
Gross salary to date this year	19 600 zeds

#### QUESTION

How much money did Jane's employer pay into her bank account on 31 July?

- A 300 zeds
- B 2500 zeds
- C 2800 zeds
- D 19 600 zeds

#### **QUESTION LEVEL 5: NEW OFFER**

Mrs Jones has a loan of 8000 zeds with FirstZed Finance. The annual interest rate on the loan is 15%. Her repayments each month are 150 zeds.

After one year Mrs Jones still owes 7400 zeds.

Another finance company called Zedbest will give Mrs Jones a loan of 10 000 zeds with an annual interest rate of 13%. Her repayments each month would also be 150 zeds.

#### QUESTION

If she takes the Zedbest loan, Mrs Jones will immediately pay off her existing loan. What are two other **financial** benefits for Mrs Jones if she takes the Zedbest loan?

1. .....

2. .....

# Appendix B PISA 2015 Financial Literacy—Data Tables

					Та	ble B.1.	L						
		Percenta	age of st	udents at	t each p	roficiency	level in	financial	literacy				
						Proficier	ncy levels						
	Belov	v Level 1	Le	vel 1	Le	evel 2	Le	evel 3	Le	evel 4	Le	Level 5	
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	%	Standard error	%	Standard error	%	Standard error	
BSJG-China	2.9	(0.5)	6.5	(0.7)	13.3	(0.9)	20.3	(1.1)	23.6	(1.1)	33.4	(2.0)	
British Columbia	3.0	(0.9)	6.6	(0.8)	14.7	(1.6)	24.1	(1.5)	25.5	(1.8)	26.2	(2.3)	
Russian Federation	2.2	(0.3)	8.7	(0.8)	22.7	(1.1)	32.2	(1.0)	23.6	(1.0)	10.5	(0.9)	
Prince Edward Island	U‡	(1.4)	7.8	(1.9)	19.7	(3.1)	28.3	(3.6)	24.7	(3.4)	15.9	(3.2)	
Flanders (Belgium)	3.9	(0.6)	8.1	(0.7)	15.0	(0.7)	22.3	(1.0)	26.7	(0.8)	24.0	(1.0)	
Nova Scotia	3.3	(0.8)	9.0	(1.2)	18.2	(1.6)	27.2	(1.7)	24.9	(2.0)	17.4	(1.9)	
Canada	4.4	(0.6)	8.3	(0.7)	17.1	(0.9)	24.5	(0.8)	23.9	(1.1)	21.8	(1. <b>2</b> )	
Ontario	4.7	(0.7)	8.3	(1.0)	17.1	(1.2)	24.2	(1.1)	23.7	(1.4)	21.9	(1.7)	
Newfoundland and Labrador	3.9	(0.9)	9.4	(1.4)	18.8	(1.5)	27.8	(1.7)	24.1	(2.1)	15.9	(2.3)	
New Brunswick	6.1	(1.3)	10.4	(1.3)	19.7	(1.7)	26.2	(1.6)	21.0	(1.9)	16.5	(1.8)	
Manitoba	6.0	(1.2)	12.0	(1.4)	21.2	(1.7)	25.4	(1.6)	21.5	(1.8)	13.8	(1.6)	
The Netherlands	7.2	(0.9)	12.0	(0.7)	18.5	(1.0)	23.0	(0.9)	21.8	(0.9)	17.5	(0.8)	
Australia	8.0	(0.3)	11.7	(0.4)	19.0	(0.5)	24.4	(0.5)	21.5	(0.5)	15.4	(0.6)	
Italy	5.8	(0.7)	14.0	(0.8)	25.2	(0.9)	29.3	(0.9)	19.2	(0.8)	6.5	(0.5)	
Poland	6.5	(0.6)	13.6	(0.8)	24.5	(0.8)	28.4	(0.9)	19.0	(0.8)	8.0	(0.8)	
United States	7.0	(0.7)	14.5	(0.8)	23.3	(0.9)	25.7	(1.1)	19.2	(0.9)	10.2	(0.7)	
Spain	9.0	(0.7)	15.7	(0.7)	25.9	(0.8)	27.3	(0.9)	16.4	(0.7)	5.6	(0.5)	
Lithuania	12.1	(0.9)	19.4	(0.8)	27.3	(0.9)	24.8	(0.9)	12.6	(0.8)	3.7	(0.5)	
Slovak Republic	16.3	(1.0)	18.3	(0.9)	23.6	(1.0)	22.0	(0.7)	13.4	(1.1)	6.3	(0.6)	
Chile	16.1	(1.0)	22.0	(1.0)	26.5	(1.0)	21.8	(0.8)	10.5	(0.8)	3.1	(0.4)	
Peru	24.3	(1.1)	24.0	(0.9)	25.8	(0.9)	17.9	(0.9)	6.9	(0.6)	1.2	(0.2)	
Brazil	29.1	(1.2)	24.3	(0.7)	22.2	(0.6)	14.8	(0.7)	7.1	(0.5)	2.6	(0.4)	
OECD average	8.4	(0.2)	13.8	(0.2)	21.8	(0.3)	24.9	(0.3)	19.2	(0.3)	11.8	(0.2)	

<sup>‡</sup> There are fewer than 30 observations.

U Too unreliable to be published.

*Note*: Countries, economies, and provinces have been sorted in descending order by the total percentage of students who attained Level 2 or higher. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

## Estimated average scores and confidence intervals in financial literacy

Country, economy, or province	Average	Standard error	Confidence interval – 95% lower limit	Confidence interval – 95% upper limit
BSJG–China	566	(6.0)	554	578
British Columbia	551	(7.1)	537	565
Flanders (Belgium)	541	(3.0)	535	547
Canada	533	(4.6)	524	542
Ontario	533	(6.1)	521	545
Nova Scotia	526	(6.7)	513	539
Prince Edward Island	522	(10.4)	502	543
Newfoundland and Labrador	519	(7.6)	504	534
Russian Federation	512	(3.3)	506	519
New Brunswick	511	(7.4)	497	526
The Netherlands	509	(3.3)	503	516
Australia	504	(1.9)	500	507
Manitoba	503	(7.1)	490	517
United States	487	(3.8)	480	495
Poland	485	(3.0)	480	491
Italy	483	(2.8)	478	489
Spain	469	(3.2)	462	475
Lithuania	449	(3.1)	442	455
Slovak Republic	445	(4.5)	436	454
Chile	432	(3.7)	425	440
Peru	403	(3.4)	396	409
Brazil	393	(3.8)	386	401
OECD average	489	(1.1)	487	491

*Note*: Countries, economies, and provinces have been sorted in descending order by average score. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

#### Variation in student performance in financial literacy

						Perce	entiles						
	5	ōth	1	Dth	2	5th	7	5th	9	0th	9	5th	Difference in score points
Country, economy, or province	Score	Standard error	Score	Standard error	Score	Standard error	Score	Standard error	Score	Standard error	Score	Standard error	between the 10th and 90th percentiles
Russian Federation	360	(4.4)	396	(4.4)	452	(4.3)	574	(4.3)	627	(4.4)	659	(4.9)	232
Italy	318	(6.0)	356	(4.9)	419	(3.5)	552	(2.9)	605	(3.9)	636	(4.0)	249
Prince Edward Island	349	(26.4)	392	(15.9)	458	(13.5)	592	(13.2)	649	(14.8)	686	(16.9)	257
Poland	312	(5.2)	351	(5.0)	418	(3.9)	556	(3.7)	614	(4.1)	647	(6.1)	262
Spain	291	(6.0)	332	(5.0)	401	(4.2)	541	(3.2)	597	(3.3)	630	(3.9)	265
Lithuania	275	(6.6)	313	(5.0)	379	(4.4)	520	(3.8)	579	(4.7)	612	(5.1)	266
Newfoundland and Labrador	340	(12.2)	381	(9.8)	451	(9.1)	591	(9.5)	651	(10.3)	684	(12.2)	270
Nova Scotia	346	(10.9)	386	(9.4)	457	(8.6)	598	(7.5)	659	(8.1)	695	(8.9)	273
Chile	256	(6.7)	295	(5.1)	360	(4.2)	507	(4.4)	569	(5.3)	603	(5.9)	274
Peru	228	(4.7)	263	(4.4)	328	(3.9)	478	(4.2)	539	(4.3)	572	(4.9)	276
United States	307	(6.3)	346	(5.6)	413	(4.5)	564	(4.3)	626	(4.2)	661	(5.0)	280
Manitoba	315	(12.1)	358	(10.0)	429	(8.3)	582	(8.3)	643	(6.9)	680	(8.7)	285
British Columbia	357	(15.7)	404	(10.9)	477	(8.5)	629	(7.7)	691	(9.4)	729	(11.0)	287
Flanders (Belgium)	340	(8.8)	386	(6.9)	467	(4.6)	622	(3.2)	676	(4.0)	707	(4.4)	291
New Brunswick	313	(15.6)	362	(12.1)	438	(9.8)	592	(7.2)	655	(9.3)	691	(11.0)	292
Canada	334	(7.4)	382	(6.7)	458	(5.5)	613	(4.7)	677	(5.4)	716	(6.8)	295
Ontario	330	(9.5)	380	(9.3)	456	(7.2)	614	(6.7)	679	(7.5)	718	(8.4)	299
Brazil	207	(5.4)	246	(4.6)	312	(3.8)	473	(4.5)	548	(5.0)	591	(5.6)	302
Australia	296	(3.2)	342	(3.1)	425	(2.9)	589	(2.2)	651	(2.6)	687	(2.9)	309
Slovak Republic	240	(7.5)	287	(6.4)	364	(5.3)	530	(5.3)	598	(4.8)	637	(5.4)	311
The Netherlands	303	(11.0)	348	(7.9)	426	(5.5)	596	(2.9)	660	(3.6)	695	(4.4)	312
BSJG-China	358	(9.3)	405	(8.0)	485	(6.8)	653	(6.7)	717	(7.4)	752	(9.1)	312
OECD average	300	(2.2)	342	(1.8)	415	(1.4)	567	(1.2)	627	(1.3)	662	(1.6)	285

*Note*: Countries, economies, and provinces have been sorted in ascending order by the difference in score points between the 10th and 90th percentiles. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

## Estimated average scores in financial literacy by language of the school system

	Anglophone	school system	Francophone	e school system	Difference bet	Difference between systems		
Canada and provinces	Average	Average Standard error		Standard error	Difference	Standard error		
Canada	536	(4.8)	473	(10.2)	62*	(12.0)		
Nova Scotia	529	(7.1)	449	(18.4)	79*	(22.7)		
New Brunswick	520	(8.8)	485	(16.6)	35	(19.4)		
Ontario	536	(6.3)	470	(11.6)	65*	(13.4)		
Manitoba	505	(7.2)	457	(23.0)	47	(24.3)		
British Columbia	551	(7.2)	497	(22.4)	53*	(23.4)		

\* Statistically significant differences. *Note*: The Canadian results include students from the seven participating provinces.

#### Estimated average scores in financial literacy by gender

	Fer	nales	Μ	ales	Difference (	female–male)
Country, economy, or province	Average	Standard error	Average	Standard error	Difference	Standard error
Canada	536	(5.2)	531	(4.8)	5	(3.9)
Newfoundland and Labrador	518	(8.8)	520	(9.3)	-2	(9.8)
Prince Edward Island	529	(10.1)	516	(13.1)	13	(10.8)
Nova Scotia	528	(7.4)	524	(7.7)	4	(6.9)
New Brunswick	512	(8.3)	510	(9.0)	2	(9.2)
Ontario	535	(6.6)	530	(6.5)	5	(4.9)
Manitoba	506	(8.8)	501	(7.1)	5	(7.4)
British Columbia	554	(7.5)	548	(8.6)	6	(7.3)
Australia	510	(2.1)	498	(2.7)	12*	(2.8)
Brazil	397	(4.3)	389	(4.5)	8	(4.4)
BSJG–China	563	(6.7)	568	(6.1)	-5	(4.2)
Chile	430	(4.2)	434	(4.5)	-4	(4.4)
Flanders (Belgium)	541	(4.3)	541	(3.8)	0	(5.6)
Italy	478	(4.0)	489	(3.9)	-11*	(5.6)
Lithuania	462	(3.2)	435	(3.7)	27*	(3.0)
Peru	405	(4.0)	400	(4.1)	5	(4.5)
Poland	493	(3.2)	478	(3.6)	15*	(3.5)
Russian Federation	514	(3.3)	510	(4.2)	3	(3.6)
Slovak Republic	458	(5.6)	433	(4.9)	25*	(5.3)
Spain	474	(4.1)	464	(3.7)	10*	(4.4)
The Netherlands	512	(3.6)	507	(3.9)	5	(3.6)
United States	487	(4.1)	488	(4.4)	-2	(3.8)
OECD average	492	(1.3)	486	(1.3)	5*	(1.4)

\* Statistically significant differences. Note: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

## Percentage of males and females who performed below Level 2 and at Level 5 in financial literacy

			Belo	w Level 2					L	evel 5		
	Ferr	nales	Ma	ales	Difference	(F-M)	Fem	ales	Ma	les	Difference	: (F–M)
Country, economy, or province	%	Standard error	S %	tandard error	S Difference	tandard error	S %	tandard error	S %	tandard error	Difference	Standard error
Canada	11.3	(1.1)	14.1	(1.1)	-2.7*	(1.0)	21.2	(1.5)	22.3	(1.4)	-1.2	(1.5)
Newfoundland and Labrador	12.0	(2.5)	14.8	(2.6)	-2.8	(3.5)	14.4	(2.6)	17.5	(2.7)	-3.1	(2.6)
Prince Edward Island	<b>9.1</b> <sup>‡</sup>	(2.9)	13.6	(3.0)	-4.5	(3.6)	15.8	(4.2)	16.0	(4.2)	-0.1	(5.3)
Nova Scotia	10.6	(1.9)	14.0	(2.2)	-3.3	(2.5)	16.7	(2.3)	18.2	(2.3)	-1.5	(2.6)
New Brunswick	15.5	(1.9)	17.3	(2.8)	-1.8	(2.8)	16.4	(2.5)	16.7	(2.1)	-0.3	(2.8)
Ontario	11.5	(1.5)	14.4	(1.5)	-2.9*	(1.3)	21.1	(2.0)	22.8	(2.0)	-1.6	(2.0)
Manitoba	17.7	(2.7)	18.4	(2.5)	-0.7	(3.1)	15.0	(2.1)	12.7	(1.8)	2.3	(2.3)
British Columbia	8.3	(1.5)	10.9	(1.8)	-2.6	(1.7)	25.7	(2.3)	26.6	(3.0)	-0.9	(2.9)
Australia	16.5	(0.7)	22.9	(0.8)	-6.3*	(1.0)	14.9	(0.7)	15.9	(0.7)	-1.1	(0.9)
Brazil	51.6	(1.6)	55.1	(1.6)	-3.5*	(1.7)	2.5	(0.4)	2.7	(0.4)	-0.2	(0.3)
BSJG-China	9.2	(1.2)	9.6	(1.1)	-0.4	(1.0)	32.1	(2.3)	34.6	(2.0)	-2.5	(1.6)
Chile	38.7	(1.9)	37.5	(1.8)	1.1	(2.1)	2.6	(0.5)	3.5	(0.5)	-0.9	(0.6)
Flanders (Belgium)	11.4	(1.1)	12.6	(1.3)	-1.1	(1.5)	23.5	(1.5)	24.5	(1.3)	-1.0	(2.0)
Italy	20.5	(1.5)	19.2	(1.4)	1.3	(1.9)	5.0	(0.8)	8.0	(0.8)	-3.0*	(1.1)
Lithuania	25.8	(1.3)	37.1	(1.5)	-11.2*	(1.4)	4.3	(0.6)	3.2	(0.6)	1.1	(0.6)
Peru	47.0	(1.7)	49.4	(1.7)	-2.4	(1.9)	1.2	(0.3)	1.2	(0.3)	0.0	(0.4)
Poland	16.6	(1.1)	23.4	(1.4)	-6.9*	(1.6)	8.0	(1.0)	8.0	(0.8)	0.0	(1.0)
Russian Federation	9.4	(0.9)	12.5	(1.1)	-3.1*	(1.0)	9.7	(1.1)	11.4	(1.1)	-1.7	(1.4)
Slovak Republic	29.7	(1.9)	39.3	(1.7)	-9.6*	(2.1)	6.9	(0.7)	5.8	(0.7)	1.1	(0.9)
Spain	22.3	(1.5)	27.2	(1.4)	-4.8*	(1.6)	5.3	(0.8)	5.9	(0.6)	-0.6	(1.0)
The Netherlands	17.5	(1.4)	20.9	(1.4)	-3.5*	(1.5)	17.1	(1.2)	17.9	(1.0)	-0.7	(1.4)
United States	20.7	(1.5)	22.5	(1.5)	-1.8	(1.5)	9.1	(0.9)	11.4	(0.9)	-2.3*	(1.2)
OECD average	20.5	(0.4)	24.0	(0.4)	-3.4*	(0.5)	11.4	(0.3)	12.3	(0.3)	-1.0*	(0.4)

<sup>‡</sup> There are fewer than 30 observations.

 \* Statistically significant differences.
 Note: BSJG—China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

#### Percentage of immigrant and non-immigrant students

		mmigrant udents		-generation ant students		eneration nt students		ant students (total)
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	%	Standard error
Canada	66.4	(1.7)	18.4	(1.2)	15.2	(0.9)	33.6	(1.7)
Newfoundland and Labrador	97.5	(1.2)	U <sup>‡</sup>	(0.3)	$\mathbf{U}^{\mathrm{t}}$	(1.1)	$\boldsymbol{U}^{\sharp}$	(1.2)
Prince Edward Island	94.8	(1.2)	$\mathbf{U}^{\sharp}$	(0.2)	<b>5.0</b> <sup>‡</sup>	(1.2)	<b>5.2</b> <sup>‡</sup>	(1.2)
Nova Scotia	91.7	(1.2)	<b>2.4</b> <sup>‡</sup>	(0.6)	5.9	(0.9)	8.3	(1.2)
New Brunswick	94.4	(0.8)	$\boldsymbol{U}^{\sharp}$	(0.2)	5.0	(0.8)	5.6	(0.8)
Ontario	62.9	(2.4)	21.1	(1.6)	16.0	(1.3)	37.1	(2.4)
Manitoba	76.1	(1.2)	7.8	(0.6)	16.1	(1.1)	23.9	(1.2)
British Columbia	60.6	(2.7)	21.4	(2.2)	18.0	(1.6)	39.4	(2.7)
Australia	75.0	(0.7)	12.7	(0.6)	12.3	(0.4)	25.0	(0.7)
Brazil	99.2	(0.1)	0.5	(0.1)	0.3	(0.1)	0.8	(0.1)
BSJG–China	99.7	(0.1)	U <sup>‡</sup>	(0.0)	0.2‡	(0.1)	0.3	(0.1)
Chile	97.9	(0.5)	0.5	(0.2)	1.6	(0.4)	2.1	(0.5)
Flanders (Belgium)	86.0	(1.0)	7.2	(0.7)	6.8	(0.7)	14.0	(1.0)
Italy	92.0	(0.5)	3.2	(0.3)	4.8	(0.4)	8.0	(0.5)
Lithuania	98.2	(0.2)	1.4	(0.1)	0.4	(0.1)	1.8	(0.2)
Peru	99.5	(0.1)	0.3‡	(0.1)	U‡	(0.0)	0.5	(0.1)
Poland	99.7	(0.1)	U‡	(0.1)	0.2‡	(0.1)	0.3‡	(0.1)
Russian Federation	93.1	(0.5)	3.8	(0.3)	3.1	(0.3)	6.9	(0.5)
Slovak Republic	98.8	(0.2)	0.6	(0.1)	0.6	(0.1)	1.2	(0.2)
Spain	89.0	(0.8)	1.9	(0.2)	9.1	(0.7)	11.0	(0.8)
The Netherlands	89.3	(0.9)	8.6	(0.8)	2.2	(0.3)	10.7	(0.9)
United States	76.9	(1.5)	15.7	(1.0)	7.4	(0.7)	23.1	(1.5)
OECD average	87.1	(0.3)	6.9	(0.2)	6.0	(0.2)	12.9	(0.3)

<sup>‡</sup> There are fewer than 30 observations.

U Too unreliable to be published.

*Note*: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The percentages of Canadian immigrant and non-immigrant students include students from the seven participating provinces.

		nmigrant dents	gene immi	ond- ration igrant lents	imm	First-generation immigrant students		Difference (second- generation students minus non-immigrant students)		rence neration ts minus migrant ents)	Difference (first-generation students minus second- generation students)	
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error
Canada	536	(4.9)	539	(6.7)	541	(7.5)	3	(6.9)	5	(7.2)	1	(6.4)
Newfoundland and Labrador	523	(7.8)	<b>596</b> <sup>‡</sup>	(45.1)	<b>461</b> <sup>‡</sup>	(48.1)	<b>73</b> <sup>‡</sup>	(46.5)	-63 <sup>‡</sup>	(47.5)	<b>-136</b> <sup>‡</sup> *	(66.7)
Prince Edward Island	521	(10.3)	<b>535</b> <sup>‡</sup>	(22.2)	<b>586</b> <sup>‡</sup>	(36.4)	<b>14</b> ‡	(25.9)	<b>65</b> <sup>‡</sup>	(36.1)	<b>51</b> <sup>‡</sup>	(44.9)
Nova Scotia	531	(6.2)	<b>526</b> <sup>‡</sup>	(30.3)	524	(23.9)	-6 <sup>‡</sup>	(29.3)	-7	(23.4)	- <b>2</b> <sup>‡</sup>	(34.3)
New Brunswick	512	(7.6)	<b>490</b> <sup>‡</sup>	(41.1)	531	(19.7)	- <b>22</b> <sup>‡</sup>	(41.8)	19	(20.4)	<b>41</b> <sup>‡</sup>	(45.8)
Ontario	536	(6.7)	536	(8.2)	540	(9.3)	0	(8.4)	4	(9.3)	4	(8.0)
Manitoba	511	(7.5)	514	(12.2)	489	(15.3)	3	(13.6)	-21	(15.2)	-25	(18.3)
British Columbia	555	(8.1)	553	(10.7)	557	(11.1)	-2	(12.2)	2	(10.0)	4	(12.6)
Australia	505	(1.8)	524	(4.4)	500	(4.9)	19*	(4.4)	-5	(4.9)	-25*	(5.3)
Brazil	398	(3.8)	279	(20.2)	264	(29.0)	-119*	(20.9)	-134*	(29.4)	-15	(29.3)
BSJG-China	569	(6.0)	440 <sup>‡</sup>	(50.0)	382 <sup>‡</sup>	(54.3)	-128 <sup>‡</sup> *	(49.6)	-186‡*	(54.7)	-58 <sup>‡</sup>	(75.1)
Chile	435	(3.7)	420	(34.3)	379	(18.0)	-15	(33.6)	-55*	(17.7)	-40	(32.4)
Flanders (Belgium)	557	(2.8)	464	(10.0)	450	(9.5)	-93*	(10.2)	-107*	(9.6)	-14	(14.1)
Italy	488	(2.8)	470	(9.4)	451	(8.7)	-18	(9.6)	-37*	(8.6)	-19	(11.6)
Lithuania	451	(3.1)	448	(12.3)	400	(25.7)	-4	(11.8)	-52*	(26.2)	-48	(29.6)
Peru	405	(3.3)	305 <sup>‡</sup>	(24.2)	421 <sup>‡</sup>	(47.5)	-100**	(23.5)	16 <sup>‡</sup>	(47.0)	115 <sup>‡</sup> *	(49.9)
Poland	486	(3.0)	450 <sup>‡</sup>	(77.0)	554 <sup>‡</sup>	(34.7)	-37 <sup>‡</sup>	(77.1)	67 <sup>‡</sup>	(35.2)	104 <sup>±</sup>	(81.1)
Russian Federation	515	(3.5)	503	(8.4)	515	(11.7)	-11	(9.5)	0	(12.5)	11	(14.6)
Slovak Republic	448	(4.2)	358	(35.9)	410	(37.7)	-91*	(35.1)	-38	(36.8)	52	(49.2)
Spain	474	(3.0)	452	(12.7)	438	(8.6)	-21	(12.2)	-36*	(8.5)	-15	(13.2)
The Netherlands	518	(3.3)	463	(10.2)	431	(18.7)	-55*	(10.6)	-87*	(18.8)	-33*	(15.7)
United States	497	(3.8)	472	(7.4)	459	(9.5)	-26*	(7.9)	-38*	(9.2)	-12	(9.4)
OECD average	494	(1.1)	461	(9.5)	461	(6.1)	-33*	(9.4)	-33*	(6.1)	0	(10.5)

#### Estimated average scores in financial literacy by immigrant status

<sup>+</sup> There are fewer than 30 observations or there are fewer than 30 observations in the reference/comparison group(s).

\* Statistically significant differences.

*Note*: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

#### Percentage of students by parental educational attainment

	vocatio	n school/ nal programs or less	Colleg	ge diploma		or's degree or nigher	Tertiary education (total)		
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	%	Standard error	
Canada	18.6	(0.8)	23.9	(0.8)	57.5	(1.1)	81.4	(0.8)	
Newfoundland and Labrador	28.7	(1.4)	21.8	(1.3)	49.6	(1.7)	71.3	(1.4)	
Prince Edward Island	15.0	(2.0)	28.3	(2.7)	56.6	(3.0)	85.0	(2.0)	
Nova Scotia	22.7	(1.5)	20.9	(1.3)	56.4	(1.9)	77.3	(1.5)	
New Brunswick	25.1	(1.4)	25.5	(1.5)	49.4	(1.7)	74.9	(1.4)	
Ontario	16.4	(1.2)	25.4	(1.2)	58.2	(1.7)	83.6	(1.2)	
Manitoba	28.2	(1.5)	18.4	(1.0)	53.4	(1.5)	71.8	(1.5)	
British Columbia	20.1	(1.3)	20.7	(1.3)	59.1	(1.8)	79.9	(1.3)	
Australia	38.1	(0.6)	13.6	(0.4)	48.3	(0.6)	61.9	(0.6)	
Brazil	70.6	(0.7)	4.0	(0.2)	25.4	(0.8)	29.4	(0.7)	
BSJG–China	77.5	(1.3)	7.4	(0.5)	15.1	(1.2)	22.5	(1.3)	
Chile	57.3	(1.2)	13.0	(0.6)	29.7	(1.0)	42.7	(1.2)	
Flanders (Belgium)	33.3	(1.0)	20.4	(0.7)	46.3	(1.0)	66.7	(1.0)	
Italy	60.7	(0.8)	6.2	(0.3)	33.2	(0.8)	39.3	(0.8)	
Lithuania	31.2	(0.9)	19.7	(0.5)	49.1	(1.0)	68.8	(0.9)	
Peru	54.4	(1.1)	14.6	(0.5)	31.0	(1.0)	45.6	(1.1)	
Poland	77.3	(0.8)	-	-	22.7	(0.8)	22.7	(0.8)	
Russian Federation	6.0	(0.5)	34.3	(1.1)	59.7	(1.3)	94.0	(0.5)	
Slovak Republic	61.3	(0.9)	8.4	(0.4)	30.3	(0.9)	38.7	(0.9)	
Spain	45.0	(1.1)	16.3	(0.5)	38.6	(1.2)	55.0	(1.1)	
The Netherlands	36.1	(0.9)	40.3	(0.8)	23.6	(1.1)	63.9	(0.9)	
United States	38.7	(1.3)	15.1	(0.5)	46.2	(1.4)	61.3	(1.3)	
OECD average	46.6	(0.3)	15.7	(0.2)	37.6	(0.3)	53.4	(0.3)	

- Data not available.

*Note*: Vocational programs refer to trade/vocational diploma or certificate, or an apprenticeship. Tertiary education refers to a college diploma, bachelor's degree, or a doctorate degree. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The percentages of students by parental educational attainment in Canada include students from the seven participating provinces.

	voca progr	school/ tional ams or ess		lege oma	Bachelor's degree or higher		(col diplom high so vocat progra	Difference (college diploma minus high school/ vocational programs or less)		Difference (bachelor's degree or higher minus high school/ vocational programs or less)		rence helor's ree or minus lege oma)
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error
Canada	506	(6.7)	527	(5.4)	547	(5.2)	21*	(6.1)	41*	(7.2)	20*	(5.5)
Newfoundland and Labrador	497	(11.0)	529	(9.3)	531	(8.4)	32*	(11.1)	33*	(9.2)	1	(9.3)
Prince Edward Island	506	(15.7)	521	(13.5)	527	(13.5)	15	(20.5)	21	(20.6)	6	(13.3)
Nova Scotia	514	(10.3)	528	(8.1)	537	(8.6)	13	(12.3)	23*	(11.0)	10	(10.8)
New Brunswick	489	(12.9)	504	(10.1)	527	(9.1)	14	(13.6)	38*	(13.7)	23	(12.7)
Ontario	500	(9.3)	525	(6.8)	549	(6.6)	25*	(8.7)	49*	(9.8)	24*	(6.9)
Manitoba	487	(11.7)	506	(10.6)	513	(7.3)	18	(13.5)	26*	(11.1)	8	(10.5)
British Columbia	536	(10.9)	547	(9.8)	560	(7.7)	11	(11.3)	24*	(10.5)	14	(10.1)
Australia	473	(2.3)	495	(3.6)	537	(2.2)	22*	(3.5)	64*	(2.6)	42*	(3.6)
Brazil	386	(3.8)	402	(10.7)	419	(6.4)	16	(10.4)	32*	(6.4)	17	(9.1)
BSJG-China	552	(5.4)	631	(9.1)	606	(14.6)	79*	(8.4)	54*	(13.6)	-25	(12.7)
Chile	415	(4.5)	445	(6.9)	464	(4.1)	30*	(6.0)	49*	(5.1)	19*	(7.0)
Flanders (Belgium)	503	(4.5)	550	(4.5)	571	(3.6)	47*	(5.5)	68*	(5.8)	21*	(5.0)
Italy	483	(3.6)	463	(5.7)	494	(3.7)	-19*	(6.0)	11*	(4.6)	31*	(6.8)
Lithuania	427	(3.9)	452	(4.2)	464	(4.2)	25*	(4.5)	37*	(5.1)	12*	(5.1)
Peru	382	(3.3)	437	(5.6)	424	(5.2)	55*	(5.9)	42*	(4.9)	-13	(6.7)
Poland	476	(2.8)	-	-	522	(5.4)	-	-	47*	(5.2)	-	-
Russian Federation	475	(9.6)	505	(4.1)	523	(3.6)	29*	(9.7)	48*	(10.0)	18*	(4.3)
Slovak Republic	436	(5.1)	438	(7.6)	468	(6.1)	2	(8.3)	32*	(6.2)	30*	(7.6)
Spain	451	(3.5)	469	(4.8)	492	(4.3)	18*	(5.0)	40*	(4.2)	23*	(5.8)
The Netherlands	485	(5.6)	513	(3.3)	544	(5.5)	27*	(5.4)	59*	(7.2)	32*	(5.6)
United States	464	(4.4)	485	(6.8)	511	(4.3)	21*	(6.7)	47*	(5.5)	26*	(7.3)
OECD average	469	(1.4)	487	(1.9)	515	(1.4)	19*	(2.0)	46*	(1.7)	27*	(2.0)

#### Estimated average scores in financial literacy by parental educational attainment

- Data not available.

\* Statistically significant differences. Note: Vocational programs refer to trade/vocational diploma or certificate, or an apprenticeship. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

## Estimated average index of economic, social and cultural status (ESCS), by national and provincial quarters

	All stu	dents	Bottom quarter		Second o	quarter	Third q	uarter	Top quarter		
Country, economy, or province	Score	Standard error	Score	Standard error	Score	Standard error	Score	Standard error	Score	Standard error	
Canada	0.54	(0.02)	-0.55	(0.03)	0.34	(0.03)	0.91	(0.02)	1.48	(0.02)	
Newfoundland and Labrador	0.34	(0.03)	-0.82	(0.04)	0.04	(0.06)	0.72	(0.04)	1.42	(0.03)	
Prince Edward Island	0.53	(0.04)	-0.51	(0.06)	0.34	(0.06)	0.85	(0.06)	1.43	(0.05)	
Nova Scotia	0.44	(0.04)	-0.70	(0.05)	0.20	(0.07)	0.85	(0.05)	1.43	(0.04)	
New Brunswick	0.34	(0.03)	-0.78	(0.03)	0.09	(0.04)	0.70	(0.03)	1.35	(0.03)	
Ontario	0.57	(0.04)	-0.50	(0.05)	0.37	(0.04)	0.92	(0.04)	1.48	(0.03)	
Manitoba	0.35	(0.03)	-0.84	(0.05)	0.08	(0.04)	0.75	(0.03)	1.40	(0.02)	
British Columbia	0.61	(0.04)	-0.47	(0.05)	0.41	(0.05)	0.98	(0.03)	1.53	(0.03)	
Australia	0.27	(0.01)	-0.81	(0.02)	0.06	(0.01)	0.65	(0.01)	1.18	(0.01)	
Brazil	-0.96	(0.03)	-2.43	(0.03)	-1.36	(0.03)	-0.61	(0.03)	0.57	(0.04)	
BSJG-China	-1.07	(0.04)	-2.36	(0.03)	-1.57	(0.03)	-0.83	(0.06)	0.47	(0.07)	
Chile	-0.49	(0.03)	-1.86	(0.04)	-0.92	(0.03)	-0.12	(0.04)	0.96	(0.03)	
Flanders (Belgium)	0.24	(0.02)	-0.94	(0.02)	-0.07	(0.03)	0.67	(0.03)	1.29	(0.02)	
Italy	-0.07	(0.02)	-1.31	(0.02)	-0.38	(0.02)	0.27	(0.02)	1.16	(0.02)	
Lithuania	-0.06	(0.02)	-1.24	(0.02)	-0.37	(0.03)	0.38	(0.03)	0.97	(0.02)	
Peru	-1.08	(0.04)	-2.56	(0.03)	-1.58	(0.04)	-0.73	(0.05)	0.55	(0.05)	
Poland	-0.39	(0.02)	-1.34	(0.02)	-0.81	(0.02)	-0.18	(0.03)	0.75	(0.02)	
Russian Federation	0.05	(0.02)	-0.95	(0.03)	-0.20	(0.03)	0.40	(0.03)	0.95	(0.02)	
Slovak Republic	-0.11	(0.02)	-1.24	(0.04)	-0.47	(0.02)	0.18	(0.03)	1.10	(0.02)	
Spain	-0.51	(0.04)	-2.05	(0.03)	-0.98	(0.04)	-0.04	(0.05)	1.03	(0.03)	
The Netherlands	0.16	(0.02)	-0.85	(0.03)	-0.07	(0.02)	0.50	(0.02)	1.07	(0.02)	
United States	0.10	(0.04)	-1.25	(0.06)	-0.18	(0.04)	0.55	(0.04)	1.29	(0.02)	
OECD average	-0.03	(0.00)	-1.22	(0.01)	-0.35	(0.01)	0.34	(0.01)	1.13	(0.01)	

*Note*: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The national quarters of the ESCS index include students from the seven participating provinces.

#### Estimated average scores in financial literacy by socioeconomic status

		uttom arter		cond arter		hird arter		Гор arter	Difference (top quarter minus bottom quarter)	score (integ chang	nge in per one er) unit e in the index	var in st perfo	ained iance udent rmance (100)
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Difference Standard error	Difference	Standard error	%	Standard error
Canada	495	(5.9)	525	(5.4)	549	(6.2)	572	(6.4)	77* (7.9)	37.6	(3.4)	6.9	(1.1)
Newfoundland and Labrador	485	(11.9)	516	(10.9)	536	(10.9)	544	(10.4)	59* (12.7)	29.1	(5.1)	6.0	(2.1)
Prince Edward Island	501	(15.0)	526	(17.6)	528	(17.7)	534	(17.0)	34 (22.7)	16.9	(9.4)	1.7	(1.8)
Nova Scotia	503	(7.0)	519	(10.1)	539	(9.4)	559	(9.9)	56* (9.4)	27.5	(4.2)	4.8	(1.5)
New Brunswick	476	(12.7)	501	(10.6)	515	(10.1)	554	(10.7)	78* (15.4)	33.4	(6.5)	5.9	(2.0)
Ontario	491	(8.2)	527	(6.6)	550	(7.2)	571	(8.7)	80* (9.7)	39.7	(4.5)	7.2	(1.5)
Manitoba	465	(10.5)	502	(11.4)	510	(8.3)	542	(8.3)	77* (12.4)	33.8	(5.2)	7.2	(2.1)
British Columbia	524	(10.2)	535	(9.4)	564	(10.3)	590	(11.3)	66* (14.0)	32.1	(5.7)	5.2	(1.7)
Australia	454	(2.8)	489	(2.3)	521	(3.1)	561	(3.1)	107* (3.9)	51.3	(1.7)	12.0	(0.8)
Brazil	364	(4.6)	382	(3.9)	394	(5.2)	441	(7.0)	77* (8.1)	25.8	(2.6)	6.5	(1.2)
BSJG-China	500	(7.2)	552	(7.0)	580	(6.1)	632	(12.2)	132* (13.4)	45.0	(3.8)	16.8	(2.7)
Chile	381	(6.1)	430	(5.8)	438	(5.1)	484	(4.4)	103* (6.8)	35.3	(2.2)	13.3	(1.5)
Flanders (Belgium)	488	(5.1)	518	(4.6)	566	(4.1)	598	(4.4)	110* (7.0)	50.3	(3.2)	16.0	(1.7)
Italy	452	(5.3)	483	(3.7)	494	(3.9)	512	(4.3)	60* (6.4)	23.8	(2.4)	5.5	(1.0)
Lithuania	419	(4.3)	432	(4.3)	460	(4.8)	490	(5.1)	71* (6.5)	30.5	(2.8)	6.7	(1.2)
Peru	341	(3.6)	394	(5.2)	418	(4.8)	458	(5.6)	117* (6.3)	36.2	(1.9)	17.2	(1.7)
Poland	453	(4.6)	475	(4.0)	491	(4.6)	526	(5.0)	73* (6.5)	34.3	(2.8)	7.8	(1.2)
Russian Federation	489	(4.7)	508	(4.7)	523	(4.3)	535	(4.7)	46* (6.2)	22.3	(3.2)	3.4	(1.0)
Slovak Republic	409	(9.0)	435	(4.7)	452	(5.0)	488	(6.3)	80* (10.0)	32.5	(4.3)	6.5	(1.7)
Spain	429	(4.8)	459	(4.3)	480	(4.6)	508	(4.6)	79* (5.8)	26.0	(1.8)	9.1	(1.2)
The Netherlands	462	(7.3)	494	(4.7)	518	(4.5)	566	(4.5)	104* (9.0)	51.1	(4.4)	10.5	(1.5)
United States	445	(5.2)	469	(4.8)	499	(5.9)	542	(5.1)	97* (7.2)	35.8	(2.4)	11.1	(1.3)
OECD average	447	(1.8)	478	(1.4)	501	(1.5)	536	(1.5)	89* (2.3)	37.8	(0.9)	9.9	(0.4)

\* Statistically significant differences. Note: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

#### Correlation of financial literacy performance with performance in mathematics, reading and science

			ation betwo al literacy a						r compariso etween per			
	math	ematics	aticsreading		sci	ence		ematics ading		ematics cience	rea and so	
Country, economy, or province	Correlation	Standard error	Correlation	Standard error	Correlation	Standard error	Correlation	Standard error	Correlation	Standard error	Correlation	Standard error
Canada	0.68	(0.02)	0.70	(0.02)	0.74	(0.01)	0.78	(0.01)	0.88	(0.01)	0.87	(0.01)
Newfoundland and Labrador	0.72	(0.02)	0.74	(0.02)	0.77	(0.02)	0.82	(0.01)	0.90	(0.01)	0.90	(0.01)
Prince Edward Island	0.69	(0.03)	0.70	(0.04)	0.75	(0.03)	0.78	(0.03)	0.88	(0.02)	0.88	(0.02)
Nova Scotia	0.68	(0.02)	0.72	(0.02)	0.76	(0.02)	0.80	(0.02)	0.88	(0.01)	0.88	(0.01)
New Brunswick	0.65	(0.03)	0.68	(0.02)	0.71	(0.02)	0.80	(0.02)	0.89	(0.01)	0.89	(0.01)
Ontario	0.69	(0.02)	0.70	(0.02)	0.75	(0.01)	0.79	(0.01)	0.88	(0.01)	0.88	(0.01)
Manitoba	0.67	(0.03)	0.70	(0.03)	0.74	(0.02)	0.79	(0.02)	0.88	(0.01)	0.87	(0.01)
British Columbia	0.63	(0.03)	0.65	(0.03)	0.72	(0.02)	0.74	(0.03)	0.85	(0.01)	0.85	(0.01)
Australia	0.79	(0.01)	0.80	(0.01)	0.85	(0.00)	0.79	(0.01)	0.88	(0.00)	0.87	(0.00)
Brazil	0.62	(0.02)	0.65	(0.01)	0.68	(0.01)	0.75	(0.01)	0.84	(0.01)	0.86	(0.01)
BSJG-China	0.80	(0.01)	0.80	(0.01)	0.83	(0.01)	0.84	(0.01)	0.91	(0.01)	0.90	(0.01)
Chile	0.75	(0.01)	0.75	(0.01)	0.78	(0.01)	0.80	(0.01)	0.88	(0.01)	0.87	(0.01)
Flanders (Belgium)	0.80	(0.01)	0.80	(0.01)	0.83	(0.01)	0.84	(0.01)	0.90	(0.01)	0.90	(0.01)
Italy	0.68	(0.01)	0.67	(0.02)	0.73	(0.01)	0.75	(0.01)	0.85	(0.01)	0.84	(0.01)
Lithuania	0.70	(0.01)	0.73	(0.01)	0.75	(0.01)	0.79	(0.01)	0.90	(0.01)	0.87	(0.00)
Peru	0.76	(0.01)	0.81	(0.01)	0.79	(0.01)	0.81	(0.01)	0.86	(0.01)	0.88	(0.01)
Poland	0.74	(0.01)	0.75	(0.01)	0.77	(0.01)	0.80	(0.01)	0.90	(0.00)	0.86	(0.01)
Russian Federation	0.60	(0.01)	0.61	(0.02)	0.68	(0.01)	0.66	(0.01)	0.82	(0.01)	0.81	(0.01)
Slovak Republic	0.66	(0.02)	0.66	(0.03)	0.68	(0.03)	0.83	(0.01)	0.88	(0.01)	0.87	(0.01)
Spain	0.71	(0.01)	0.72	(0.01)	0.75	(0.01)	0.76	(0.01)	0.88	(0.01)	0.86	(0.00)
The Netherlands	0.81	(0.01)	0.81	(0.01)	0.84	(0.01)	0.87	(0.01)	0.91	(0.00)	0.89	(0.00)
United States	0.80	(0.01)	0.80	(0.01)	0.83	(0.01)	0.83	(0.01)	0.90	(0.00)	0.90	(0.00)
OECD average	0.74	(0.00)	0.75	(0.00)	0.78	(0.00)	0.80	(0.00)	0.89	(0.00)	0.87	(0.00)

*Note*: BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong. The Canadian results include students from the seven participating provinces.

## Percentage of students by saving behaviour

	I save the same amount of money each week or month		amount of money each week or money each month but the		only w have so	I save money only when I have some to spare		I save money only when I want to buy something		ot save ioney	I hav money not s	so I do
Country, economy, or province	S1 %	andard error	St %	andard error	St %	andard error	St %	andard error	S1 %	tandard error	S1 %	tandard error
Canada	19.5	(1.2)	32.8	(1.1)	16.7	(1.0)	20.1	(1.0)	4.1	(0.6)	6.8	(0.7)
Newfoundland and Labrador	18.2	(2.6)	36.2	(3.2)	12.1	(2.2)	22.9	(3.0)	<b>6.6</b> <sup>‡</sup>	(1.9)	<b>4.0</b> <sup>±</sup>	(1.3)
Prince Edward Island	<b>14.8</b> <sup>‡</sup>	(4.2)	41.4	(5.7)	U <sup>‡</sup>	(3.6)	<b>22.6</b> <sup>‡</sup>	(4.7)	$\mathbf{U}^{\ddagger}$	(1.2)	$\mathbf{U}^{\ddagger}$	(3.1)
Nova Scotia	18.5	(2.1)	27.7	(2.7)	17.8	(1.9)	22.5	(2.5)	<b>5.3</b> <sup>‡</sup>	(1.2)	<b>8.2</b> <sup>‡</sup>	(1.7)
New Brunswick	19.1	(2.3)	29.3	(2.8)	17.9	(2.4)	17.9	(2.0)	<b>4.2</b> <sup>‡</sup>	(1.0)	11.6	(2.0)
Ontario	19.9	(1.7)	31.7	(1.7)	16.6	(1.3)	21.1	(1.4)	4.0	(0.8)	6.6	(0.9)
Manitoba	18.1	(2.3)	31.8	(2.6)	18.0	(3.0)	19.2	(1.7)	6.4	(1.9)	6.4	(1.6)
British Columbia	19.2	(1.9)	37.7	(2.4)	16.9	(2.1)	16.1	(2.3)	<b>3.4</b> <sup>‡</sup>	(1.0)	6.7	(1.4)
Australia	24.6	(0.5)	32.3	(0.6)	16.0	(0.5)	17.3	(0.4)	3.9	(0.2)	5.9	(0.3)
BSJG-China	14.8	(1.0)	43.3	(1.2)	18.9	(1.0)	13.6	(0.9)	4.7	(0.5)	4.7	(0.6)
Chile	22.3	(1.2)	22.9	(1.3)	22.3	(1.3)	23.4	(1.2)	4.4	(0.5)	4.8	(0.7)
Flanders (Belgium)	22.0	(1.3)	31.1	(1.7)	15.1	(0.9)	21.3	(1.1)	7.9	(1.0)	2.7 <sup>‡</sup>	(0.5)
Italy	12.0	(0.9)	31.3	(1.1)	21.5	(1.2)	26.8	(1.2)	4.6	(0.6)	3.8	(0.5)
Lithuania	12.4	(0.9)	29.9	(1.3)	22.9	(1.0)	26.0	(1.2)	6.5	(0.7)	2.3	(0.4)
Poland	18.3	(1.0)	19.6	(1.0)	28.4	(1.1)	23.0	(1.1)	7.9	(0.7)	2.8	(0.4)
Russian Federation	16.2	(1.2)	19.7	(1.4)	20.5	(1.4)	29.5	(1.5)	10.4	(1.1)	3.7	(0.6)
Slovak Republic	15.7	(0.9)	23.5	(1.2)	25.9	(1.2)	24.8	(1.2)	7.2	(0.7)	2.9	(0.4)
Spain	18.4	(1.1)	31.4	(1.2)	23.0	(1.0)	19.4	(1.0)	4.4	(0.6)	3.3	(0.5)
The Netherlands	23.7	(1.0)	34.8	(1.4)	12.5	(0.9)	20.4	(1.2)	7.2	(0.7)	1.3 <sup>‡</sup>	(0.3)
United States	17.7	(1.1)	31.8	(1.3)	19.4	(1.2)	19.8	(1.2)	4.6	(0.6)	6.7	(0.7)
OECD average	19.4	(0.3)	29.1	(0.4)	20.1	(0.3)	21.6	(0.3)	5.6	(0.2)	4.6	(0.2)

<sup>‡</sup> There are fewer than 30 observations.

U Too unreliable to be published.

	amou mone	ne same unt of y each r month	I save money wee month, amoun	y each k or but the	only v have s	money when I ome to are	only v want	money vhen I to buy ething		ot save noney	money	re no so I do save
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error
Canada	529	(7.1)	566	(5.8)	541	(7.2)	511	(7.3)	477	(14.0)	525	(15.6)
Newfoundland and Labrador	500	(18.0)	550	(10.0)	522	(13.4)	490	(15.5)	<b>487</b> <sup>‡</sup>	(22.1)	<b>548</b> <sup>‡</sup>	(42.6)
Prince Edward Island	<b>498</b> <sup>‡</sup>	(33.6)	561	(15.6)	<b>469</b> <sup>‡</sup>	(53.0)	<b>495</b> <sup>‡</sup>	(18.8)	<b>590</b> <sup>‡</sup>	(42.0)	<b>559</b> <sup>‡</sup>	(43.1)
Nova Scotia	546	(16.0)	550	(10.5)	534	(14.0)	501	(12.9)	<b>490</b> <sup>‡</sup>	(23.1)	<b>517</b> <sup>‡</sup>	(21.1)
New Brunswick	507	(18.3)	558	(10.8)	519	(13.6)	497	(12.4)	<b>462</b> <sup>‡</sup>	(20.1)	538	(28.6)
Ontario	529	(10.0)	568	(7.7)	539	(9.9)	509	(9.1)	459	(18.5)	518	(20.8)
Manitoba	489	(16.0)	529	(8.9)	520	(17.8)	483	(10.0)	491	(18.4)	489	(24.2)
British Columbia	547	(11.9)	575	(10.1)	565	(12.5)	538	(12.4)	<b>538</b> <sup>‡</sup>	(25.9)	557	(22.0)
Australia	485	(2.9)	540	(2.6)	501	(4.2)	477	(3.9)	461	(7.1)	517	(6.5)
BSJG-China	571	(9.2)	571	(6.7)	572	(8.4)	555	(13.6)	583	(18.2)	554	(21.7)
Chile	412	(6.5)	450	(5.9)	444	(6.8)	430	(7.7)	392	(14.9)	454	(17.9)
Flanders (Belgium)	529	(7.7)	571	(6.4)	543	(8.3)	523	(8.2)	508	(16.8)	551‡	(17.2)
Italy	472	(8.5)	503	(5.7)	479	(7.1)	484	(6.5)	474	(15.4)	487	(16.4)
Lithuania	429	(9.0)	478	(5.3)	446	(8.1)	446	(5.8)	436	(10.0)	435	(18.9)
Poland	470	(6.6)	504	(7.1)	491	(5.9)	480	(5.3)	483	(9.4)	481	(15.3)
Russian Federation	494	(6.8)	506	(7.8)	522	(8.4)	499	(6.2)	499	(7.4)	495	(18.5)
Slovak Republic	409	(9.5)	449	(8.2)	446	(7.8)	447	(7.3)	409	(12.4)	434	(19.7)
Spain	448	(6.0)	480	(5.9)	472	(6.0)	466	(6.5)	443	(15.0)	459	(16.2)
The Netherlands	524	(6.8)	547	(5.2)	528	(9.5)	492	(8.1)	475	(14.5)	466 <sup>‡</sup>	(34.7)
United States	470	(7.0)	519	(6.2)	513	(7.3)	457	(6.9)	453	(18.4)	508	(11.6)
OECD average	475	(2.2)	513	(1.9)	496	(2.3)	477	(2.2)	458	(4.5)	488	(5.8)

<sup>‡</sup> There are fewer than 30 observations.

#### Estimated score-point differences in financial literacy by saving behaviour

Score-point difference in students' saving behaviour compared with
SAVING A DIFFERENT AMOUNT EACH WEEK OR MONTH

	I save the amount of each w or mo	money veek	l save mon when I hav to spa	e some	l save mon when I wan someth	t to buy	I do not any mo		I have no money so I do not save	
Country, economy, or province	Difference	Standard error	S Difference	tandard error	S Difference	tandard error	S Difference	tandard error	S	Standard error
Canada	-36*	(8.7)	-24*	(8.8)	-55*	(7.8)	-89*	(15.2)	-41*	(16.7)
Newfoundland and Labrador	-49*	(20.9)	-27	(18.6)	-60*	(18.7)	-63 <sup>‡</sup> *	(24.0)	- <b>2</b> <sup>‡</sup>	(44.2)
Prince Edward Island	-63 <sup>‡</sup>	(36.8)	-92 <sup>‡</sup>	(55.5)	-67 <sup>‡</sup> *	(23.8)	<b>29</b> <sup>‡</sup>	(45.8)	-3 <sup>‡</sup>	(46.4)
Nova Scotia	-4	(19.6)	-15	(19.5)	-49*	(15.3)	-60 <sup>‡</sup> *	(25.5)	-33 <sup>‡</sup>	(24.6)
New Brunswick	-51*	(21.9)	-39*	(17.4)	-61*	(15.3)	<b>-96</b> <sup>‡</sup> *	(23.1)	-19	(31.2)
Ontario	-39*	(12.3)	-29*	(11.5)	-58*	(10.0)	-109*	(19.0)	-50*	(22.4)
Manitoba	-40*	(17.6)	-9	(20.7)	-45*	(12.3)	-38*	(18.0)	-40	(25.5)
British Columbia	-28	(16.4)	-10	(15.7)	-37*	(16.0)	- <b>37</b> <sup>‡</sup>	(28.0)	-18	(22.7)
Australia	-55*	(3.3)	-39*	(4.8)	-64*	(4.4)	-79*	(7.1)	-24*	(7.0)
BSJG-China	0	(9.4)	1	(8.8)	-16	(10.9)	12	(15.2)	-17	(21.4)
Chile	-38*	(8.1)	-6	(8.2)	-20*	(9.1)	-57*	(15.4)	4	(18.8)
Flanders (Belgium)	-42*	(9.2)	-28*	(9.9)	-49*	(10.3)	-63*	(16.6)	-20 <sup>‡</sup>	(18.4)
Italy	-31*	(9.9)	-24*	(10.0)	-19*	(8.8)	-29	(16.6)	-16	(16.8)
Lithuania	-49*	(9.8)	-33*	(9.1)	-32*	(7.6)	-43*	(10.9)	-43*	(19.5)
Poland	-34*	(9.6)	-14	(7.5)	-24*	(7.9)	-21	(11.4)	-23	(15.6)
Russian Federation	-12	(7.8)	16	(10.5)	-7	(9.2)	-7	(10.6)	-11	(18.6)
Slovak Republic	-40*	(11.2)	-3	(9.3)	-2	(9.5)	-40*	(14.5)	-16	(19.4)
Spain	-32*	(7.7)	-9	(6.5)	-14	(8.6)	-37*	(14.9)	-22	(16.0)
The Netherlands	-24*	(8.3)	-19*	(9.5)	-55*	(9.6)	-73*	(15.3)	-81 <sup>‡</sup> *	(35.0)
United States	-49*	(8.6)	-6	(8.7)	-62*	(8.5)	-66*	(19.1)	-11	(12.6)
OECD average	-38*	(2.7)	-17*	(2.7)	-36*	(2.7)	-55*	(4.7)	-25*	(6.0)

<sup>±</sup> There are fewer than 30 observations in the reference/comparison group(s).

\* Statistically significant differences. Note: Data for Brazil and Peru are not reliable because of low response rates. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong.

#### Percentage of students by spending behaviour

Students' spending behaviour when they do not have enough money to buy something they really want (e.g., an item of clothing, sports equipment)

	Save up to buy it		Not	buy it	Buy it by borrowing or usin money that should be spent something else		
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	
Canada	63.2	(1.4)	17.5	(1.0)	19.4	(1.2)	
Newfoundland and Labrador	67.1	(2.6)	10.5	(1.6)	22.4	(2.5)	
Prince Edward Island	61.2	(6.2)	<b>18.1</b> <sup>‡</sup>	(4.4)	<b>20.6</b> <sup>‡</sup>	(5.2)	
Nova Scotia	65.1	(3.0)	14.5	(2.7)	20.4	(2.0)	
New Brunswick	56.8	(3.0)	24.1	(2.8)	19.1	(2.5)	
Ontario	60.5	(1.8)	19.1	(1.3)	20.4	(1.6)	
Manitoba	66.7	(3.1)	14.5	(1.9)	18.8	(2.6)	
British Columbia	71.8	(2.4)	12.9	(1.8)	15.3	(1.6)	
Australia	66.5	(0.6)	12.2	(0.4)	21.3	(0.5)	
BSJG–China	68.3	(1.2)	9.9	(0.8)	21.8	(1.1)	
Chile	70.7	(1.2)	10.6	(0.8)	18.7	(1.1)	
Flanders (Belgium)	58.4	(1.4)	17.3	(1.1)	24.3	(1.3)	
Italy	58.6	(1.4)	12.6	(0.9)	28.8	(1.3)	
Lithuania	60.8	(1.2)	13.0	(0.9)	26.2	(1.2)	
Poland	58.9	(1.3)	9.2	(0.8)	32.0	(1.2)	
Russian Federation	69.3	(1.4)	8.2	(0.7)	22.6	(1.3)	
Slovak Republic	52.5	(1.7)	13.9	(0.9)	33.5	(1.6)	
Spain	65.6	(1.5)	9.0	(0.9)	25.4	(1.3)	
The Netherlands	64.7	(1.3)	17.2	(1.2)	18.2	(1.1)	
United States	69.2	(1.3)	14.3	(1.1)	16.5	(1.0)	
OECD average	62.8	(0.4)	13.4	(0.3)	23.8	(0.4)	

<sup>‡</sup> There are fewer than 30 observations.

*Note*: Due to small sample sizes, "buy it with money that really should be used for something else", "try to borrow money from a family member", and "try to borrow money from a friend" categories were combined into "buy it by borrowing or using money that should be spent on something else" category. Data for Brazil and Peru are not reliable because of low response rates. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong.

#### Estimated average scores in financial literacy by students' spending behaviour

Students' spending behaviour when they do not have enough money to buy something they really want (e.g., an item of clothing, sports equipment)

	Save up	o to buy it	Not	buy it	Buy it by borrowing or using money that should be spent on something else		
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	
Canada	545	(4.8)	541	(9.0)	505	(9.3)	
Newfoundland and Labrador	525	(8.0)	548	(21.6)	488	(13.3)	
Prince Edward Island	543	(13.8)	<b>532</b> <sup>±</sup>	(25.5)	<b>476</b> <sup>±</sup>	(37.4)	
Nova Scotia	535	(7.4)	537	(12.9)	498	(10.3)	
New Brunswick	540	(8.5)	509	(13.2)	491	(13.3)	
Ontario	544	(6.8)	538	(11.4)	504	(11.9)	
Manitoba	512	(7.2)	530	(11.2)	466	(14.9)	
British Columbia	563	(6.8)	568	(14.8)	535	(13.9)	
Australia	514	(2.1)	520	(4.1)	466	(3.5)	
BSJG–China	571	(6.1)	556	(12.1)	563	(9.1)	
Chile	439	(5.2)	436	(9.7)	411	(7.2)	
Flanders (Belgium)	555	(4.5)	535	(8.5)	517	(9.3)	
Italy	493	(4.1)	470	(9.0)	482	(6.0)	
Lithuania	475	(3.8)	439	(8.0)	403	(6.4)	
Poland	501	(4.0)	480	(8.5)	462	(6.1)	
Russian Federation	513	(4.6)	496	(13.5)	478	(6.7)	
Slovak Republic	467	(5.8)	445	(9.6)	393	(7.3)	
Spain	481	(3.9)	443	(10.6)	437	(6.5)	
The Netherlands	532	(4.2)	518	(8.2)	487	(9.7)	
United States	499	(4.2)	503	(8.2)	455	(9.9)	
OECD average	503	(1.4)	489	(2.8)	462	(2.4)	

<sup>‡</sup> There are fewer than 30 observations.

*Note*: Due to small sample sizes, "buy it with money that really should be used for something else", "try to borrow money from a family member", and "try to borrow money from a friend" categories were combined into "buy it by borrowing or using money that should be spent on something else" category. Data for Brazil and Peru are not reliable because of low response rates. BSJG–China represents Beijing, Shanghai, Jiangsu, and Guangdong.

#### Estimated score-point differences in financial literacy by students' spending behaviour

Score-point difference in students' spending behaviour compared with SAVING UP TO BUY something they really want (e.g., an item of clothing, sports equipment)

	Not bu	y it	Buy it by borrowing or using money that should be spent on something else			
Country, economy, or province	Difference	Standard error	Difference	Standard error		
Canada	-5	(9.2)	-40*	(10.6)		
Newfoundland and Labrador	23	(24.4)	-37*	(16.6)		
Prince Edward Island	<b>-11</b> <sup>‡</sup>	(29.5)	-6 <b>7</b> *	(37.6)		
Nova Scotia	1	(14.1)	-38*	(12.3)		
New Brunswick	-31	(15.8)	-49*	(15.4)		
Ontario	-6	(12.2)	-40*	(13.4)		
Manitoba	18	(11.7)	-46*	(14.1)		
British Columbia	5	(16.4)	-29	(15.5)		
Australia	6	(4.1)	-48*	(3.5)		
BSJG–China	-16	(10.3)	-8	(7.1)		
Chile	-3	(10.8)	-29*	(8.7)		
Flanders (Belgium)	-21*	(8.8)	-38*	(9.5)		
Italy	-23*	(9.0)	-11	(6.7)		
Lithuania	-36*	(8.3)	-72*	(6.7)		
Poland	-20*	(8.5)	-38*	(6.4)		
Russian Federation	-18	(14.1)	-35*	(6.7)		
Slovak Republic	-23*	(9.4)	-74*	(8.4)		
Spain	-38*	(11.2)	-43*	(6.4)		
The Netherlands	-14	(9.1)	-45*	(10.2)		
United States	4	(8.9)	-44*	(10.2)		
OECD average	-14*	(2.9)	-41*	(2.6)		

<sup>+</sup> There are fewer than 30 observations in the reference/comparison group(s).

\* Statistically significant differences.

*Note*: Due to small sample sizes, "buy it with money that really should be used for something else", "try to borrow money from a family member", and "try to borrow money from a friend" categories were combined into "buy it by borrowing or using money that should be spent on something else" category. Data for Brazil and Peru are not reliable because of low response rates. BSJG—China represents Beijing, Shanghai, Jiangsu, and Guangdong.

#### Percentage of students who reported each type of spending behaviour by proficiency level in financial literacy

		someth Save up to	ning they really	want (e.g., an it Not bu		g, sports equipm Buy it by bo or using mo should be s somethir	orrowing oney that spent on
	Canada, provinces, and OECD average	%	Standard error	%	Standard error	%	Standard error
Below Level 2	Canada	47.8	(4.7)	19.0	(3.3)	33.1	(4.3)
	Newfoundland and Labrador	55.7	(10.2)	U	(6.8)	28.5	(7.8)
	Prince Edward Island	U <sup>‡</sup>	(16.9)	U <sup>‡</sup>	(12.5)	U <sup>‡</sup>	(16.9)
	Nova Scotia	59.2	(11.8)	U	(9.2)	U	(10.5)
	New Brunswick	45.2	(11.7)	30.7	(9.6)	U	(9.2)
	Ontario	44.6	(6.4)	20.6	(4.5)	34.8	(5.8)
	Manitoba	57.3	(10.1)	U	(3.1)	36.0	(10.4)
	British Columbia	57.6	(11.8)	U	(8.3)	U	(9.1)
	OECD average	51.4	(1.1)	13.5	(0.8)	35.1	(1.1)
Level 2	Canada	58.7	(3.7)	16.0	(2.9)	25.3	(3.4)
	Newfoundland and Labrador	66.2	(8.8)	U	(2.7)	32.0	(8.8)
	Prince Edward Island	56.1 <sup>‡</sup>	(17.6)	U <sup>‡</sup>	(13.6)	U <sup>‡</sup>	(15.8)
	Nova Scotia	55.4	(7.6)	U	(6.0)	31.6	(13.0)
	New Brunswick	44.9	(7.7)	29.6	(6.1)	25.5	(7.4)
	Ontario	55.5	(5.3)	18.1	(4.3)	26.5	(4.6)
	Manitoba	64.6	(7.3)	13.7	(4.0)	21.6	(7.1)
	British Columbia	73.9	(7.3)	13.7 U	(4.0)	21.0 U	(6.6)
	OECD average	<b>61.6</b>	(1.1)	13.5	( <b>4</b> .7)	24.9	(0.0) (1.0)
Level 3	Canada	65.0	(3.0)	17.0	(2.5)	18.0	(2.2)
Levers	Newfoundland and Labrador	67.3	(6.0)	U	(3.6)	26.2	(5.8)
	Prince Edward Island	68.9 <sup>‡</sup>	(10.9)	U <sup>‡</sup>	(8.3)	20.2 U <sup>‡</sup>	(8.8)
	Nova Scotia	63.9	(10.3)	13.1	(4.3)	23.1	(5.2)
	New Brunswick	54.4	(6.4)	24.7	(4.3)	20.9	(5.2)
	Ontario	63.3	(0.4)	19.2	(3.6)	20.9 17.5	(3.2)
	Manitoba	69.5		13.6	(3.0)	16.9	
		71.7	(5.6)				(4.6)
	British Columbia		(4.4)	11.1	(3.3)	17.2	(3.8)
Level 4	OECD average	65.7	(1.0)	13.7	(0.7)	20.5	(0.8)
Level 4	Canada	68.3	(3.0)	16.5	(2.4)	15.2	(2.4)
	Newfoundland and Labrador	73.8	(6.5)	U	(5.4)	14.3	(4.7)
	Prince Edward Island	68.6 <sup>‡</sup>	(13.5)	U <sup>‡</sup>	(11.0)	U <sup>‡</sup>	(9.5)
	Nova Scotia	73.8	(5.8)	U	(4.8)	13.1	(4.2)
	New Brunswick	65.5	(10.4)	U	(6.8)	U	(7.4)
	Ontario	66.2	(4.2)	17.2	(3.5)	16.7	(3.6)
	Manitoba	67.8	(5.8)	18.7	(4.9)	13.5	(4.1)
	British Columbia	73.6	(4.7)	14.9	(2.9)	U	(3.9)
	OECD average	68.4	(1.1)	13.4	(0.8)	18.3	(0.9)
Level 5	Canada	65.5	(4.0)	19.7	(2.9)	14.8	(2.9)
	Newfoundland and Labrador	66.2	(9.6)	U	(8.7)	U	(6.0)
	Prince Edward Island	62.9 <sup>‡</sup>	(15.5)	U‡	(12.9)	U <sup>‡</sup>	(12.2)
	Nova Scotia	67.6	(8.2)	U	(7.3)	U	(4.5)
	New Brunswick	73.4	(8.7)	U	(7.9)	U	(4.2)
	Ontario	62.3	(5.2)	21.4	(4.1)	16.2	(3.9)
	Manitoba	72.8	(8.0)	19.0	(6.1)	U	(4.8)
	British Columbia	72.6	(5.7)	14.5	(3.7)	U	(4.3)
	OECD average	70.4	(1.7)	11.7	(1.1)	17.9	(1.4)

Students' spending behaviour when they do not have enough money to buy

<sup>‡</sup> There are fewer than 30 observations.

U Too unreliable to be published. *Note*: Due to small sample sizes, "buy it with money that really should be used for something else", "try to borrow money from a family member", and "try to borrow money from a friend" categories were combined into "buy it by borrowing or using money that should be spent on something else" category.

#### Percentage of students discussing money matters with parents or other adults

## Discussing money matters (e.g., talk about spending, saving, banking, investment) with parents or other adults

	Never or hardly ever		Once or twice	a month	Once or twice	a week	Almost every day		
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	%	Standard error	
Canada	13.1	(0.8)	33.0	(1.4)	36.4	(1.3)	17.4	(1.1)	
Newfoundland and Labrador	14.2	(1.9)	36.1	(3.2)	34.1	(3.1)	15.6	(2.3)	
Prince Edward Island	<b>13.5</b> <sup>‡</sup>	(3.8)	27.8	(5.6)	40.2	(5.9)	<b>18.5</b> <sup>‡</sup>	(4.2)	
Nova Scotia	16.5	(2.5)	32.0	(3.1)	38.2	(3.6)	13.3	(2.1)	
New Brunswick	15.7	(2.2)	30.4	(2.8)	37.3	(3.2)	16.7	(2.2)	
Ontario	13.5	(1.1)	31.8	(1.8)	36.3	(1.9)	18.5	(1.5)	
Manitoba	12.4	(2.1)	34.1	(2.9)	37.1	(2.8)	16.4	(3.1)	
British Columbia	10.8	(1.3)	37.7	(2.7)	36.4	(2.3)	15.1	(1.9)	
Australia	15.7	(0.4)	34.9	(0.6)	37.1	(0.6)	12.4	(0.4)	
BSJG–China	21.8	(1.3)	40.5	(1.2)	29.7	(1.2)	8.0	(0.7)	
Chile	18.7	(1.1)	29.0	(1.3)	29.6	(1.4)	22.6	(1.2)	
Flanders (Belgium)	16.1	(1.2)	37.5	(1.4)	32.8	(1.5)	13.6	(1.0)	
Italy	17.6	(1.1)	25.3	(1.1)	34.5	(1.5)	22.7	(1.4)	
Lithuania	11.6	(0.9)	27.4	(1.2)	38.0	(1.3)	23.0	(1.2)	
Poland	15.7	(0.9)	35.0	(1.2)	34.6	(1.2)	14.7	(0.8)	
Russian Federation	14.6	(1.0)	29.2	(1.7)	35.9	(1.7)	20.3	(1.5)	
Slovak Republic	20.2	(1.3)	33.6	(1.5)	31.1	(1.3)	15.1	(1.1)	
Spain	21.6	(0.9)	28.0	(1.3)	32.1	(1.5)	18.3	(1.1)	
The Netherlands	13.1	(0.9)	35.6	(1.4)	36.7	(1.2)	14.5	(1.1)	
United States	12.3	(1.0)	32.4	(1.5)	34.1	(1.5)	21.2	(1.3)	
OECD average	16.4	(0.3)	32.4	(0.4)	33.9	(0.4)	17.3	(0.3)	

<sup>‡</sup> There are fewer than 30 observations.

#### Estimated average scores in financial literacy by students discussing money matters with parents or other adults

	Discussing money matters (e.g., talk about spending, saving, banking, investment) with parents or other adults											
	Never or h	ardly ever	Once or twi	ce a month	Once or twi	ce a week	Almost e	very day				
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error				
Canada	520	(9.3)	538	(6.5)	543	(5.7)	533	(8.3)				
Newfoundland and Labrador	502	(20.0)	534	(11.5)	520	(10.9)	487	(17.8)				
Prince Edward Island	<b>461</b> <sup>‡</sup>	(41.2)	543	(19.8)	541	(18.5)	<b>522</b> <sup>‡</sup>	(25.4)				
Nova Scotia	519	(14.4)	528	(7.7)	531	(10.1)	520	(17.3)				
New Brunswick	497	(16.1)	527	(10.0)	529	(12.2)	525	(15.0)				
Ontario	527	(11.9)	531	(9.1)	540	(7.9)	537	(10.7)				
Manitoba	488	(15.9)	512	(8.5)	523	(10.2)	470	(14.8)				
British Columbia	510	(19.7)	569	(10.5)	568	(8.4)	549	(10.3)				
Australia	477	(4.2)	513	(2.7)	517	(2.5)	478	(4.6)				
BSJG-China	538	(8.9)	581	(7.3)	581	(10.4)	543	(12.0)				
Chile	409	(7.5)	438	(6.4)	447	(6.2)	434	(6.3)				
Flanders (Belgium)	515	(11.6)	557	(5.2)	545	(7.1)	529	(8.1)				
Italy	451	(8.3)	492	(6.0)	500	(5.0)	489	(6.2)				
Lithuania	399	(8.7)	453	(6.1)	468	(4.7)	453	(5.8)				
Poland	461	(8.0)	488	(5.2)	497	(4.6)	490	(8.5)				
Russian Federation	475	(8.1)	503	(6.4)	509	(6.4)	517	(6.4)				
Slovak Republic	402	(7.9)	451	(7.5)	452	(8.0)	446	(9.2)				
Spain	458	(7.7)	468	(5.6)	471	(5.3)	465	(7.2)				
The Netherlands	472	(8.9)	531	(6.2)	534	(4.8)	504	(10.6)				
United States	484	(8.4)	504	(4.8)	504	(5.8)	462	(7.0)				
OECD average	465	(2.6)	498	(1.8)	501	(1.8)	483	(2.5)				

Discussing money matters (e.g., talk about spending, saving, banking, investment)

<sup>‡</sup> There are fewer than 30 observations.

## Estimated score-point differences in financial literacy by discussing money matters with parents or other adults

Score-point difference in financial literacy compared with discussing money matters with parents or other adults ONCE OR TWICE A WEEK (e.g., talk about spending, saving, banking, investment)

	Never or hardly ever Once or twice			vice a month	Once or tw	vice a month
Country, economy, or province	Difference	Standard error	Difference	Standard error	Difference	Standard error
Canada	-23*	(11.3)	-6	(7.9)	-10	(9.3)
Newfoundland and Labrador	-18	(22.0)	15	(15.5)	-33	(21.4)
Prince Edward Island	-80 <sup>‡</sup>	(43.8)	2	(27.2)	-19 <sup>‡</sup>	(30.2)
Nova Scotia	-12	(17.8)	-3	(12.1)	-12	(19.2)
New Brunswick	-32	(18.1)	-2	(14.7)	-4	(19.4)
Ontario	-13	(14.6)	-10	(11.4)	-4	(12.0)
Manitoba	-35*	(17.2)	-11	(13.3)	-53*	(16.0)
British Columbia	-58*	(22.4)	1	(12.6)	-19	(13.7)
Australia	-40*	(4.3)	-4	(3.0)	-39*	(4.9)
BSJG–China	-43*	(12.4)	0	(8.4)	-37*	(14.2)
Chile	-38*	(8.5)	-9	(7.9)	-13	(7.5)
Flanders (Belgium)	-30*	(12.0)	12	(7.9)	-16	(10.1)
Italy	-49*	(9.4)	-8	(7.8)	-11	(7.5)
Lithuania	-69*	(8.7)	-16*	(7.0)	-15*	(6.7)
Poland	-36*	(8.4)	-9	(6.4)	-7	(8.5)
Russian Federation	-34*	(8.1)	-7	(8.0)	8	(7.7)
Slovak Republic	-50*	(9.5)	-1	(9.9)	-6	(11.7)
Spain	-13	(8.2)	-3	(7.2)	-6	(8.4)
The Netherlands	-62*	(10.4)	-3	(7.9)	-30*	(11.1)
United States	-20*	(9.1)	0	(6.8)	-42*	(7.9)
OECD average	-36*	(2.9)	-3	(2.4)	-18*	(2.8)

<sup>±</sup> There are fewer than 30 observations in the reference/comparison group(s).

\* Statistically significant differences.

## Percentage of students by sources of money

	Gift money frien relat	y from ds or	Occas infor jobs babys or gard	mal (e.g., itting	out school e.٤ holida part-	king side I hours g., a ay job, time ork)	mone regu	ocket ey for larly chores	or po mo with having	owance ocket ney nout g to do hores	Selling (e.g., a mark on eB	t local ets or	in a f	rking amily iness
Country, economy, or province	%	Standard error	%	Standard error	%	Standard error	%	Standard error	%	Standard error	%	Standard error	%	Standard error
Canada	90.2	(0.8)	54.6	(1.8)	46.7	(1.8)	40.5	(1.5)	34.0	(1.3)	31.7	(1.3)	17.2	(0.8)
Newfoundland and Labrador	92.6	(1.8)	66.4	(3.9)	50.3	(3.5)	54.7	(3.5)	49.5	(3.5)	35.3	(3.6)	17.1	(2.3)
Prince Edward Island	85.0	(4.5)	50.9	(6.0)	66.9	(5.7)	43.0	(6.0)	<b>23.9</b> <sup>‡</sup>	(6.0)	36.6	(5.7)	<b>26.3</b> <sup>‡</sup>	(5.0)
Nova Scotia	91.7	(1.5)	66.0	(2.9)	46.8	(2.9)	38.5	(2.7)	27.4	(2.6)	40.5	(3.1)	13.1	(1.9)
New Brunswick	92.6	(1.9)	61.7	(3.1)	50.0	(3.2)	36.8	(3.4)	28.7	(2.6)	35.6	(3.6)	18.0	(2.5)
Ontario	90.7	(1.1)	52.3	(2.4)	46.5	(2.6)	39.8	(2.0)	33.8	(1.9)	31.0	(2.0)	16.8	(1.2)
Manitoba	88.4	(2.4)	59.8	(3.0)	47.3	(3.2)	43.7	(3.5)	27.1	(2.0)	32.3	(3.2)	19.3	(2.3)
British Columbia	88.4	(1.8)	56.0	(2.9)	45.3	(2.9)	41.4	(2.2)	37.6	(2.8)	31.1	(2.6)	18.7	(2.5)
Australia	87.6	(0.4)	44.4	(0.6)	51.9	(0.6)	49.0	(0.6)	30.4	(0.6)	36.6	(0.6)	20.3	(0.4)
BSJG-China	68.3	(1.3)	16.2	(1.0)	36.3	(1.5)	46.0	(1.4)	44.7	(1.5)	28.0	(1.2)	13.7	(0.9)
Chile	69.7	(1.7)	17.1	(1.1)	25.1	(1.5)	40.3	(1.5)	34.1	(1.5)	34.8	(1.6)	17.8	(1.1)
Flanders (Belgium)	89.6	(1.0)	49.2	(1.6)	47.6	(1.7)	50.0	(1.6)	69.8	(1.6)	30.7	(1.6)	14.4	(1.0)
Italy	83.4	(1.1)	20.7	(1.2)	16.3	(1.2)	30.7	(1.3)	33.1	(1.8)	19.7	(1.2)	16.0	(1.2)
Lithuania	86.7	(1.0)	55.1	(1.6)	44.5	(1.6)	45.7	(1.4)	47.8	(1.4)	47.5	(1.7)	29.6	(1.3)
Poland	82.4	(1.1)	33.9	(1.4)	42.6	(1.4)	47.1	(1.4)	48.2	(1.3)	40.5	(1.4)	23.3	(1.2)
Russian Federation	87.6	(1.1)	24.8	(1.8)	51.2	(2.1)	36.3	(1.7)	58.7	(1.9)	28.9	(1.3)	17.6	(1.2)
Slovak Republic	75.7	(1.2)	46.2	(1.4)	44.8	(1.6)	48.9	(1.6)	42.4	(1.6)	36.0	(1.4)	22.3	(1.1)
Spain	79.0	(1.2)	25.0	(1.2)	22.6	(1.1)	36.0	(1.5)	31.8	(1.3)	23.1	(1.1)	16.5	(1.1)
The Netherlands	89.3	(0.9)	47.0	(1.4)	52.6	(1.6)	41.3	(1.4)	69.8	(1.4)	33.5	(1.5)	15.0	(1.0)
United States	90.6	(0.8)	55.1	(1.5)	37.6	(1.5)	43.7	(1.5)	28.8	(1.2)	39.0	(1.5)	19.7	(1.1)
OECD average	83.8	(0.3)	39.3	(0.4)	38.8	(0.5)	42.7	(0.5)	42.3	(0.4)	32.6	(0.4)	18.3	(0.3)

<sup>+</sup> There are fewer than 30 observations.

## Estimated average scores in financial literacy by students' sources of money

				Slude	nus who	reportet			owing sc	Juices Of	money			
	mone frien	ts of y from Ids or tives	info jobs baby:	sional rmal (e.g., sitting dening)	out schoo (e. holid part	rking tside I hours g., a ay job, -time ork)	or p mon regu doing	owance ocket ey for ularly chores iome	or p mo wit havin	owance ocket oney hout g to do chores	(e.g., marl	g things at local kets or Bay™)	in a	rking family iness
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error
Canada	544	(4.0)	549	(4.8)	532	(5.7)	527	(5.8)	526	(6.4)	522	(5.8)	508	(8.8)
Newfoundland and Labrador	525	(6.6)	525	(9.3)	510	(12.1)	510	(9.5)	505	(10.0)	483	(11.5)	493	(21.3)
Prince Edward Island	528	(12.3)	520	(16.7)	523	(17.6)	497	(20.7)	<b>512</b> <sup>‡</sup>	(18.3)	494	(19.1)	<b>496</b> <sup>‡</sup>	(26.5)
Nova Scotia	532	(6.0)	531	(6.8)	525	(9.9)	530	(7.8)	524	(10.8)	510	(9.9)	532	(20.6)
New Brunswick	533	(6.9)	533	(9.1)	521	(8.4)	509	(11.0)	499	(10.8)	516	(9.7)	522	(15.5)
Ontario	542	(5.4)	550	(6.6)	532	(7.9)	523	(8.1)	520	(8.5)	523	(7.6)	498	(13.0)
Manitoba	514	(6.3)	516	(10.7)	508	(8.9)	492	(10.5)	493	(9.4)	486	(11.9)	485	(11.1)
British Columbia	566	(5.8)	567	(6.4)	547	(7.4)	555	(9.5)	559	(8.9)	539	(9.8)	544	(14.3)
Australia	516	(2.0)	502	(2.6)	498	(2.4)	487	(2.5)	480	(3.3)	481	(2.5)	460	(3.9)
BSJG–China	585	(7.8)	548	(10.7)	543	(7.9)	555	(6.3)	601	(7.9)	545	(9.5)	510	(10.7)
Chile	448	(4.7)	422	(7.4)	409	(7.3)	423	(5.5)	438	(6.1)	439	(5.4)	398	(8.3)
Flanders (Belgium)	554	(3.9)	548	(5.4)	537	(5.9)	524	(5.9)	545	(4.6)	525	(7.1)	514	(10.4)
Italy	498	(3.3)	469	(6.8)	460	(8.1)	467	(6.1)	482	(5.6)	485	(6.9)	440	(8.3)
Lithuania	468	(3.5)	448	(4.3)	439	(5.7)	435	(4.7)	469	(5.2)	446	(5.4)	427	(6.0)
Poland	499	(3.8)	462	(5.3)	472	(5.1)	470	(5.0)	490	(4.8)	482	(5.2)	449	(5.6)
Russian Federation	512	(4.1)	483	(7.0)	501	(5.7)	487	(5.6)	514	(4.9)	500	(6.5)	468	(7.9)
Slovak Republic	459	(5.4)	429	(6.8)	423	(6.8)	421	(6.1)	441	(6.7)	423	(7.5)	391	(8.3)
Spain	481	(3.7)	453	(7.3)	438	(7.7)	452	(5.5)	470	(5.7)	436	(7.5)	412	(8.7)
The Netherlands	530	(4.0)	527	(4.6)	517	(4.8)	504	(5.6)	536	(4.2)	521	(6.1)	476	(9.2)
United States	504	(3.8)	509	(5.3)	489	(6.1)	471	(5.4)	466	(7.1)	478	(6.0)	461	(8.2)
OECD average	503	(1.2)	487	(1.8)	478	(2.0)	475	(1.7)	487	(1.8)	479	(1.9)	451	(2.6)

Students who reported HAVING the following sources of money

<sup>±</sup> There are fewer than 30 observations.

## Table B.2.12 (cont'd)

## Estimated average scores in financial literacy by students' sources of money

				students	s who rep	ported N	OI HAVI	NG the f	ollowing	sources	of mone	ey		
	mone frier	ts of by from nds or ntives	info jobs baby	isional ormal (e.g., rsitting dening)	ou schoo (e. holid part	orking tside bl hours g., a lay job, t-time ork)	or p mor reg doing	owance ocket ney for ularly chores nome	or p mo wit havin	owance ocket oney hout g to do chores	(e.g., marl	g things at local kets or Bay™)	in a f	rking family iness
Country, economy, or province	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error	Average	Standard error
Canada	499	(13.8)	529	(5.6)	544	(5.1)	547	(4.2)	547	(4.8)	548	(4.9)	547	(4.1)
Newfoundland and Labrador	<b>449</b> ‡	(34.3)	506	(12.2)	532	(7.5)	535	(8.1)	532	(10.5)	539	(6.8)	528	(6.9)
Prince Edward Island	<b>523</b> <sup>‡</sup>	(50.1)	535	(22.1)	536	(20.7)	550	(15.1)	532	(16.9)	550	(16.6)	538	(14.1)
Nova Scotia	<b>530</b> <sup>‡</sup>	(23.3)	533	(9.6)	536	(6.8)	531	(6.9)	532	(6.6)	546	(6.9)	533	(5.4)
New Brunswick	<b>459</b> <sup>‡</sup>	(18.0)	518	(10.9)	532	(10.9)	534	(8.3)	538	(8.8)	536	(9.3)	530	(7.9)
Ontario	492	(20.2)	524	(7.7)	540	(7.1)	544	(6.0)	547	(6.5)	544	(6.8)	545	(5.6)
Manitoba	462	(18.3)	494	(9.8)	508	(9.3)	520	(8.6)	516	(8.9)	516	(7.7)	515	(8.2)
British Columbia	532	(14.9)	560	(7.4)	575	(7.2)	569	(6.4)	567	(6.5)	575	(6.2)	570	(6.4)
Australia	457	(4.5)	516	(2.3)	518	(2.5)	528	(2.3)	520	(2.0)	526	(2.3)	521	(2.0)
BSJG-China	543	(7.0)	577	(6.8)	586	(6.9)	584	(8.5)	547	(6.7)	582	(6.7)	581	(6.8)
Chile	405	(6.2)	438	(4.7)	444	(4.6)	441	(5.1)	434	(4.9)	434	(5.2)	444	(4.7)
Flanders (Belgium)	464	(12.6)	541	(5.9)	550	(5.7)	563	(5.2)	542	(7.0)	554	(4.7)	549	(4.4)
Italy	437	(7.1)	492	(3.5)	494	(3.7)	498	(4.1)	491	(4.3)	489	(3.8)	496	(3.9)
Lithuania	382	(7.2)	463	(5.2)	467	(4.4)	471	(4.3)	443	(4.0)	467	(4.5)	467	(4.0)
Poland	448	(7.0)	505	(4.5)	502	(4.7)	504	(4.4)	489	(4.6)	496	(4.1)	502	(4.1)
Russian Federation	462	(9.0)	513	(4.7)	512	(4.5)	516	(5.1)	493	(5.2)	509	(4.7)	514	(4.5)
Slovak Republic	398	(8.7)	458	(5.8)	459	(6.0)	465	(6.0)	445	(6.2)	458	(5.6)	458	(5.5)
Spain	432	(7.4)	477	(4.2)	480	(3.9)	480	(4.2)	470	(4.2)	481	(3.9)	482	(3.8)
The Netherlands	463	(12.5)	522	(5.1)	529	(5.3)	536	(4.2)	495	(6.4)	525	(3.8)	532	(3.8)
United States	412	(10.1)	480	(4.7)	499	(4.6)	512	(4.4)	507	(3.9)	508	(3.9)	503	(4.0)
OECD average	441	(3.0)	496	(1.5)	502	(1.5)	507	(1.4)	494	(1.6)	502	(1.4)	503	(1.3)

Students who reported NOT HAVING the following sources of money

<sup>‡</sup> There are fewer than 30 observations.

#### Estimated score-point differences in financial literacy by students' sources of money

				Differen	ce (HAVII	NG minus	NOT HA	VING the	following	g sources	of money	r)		
	mone frier	ts of ey from nds or ttives	info jobs baby	sional ormal (e.g., sitting dening)	out schoc (e. holid part	rking tside ol hours g., a ay job, -time ork)	or p mor reg doing	owance ocket ley for ularly chores lome	or p mo wit havin	owance ocket oney hout g to do chores	(e.g., marl	g things at local kets or Bay™)	in a f	rking family iness
Country, economy, or province	Difference	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error	Difference	Standard error
Canada	45*	(13.8)	20*	(6.1)	-12	(7.0)	-20*	(6.0)	-21*	(7.5)	-26*	(7.0)	-38*	(8.7)
Newfoundland and Labrador	<b>77</b> <sup>‡</sup> *	(35.1)	20	(17.3)	-22	(15.2)	-26*	(12.7)	-27	(16.2)	-56*	(13.6)	-35	(22.9)
Prince Edward Island	<b>5</b> ‡	(49.9)	-15	(27.8)	-12	(27.0)	-52*	(24.6)	- <b>20</b> <sup>‡</sup>	(25.3)	-56*	(25.6)	-42 <sup>‡</sup>	(27.7)
Nova Scotia	<b>2</b> <sup>‡</sup>	(24.4)	-2	(11.5)	-11	(12.2)	-1	(9.5)	-8	(12.2)	-36*	(12.1)	-1	(20.6)
New Brunswick	<b>74</b> ‡*	(18.2)	15	(14.5)	-11	(13.9)	-25	(13.4)	-39*	(14.4)	-19	(13.0)	-8	(18.2)
Ontario	<b>50</b> *	(19.8)	27*	(8.6)	-8	(9.8)	<b>-21</b> *	(8.7)	-27*	(10.0)	- <b>2</b> 1*	(9.5)	-47*	(13.1)
Manitoba	<b>52</b> *	(16.6)	22	(14.1)	0	(11.5)	-28*	(12.6)	-23	(12.5)	-30*	(12.5)	-30*	(11.9)
British Columbia	34*	(15.6)	7	(8.6)	-28*	(9.4)	-14	(11.1)	-8	(10.2)	-35*	(11.2)	-25	(16.5)
Australia	59*	(4.5)	-13*	(3.0)	-20*	(3.2)	-41*	(2.9)	-41*	(3.4)	-44*	(2.8)	-61*	(3.8)
BSJG-China	42*	(7.9)	-29*	(9.3)	-43*	(6.4)	-29*	(7.9)	54*	(6.3)	-37*	(7.5)	-71*	(9.9)
Chile	44*	(6.9)	-17*	(7.8)	-36*	(7.6)	-18*	(6.3)	4	(6.5)	5	(6.4)	-46*	(9.2)
Flanders (Belgium)	90*	(11.6)	6	(6.8)	-13	(7.3)	-39*	(6.7)	3	(6.7)	-28*	(7.1)	-36*	(9.6)
Italy	61*	(7.1)	-24*	(6.9)	-34*	(9.0)	-31*	(7.2)	-9	(7.0)	-4	(7.4)	-57*	(9.5)
Lithuania	87*	(7.4)	-15*	(5.7)	-28*	(6.7)	-36*	(5.2)	26*	(5.7)	-21*	(6.9)	-40*	(6.3)
Poland	51*	(7.1)	-42*	(6.1)	-30*	(5.6)	-34*	(5.1)	0	(5.5)	-14*	(4.8)	-52*	(6.0)
Russian Federation	50*	(9.5)	-30*	(7.3)	-11	(6.0)	-29*	(6.9)	21*	(5.7)	-9	(7.0)	-46*	(7.8)
Slovak Republic	61*	(9.0)	-29*	(7.0)	-36*	(7.2)	-44*	(6.4)	-4	(6.9)	-35*	(7.3)	-67*	(8.1)
Spain	49*	(7.3)	-25*	(7.4)	-42*	(7.5)	-28*	(5.6)	0	(5.4)	-45*	(7.2)	-70*	(8.9)
The Netherlands	68*	(13.4)	5	(6.5)	-11	(6.6)	-32*	(6.6)	41*	(7.5)	-4	(6.4)	-57*	(9.7)
United States	92*	(9.7)	29*	(6.4)	-11	(7.1)	-40*	(6.1)	-41*	(7.3)	-30*	(5.9)	-42*	(8.3)
OECD average	62*	(3.0)	-9*	(2.1)	-25*	(2.2)	-33*	(1.9)	-7*	(2.0)	-23*	(2.0)	-53*	(2.6)

<sup>+</sup> There are fewer than 30 observations in the reference/comparison group(s).

\* Statistically significant differences.

#### Percentage of students who do and do not hold a bank account

	Having a bank account								
	Ŷ	es	Ν	lo					
Country, economy, or province	%	Standard error	%	Standard error					
Canada	78.0	(1.3)	22.0	(1.3)					
Newfoundland and Labrador	79.1	(2.6)	20.9	(2.6)					
Prince Edward Island	90.0	(3.8)	U <sup>‡</sup>	(3.8)					
Nova Scotia	77.5	(2.2)	22.5	(2.2)					
New Brunswick	72.7	(3.0)	27.3	(3.0)					
Ontario	77.3	(1.7)	22.7	(1.7)					
Manitoba	73.9	(3.0)	26.1	(3.0)					
British Columbia	82.2	(2.5)	17.8	(2.5)					
Australia	80.3	(0.5)	19.7	(0.5)					
BSJG–China	47.9	(1.6)	52.1	(1.6)					
Chile	27.9	(1.4)	72.1	(1.4)					
Flanders (Belgium)	75.0	(1.4)	25.0	(1.4)					
Italy	35.9	(1.7)	64.1	(1.7)					
Lithuania	39.8	(1.4)	60.2	(1.4)					
Poland	28.5	(1.2)	71.5	(1.2)					
Russian Federation	28.7	(1.5)	71.3	(1.5)					
Slovak Republic	44.1	(1.5)	55.9	(1.5)					
Spain	53.3	(1.3)	46.7	(1.3)					
The Netherlands	95.3	(0.6)	4.7	(0.6)					
United States	53.3	(1.8)	46.7	(1.8)					
OECD average	57.2	(0.4)	42.8	(0.4)					

<sup>±</sup> There are fewer than 30 observations.

U Too unreliable to be published.

## Estimated average scores in financial literacy for students who do and do not hold a bank account

	Having a bank account								
		/es		No	Differenc	e (Yes–No)			
Country, economy, or province	Average	Standard error	Average	Standard error	Difference	Standard error			
Canada	546	(4.2)	506	(8.3)	40*	(8.7)			
Newfoundland and Labrador	526	(7.3)	476	(16.6)	50*	(19.1)			
Prince Edward Island	530	(14.4)	<b>503</b> <sup>‡</sup>	(41.3)	27	(43.4)			
Nova Scotia	535	(6.0)	511	(13.9)	23	(15.7)			
New Brunswick	532	(7.7)	505	(13.6)	28	(15.3)			
Ontario	544	(5.8)	504	(11.0)	40*	(11.6)			
Manitoba	518	(6.8)	470	(17.7)	48*	(17.6)			
British Columbia	566	(6.1)	533	(10.7)	34*	(11.7)			
Australia	513	(2.0)	480	(3.7)	33*	(3.4)			
BSJG–China	584	(7.8)	565	(7.2)	19*	(7.1)			
Chile	452	(7.4)	429	(4.4)	22*	(7.5)			
Flanders (Belgium)	552	(3.9)	508	(9.9)	45*	(9.4)			
Italy	504	(5.2)	479	(4.6)	25*	(7.3)			
Lithuania	454	(6.2)	455	(4.1)	0	(6.8)			
Poland	498	(5.3)	485	(4.1)	13*	(5.8)			
Russian Federation	501	(7.0)	507	(4.0)	-6	(6.1)			
Slovak Republic	434	(6.7)	449	(5.9)	-14*	(6.3)			
Spain	485	(4.8)	451	(4.9)	34*	(6.1)			
The Netherlands	525	(3.7)	446	(14.3)	80*	(14.2)			
United States	514	(4.8)	473	(4.8)	41*	(6.0)			
OECD average	502	(1.6)	470	(2.3)	32*	(2.5)			

<sup>±</sup> There are fewer than 30 observations.

\* Statistically significant differences.