



# The Health and Social Dimensions of Adult Skills in Canada

Findings from the Programme for the International  
Assessment of Adult Competencies (PIAAC)



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The opinions expressed and arguments employed here do not necessarily reflect the official views of CMEC, ESDC, PHAC, or the other provincial/territorial or federal departments and agencies involved in PIAAC.

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## Executive Summary

Skills matter for individual and societal well-being. The importance of skills for securing employment and succeeding in the labour market is well established. Increasingly, evidence also suggests that skills are important for realizing other outcomes, including good health and social and civic participation.

The Programme for the International Assessment of Adult Competencies (PIAAC) is a survey of adults aged 16 to 65. It assesses key cognitive skills used at work and at home that are needed to fully participate in society and the economy in the 21<sup>st</sup> century. Led by the Organisation for Economic Co-operation and Development (OECD) in partnership with countries around the world, PIAAC directly assesses proficiency in three information-processing skills: literacy, numeracy, and problem solving in technology-rich environments (PS-TRE). The survey also collects information on a range of personal, socioeconomic, and other traits, including four health and social outcomes that are the focus of this report: self-reported health, trust in others, volunteerism, and political efficacy (understood as a person's sense of having an influence on government). This report also considers other PIAAC elements connected to health and social well-being, including longstanding illnesses or health conditions, activity limitations, reasons for leaving or not looking for work, and employment type (e.g., secure versus precarious).

### **Objective**

Evidence from the OECD and other research studies shows that individuals with lower skills often struggle to participate in social activities, manage chronic conditions, find and interpret health information, and access other social services (OECD 2013a; Kickbusch et al. 2013). This report examines the extent to which literacy, numeracy, and PS-TRE are associated with health and civic and social engagement. It considers two aspects of this issue: (1) whether skills have an independent influence on the health and social outcomes measured in PIAAC, and (2) whether improved skills proficiency supports better health and social outcomes for certain populations. Together, these analyses assess the contribution that skills make to the well-being of individual Canadians and Canadian society.

Both descriptive and regression analyses of PIAAC survey data are included. Descriptive analyses present the distribution of health and social outcomes across Canadian jurisdictions, and in comparison to other countries. Results are presented by key socioeconomic and sociodemographic variables, including gender, age, education, Indigenous identity,<sup>1</sup> and immigrant status. Regression analyses assess skills' independent effect on health and social outcomes in Canada, and at different levels of educational attainment. The report also presents results for certain groups considered to be at risk of poorer health and social outcomes: unemployed Canadians and those employed in precarious work.

As a cross-sectional survey that collected data at a single point in time, PIAAC cannot confirm the direction of influence between skills proficiency and health and social outcomes. Longitudinal data would be required to assess whether stronger skills *cause* people to enjoy better health and social outcomes, and/or whether

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<sup>1</sup> PIAAC 2012 used the word "Aboriginal" to indicate respondents who self-identified as First Nations, Métis, or Inuit. As a result of changes in terminology since then, these respondents are referred to collectively as Indigenous peoples in this report. For more information on Indigenous respondents, see *Skills in Canada: First Results from the Programme for the International Assessment of Adult Competencies (PIAAC)* at [http://www.cmec.ca/Publications/Lists/Publications/Attachments/315/Canadian-PIAAC-Report\\_EN.pdf](http://www.cmec.ca/Publications/Lists/Publications/Attachments/315/Canadian-PIAAC-Report_EN.pdf).

positive outcomes *cause* people to be in a position to attain and maintain stronger skills. Instead, the report explores how skills and health and social outcomes are associated to strengthen understanding of inequalities and vulnerable groups in the Canadian population, inform targeted interventions, and create a foundation to support further research.

## **Key findings**

Health and social outcomes are unevenly distributed within Canada.

Canadians generally report health and social outcomes that are above average for the OECD countries that participated in PIAAC. However, the distribution of these outcomes varies across levels in literacy, numeracy, and PS-TRE, as well as by socioeconomic and sociodemographic characteristics.

Descriptive analyses of PIAAC data reveal that results for self-reported health follow a step-wise gradient by skill level: those with the highest average proficiency levels report better health, with health status worsening as skills decline. Trust and political efficacy do not follow a similar gradient pattern but show a clear demarcation in the proficiency scores of those reporting positive outcomes (with higher scores on average) compared to those reporting negative outcomes (with lower scores on average). Results for volunteering are more complicated—the lowest levels in literacy are found in the groups who volunteer most frequently *and* in those who never volunteer.

Certain groups of Canadians tend to have poorer health and social outcomes, particularly those with less education and the unemployed. Differences in health and social outcomes by gender tend to be small, with women generally reporting better outcomes than men. Older Canadians report higher levels of trust and lower levels of volunteering. Self-reported health also tends to decline with age, though PIAAC results suggest that skills may have the potential to moderate this decline because older Canadians with higher skills tend to report positive health in similar proportions to younger age groups. Outcomes for Indigenous peoples and immigrants to Canada are more nuanced, influenced by a range of historical and contemporary factors, including social and economic exclusion, and for Indigenous peoples, the legacy of Canada's history of colonization.

For all of these groups, the proportion reporting positive health and social outcomes increases with skill level. According to PIAAC, Canadians who score above 335 (or Level 4) in literacy report only positive health and social outcomes. This suggests that a highly literate population may also be characterized by good health, stronger social cohesion and connectedness, and greater civic participation.

Higher skills are associated with better health and social outcomes.

Regression analyses confirm that Canadians with stronger literacy, numeracy, and PS-TRE skills are more likely to report positive health, trust, volunteering, and political efficacy than those with lower skills. These relationships persist when controls are added for factors likely to influence the relationship between skills and health and social outcomes, including age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and language in which the PIAAC assessment was completed. Literacy, numeracy, and PS-TRE are all strongly associated with each of the four measured health and social outcomes. The likelihood of reporting good health and higher levels of trust, volunteerism, and political efficacy generally rises as proficiency improves.

Skills are associated with health and social outcomes independently of education.

Four levels of educational attainment are considered in this report: less than high-school diploma; high-school diploma; postsecondary education – below bachelor’s degree; and postsecondary education – bachelor’s degree or higher. Within each of these levels, rising skills proficiency is associated with greater odds of reporting positive health and social outcomes. For certain outcomes, the effect of skills appears to be stronger for those with less education. Among people with less than a high-school diploma, those at the highest literacy levels are more likely to volunteer than those at the lowest levels, after controlling for age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and the language in which respondents completed the PIAAC skills assessment.

Higher educational attainment is not as strongly associated with positive health and social outcomes when skills proficiency is low. Conversely, when proficiency levels are high, there is a strong likelihood of reporting positive health and social outcomes—even among those who did not complete high-school. These results suggest that skills are more than a corollary to education. They have an independent effect on self-reported health, trust, volunteering, and political efficacy. These results suggest that further research is warranted to better understand the role of adult competencies as a social determinant of health independently of education.<sup>2</sup>

Indigenous peoples tend to report poorer outcomes—but skills may narrow some gaps.

PIAAC data on the health and social outcomes of Indigenous peoples<sup>3</sup> should be interpreted in the light of ongoing social, cultural, and economic marginalization—including the implications of colonization. PIAAC data indicate that at the national level, Indigenous peoples score lower on literacy, numeracy, and PS-TRE compared to the non-Indigenous population, and that a smaller proportion of Indigenous peoples self-report positive outcomes for health, trust, and political efficacy. Indigenous and non-Indigenous peoples report comparable levels of volunteerism. As with other population groups, health and social outcomes tend to improve as proficiency levels rise. In fact, there is no statistically significant difference in the proportions of Indigenous and non-Indigenous peoples reporting excellent, very good or good health at the highest levels of literacy and numeracy proficiency. Conversely, the gap in levels of trust reported by Indigenous and non-Indigenous peoples widens as skills improve.

Regression analyses reveal that rising skills proficiency is associated with a greater likelihood of Indigenous peoples having positive self-reported health, trust, and volunteering after controlling for age, gender, educational attainment, employment status, and test language. Higher levels in numeracy appear to most strongly predict positive outcomes.

Immigrants’ outcomes vary with length of residence in Canada.

Immigrants to Canada<sup>4</sup> generally report lower levels of trust and volunteering than the Canadian-born. Recent immigrants (in Canada for less than 10 years) report higher levels of positive health than either established

<sup>2</sup> “The social determinants of health influence the health of populations. They include income and social status; social support networks; education; employment/working conditions; social environments; physical environments; personal health practices and coping skills; healthy child development; gender; and culture.” “Social Determinants of Health,” Public Health Agency of Canada, Canadian Best Practices Portal, retrieved from <http://cbpp-pcpe.phac-aspc.gc.ca/en/public-health-topics/social-determinants-of-health>.

<sup>3</sup> Indigenous respondents surveyed in PIAAC include First Nations people living off-reserve, Métis, and Inuit.

<sup>4</sup> An immigrant is a person who is, or has ever been, a landed immigrant/permanent resident. This category includes people who have come to Canada as refugees.

immigrants or the Canadian-born, likely as a result of the well-documented “healthy immigrant effect.”<sup>5</sup> There are no significant differences between immigrants and the Canadian-born with respect to feelings of political efficacy. Results for immigrants are influenced by sociodemographic factors (such as age), as well as cultural, linguistic, and other factors that likely shape perceptions and practices around health and civic and social engagement.

Similar to results for other groups, the health and social outcomes reported by immigrants tend to improve as proficiency rises. For recent immigrants, this relationship persists even after controlling for age, gender, educational attainment, employment status, and test language. Literacy tends to be the strongest predictor of positive outcomes for this group, particularly with respect to volunteering and political efficacy. For established immigrants (in Canada for more than 10 years), connections between information-processing skills and health and social outcomes are less clear. However, PS-TRE proficiency does appear to have some significant influence on self-reported health, volunteering, and political efficacy.

Skills are not enough to show an improvement in health and social outcomes for unemployed Canadians.

As with other surveys, PIAAC data confirm that people who are employed enjoy better health and social outcomes than those who are unemployed.<sup>6</sup> However, the health and social outcomes of unemployed Canadians, unlike other population groups, do not consistently improve as proficiency levels rise. In fact, self-reported health actually declines at the highest levels in literacy.

More research is needed on the skills, health and social outcomes of workers in precarious employment.

Precarious employment is generally understood to encompass “nonstandard” work arrangements, such as casual or temporary positions. Research has found that precarious employment is accompanied by a range of adverse effects, including impacts on health and social well-being. This is of concern given rising levels of precarious work in Canada and internationally.

PIAAC allows for the initial exploration of relationships among precarious work, skills, and health and social outcomes. However, these analyses should be interpreted with caution because of data limitations. These exploratory analyses indicate that young adults, those with lower educational attainment, recent immigrants, Indigenous peoples (at lower skill levels), and women (at higher skill levels), are more likely to be employed in precarious jobs. The proportion of Canadians engaged in precarious work does not change as skills improve, although more Canadians at higher skill levels report having permanent jobs and fewer work in “no contract” jobs. Increased skills proficiency does not affect the self-reported health of those who are precariously employed, but skills do appear to modify the negative impact of precarious employment on social outcomes. Additional research and more nuanced data are needed to better understand these relationships.

## ***Implications***

Analysis of the PIAAC health and social outcomes data provide evidence on the relationship between literacy, numeracy, and PS-TRE proficiency and the health and well-being of Canadians. Existing theoretical

<sup>5</sup> The health advantage enjoyed by recent immigrants is understood to stem from the selective nature of international migration—healthy individuals are more likely to migrate, and admission criteria often favour factors associated with good health (e.g., education and work experience).

<sup>6</sup> The “unemployed” in PIAAC consist of those who were neither working nor self-employed in the month prior to PIAAC, were able to work, and were actively seeking work or expecting to begin a job for which they had been previously hired (Statistics Canada et al., 2013, p. 61).

and empirical evidence confirms that there is a connection—likely a causal one—between education and health. This report builds on that literature by confirming that skills are associated with the health and social outcomes measured in PIAAC independently of factors like education, and that skills may help to ameliorate health and social outcomes for Canadians at greater risk of social and economic disadvantage. These findings suggest that increased proficiency in information-processing skills has the potential to provide social and economic benefits to both individual Canadians and Canadian society.

## Note to Reader

### *What is PIAAC?*

An initiative of the Organisation for Economic Co-operation and Development (OECD), the Programme for the International Assessment of Adult Competencies (PIAAC) is a household survey of adults aged 16 to 65. Its aim is to assess key cognitive and workplace skills needed for successful participation in 21<sup>st</sup>-century society and the global economy.

PIAAC directly assesses cognitive skills in the areas of literacy, numeracy, and problem solving in technology-rich environments (PS-TRE). PIAAC's extensive background questionnaire also provides information about a number of other skills and personal traits.

In Canada, PIAAC was conducted by Statistics Canada and made possible by the joint effort of the Ministers of Education of the provinces and territories, through the Council of Ministers of Education, Canada (CMEC), and the Government of Canada, led by Employment and Social Development Canada (ESDC). For definitions and background information about PIAAC in Canada, please refer to the pan-Canadian report titled *Skills in Canada: First Results from the Programme for the International Assessment of Adult Competencies (PIAAC)*, (Statistics Canada, 2013) or visit [www.piaac.ca](http://www.piaac.ca).

### *Foundational skills: Literacy, numeracy, and problem solving in technology-rich environments (PS-TRE)*

To measure skills in an international context, Canada joined PIAAC.<sup>7</sup> The program, which builds on previous international assessments, provides internationally comparable measures of three skills that are essential to processing information: literacy, numeracy, and PS-TRE. Given the centrality of written communication and fundamental mathematics in virtually all areas of life, as well as the rapid integration of information and communications technology (ICT), individuals must be able to understand, process, and respond to textual and numerical information in both print and digital formats if they are to participate fully in society.

Literacy, numeracy, and PS-TRE are considered key to that ability. Literacy and numeracy, developed in any language, provide a foundation for the development of other, higher-order cognitive skills. Together with PS-TRE, they are prerequisites for gaining access to, and an understanding of, specific domains of knowledge. They are also necessary in a broad range of contexts, from education, to work, to everyday life.

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<sup>7</sup> The OECD refers to PIAAC as the “Survey of Adult Skills.”

## ***Main elements of PIAAC in Canada***

The PIAAC survey is made up of three main parts: a background questionnaire, a direct assessment of skills, and a module on the use of skills.

### Background questionnaire

The PIAAC background questionnaire puts the results of the skills assessment into context, classifying survey participants according to a range of factors that influence the development and maintenance of skills. In particular, the questionnaire facilitates the analysis of skills distribution across sociodemographic and socioeconomic variables. It also permits the study of outcomes that could be associated with skills. The questionnaire is divided into the following sections:

- Demographic characteristics (e.g., Indigenous identity,<sup>8</sup> age, gender, immigrant status);
- Educational attainment and training (e.g., level of education, where and when attained, field of study);
- Employment status and income (e.g., employed or not, type of work, earnings); and
- Social and linguistic background (e.g., self-reported health status, language spoken at home).

### Direct assessment of skills

The direct-assessment component measures the three foundational information-processing skills described earlier. Assessment participants are tested in the official language of their own choice (English or French), and thus the results are influenced by their proficiency in that language. Each skill is measured along a continuum and within a context of how it is used. To help interpret the results, the continuum has been divided into different levels of proficiency. These do not represent strict demarcations between abilities but instead describe a set of skills that individuals possess to a greater or lesser degree. This means that individuals scoring at lower levels are not precluded from completing tasks at a higher level—they are simply less likely to complete them than individuals scoring at the higher level. Descriptions of the different levels and the abilities that they comprise are available in Appendix I.

PIAAC recognizes that concepts such as literacy, numeracy, and PS-TRE are too complex and varied to be captured by a single measure. For example, there are multiple forms of literacy, rather than a single one. The assessment's aim, therefore, is not to redefine or simplify such concepts; rather, it is to evaluate a specific, measurable dimension of them. The skills assessed by PIAAC are defined in terms of three parameters: content, cognitive strategies, and context. The content and cognitive strategies are defined by a specific framework that describes what is being measured and guides the interpretation of results (OECD, 2012). The context defines the different situations in which each of these skills is used, including professional, educational, personal, and societal.

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<sup>8</sup> PIAAC 2012 used the term "Aboriginal" to indicate respondents who self-identified as First Nations, Métis, or Inuit. As a result of changes in terminology since then, these respondents are referred to collectively as Indigenous peoples in this report.

## Literacy

For the purposes of PIAAC, literacy is defined as “understanding, evaluating, using and engaging with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential” (OECD, 2012, p. 19).

Respondents are measured for their ability to engage with written texts (print-based and digital) and thereby participate in society, achieve goals, and develop their knowledge and potential. This requires accessing, identifying, and processing information from a variety of texts that relate to a range of settings (see Appendix I for more information).

PIAAC also includes an assessment of reading components designed to provide information about adults with very low levels of proficiency in reading. It measures skills in print vocabulary (matching words with the picture of an object), sentence processing (deciding whether a sentence makes logical sense), and passage comprehension (selecting words that make the most sense in the given context). Results from the assessment of reading components are not presented in the thematic report series. Once OECD publishes reading-component results, the findings can then be replicated at the Canadian and provincial/territorial levels.

## Numeracy

PIAAC defines numeracy as “the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life” (OECD, 2012, p. 33).

Respondents are measured for their ability to engage with mathematical information and manage the mathematical demands of a range of situations in everyday life. This requires understanding mathematical content and ideas (e.g., quantities, numbers, dimensions, relationships), and the representation of that content (e.g., objects, pictures, diagrams, graphs).

The PIAAC definition is designed to evaluate how mathematical concepts are applied in the real world—not whether someone can solve a set of equations in isolation (see Appendix I for more information).

## PS-TRE

Respondents are measured for their ability to use “digital technology, communication tools, and networks to acquire and evaluate information, communicate with others, and perform practical tasks” (OECD, 2012, p. 45).

This requires understanding technology (e.g., hardware, software applications, commands, and functions) and solving problems with it. Measurement is divided into two different but related parameters: (1) familiarity with computers and how to use them; and (2) the ability to solve problems commonly encountered in a technology-rich world (see Appendix I for more information).

## Module on the use of skills

The module on the use of skills collects self-reported information on how a range of skills are used at work and in everyday life, including the frequency and intensity of use. It includes information about the use of: cognitive skills (such as engagement in reading, numeracy, and ICT); non-cognitive skills (such as the capacity to work collaboratively or as a member of a team); organizational skills (such as communicating, planning, and influencing); and skills in the workplace (such as autonomy over key aspects of work and what kind of skills are employed at work).

### *Interpreting the data in the report*

As with all comparative studies, PIAAC was designed and implemented in a way that would ensure the validity, reliability, comparability, and interpretability of results. It identified and quantified possible errors and issues that could interfere with or bias interpretation, and wherever such errors and issues might be present, they were highlighted for the reader in notes to figures and tables. There is a reference under every figure shown in this report to a corresponding table in Appendix II that includes extra information that could prove useful to the reader. Efforts were made to provide valid international and cross-jurisdictional comparisons throughout the report. In some cases, however, such comparisons were omitted, either because of methodological challenges or because they provided limited analytical value, given the objectives and scope of this report.

The data presented in this report are estimated from representative samples of adults in Canada, as well as from the OECD countries that participated in PIAAC between 2008 and 2016 (Round 1 and 2) whose combined average score is referred to as the “OECD average.” Consequently, there is a degree of sampling error that must be taken into account in analyzing the results. Sampling error decreases as the size of the sample increases so that the likelihood of any error is larger at the provincial/territorial level than at the level of Canada as a whole. This is complicated further by “measurement error”: the variation that may be created because respondents do not all answer the same questions. (They answer only a selected number and their results are then extrapolated onto the questionnaire in its entirety.) The aggregate degree of uncertainty that the sampling and measurement errors introduce is expressed by a statistic called the standard error.

When comparing average scores among provinces, territories, or population subgroups, the degree of error in each score must be considered to determine whether differences in scores are real or only apparent. Standard errors are used as the basis for making this determination. If the ranges within which the scores could fall when the standard error is taken into account do not overlap, then the score differences are statistically significant. The differences highlighted in the text are statistically significant unless otherwise stated. This does not necessarily mean that the differences have an impact in practice but simply that a difference can be observed.

The results from PIAAC do not permit readers to infer a causative relationship between variables (e.g., level of education or age) and a corresponding score. While such a relationship may in fact exist, the statistical analysis offers only a description of that relationship. More detailed research into the underlying factors would be needed to understand why particular patterns are observed.



## ***Rounding***

In the text of this report, all numbers other than standard errors are generally rounded to the nearest whole number. Proportions and average scores are presented as whole numbers. The numbers shown in the Figures have been rounded to the nearest number at one decimal place. There may, however, be inconsistencies in the tables and text when referring to score-point differences. All score-point differences mentioned in the text are based on un-rounded data. Therefore, if readers calculate score-point differences using the numbers in the tables, they may obtain results that differ slightly from those in the text.

## ***Placing results in the proper context***

Comparisons between different countries, as well as jurisdictions within Canada, should be tempered by the recognition that the populations surveyed began their schooling at any time between the early 1950s and the early 2000s, a half-century that has been marked by enormous change. Consequently, the results are affected by a number of factors that vary from place to place, such as:

- the evolution of education and training systems;
- changes in education policies;
- technological advances;
- the development of regional and national economies;
- patterns of immigration; and
- changes in social norms and expectations.

## Introduction

Canadians who lack the skills necessary to function in today's information economy risk substantial disadvantages. They may have difficulty finding and retaining satisfying and appropriate employment—particularly in secure and well-paying jobs. Increased turnover and associated hiring and training costs can undermine the bottom line for firms and businesses. At the macro-economic level, poorly allocated or wasted human capital can drive higher rates of unemployment and reduced gross domestic product (GDP) growth and productivity (OECD, 2013a).

Canadians with lower skills may also struggle to participate in social activities and networks, or to take advantage of opportunities to engage in government initiatives and policy-development processes (OECD, 2013a). From a health standpoint, limited skills can create difficulties finding, evaluating, and interpreting health information, interacting with health professionals, and managing chronic conditions. As well, Canadians with lower skills may struggle to navigate increasingly complex health-care and social-service systems (Kickbusch et al., 2013). Given the well-documented decline in skills that accompanies biological aging, ensuring that adults continue to have the skills they need to adapt to economic and social changes is especially relevant in societies with an aging demographic.

Limited skills proficiency may be connected to increased use of publicly funded programs and services—and correspondingly higher costs. Adults with limited health-related knowledge are more likely to be in poor health (Murray & Shillington, 2012), and as such, tend to need and use more health-care services (PHAC, 2016). Those with lower skills are also more likely to use publically funded income supports (such as Employment Insurance and Social Assistance) compared to those with stronger skills (Murray & Shillington, 2012).

This report builds on what is known about the importance of skills for health and social well-being at the individual and societal levels using Pan-Canadian PIAAC data. By linking information-processing skills with specific health and social outcomes, PIAAC enables researchers to explore the distribution of these outcomes across the Canadian population, as well as the influence of skills in mediating these outcomes for all Canadians and for specific subgroups.

PIAAC's four specific health and social outcomes—self-reported health, trust, volunteering, and political efficacy (a person's sense of having an influence on government)—are the focus of this report and are described more fully throughout. PIAAC also measures some other attributes related to well-being, including the presence of longstanding illnesses or health conditions, activity limitations, health- and family-related reasons for leaving or not looking for work. It also offers some preliminary data on employment type (secure versus precarious). This report then provides an overview of PIAAC results on these attributes.

As a cross-sectional survey that collected data at a single point in time, PIAAC cannot confirm the direction of influence between skills proficiency and health and social outcomes. Longitudinal data would be required to assess whether stronger skills *cause* people to enjoy better health and social outcomes, and/or whether positive outcomes *cause* people to be in a position to attain and maintain stronger skills. Instead, this report explores how skills and health and social outcomes are associated to strengthen our understanding of inequalities and vulnerable groups in the Canadian population, inform targeted interventions, and create a foundation to support further research.

## *How are education and skills connected to health and social well-being?*

Skills and education are closely connected. Formal education is a critical process through which essential skills like literacy, numeracy, and problem solving in technology-rich environments (PS-TRE) are initially acquired. Educational systems are designed to equip people with the skills necessary to participate in economic and social institutions. Formal educational credentials can also play a role in shaping access to further education, training, and professional development that help adults maintain and develop their skills. Education systems are sites in which “characteristics, attitudes and practices that facilitate lifelong learning, such as an interest in reading or positive attitudes towards learning, are developed” (OECD, 2013a, p. 118).

There is a large body of evidence linking education to a broad range of nonmarket outcomes, including health, social engagement, and political participation (Feinstein et al., 2006; OECD, 2007, 2010; PHAC, 2008; WHO, 2008; Zimmerman & Woolf, 2014). Longitudinal studies have made compelling arguments that this relationship is causal—that education helps to create healthy populations and well-functioning societies (Feinstein et al., 2006; Mackenbach, Meerding, & Kunst 2007; van Lenthe et al., 2013; Zimmerman & Woolf, 2014).

Education contributes to achieving these positive outcomes through both indirect and direct channels of influence. *Indirect* pathways of influence include the ways in which education facilitates access to better, safer, or more prestigious jobs, which in turn results in increased earning potential (Zimmerman & Woolf, 2014). In short, education indirectly influences health and social outcomes by improving social position or socioeconomic status. The conceptual model developed to support PIAAC expresses this influence as the “effect on allocation” (OECD, 2009). As educational attainment increases, so do the chances of obtaining good jobs and belonging to social networks in which civic and social engagement are valued.

This report is primarily concerned with *direct* pathways of influence between education and health and social outcomes—namely, the effect of education on individual skills and capabilities. As recognized in the PIAAC conceptual framework, education directly builds and affects the knowledge and skills relevant for healthy lifestyles and behaviours, and social and civic engagement (OECD, 2007, 2009).

A number of models have been developed to explain both the indirect and direct relationships between education, skills, and health, based on theory and available empirical evidence. In these models, education plays a multifaceted role with respect to health and social outcomes. For example:

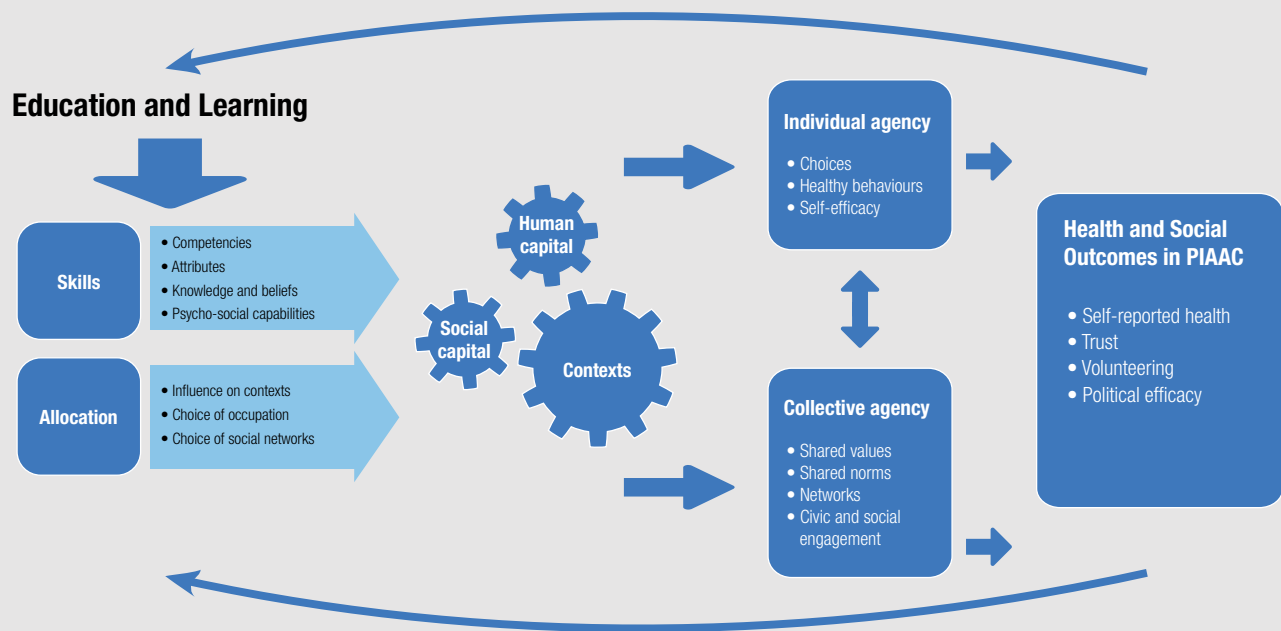
- Education is an *indicator* or measure of socioeconomic position that in turn drives life chances (occupation, income, working conditions) and behaviours that support health and well-being (Mackenbach, Meerding, & Kunst, 2007).
- Education is a *social determinant of health*.<sup>9</sup> Education influences material circumstances, behaviours, and psychosocial factors, which in turn influence health and well-being (WHO, 2008).

<sup>9</sup> The WHO Commission on Social Determinants of Health (2008) defines *social determinants of health* as “the conditions in which people are born, grow, live, work and age” (p. 26). Differences in the distribution of resources for healthy living, or conversely, exposures to health risks, coupled with structural drivers (such as social and economic policies, governance, and cultural norms), contribute to inequalities in health outcomes and prevent many people from achieving “the good health that is biologically possible.”

- Education is a *foundation* for developing skills and competencies through lifelong learning in multiple contexts (home, work, and civic life). This learning generates the human<sup>10</sup> and social capital<sup>11</sup> necessary to achieve a range of economic and social outcomes (OECD, 2007).

Figure I presents a simplified conceptual model of the relationships between education, skills, and the health and social outcomes measured in PIAAC, drawing from the results presented in this report. In this model adult competencies may be considered as both an outcome of formal education and lifelong and life-wide learning, as well as a determinant of health and social outcomes independently of formal education.

**Figure I. Conceptual model of the relationships between education, skills, and the health and social outcomes measured in PIAAC**



**Source:** Adapted from Understanding the Social Outcomes of Learning (OECD, 2007) and PIAAC BQ JRA V5.0—Conceptual Framework (OECD, 2009).

<sup>10</sup> Human capital is defined by the OECD as “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (2007, p. 38).

<sup>11</sup> The OECD (2007, p. 38) defines social capital as “the networks, together with shared norms, values and understanding, that facilitate cooperation within or among groups, combining a structural component (social networks and civic participation) and a normative component (trust, reciprocity, tolerance, understanding and respect for others).”

## Skills, education, and health outcomes

Canadian and international research demonstrates that those with higher levels of education consistently tend to enjoy better health (CPHI, 2008; PHAC, 2008; WHO, 2008). Higher levels of educational attainment tend to facilitate greater access to financial resources, permitting the purchase of goods and services that support healthy lifestyles. More educated people are also thought to be better able to change their behaviours in response to messages about their health.

With respect to skills, education is also importantly connected to health literacy—the ability to gain access to and use health information to make appropriate health decisions and maintain basic health in a variety of settings across the life course (CCL, 2007; Rootman & Gordon-El-Bihbety, 2008). This affects health by improving a person’s ability to understand and apply health-related information and to adopt positive health-related behaviours (such as using preventive care and maintaining healthy lifestyles).

## Skills, education, and social outcomes

Education and learning have also been found to influence outcomes in a range of life domains, including civic and social engagement. Education has not only been found to influence individual outcomes, but also generates broader social returns (OECD, 2016, pp. 3–18). Understanding the potential of investments in education and skill development is therefore of particular interest to OECD-member countries, many of whom are experiencing declining levels of voter participation and other civic indicators (OECD, 2007, p. 30). The social outcomes in PIAAC—trust, volunteering, and political efficacy—represent key indicators of civic and social engagement that have a strong theoretical underpinning and have been validated in other research.

Trust is often understood as a component of social capital that enables people to act cooperatively to advance common goals. There are a number of different dimensions of trust, including interpersonal trust (within-group social engagement), intergroup trust (between-group social engagement), and institutional trust (the belief that societal institutions will generally act in people’s best interest). In PIAAC, trust primarily refers to social or generalized trust—the degree to which one can trust others whom one does not know personally. Social trust is thought to be particularly important as a “social lubricant” promoting broad social interaction and cooperation (Nevitte, 2008).

Education is thought to influence trust by building knowledge of and tolerance for other groups, and by changing aspects of the self—such as values and attitudes (OECD, 2007). Both individual attainment and the educational environment interact to build trust in a cumulative fashion—“trust begets trust” (Campbell, 2006, p. 47). Although the link between education and trust is widely accepted, empirical evidence is relatively scarce. It has been hypothesized that the role of literacy in supporting effective communication and informed decision-making contributes to citizenship, community participation, and sense of belonging, which are in turn linked to trust (McCracken & Murray, 2008).

Volunteering contributes to healthy and cohesive communities because “it fosters a social outcome that may benefit the *volunteer*, but mainly, benefits the society as a whole” (da Costa et al., 2014). Higher education is generally positively associated with volunteering, as well as increased charitable activity. However, research also suggests that education could be functioning as a marker for other characteristics or circumstances that influence the likelihood of participating in volunteer activities, such as family and community background, a commitment to altruism, and attitudes and beliefs (Dee, 2004; Huang et al., 2012).

Other factors can affect the relationships among education, skills, and volunteering, including marital status, presence of children in the home, or the types of volunteer activities available. These mechanisms may operate differently in different contexts. For example, it has been theorized that highly educated and skilled individuals may tend to volunteer less because of a greater likelihood of being employed in full-time, well-paying jobs—or conversely, that they may be more sought after by voluntary organizations because of their skills. Given ongoing empirical uncertainty, any positive effect of education on volunteering should not be interpreted as causal (da Costa et al., 2014).

As noted earlier, the concept of political efficacy measured in PIAAC refers to an individual's sense of having influence on governments and political processes more generally, and is considered to be a good general indicator of the health of democracies (Craig, Niemi, & Silver, 1990). There are both internal and external dimensions of political efficacy. Internal efficacy is understood to include “beliefs about one's own competence to understand and to participate effectively in politics” (Niemi, Craig, & Mattei, 1991, p. 1407). PIAAC measures internal political efficacy. External political efficacy encompasses “beliefs about the responsiveness of governmental authorities and institutions to citizen demands” and is not measured in PIAAC (Craig, Niemi, & Silver, 1990, p. 290).

Higher levels of education are associated with higher levels of political efficacy, as well as greater political participation, but there is little evidence of a direct relationship between skills and political efficacy. Interaction effects between political efficacy and political participation have also been observed. Higher political efficacy is associated with increased political participation, which in turn enhances the level of political efficacy (Brady, Verba, & Schlozman, 1995).

Overall, stronger education can help equip people with the capabilities needed for civic and social engagement and political participation. By influencing these societal-level outcomes, education is considered a critical policy lever for achieving social inclusion, equity, and cohesion (da Costa et al., 2014).

### ***Objective of this report***

This report examines the extent to which information-processing skills are associated with health and civic and social engagement. Descriptive analyses assess the distribution of health and social outcomes in the Canadian population, and whether they vary by key traits (such as gender and age) and by skill level. Regression modelling considers whether skills mediate health and social outcomes independently of education levels. These analyses include certain groups considered to be at greater risk for poorer outcomes (unemployed people and individuals employed in precarious work), as well as immigrants to Canada and Indigenous peoples. Together, these analyses provide an overview of the roles of skills outside of work, and the important contribution they make to the well-being of individual Canadians and Canadian society. Data are mostly presented for Canada as a whole rather than for individual provinces or territories, although provincial and territorial data are provided in the tables in Appendix II of this report.

### ***Structure of this report***

The results of the descriptive and regression analyses outlined here are presented in chapters 1 to 4 of this report.

Chapter 1 summarizes the health and social outcomes of Canadians and compares these results to other OECD countries participating in PIAAC.

Chapter 2 examines the proportions of Canadians reporting positive health, trust, volunteering, and political efficacy by key socioeconomic and sociodemographic variables, and also by level in literacy, numeracy, and PS-TRE. It also discusses the results of regression modelling of the independent effect of skills on the health and social outcomes that PIAAC measured. Additional modelling demonstrates the relationships between skills and health and social outcomes at different levels of educational attainment.

Chapter 3 analyzes the role of skills and the health and social outcomes of two Canadian subpopulations: Indigenous peoples and immigrants to Canada.

Chapter 4 considers the influence of skills on outcomes for unemployed and precariously employed Canadians.

Chapter 5 provides some concluding thoughts about the results presented here and their implications for policy development and program design and evaluation strategies.

Appendix I provides detailed information on the methods of analysis that the report uses.

Appendix II presents complete statistical tables to support the data presented in the report.

Appendix III lists the analysts, partners, and advisers who supported the writing of the report.







## CHAPTER 1

# OVERVIEW OF HEALTH AND SOCIAL OUTCOMES IN CANADA AND ABROAD

This chapter presents the results of descriptive analyses of PIAAC data on the distribution of health and social outcomes across the Canadian population. Comparisons with other relevant Canadian data are provided, along with information on how Canada's results align with—or diverge from—international findings.

The descriptive analyses presented here do not control for the impact of some factors that likely influence both the skill level and the health and social outcomes of Canadians, such as age or level of education. As such, these data are just a starting point from which to interpret the results of the regression analyses presented in subsequent chapters. Comparisons between countries, or across Canadian jurisdictions, should be tempered by the recognition that PIAAC respondents began formal schooling between the 1950s and 2000s—a half-century marked by enormous change. As a cross-sectional survey, PIAAC does not account for tremendous differences in the educational, labour market, and social contexts experienced by respondents across the 16 to 65 age range.

## ***The health and social outcomes of Canadians in an international context***

### *Self-reported health*

Self-reported health is a subjective measure of a respondent's general health. It is intended to capture not only the presence or absence of disease, but also to reflect a sense of physical, mental, and social well-being. Self-reported health is widely used in international surveys as a validated indicator of an individual's general health status (Idler & Benyamini, 1997). PIAAC respondents were asked to describe their health as excellent, very good, good, fair, or poor. For this report, responses of “excellent,” “very good” or “good” are considered measures of positive health status, while responses of “fair” or “poor” are considered measures of negative health status.

Canadians report some of the best health outcomes among participating PIAAC countries. Across the OECD, the percentage of the population reporting good, very good or excellent health ranges from a low of 50 per cent (Korea), to a high of 89 per cent (Canada). All Canadian provinces and territories are at or exceed the OECD average of 81 per cent, except for Nunavut at 76 per cent (Figure 1.1). Nunavut's results reflect the health status of its overwhelmingly Indigenous population, which makes up 81 per cent of the population. These results are discussed further in Chapter 3.

PIAAC results on self-reported health align with findings from the Canadian Community Health Survey (CCHS) for 2012,<sup>12</sup> the year in which PIAAC was completed in Canada. CCHS data indicate that almost 90 per cent of Canadians aged 12 and over report being in good, very good or excellent health—very close to the 89 per cent of Canadian adults aged 16 to 65 who report a similar health status in PIAAC.

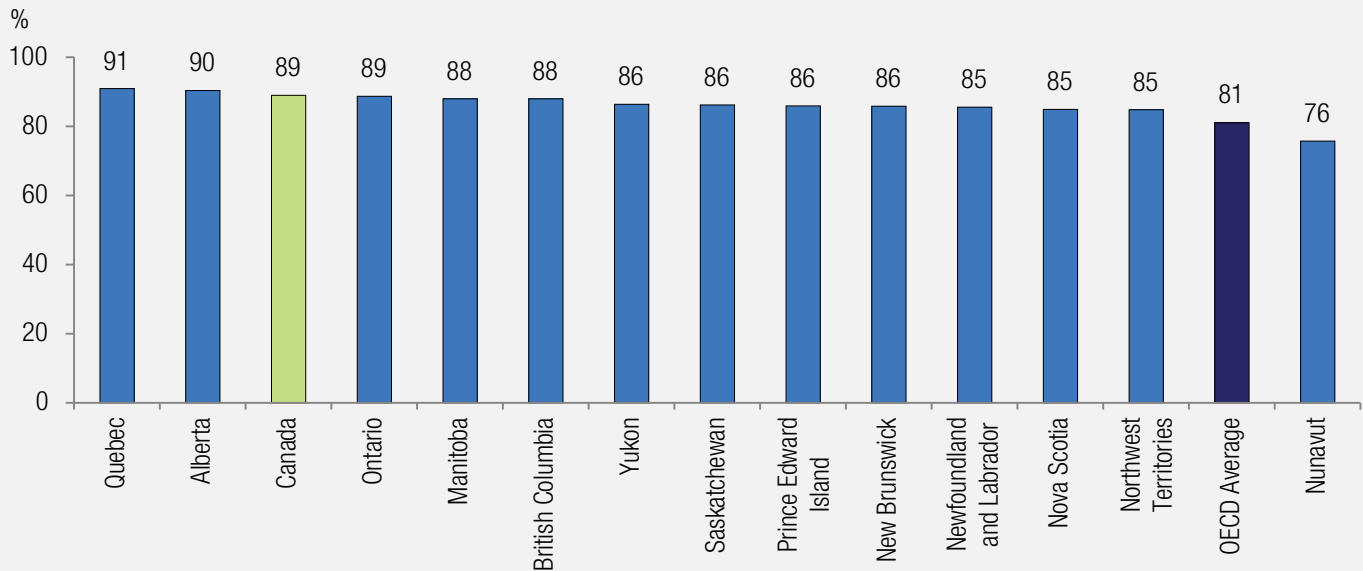
Although a majority of Canadians self-report good health, there is a clear gradient in results across literacy and numeracy proficiency, with health status worsening as skills decline (Figure 1.2).<sup>13</sup> Not only do those reporting better health score higher on the literacy proficiency scale but the range of scores tends to be narrower for those reporting excellent or very good health. The same gradient is reflected in results for each Canadian province and territory (except for Yukon).

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<sup>12</sup> Statistics Canada, Canadian Community Health Survey, CANSIM table 105-0501 and Catalogue no. 82-221-X.

<sup>13</sup> The World Health Organization explains the concept of the social gradient in health as following: “The poorest of the poor, around the world, have the worst health. Within countries, the evidence shows that in general the lower an individual's socioeconomic position the worse their health. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries. The social gradient in health means that health inequities affect everyone.” (“Key Concepts,” WHO, [http://www.who.int/social\\_determinants/thecommission/finalreport/key\\_concepts/en](http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en)). Measurable differences in health between individuals, groups, or countries are generally referred to as “health inequalities” while “health inequities” are those unfair differences in health associated with social disadvantages that are modifiable (National Collaborating Centre for Determinants of Health, Glossary (<http://nccdh.ca/resources/glossary/>)).

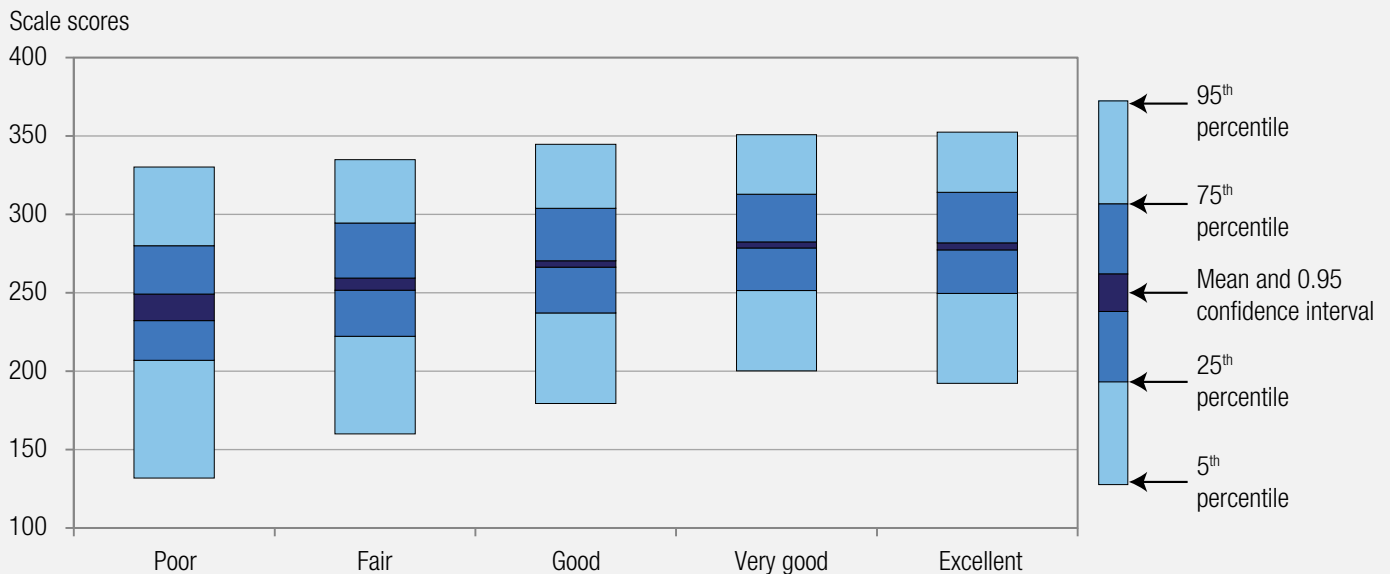
**Figure 1.1 Proportion of population aged 16 to 65 who report excellent, very good or good health, OECD average, Canada, provinces and territories, 2012**



**Source:** Table 1.1a

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: “In general, would you say your health is excellent, very good, good, fair or poor?” Responses of “excellent,” “very good,” or “good” are considered measures of positive health status, while responses of “fair” or “poor” are considered measures of negative health status.

**Figure 1.2 Literacy – Average scores with 0.95 confidence interval and scores at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by self-reported health, Canada, 2012**



**Source:** Table 1.1b

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: “In general, would you say your health is excellent, very good, good, fair or poor?”

People who attain Level 3 or above in literacy tend to report excellent, very good or good health. There are no differences in the skill level of Canadians reporting very good versus excellent health—both score over 276 on average (Level 3). It is similar for numeracy. Those reporting excellent or very good health score on average just below Level 3. Almost all Canadians with literacy scores at 335 or above report excellent, very good or good health.<sup>14</sup>

## Trust

The PIAAC conceptual framework defines trust as “confidence in the reliability of a person or system” (OECD, 2009; Giddens, 1990). Trust is considered essential to the stable functioning of the economy and of society. It promotes cooperation, facilitates business and interpersonal transactions, contributes to feelings of safety, and fosters collective action in the pursuit of shared objectives (da Costa et al., 2014). Along with volunteering and political efficacy, interpersonal trust is considered one of the cornerstones of social capital.

PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement “There are only a few people you can trust completely” (OECD, 2009). Those who disagreed or strongly disagreed with this statement are considered to have positive levels of trust. Those who strongly agreed or agreed were considered to have negative levels of trust.

A majority of the population in almost all OECD countries report relatively low levels of trust. The highest trust levels are found in Denmark (52 per cent), followed by Sweden (38 per cent), Norway (38 per cent), Finland (36 per cent) and the Netherlands (36 per cent). Indonesians appear to be the least trusting, with only 7 per cent of the population reporting positive levels of trust. In Canada, 28 per cent report positive trust, compared to the OECD average of 22 per cent. By comparison, the 2013 General Social Survey (GSS) reported that 54 per cent of Canadians believed that most people could be trusted, while 46 per cent of Canadians felt that you cannot be too careful in dealing with people (Turcotte, 2015b). It is unclear why GSS results are notably different from PIAAC, but the GSS uses different questions than PIAAC to assess generalized/social trust levels.

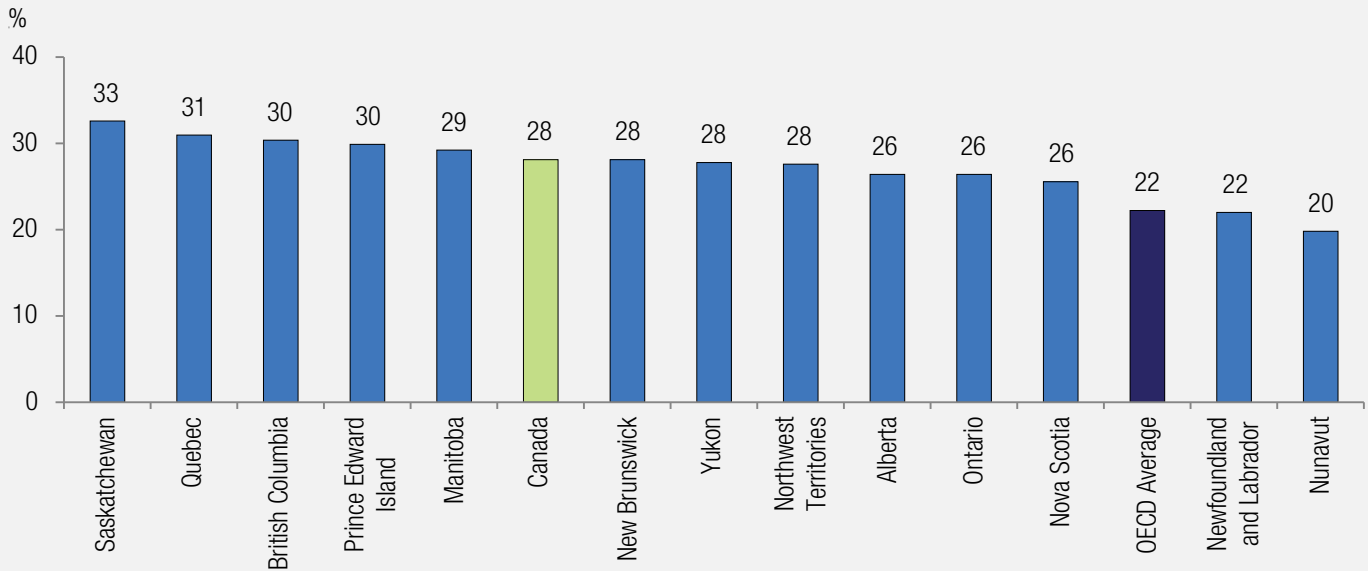
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<sup>14</sup> It is worth noting that there is a great deal of variation in results for self-reported health by skill level across participating OECD countries. For instance, in Japan, the score at the 95<sup>th</sup> percentile of those who reported *poor* health was 343 in literacy, whereas in Turkey, the score at the 95<sup>th</sup> percentile of those who reported *excellent* health was 291.

Variation in positive levels of trust between provinces and territories ranges from 33 per cent in Saskatchewan to just 20 per cent in Nunavut (Figure 1.3).

Skills are linked to the levels of trust reported by Canadians. Figure 1.4 illustrates the pattern for literacy. Those who believe that there are only a few people one can trust completely tend to have lower average literacy scores than those who are more trusting. Those reporting positive trust attained an average score at Level 3 or above in literacy and just below Level 3 in numeracy. Those scoring above 345 (Level 4) in literacy did not report negative levels of trust.

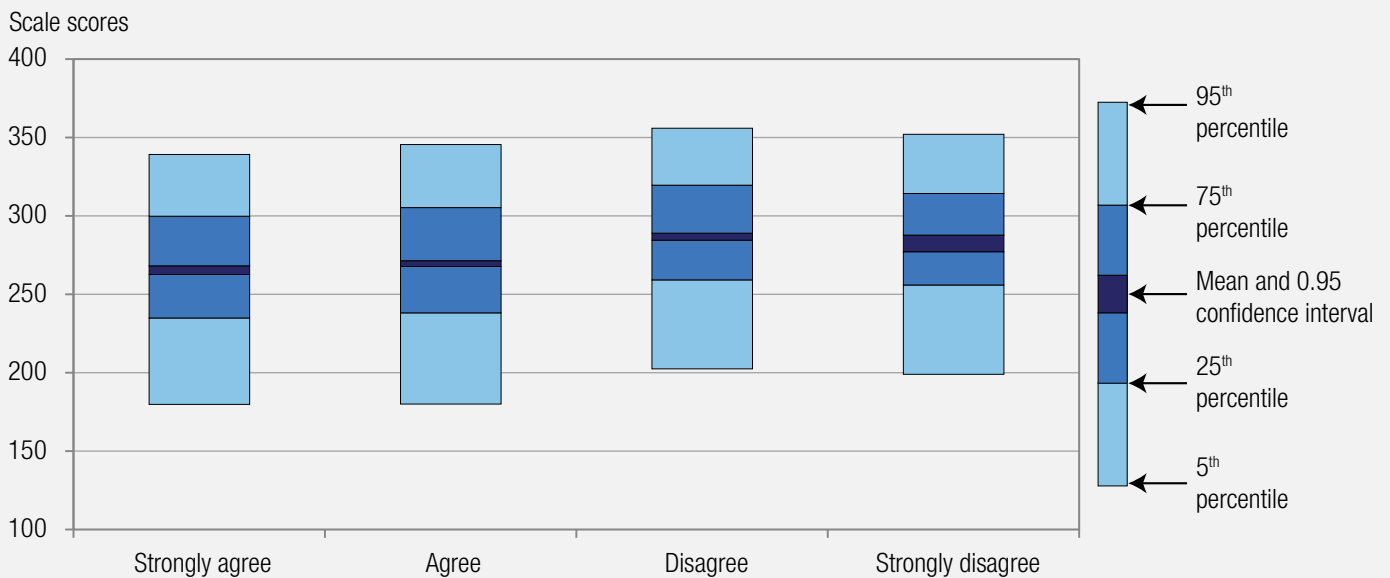
**Figure 1.3 Proportion of population aged 16 to 65 who report positive level of trust, OECD average, Canada, provinces and territories, 2012**



**Source:** Table 1.2a

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: “there are only a few people you can trust completely.” Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

**Figure 1.4 Literacy – Average scores with 0.95 confidence interval and scores at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by level of trust, Canada, 2012**



**Source:** Table 1.2b

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: “there are only a few people you can trust completely.”

## Volunteering

Volunteerism is defined as “any activity in which time is given freely to benefit another person, group, or cause” (Wilson, 2000, p. 215), and is considered an important indicator of social engagement and civic participation. According to United Nations Volunteers (2011, p. i), “volunteerism benefits both society at large and the individual volunteer by strengthening trust, solidarity and reciprocity among citizens, and by purposefully creating opportunities for participation.” Similarly, data from the 2013 GSS indicate that many Canadians who volunteered did so to contribute to the well-being of their communities, and for the chance to acquire or improve their skills (Sinha, 2015).

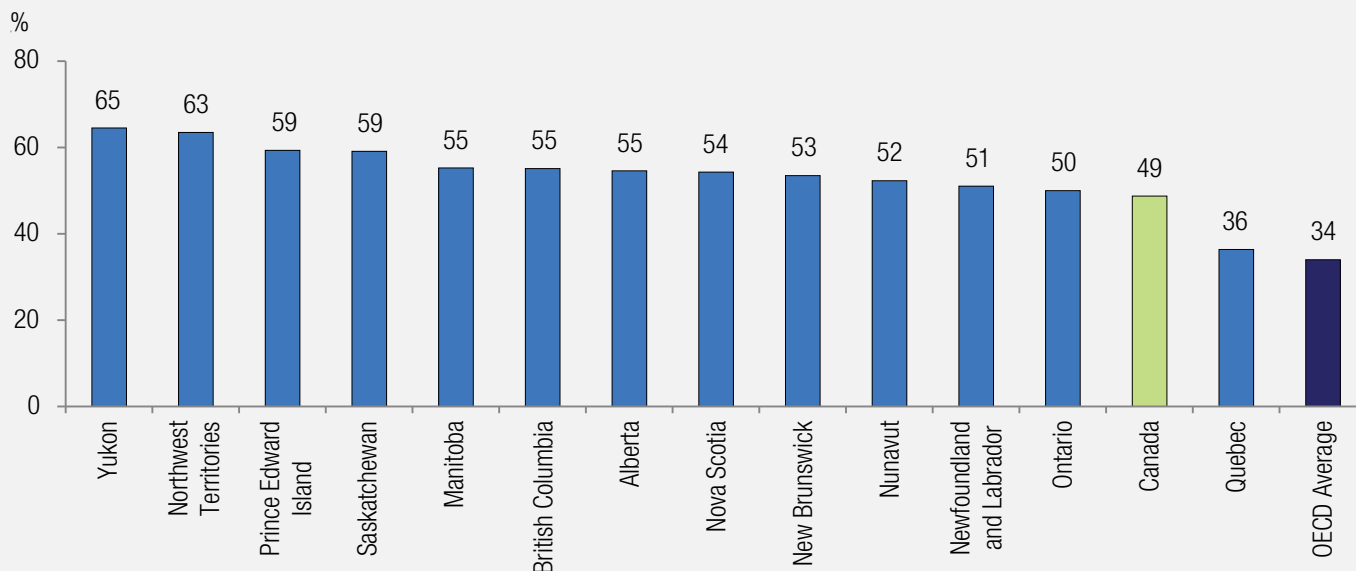
In PIAAC, volunteer participation is measured by whether respondents report doing any voluntary work “in the last 12 months ... including unpaid work for a charity, political party, trade union or other non-profit organization.” The range of responses across OECD countries is quite large, with the highest rates of volunteerism reported in Norway (57 per cent), the United States (56 per cent), and New Zealand (52 per cent); and the lowest rates in Spain and the Czech Republic (18 per cent). In Canada, 49 per cent of the population volunteered, compared to an OECD average of 34 per cent. In comparison, the 2013 GSS found that 44 per cent of Canadians aged 15 and over had volunteered in the previous 12 months (Sinha, 2015).

In Canada, Yukon and the Northwest Territories led all other provinces and territories, with 65 per cent and 63 per cent of adult residents reporting some volunteer activities, followed closely by Saskatchewan and Prince Edward Island at 59 per cent. No Canadian jurisdiction falls below the OECD average (Figure 1.5). The lowest percentage of voluntary work was in Quebec, at 36 per cent. Differences between jurisdictions could be explained by several factors. Lower rates of volunteerism may be connected to lower levels of membership in nonprofit organizations or associations (Turcotte, 2015a). Barriers to volunteering also may vary by region, including time constraints (because of work, family, or other commitments), or the presence of health problems (Sinha, 2015). Similarly, regional variation in labour force participation, education, or age profile can influence volunteerism. Socio-cultural differences with respect to traditions of volunteerism may also account for regional variations. For instance, the Native Women’s Association of Canada describes volunteerism as an inherent part of Indigenous cultures and values, to the extent that the term *volunteer* does not exist in most Indigenous languages. Helping others without expectation of

payment is an implicit social responsibility (NWAC, 2011, p. 4). Finally, the organization of community services may influence the number and type of available volunteer opportunities.

Figure 1.6 presents average literacy scores for respondents participating in volunteer activities. Canadians with the highest literacy scores tend to report moderate levels of volunteer engagement. Those who volunteer every day, or who did not volunteer at all, tended to report the lowest average literacy scores. Almost all those who scored above 340 (Level 4) in literacy reported some level of volunteering. These results underscore the above points regarding the diverse factors that likely affect the relationship between skills and volunteering.

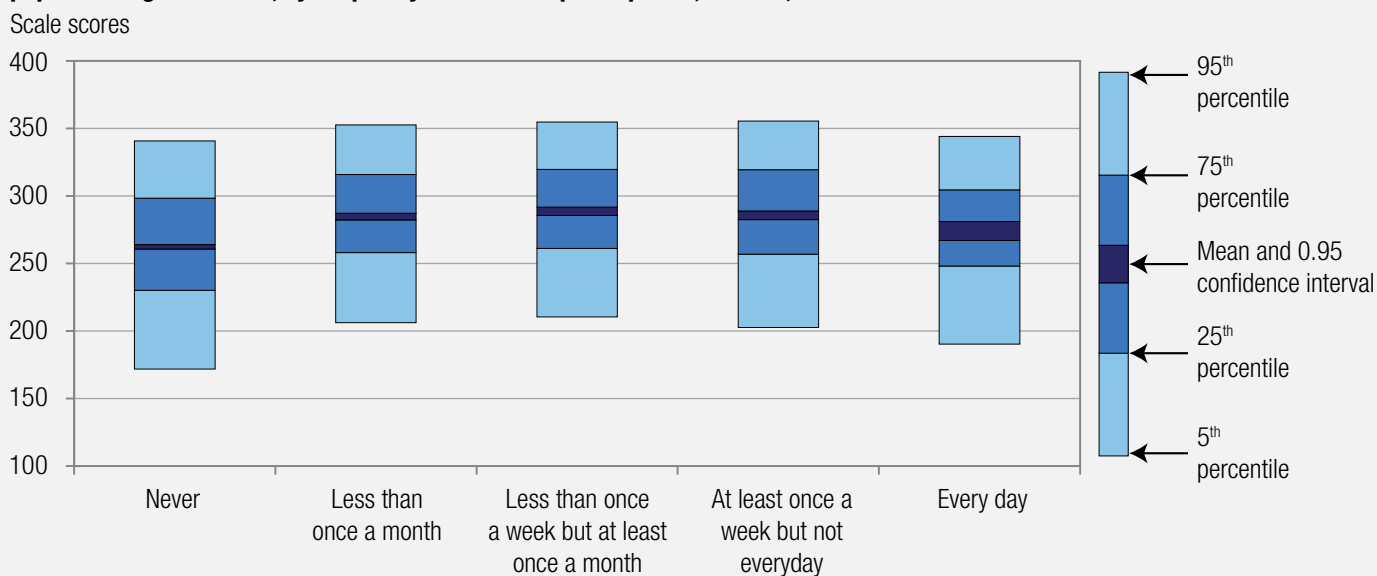
**Figure 1.5 Proportion of population aged 16 to 65 who volunteer, OECD average, Canada, provinces and territories, 2012**



**Source:** Table 1.3a

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work “in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization.”

**Figure 1.6 Literacy – Average scores with 0.95 confidence interval and scores at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by frequency of volunteer participation, Canada, 2012**



**Source:** Table 1.3b

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work “in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization.”

## *Political efficacy*

Political efficacy refers to the extent to which a person feels that they understand and can affect government actions. PIAAC assesses political efficacy by whether respondents agreed or disagreed with the statement: “People like me don’t have any say about what the government does.” Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

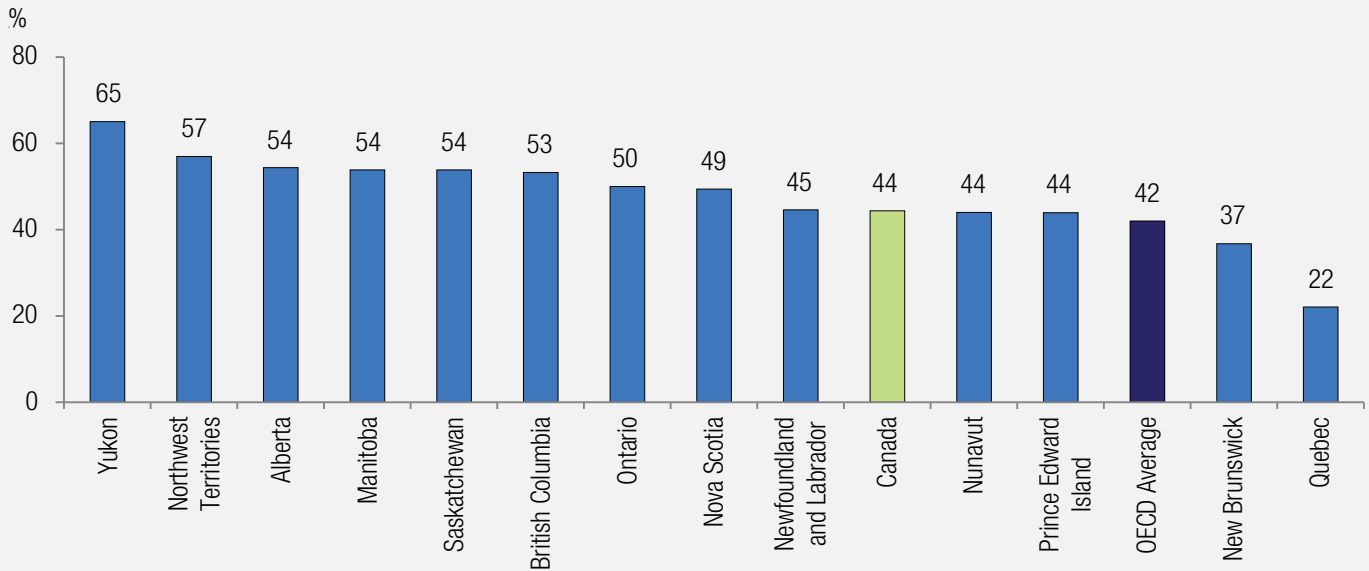
The highest rates of political efficacy are reported in Lithuania (86 per cent), compared to an OECD average of 42 per cent and a Canadian average of 44 per cent. Within Canada, positive political efficacy was most frequently reported in Yukon (65 per cent), followed by Alberta, Saskatchewan, and Manitoba (54 per cent). New Brunswick (37 per cent) and Quebec (22 per cent) are the only jurisdictions falling below the OECD average (Figure 1.7).

PIAAC is the first large-scale assessment of the concept of political efficacy and its relationship to literacy, numeracy, and PS-TRE skills, which means that PIAAC results cannot be easily compared against other Canadian data. The GSS assesses political participation using different factors, such as voting behaviour, searching for information about politics, and participating in other types of political activity. In 2013, 39 per cent of Canadians searched for information about a political issue, 22 per cent boycotted or chose a particular product for ethical reasons, and 15 per cent attended a public meeting (Turcotte, 2015c).

Figure 1.8 presents average literacy scores by level of political efficacy. There appears to be a clear demarcation in the average scores attained by those with high political efficacy (strongly disagree or disagree), versus those with low political efficacy (strongly agree or agree). Similar to trust, people who scored higher than 345 (Level 4) in literacy reported only positive political efficacy.



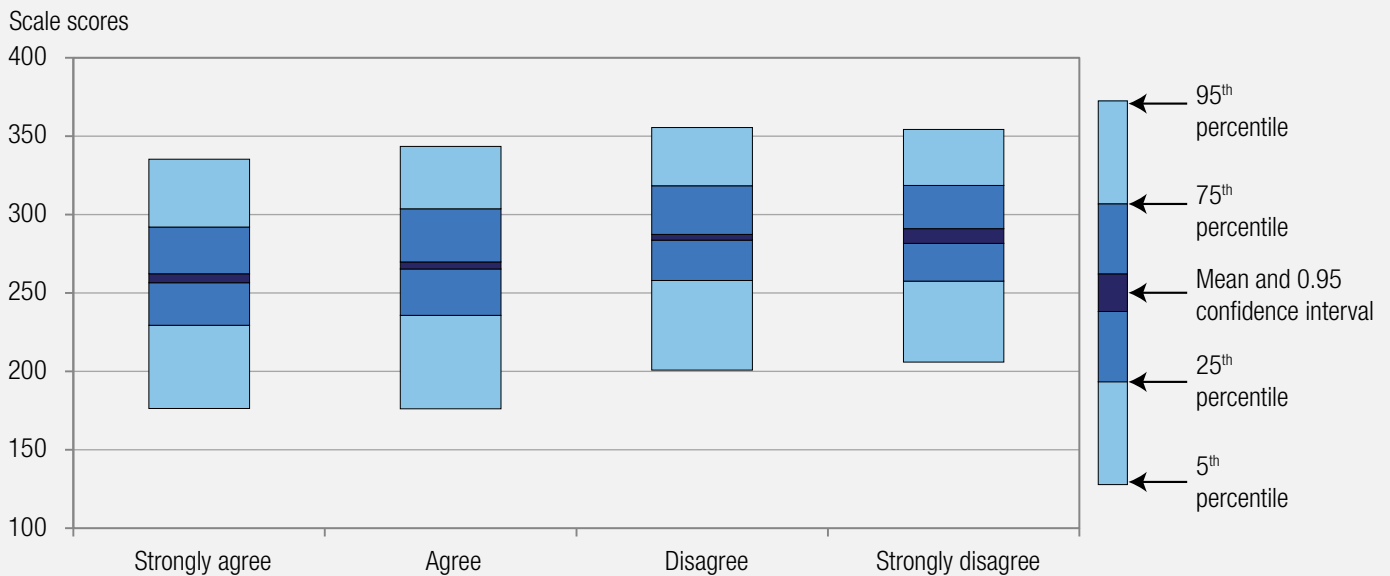
**Figure 1.7 Proportion of population aged 16 to 65 who report positive political efficacy, OECD average, Canada, provinces and territories, 2012**



**Source:** Table 1.4a

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: “People like me don’t have any say about what the government does.” Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

**Figure 1.8 Literacy – Average scores with 0.95 confidence interval and scores at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by political efficacy, Canada, 2012**



**Source:** Table 1.4b

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: “People like me don’t have any say about what the government does.”

## Summary

In comparison with other countries, Canada tends to have a positive health and social profile. Overall, Canadians' levels of self-reported health, trust, volunteering, and political efficacy are above the average for OECD countries participating in PIAAC. This is also the case for almost all provincial and territorial jurisdictions.

Despite this, it is important to recognize that outcomes vary by skill level. Self-reported health displays a step-wise gradient, meaning that health improves with proficiency in information-processing skills. Those with the highest average proficiency scores also report the best health. Both trust and political efficacy show a clear demarcation in proficiency scores between those reporting positive versus negative outcomes. Results for volunteering are more nuanced, with those who volunteer most frequently and those who never volunteer scoring at the lowest levels of literacy proficiency.

Canadians who score above 335 in literacy (Level 4) report only positive levels of self-reported health, trust, volunteering, and political efficacy, suggesting that a highly literate population may also be characterized by good health and active engagement in civic and social activities. A consistent threshold is less visible for those reporting negative health and social outcomes. However, among those in fair or poor health, 52 per cent have a high-school diploma or less than a high-school diploma, and 62 per cent are between the ages of 45 and 65. Though less pronounced, similar patterns emerge for trust, volunteering, and political efficacy.



## CHAPTER 2

# SKILLS AND HEALTH AND SOCIAL OUTCOMES OF CANADIANS

This chapter reviews the distribution of health and social outcomes by key socioeconomic and sociodemographic characteristics (gender, age, and education), as well as by skill level. To gain a deeper understanding of how strong the relationships are among skills and health and social outcomes, the chapter also discusses results of multivariate regression analyses. In these analyses, other factors that may affect these relationships are controlled for. The regression analyses control for the effects of age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and the language in which respondents completed the PIAAC skills assessment (language of the test). In Canada, respondents could take the test in either English or French.<sup>15</sup>

This chapter also presents the results of analyses assessing the potential for interactions between education and skills. Formal education and training are key processes through which the information-processing skills measured in PIAAC are developed and maintained. Educational systems also play a role in building and fostering “characteristics, attitudes and practices that facilitate lifelong learning, such as an interest in reading or positive attitudes towards learning” (OECD, 2013a, p. 118). Yet while closely connected, educational attainment and skills proficiency reflect different aspects of human capital. Formal educational credentials signal a wider set of knowledge and skills than proficiency in the skills assessed in PIAAC. Proficiency in literacy, numeracy, and PS-TRE is not fixed with the completion

### What is an odds ratio?

An “odds ratio” measures the odds of achieving a certain outcome compared to the odds of failing to achieve the same outcome given a certain characteristic. Odds ratios are used to describe the likelihood that a given characteristic will affect the realization of a particular outcome.

For example, consider the case of studying for an exam. There are two possible outcomes: passing the exam or failing the exam. If we want to know what effect studying for the exam had on passing or failing, after surveying all exam takers, we find that those who studied were more likely to pass than those who did not. Of course, not everyone who studied passed the exam—and not everyone who *did not* study failed the exam. But overall, the likelihood of passing is greater if a person studied for the exam.

We may then want to know whether the likelihood of passing is *a lot* greater with studying, versus just a little. To come up with that answer, statisticians calculate the odds ratio, a number that tells us how strong the relationship is between studying and passing. An odds ratio greater than 1.0 indicates a positive relationship. For example, an odds ratio of 3.0 would tell us that the odds of passing for a person who studies for the exam is three times greater than the odds of passing for someone who does not study. On the other hand, an odds ratio less than 1.0 indicates a negative relationship, which means studying would correspond with lower odds of passing the test.

When designing policies and programs, odds ratios can help to determine the potential associations of different actions with particular outcomes. If the odds ratio in the exam-studying example is close to 1, there may not a strong case to be made for studying. Instead, it might become more important to look at other factors that could affect the likelihood of passing the exam, such as getting a good night’s sleep, eating a healthy breakfast, or engaging in exercise.

<sup>15</sup> Controlling for test language is important because of the impact this may have on the direct assessment of skills for Canadian residents whose mother tongue is neither English nor French. This is particularly important for immigrants to Canada and Indigenous peoples, as Chapter 3 discusses further.

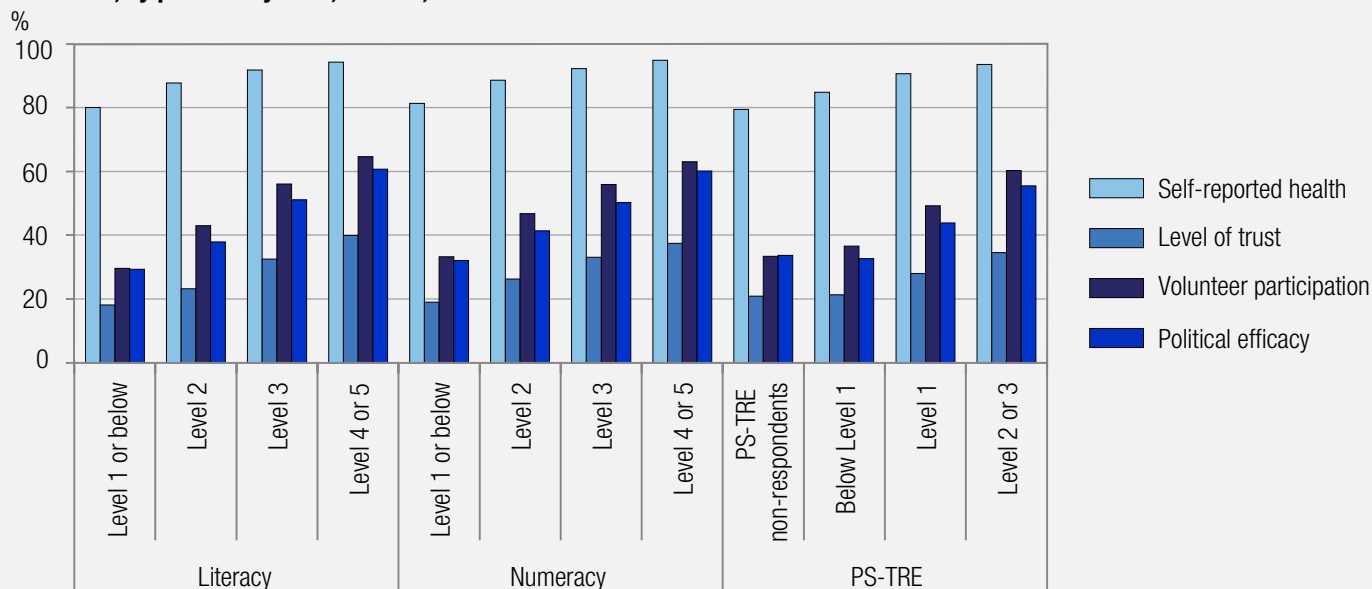
of formal education. “What an individual does at work, the activities he or she engages in outside of work, the opportunities available for ongoing learning as well as the processes of biological ageing all affect whether proficiency increases or declines over time and at what rate” (OECD, 2013a, p. 53).

The likelihood of respondents having positive health and social outcomes at each skill level is calculated for four levels of educational attainment: less than high-school diploma; high-school diploma; postsecondary education – below bachelor’s degree (completion of a program of study below a bachelor’s degree, including trades, technical, and vocational diplomas);<sup>16</sup> and postsecondary education – bachelor’s degree or higher

(completion of a bachelor’s degree or higher).<sup>17</sup> It is important to consider interaction effects because of the close relationship between education and skills. Fixing a given level of education makes it possible to assess the effect that skills may have on health and social outcomes *independently* of educational attainment.

In general, PIAAC data confirm that more Canadians report positive health and social outcomes as proficiencies improve. Canadians with higher skills tend to enjoy better health, trust more people, participate more in volunteer activities, and are more likely to think they can influence government (Figure 2.1). These results are consistent with findings from the 2003 International Adult Literacy and Skills Survey (IALSS). IALSS found that the literacy and numeracy scores of Canadians reporting good health were higher than the scores of

**Figure 2.1 Literacy, numeracy and PS-TRE – Proportion of population aged 16 to 65 who report positive health and social outcomes, by proficiency level, Canada, 2012**



Source: Tables 2.1a, 2.1b and 2.1c

those reporting poor health. Similarly, those with higher level skills were more likely to engage with community groups or organizations than those with lower skills (OECD and Statistics Canada, 2011). Results for each health and social outcome assessed in PIAAC are discussed in more detail in what follows.

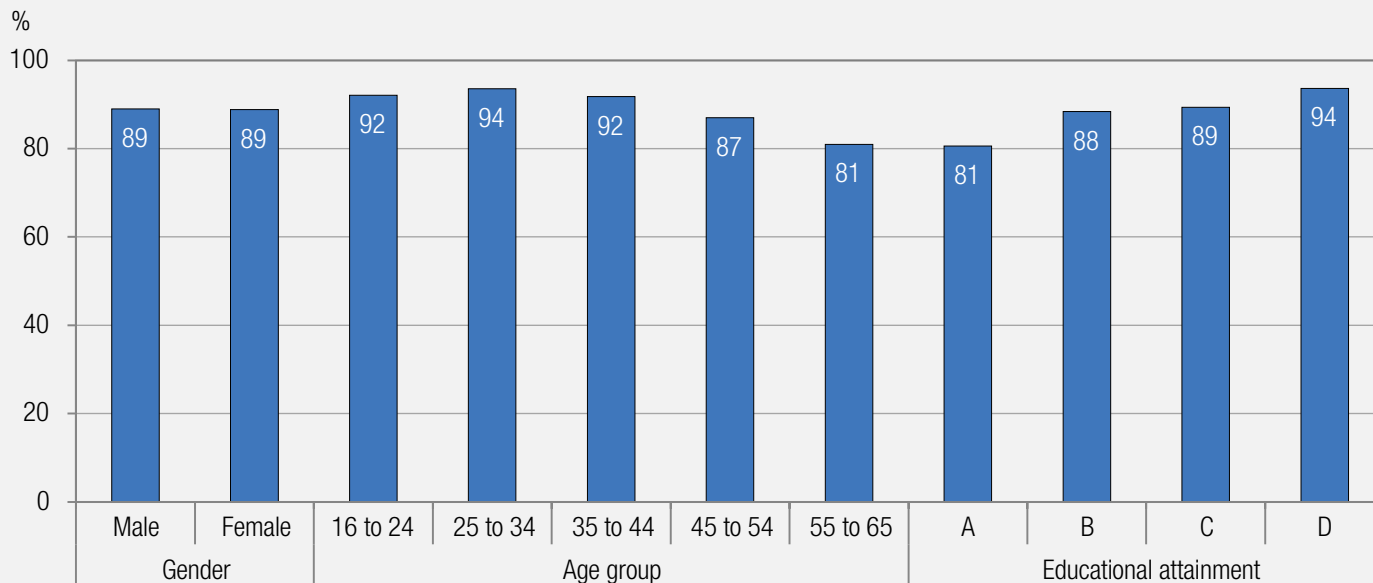
<sup>16</sup> Respondents whose highest level of schooling successfully completed include a non-university certificate or diploma from a college, school of nursing, or technical institute; trade/vocational certificates; apprenticeship certificates; cégep diploma or certificates; university transfer programs; and university certificate or diploma programs below a bachelor’s degree. In terms of ISCED classification, this group includes: ISCED 4C, ISCED 4A-B, ISCED 4 (without distinction A-B-C), and ISCED 5B (Statistics Canada et al., 2013).

<sup>17</sup> Respondents whose highest level of schooling successfully completed include bachelor’s degree, university certificate above bachelor level, first professional degree (medical, veterinary medicine, dental, optometry, law, and divinity), master’s and Ph.D. degrees. In terms of ISCED classification, this group includes: ISCED 5A: bachelor’s degree, ISCED 5A: master’s degree, and ISCED 6 (Statistics Canada et al., 2013).

## Self-reported health

A strong majority of Canadians report good health. The proportion of Canadians reporting excellent, very good or good health varies little by gender, but it decreases with age, and increases with educational attainment (Figure 2.2).

**Figure 2.2 Proportion of population aged 16 to 65 who report excellent, very good or good health, by gender, age group and educational attainment, Canada, 2012**



**Source:** Tables 2.2, 2.3 and 2.4

**Note:** A. Less than high-school diploma  
C. PSE – below bachelor's degree

B. High-school diploma  
D. PSE – bachelor's degree or higher

### Gender

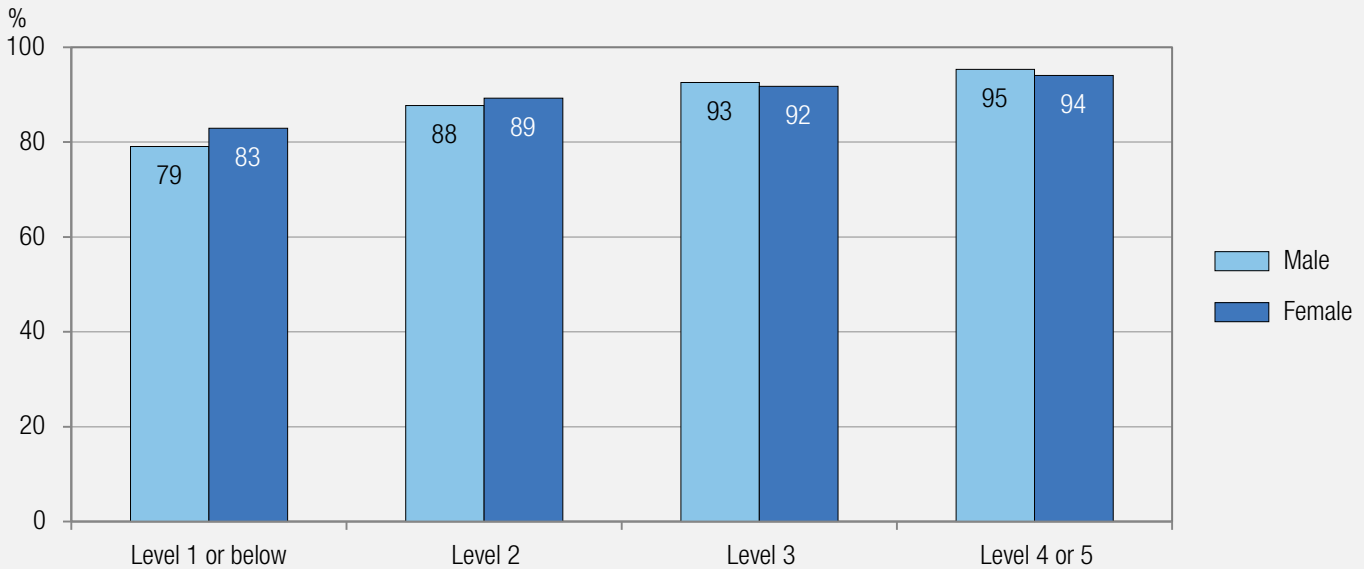
As literacy, numeracy, and PS-TRE skills improve, the percentage of men and women reporting positive health also increases. For example, 79 per cent of men at Level 1 or below in numeracy report positive health, compared to 95 per cent of men at Level 4 or 5 (Figure 2.3). For women, 83 per cent of those at Level 1 or below in numeracy report positive health, compared to 94 per cent of those at Level 4 or 5 in numeracy. There are no statistically significant differences between men and women, except at Level 1 or below. The same pattern is seen for literacy and PS-TRE skills. There are also very few instances of gender difference in self-reported positive health among provincial and territorial jurisdictions.

### Age

Existing evidence confirms that self-reported health tends to deteriorate with age, likely as a result of factors such as increased rates of chronic disease and activity limitations (Statistics Canada 2010). This trend is reflected in PIAAC results. Only 81 per cent of Canadians aged 55 to 65 report excellent, very good or good health, compared to 94 per cent of those aged 25 to 34 (Figure 2.2).

Skills proficiency also tends to decline with age. In PIAAC, 40 per cent of 55 to 65 year olds attain Level 3 or above in literacy, compared to 60 per cent of 25 to 34 year olds. For PS-TRE, 80 per cent of those aged 25 to 34 score at Level 1 or above, compared to just 46 per cent of those aged 55 to 65. There are many reasons for skill loss over the life course, including cognitive decline, low initial educational attainment, and lack of use of skills at work and/or at home (Willms & Murray, 2007).

**Figure 2.3 Numeracy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by gender and proficiency level, Canada, 2012**



Source: Table 2.5a

Because the PIAAC sample is not longitudinal, it is possible to observe the impact of proficiency levels on health for each age group at a single point in time only. However, these results suggest that higher skills proficiency may help to moderate the decline in positive self-reported health that tends to accompany aging (Figure 2.4). Different research designs are needed to better assess whether higher skills promote the conditions necessary to remain healthier, or whether healthier Canadians are better able to maintain their cognitive abilities.

For all skill domains and at all levels of proficiency, self-reported health for 16 to 34 year olds varies little. For example, the proportion of younger Canadians reporting excellent, very good or good health ranges from 90 per cent (ages 16 to 24 scoring at Level 1 or below in literacy), to 96 per cent (ages 25 to 34 scoring at Level 4 or 5 in literacy). By contrast, among older age groups there is a clear gradient in self-reported health by proficiency level. For those aged 55 to 65, only 69 per cent at Level 1 or below in literacy report positive health, compared to 92 per cent of the same age group at Level 4 or 5—a proportion that is comparable to results for those aged 16 to 24. Among 55 to 65 year olds at Level 3 in literacy, 88 per cent reported excellent, very good or good health, on par with the Canadian average of 89 per cent. The pattern is similar for numeracy and PS-TRE. There are no significant differences in the proportions of the population reporting positive health between the

youngest and oldest age groups for those at Level 2 or 3 in PS-TRE.

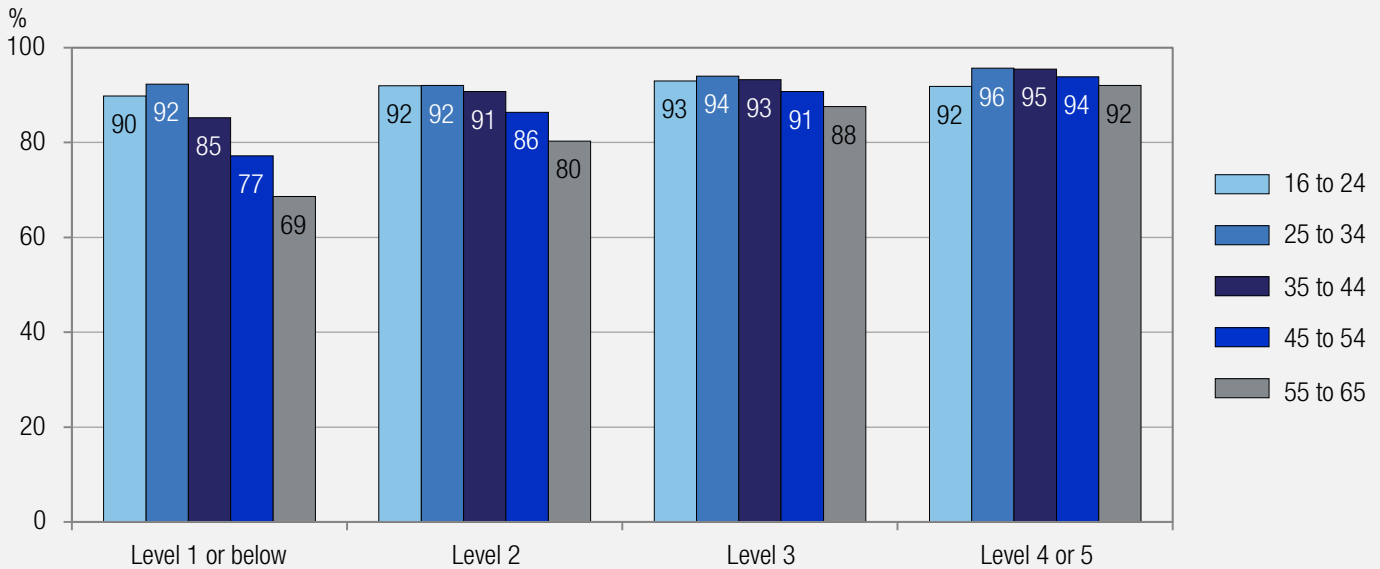
Overall, older Canadians with higher skills tend to report positive health in similar proportions to other Canadians, including younger age groups. These results suggest that declines in self-reported health associated with age are primarily experienced at the lower end of the skills spectrum. However, the descriptive data reported here do not control for other factors that may interact with skills to promote better health for certain older Canadians, such as level of education or employment.

### Educational attainment

Canadians with higher levels of education tend to report better health. Ninety-four per cent of those with postsecondary education – bachelor’s degree or higher report excellent, very good or good health, compared to 81 per cent of those with less than a high-school diploma (Figure 2.2).

For all levels of education, the proportion of Canadians reporting excellent, very good or good health increases as skills improve within each level of educational attainment (Figure 2.5). Even among those with lower educational attainment (e.g., less than high-school diploma), higher skills are correlated with better health. Canadians who attain higher levels in literacy and numeracy (Level 3 or above) report similar high levels

**Figure 2.4 Literacy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by age group and proficiency level, Canada, 2012**



Source: Table 2.5b

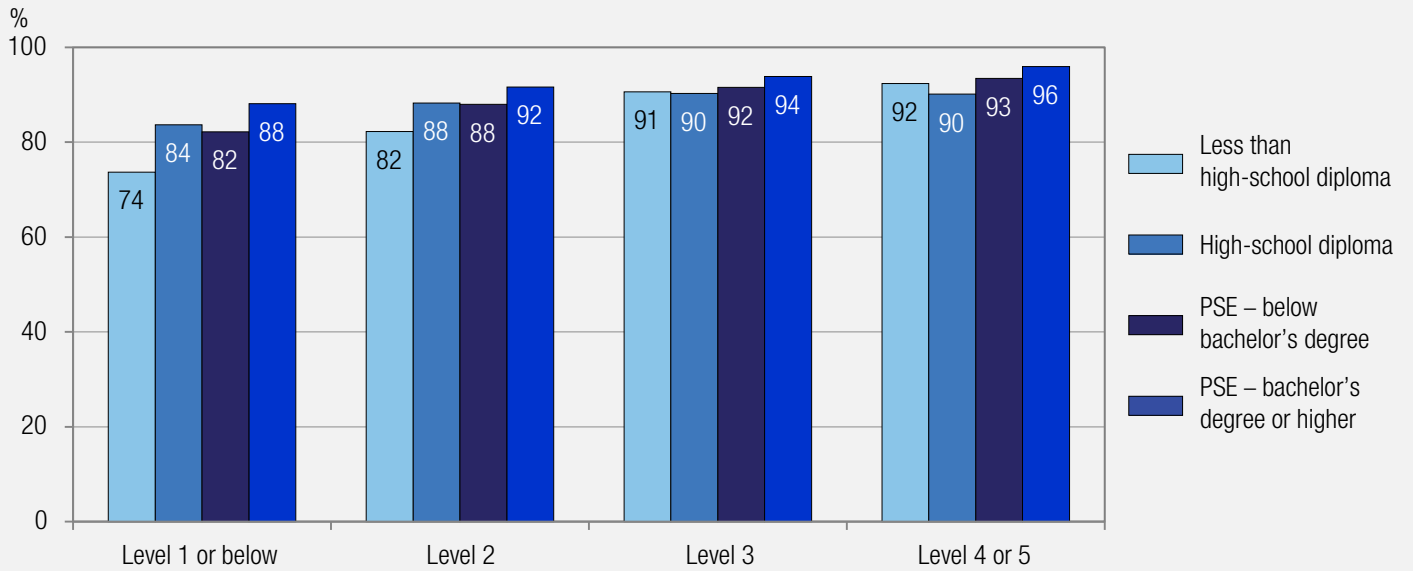
of self-reported health, regardless of their educational attainment. Results are similar for PS-TRE. Over 90 per cent of Canadians who attain the highest level of PS-TRE proficiency report excellent, very good or good health, regardless of their level of educational attainment (Figure 2.6).

For those with postsecondary education – below bachelor’s degree, or postsecondary education – bachelor’s degree or higher, low levels of PS-TRE proficiency does not appear to have the same connection to self-reported health as it does for those with lower educational attainment. For example, among those scoring below Level 1 in PS-TRE, 90 per cent of those with postsecondary education – bachelor’s degree or higher report excellent, very good or good health, compared to 80 per cent of those with less than a high-school diploma (Figure 2.6).

Differences narrow considerably for those who attain Level 1 in PS-TRE. A significantly higher proportion of Canadians with less than a high-school diploma at Level 1 report positive health. Only 69 per cent of PS-TRE non-respondents with less than a high-school diploma report positive health, compared to 88 per cent of those at Level 1 in PS-TRE. This suggests that stronger PS-TRE proficiency may support Canadians in navigating increasingly complex health-care systems, and in locating and evaluating health information, particularly in on-line or other technologically based formats.

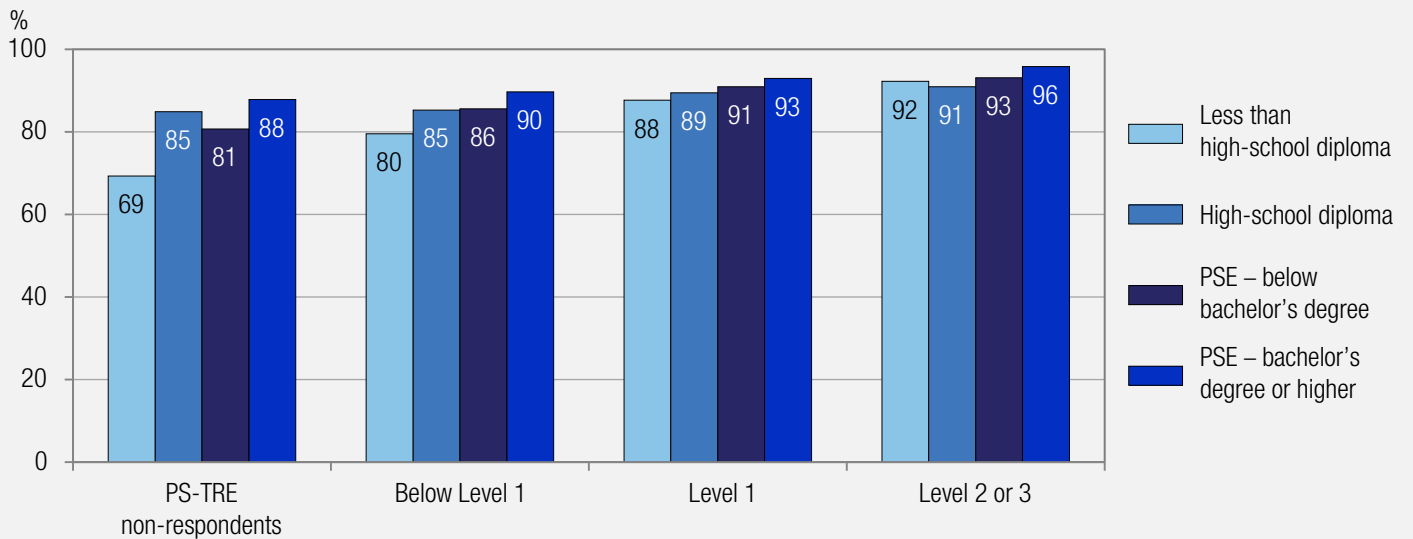


**Figure 2.5 Literacy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.5c

**Figure 2.6 PS-TRE – Proportion of population aged 16 to 65 who report excellent, very good or good health, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.5c

## Effects of skills on self-reported health

Using multivariable regression analyses, adjusted odds ratios were calculated to illustrate the independent effect of skills on self-reported health. Figure 2.7 summarizes the results.

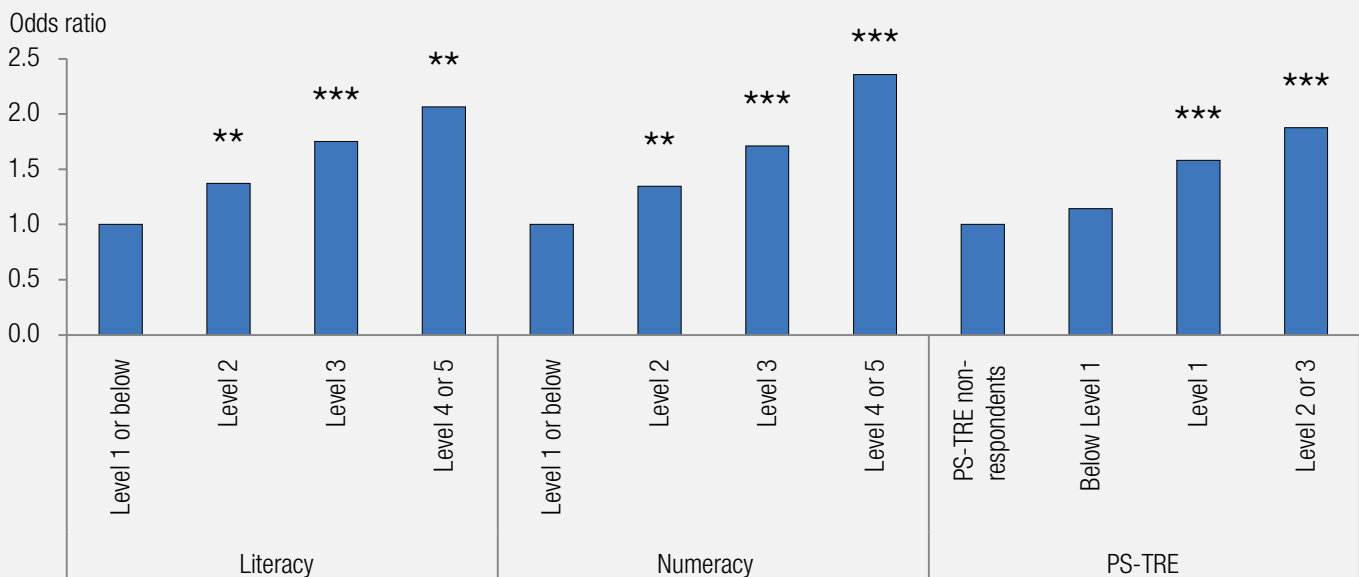
Information-processing skills are strongly associated with positive self-reported health, independently of other factors. The likelihood of reporting excellent, very good or good health increases with each improvement in skill level. For example, people at Level 4 or 5 in numeracy are more likely to report positive health compared to those at Level 1 or below (Odds ratio of 2.4). Attaining at least Level 2 in literacy or numeracy, or Level 1 in PS-TRE, is associated with significantly greater odds of reporting positive health compared to those at the lowest skill levels.

Regression results confirm that the likelihood of reporting positive health increases as information-processing skills improve within each level of educational attainment. For example, for those with less than a high-school diploma or high-school diploma, attaining Level 2 or 3 in numeracy significantly increases the likelihood

of reporting excellent, very good or good health (Figure 2.8). For those with postsecondary education – below bachelor’s degree, the likelihood of reporting positive health is greater at Level 3 or above in numeracy. Higher numeracy proficiency does not appear to be significantly associated with a greater likelihood of reporting positive health for those with postsecondary education – bachelor’s degree or higher.

Compared to literacy and numeracy, PS-TRE skills are less strongly associated with the likelihood of reporting positive health for those with lower educational attainment (Figure 2.9). Among those with postsecondary education – below bachelor’s degree, with a bachelor’s degree or higher, higher PS-TRE proficiency is associated with significantly greater odds of reporting excellent, very good or good health. Those with postsecondary education – bachelor’s degree or higher and at Level 2 or 3 in PS-TRE are more likely to report positive health than PS-TRE non-respondents with the same level of education (Odds ratio of 2.3). For those with postsecondary education – below bachelor’s degree, the odds ratio is 2.0.

**Figure 2.7 Literacy, numeracy and PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting excellent, very good or good health, by proficiency level, Canada, 2012**



**Source:** Table 2.6a

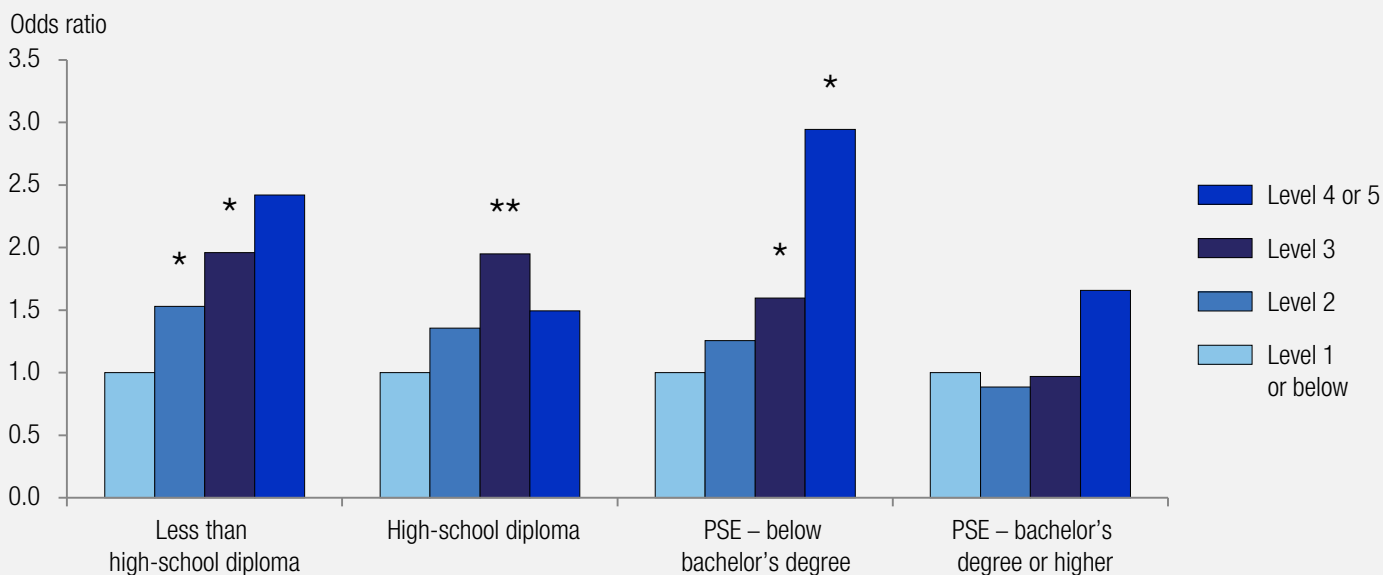
**Note:** Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.8 Numeracy – Adjusted likelihood of population aged 16 to 65 reporting excellent, very good or good health, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.6b

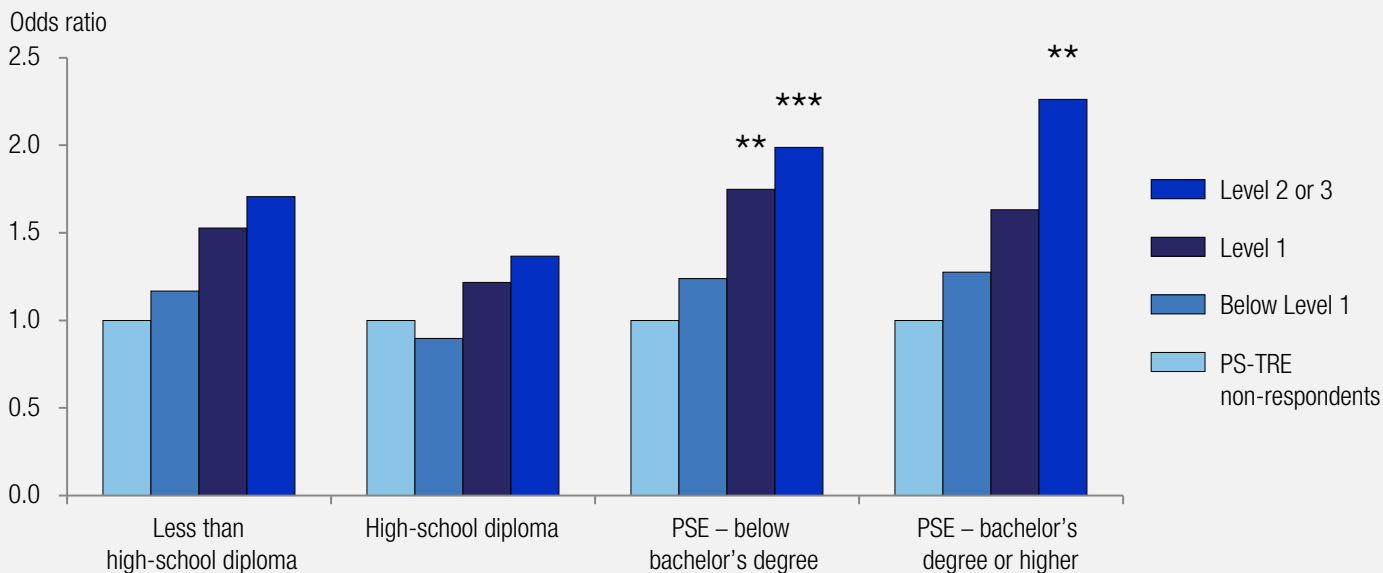
Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.9 PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting excellent, very good or good health, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.6b

Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

According to PIAAC data, and keeping the level of education constant, higher skills tend to be associated with more positive health. This association holds even for respondents with lower educational attainment. This suggests that a highly skilled population may also be characterized by positive health. Further investigation into relationships between information-processing

skills proficiency, educational attainment, and health outcomes is needed—including other contextual factors that may influence these associations, such as access to technology, opportunities for lifelong learning to build and maintain skills, and the digitization of information and its implications for accessing and navigating services.

### Longstanding illness or health condition and associated activity limitations

In addition to self-reported health, PIAAC includes two other questions explicitly related to health. Respondents were asked whether they have a longstanding illness or health condition—defined as one that has lasted, or is expected to last, six months or more. This category could cover permanent disabilities, chronic health conditions, serious medical diagnoses, as well as more straightforward injuries or illnesses requiring at least six months to fully resolve. Respondents reporting the presence of a longstanding illness or health condition were also asked whether they were “severely limited,” “limited but not severely,” or “not limited at all” in their daily activities as a result of this condition.

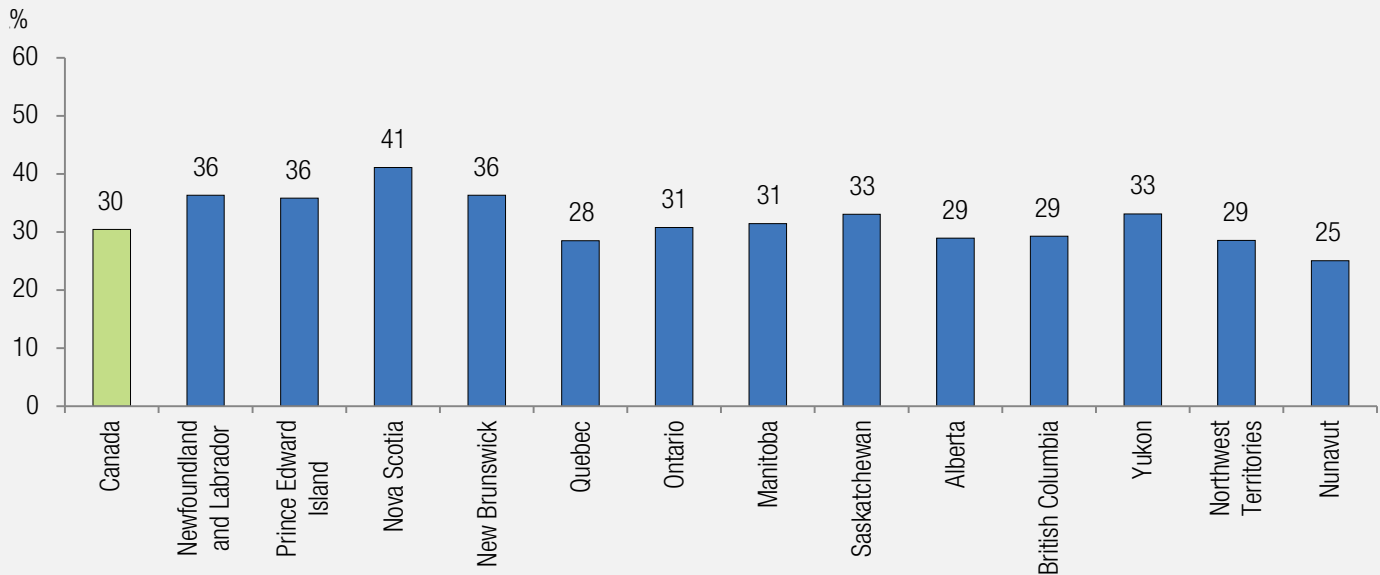
Approximately 30 per cent of Canadians reported a longstanding health problem or chronic condition, with 59 per cent of this group indicating that the condition severely limited or somewhat limited their activities. Residents of Nunavut reported longstanding health conditions least frequently (25 per cent), although almost three quarters of this group (72 per cent) were limited in their activities. Twenty-eight per cent of the Quebec population reported a longstanding illness, with 51 per cent reporting limitation in daily activities. The province with the largest proportion of the population reporting a longstanding illness is Nova Scotia (41 per cent), with 63 per cent reporting activity limitations associated with their longstanding illness or health condition (Figure 2.10).

Longstanding illnesses and health conditions are more prevalent among older Canadians, women, Indigenous peoples, established immigrants, and those with less than a high-school diploma. Those reporting activity limitations fall into similar sociodemographic and socioeconomic categories. Employed individuals and those with a high-school diploma or a higher level of education report longstanding illnesses or health conditions less frequently.

For Canada as a whole, the prevalence of both longstanding illnesses and activity limitations tends to decrease as skills improve. After adjusting for age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and language of the test, the likelihood of reporting a longstanding illness is not significantly associated with lower literacy, numeracy, or PS-TRE proficiency. However, a relationship between skills and activity limitations persists. Those with lower skills are more likely than their highly proficient counterparts to report limitations in their activities as a result of their illness (Figure 2.11). For example, people at Level 1 or below in numeracy are more likely to report an activity limitation compared to those at Level 4 or 5 (Odds ratio of 1.6). For PS-TRE, both non-respondents and those below Level 1 are more likely to report activity limitations associated with their longstanding illness or health condition than those at Level 2 or 3.

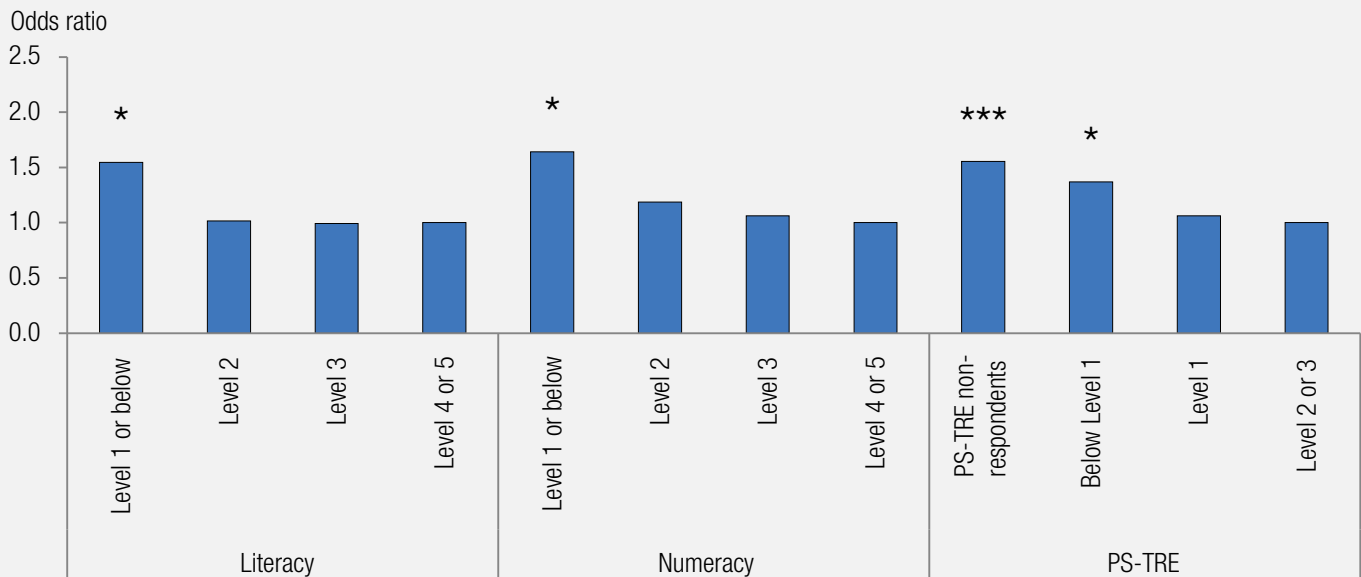
As a cross-sectional survey, PIAAC cannot demonstrate the direction of the relationship between skills and activity limitations. Lower-skilled Canadians may be more likely to become ill or be injured in a manner that results in activity limitations, or be less able to access or afford the rehabilitative support needed to regain full functionality. Alternatively, Canadians with longstanding illnesses or health conditions may be more likely to lose their skills over time because of a lack of use. This may be an area to investigate further, particularly with respect to designing policies and approaches to support workplace health and safety and vocational rehabilitation.

**Figure 2.10 Proportion of population aged 16 to 65 with a longstanding illness, Canada, provinces and territories, 2012**



Source: Table 2.7a

**Figure 2.11 Adjusted likelihood of population aged 16 to 65 reporting an activity limitation due to longstanding illness, by proficiency level, Canada, 2012**



Source: Table 2.7c

Note: Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

## Trust

As Chapter 1 describes, a minority of Canadians report trusting more than a few people. Overall, women tend to be more trusting than men; older Canadians tend to be more trusting than younger Canadians; and Canadians with higher levels of educational attainment tend to be more trusting than those with lower levels of educational attainment (Figure 2.12).

### Gender

Women report higher levels of trust (30 per cent) compared to men (26 per cent), a pattern that holds across all skill domains. This general trend holds for most provinces and territories (except Newfoundland and Labrador, the Northwest Territories, and Nunavut), though the percentage gaps differ across jurisdictions. For both genders, trust increases as skills improve, although this trend is more pronounced for women (Figure 2.13).

### Age

Older Canadians tend to be more trusting than younger Canadians, with differences in age groups widening to become statistically significant as skills improve. For all

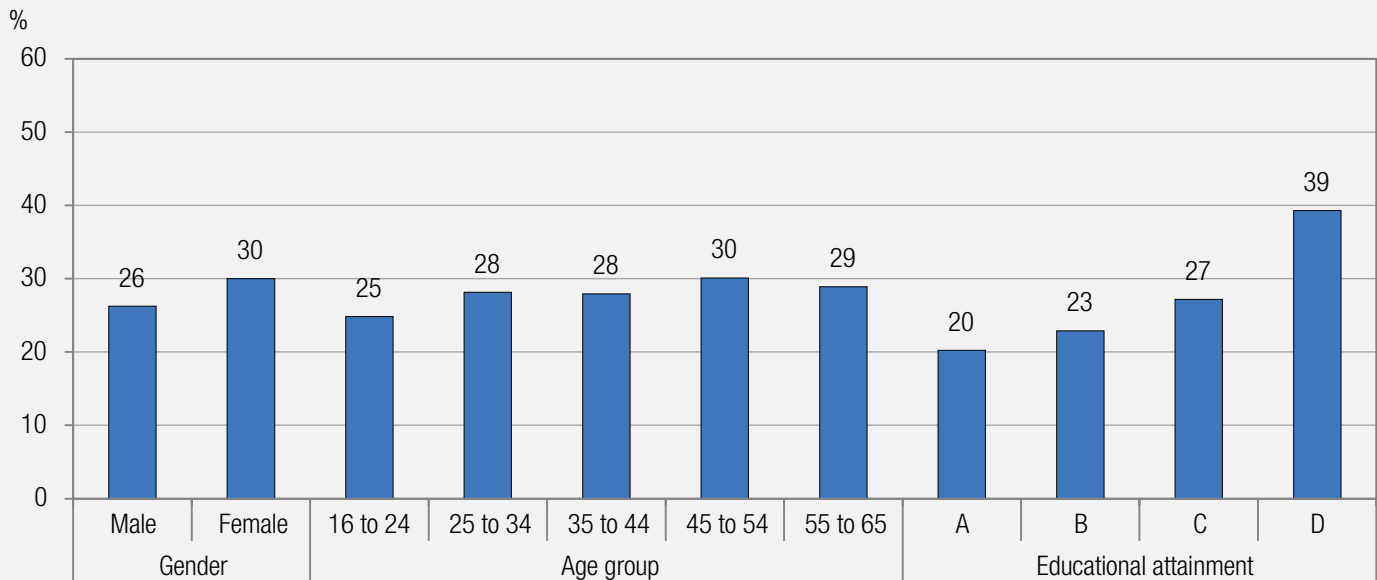
age groups and skill domains, trust tends to increase with each improvement in skill level (Figure 2.14).

There is considerable variation in levels of trust reported by different age groups across provinces and territories (Figure 2.15). Older Canadians are more trusting in most jurisdictions, but this trend does not hold in Newfoundland and Labrador, New Brunswick, and Alberta—and is reversed in Quebec. Explaining these variations would require further investigation of other factors that may be associated with levels of trust.

### Educational attainment

Trust tends to increase with level of education. For example, at Level 2 or above in literacy or numeracy, a greater proportion of Canadians with postsecondary education – bachelor’s degree or higher report positive trust, compared to those with a high-school diploma or a postsecondary education – below bachelor’s degree (Figure 2.16). This pattern may indicate the correlation between education and trust, whereby higher education is connected to higher socioeconomic status, which in turn predisposes individuals to be more trusting (OECD, 2007). For those with low literacy and numeracy proficiency (Level 1 or below), differences in trust by educational attainment tend not to be statistically significant. Trends are similar for PS-TRE.

**Figure 2.12 Proportion of population aged 16 to 65 who report positive level of trust, by gender, age group and educational attainment, Canada, 2012**

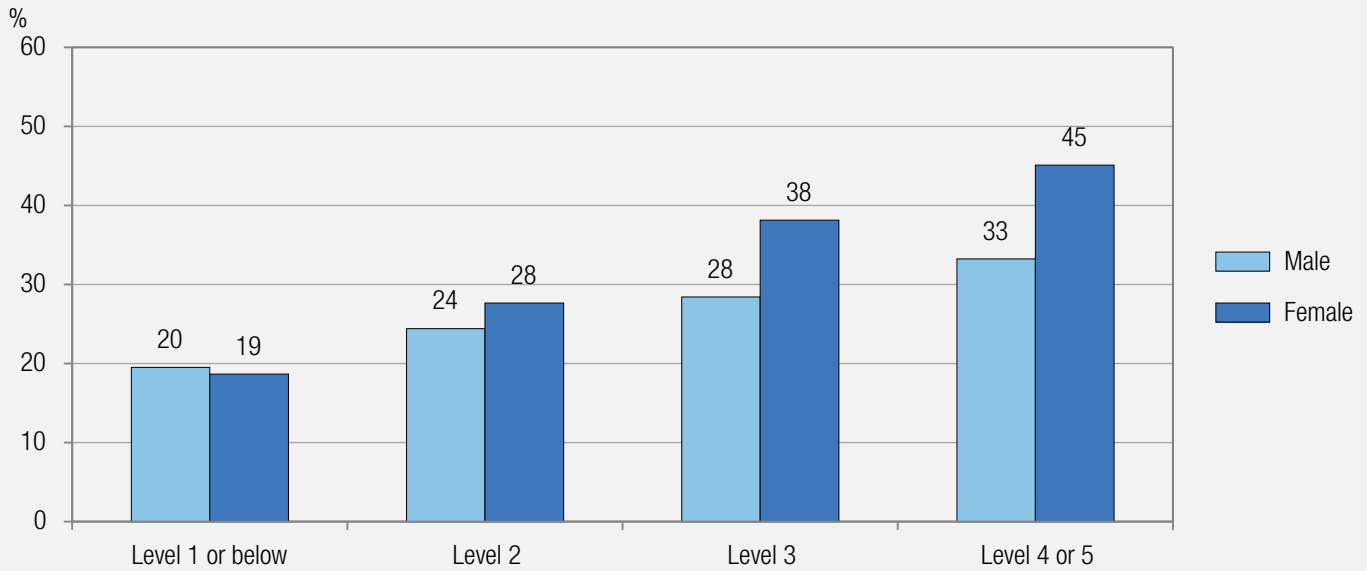


**Source:** Tables 2.2, 2.3 and 2.4

**Note:** A. Less than high-school diploma  
C. PSE – below bachelor’s degree

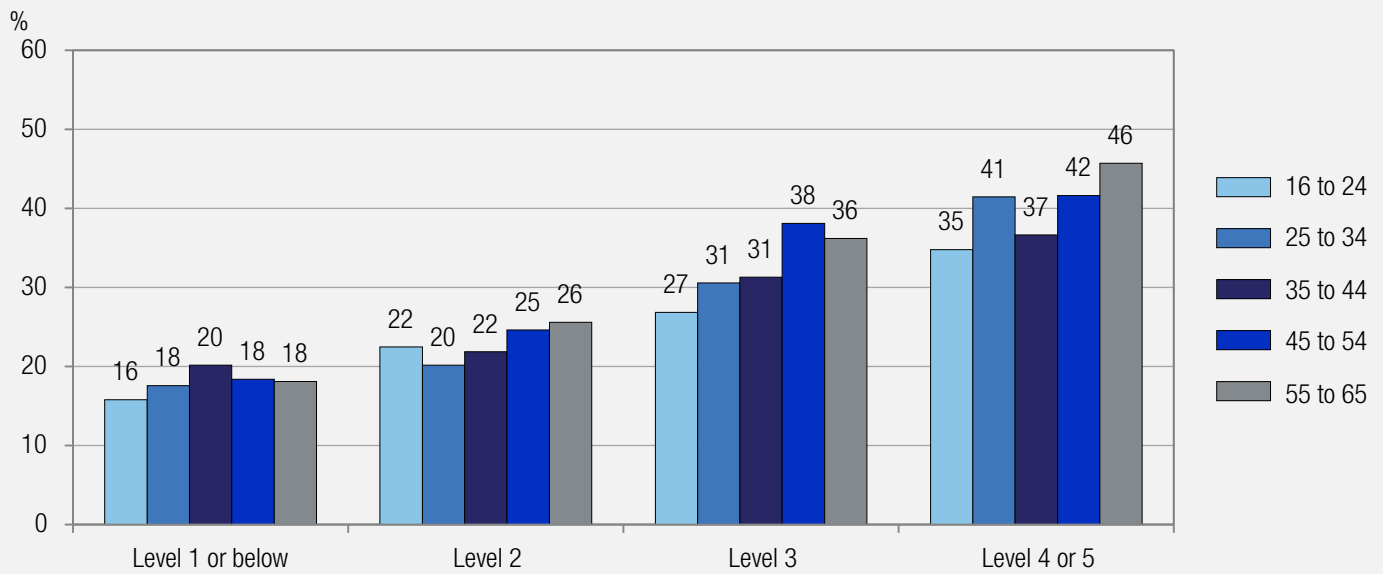
B. High-school diploma  
D. PSE – bachelor’s degree or higher

**Figure 2.13 Numeracy – Proportion of population aged 16 to 65 who report positive level of trust, by gender and proficiency level, Canada, 2012**



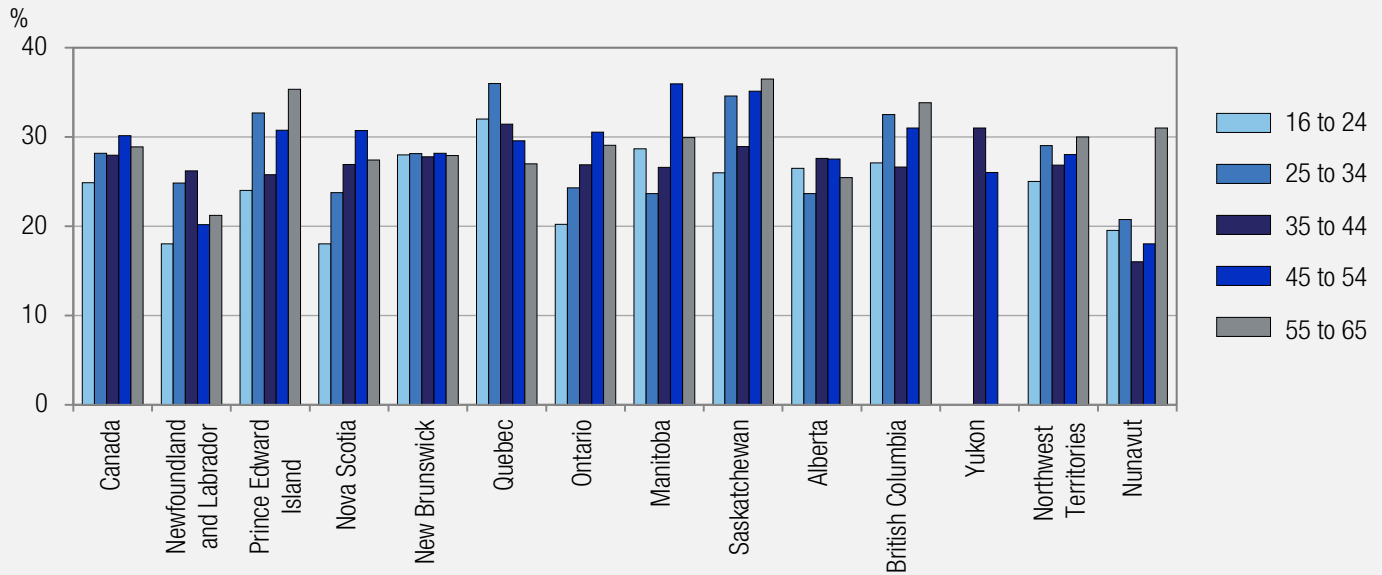
Source: Table 2.8a

**Figure 2.14 Literacy – Proportion of population aged 16 to 65 who report positive level of trust, by age group and proficiency level, Canada, 2012**



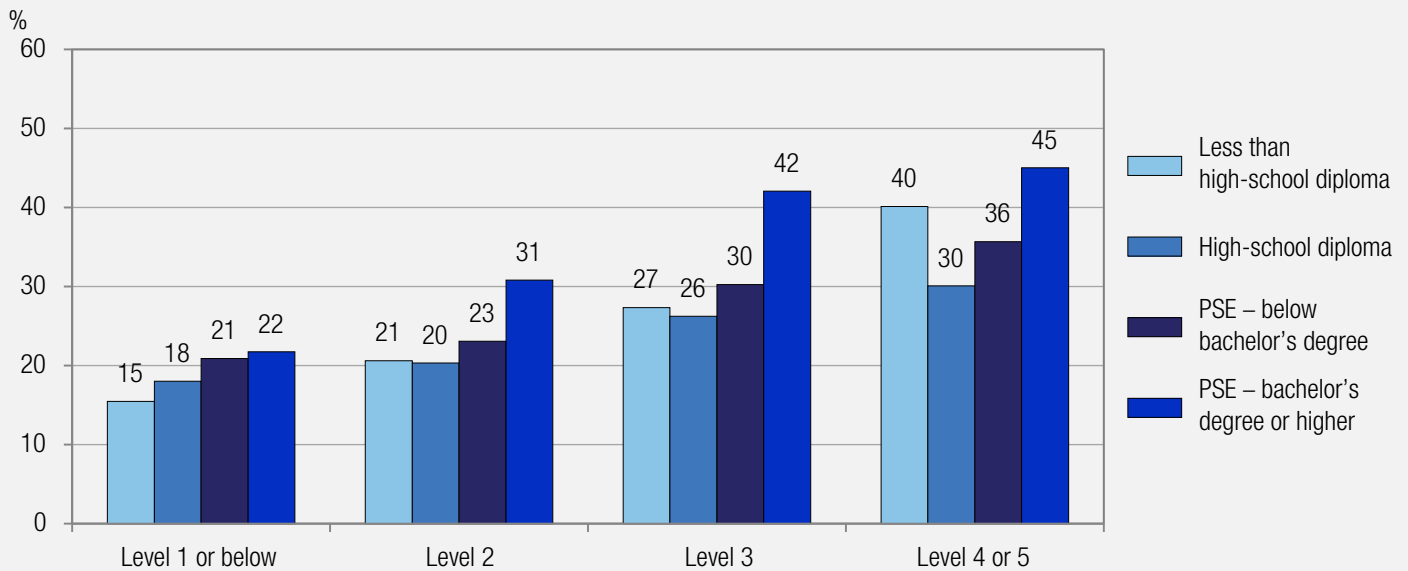
Source: Table 2.8b

**Figure 2.15 Proportion of population aged 16 to 65 who report positive level of trust, by age group, Canada, provinces and territories, 2012**



Source: Table 2.3

**Figure 2.16 Literacy – Proportion of population aged 16 to 65 who report positive level of trust, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.8c



Among those with less than a high-school diploma, levels of trust increase significantly as literacy skills improve. Only 15 per cent of those with less than a high-school diploma and at the lowest literacy levels report positive trust, compared to 40 per cent at Level 4 or 5. This could reflect the importance of literacy skills to interpersonal communication, community participation, and inclusion (McCracken & Murray, 2008).

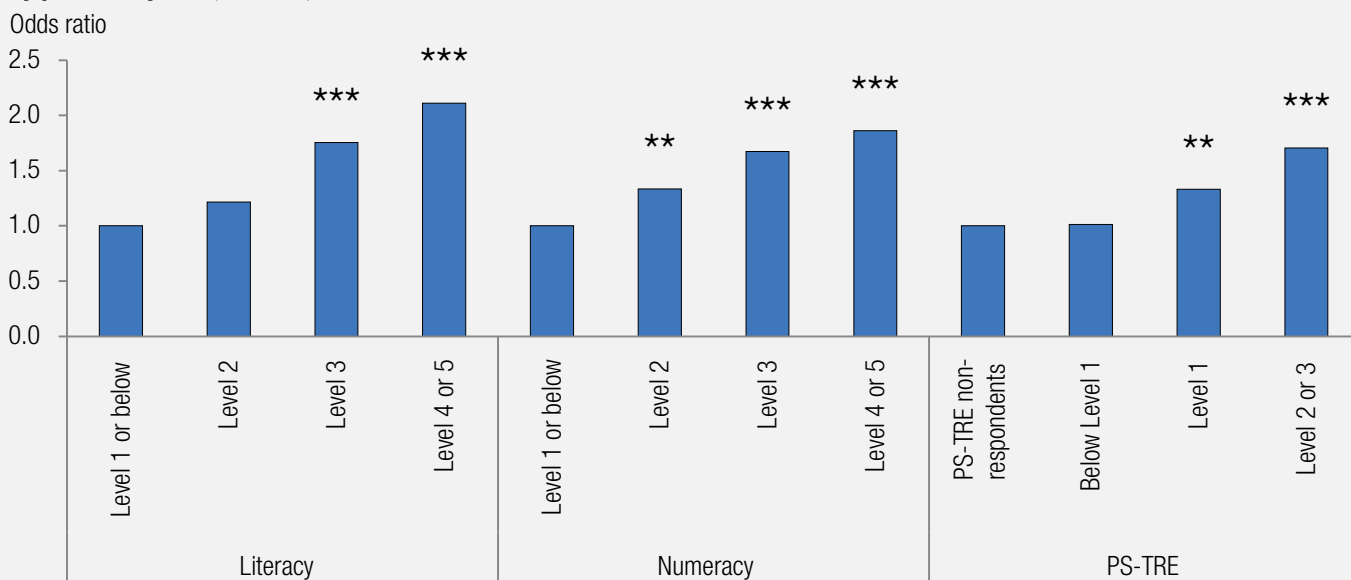
### Effects of skills on trust

For all skill domains, multivariable regression analyses confirm that having higher skills significantly increases the likelihood of reporting positive trust, after adjusting for age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and language of the test (Figure 2.17). For example, those at Level 4 or 5 in literacy are more likely to report positive trust than those at Level 1 or below (Odds ratio of 2.1). Those at Level 3 in literacy are also more likely to report positive trust than those at Level 1 or below (Odds

ratio of 1.8). Results are comparable for numeracy. For PS-TRE, those at Level 2 or 3 are more likely to report positive trust than PS-TRE non-respondents (Odds ratio of 1.7). Those at Level 1 are also more likely to report positive trust than PS-TRE non-respondents (Odds ratio of 1.3).

Regression analyses confirm that the effect of skills on trust is positive for all skill domains within each level of educational attainment. For example, at each level of education, literacy proficiency at Level 3 or above is significantly associated with a greater likelihood of trusting more than a few people. Relative associations are stronger for those with lower educational attainment. For example, people who have less than a high-school diploma and at Level 4 or 5 in literacy are more likely to report positive trust than those at the same level of education, but at Level 1 or below (Odds ratio of 3.9) [Figure 2.18]. Findings are similar for numeracy.

**Figure 2.17 Literacy, numeracy and PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting positive level of trust, by proficiency level, Canada, 2012**



**Source:** Table 2.9a

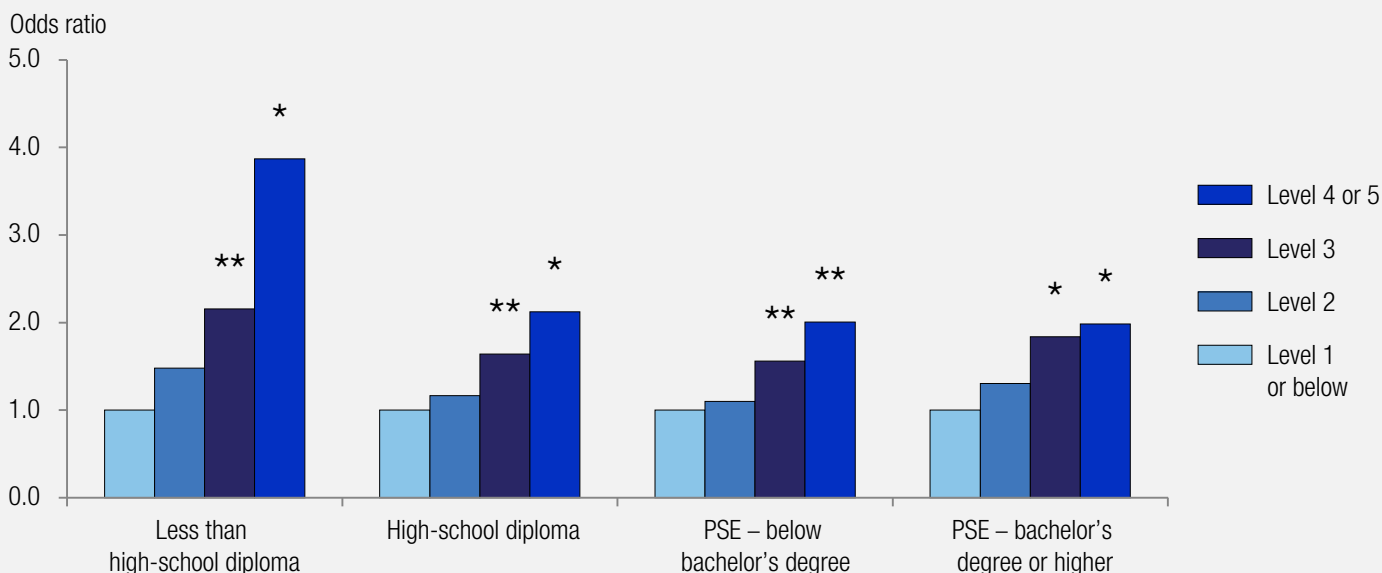
**Note:** Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.18 Literacy – Adjusted likelihood of population aged 16 to 65 reporting positive level of trust, by educational attainment and proficiency level, Canada, 2012**



**Source:** Table 1.4b

**Note:** Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

Associations between PS-TRE proficiency and trust are also positive at all levels of education, although not all results are statistically significant (Figure 2.19). The relationship between PS-TRE and trust is strongest for those with postsecondary education – below bachelor’s degree. For these individuals, proficiency at Level 1 or above is associated with greater trust. Less-educated respondents—those with less than a high-school diploma and those with a high-school diploma—at Level 2 or 3 in PS-TRE also are more likely to report greater trust.

Overall, these results underscore the complex relationships among skills, education, and trust. The proportion of Canadians reporting positive trust tends to increase as information-processing skills improve. However, skills appear to play a more important role for certain individuals, while education has a stronger influence for others. Improvements in skills tend to be associated with significant increases in trust for 16 to 24 year olds, and for those with less than a high-school diploma, before controlling for sociodemographic and other factors. Results of regression analyses indicate that rising proficiency levels increase the likelihood of reporting positive trust, but this effect is not as strong for

those with postsecondary education – bachelor’s degree or higher. For these individuals, other circumstances or attributes associated with having a degree credential may be more highly correlated with trust than skill level.

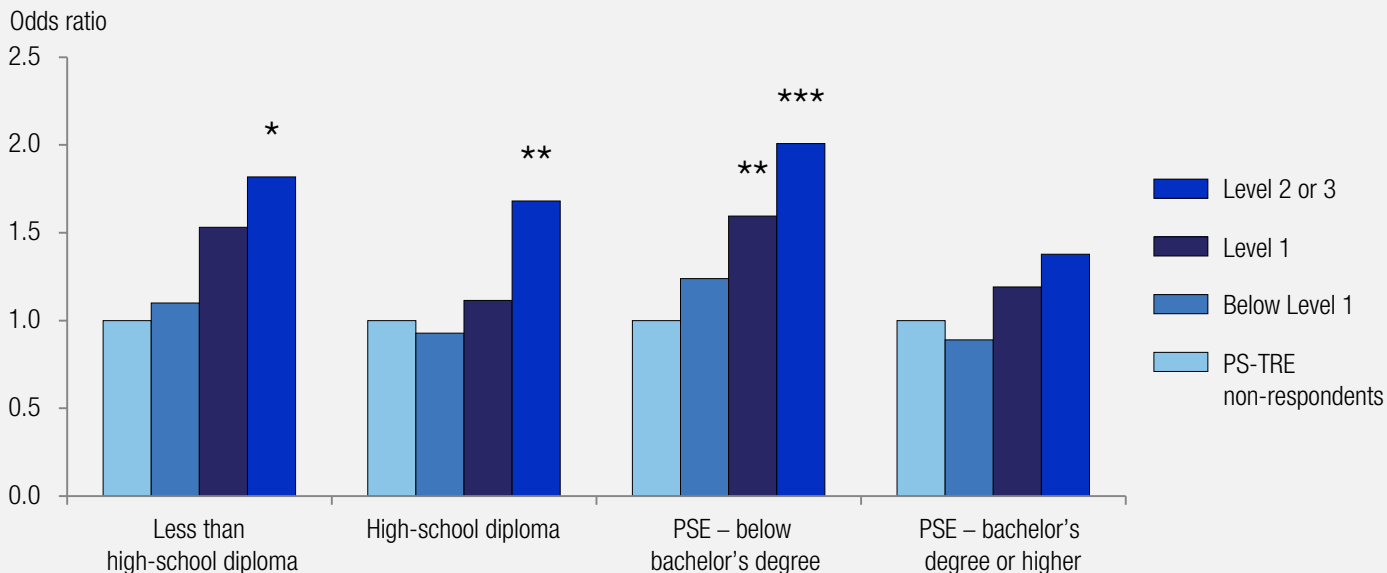
### Volunteering

Figure 2.20 summarizes the distribution of volunteering by key sociodemographic and socioeconomic characteristics.

### Gender

A higher percentage of women (52 per cent) volunteer than men (46 per cent) at the pan-Canadian level, and in most provinces and territories (Figure 2.20). Volunteering increases for both women and men as skills improve. For example, 28 per cent of men and 31 per cent of women at Level 1 or below in literacy volunteer, compared to 63 per cent and 67 per cent respectively at Level 4 or 5 (although differences between men and women are not statistically significant at all skill levels).

**Figure 2.19 PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting positive level of trust, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.9b

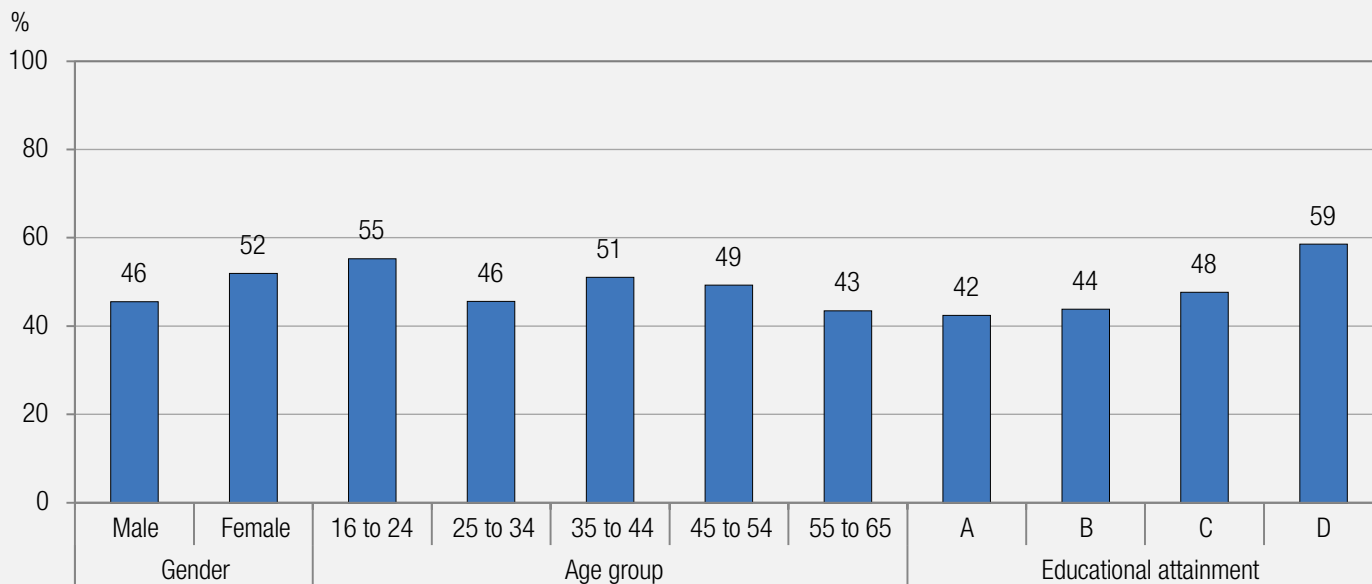
Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.20 Proportion of population aged 16 to 65 who volunteer, by gender, age group and educational attainment, Canada, 2012**



Source: Tables 2.2, 2.3 and 2.4

Note: A. Less than high-school diploma  
C. PSE – below bachelor's degree

B. High-school diploma  
D. PSE – bachelor's degree or higher

## Age

Across Canada, PIAAC results suggest that young people tend to volunteer more frequently than older people. Among 16 to 24 year olds, 55 per cent volunteered compared to 43 per cent of adults aged 55 to 65 (Figure 2.20). This trend is comparable to results from the 2013 GSS, which found that 66 per cent of teens aged 16 to 19 volunteered. Results for this age group may be partly explained by volunteering that is required or promoted by schools or via extracurricular activities, or by the motivation to volunteer to build experience and improve job prospects (Sinha, 2015). There is some regional variation in the distribution of volunteers by age group—not all provinces and territories report greater volunteering among younger Canadians. Provinces in which those aged 16 to 24 represent the largest proportion of volunteers include British Columbia (63 per cent), Newfoundland and Labrador (62 per cent), New Brunswick (62 per cent), Ontario (60 per cent), and Quebec (41 per cent).

The proportion of respondents who volunteer in each age group tends to increase as literacy, numeracy, and PS-TRE skills improve (Figure 2.21). The age profile of volunteers also changes with improvements in skills. For example, as literacy proficiency rises, a larger proportion of older adults report volunteering. At Level 4

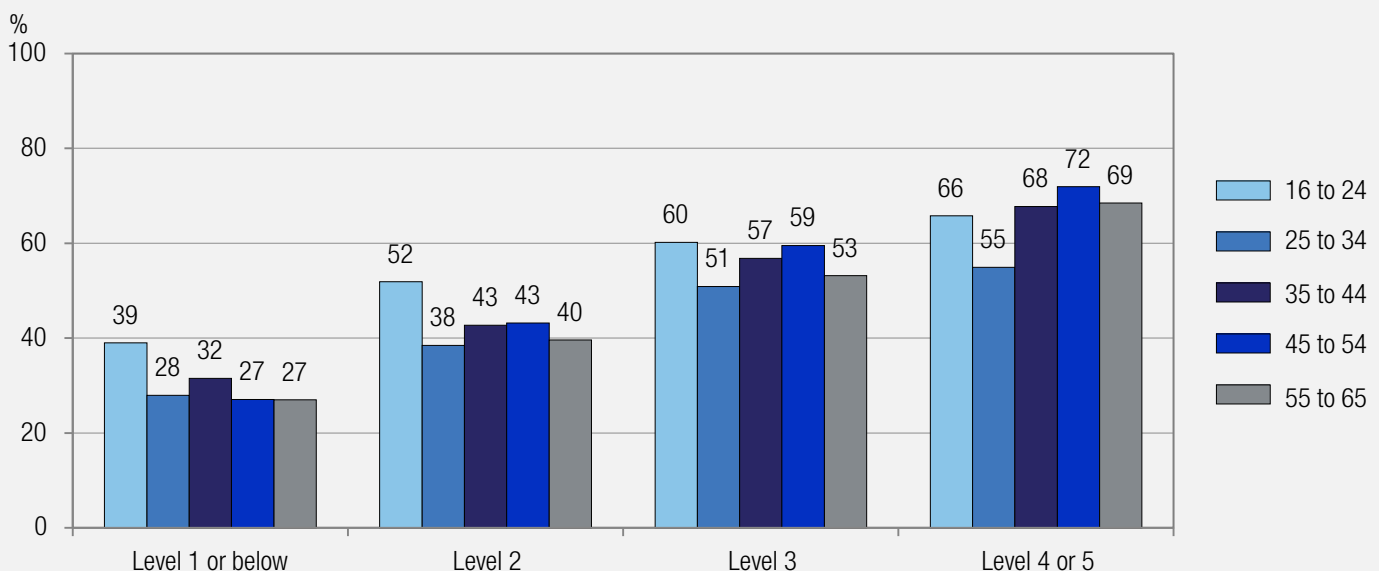
or 5 in literacy, almost 72 per cent of 45 to 54 year olds volunteered, compared to 55 per cent of 25 to 34 year olds. Patterns are similar for numeracy and PS-TRE.

## Educational attainment

Participation in volunteer activities rises with educational attainment (Figure 2.20). Canadians with postsecondary education – bachelor’s degree or higher volunteer the most (59 per cent), compared to 42 per cent of those with less than a high-school diploma. These results align with the 2013 GSS, which found that 39 per cent of those with less than a high-school diploma volunteered, compared to 55 per cent of those with a university degree (Sinha, 2015).

When both proficiency level and educational attainment are taken into account, PIAAC data indicate that the highest levels of volunteerism are among those with less than a high-school diploma, but with high skills (Level 3, 4, or 5 in literacy and numeracy, and Level 2 or 3 in PS-TRE). For example, almost 80 per cent of Canadians with less than a high-school diploma and the highest levels in numeracy volunteered (Figure 2.22). Remember that these results are not age adjusted, and as such may reflect the volunteer patterns of students still enrolled in high-school—a group that includes 28 per cent of respondents with less than a high-school diploma.

**Figure 2.21 Literacy – Proportion of population aged 16 to 65 who volunteer, by age group and proficiency level, Canada, 2012**



Source: Table 2.10b

This high-skill/low-education group may also include individuals who volunteer to gain work-related skills or to build social or career-oriented networks. The trends are similar for PS-TRE.

### Effects of skills on volunteering

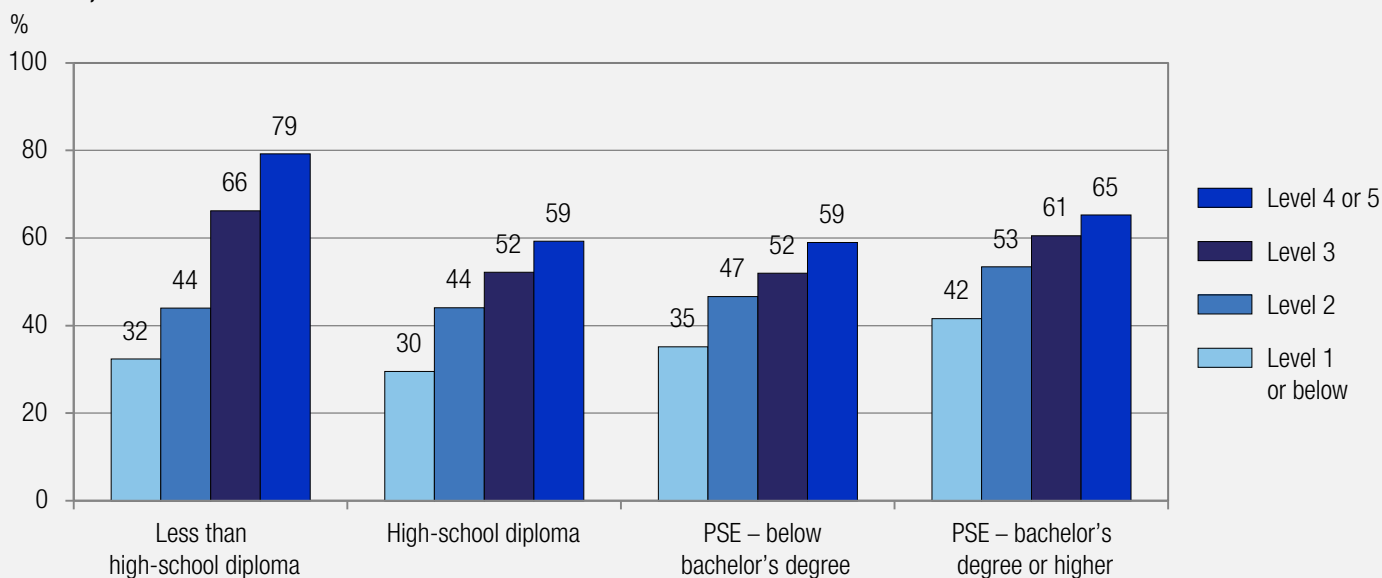
Regression analyses illustrate that higher skills proficiency is significantly associated with a greater likelihood of volunteering after adjusting for age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and language of the test (Figure 2.23). Canadians with at least Level 2 in literacy and numeracy, and Level 1 in PS-TRE, are significantly more likely to volunteer than individuals at the lowest skill levels.

Skills are most strongly associated with volunteering for those with lower levels of education—high-school diploma or less than high-school diploma (Figure 2.24). For example, at Level 4 or 5 in literacy, people who have graduated from high-school are more likely to volunteer compared to those at Level 1 or below (Odds ratio of 3.8). Similarly, people with less than a high-school diploma are also more likely to volunteer (Odds ratio of 5.1).

In comparison, those with postsecondary education – below bachelor’s degree and at Level 4 or 5 in literacy are more likely to volunteer than their counterparts with skills at Level 1 or below (Odds ratio of 3.3). Those with postsecondary education – bachelor’s degree or higher at Level 4 or 5 in literacy are more likely to volunteer than those at Level 1 or below (Odds ratio of 2.6). Patterns for numeracy and PS-TRE are similar. It may be that postsecondary education is linked to the likelihood of volunteering through its influence on opportunities to engage with professional and social networks that encourage civic engagement.

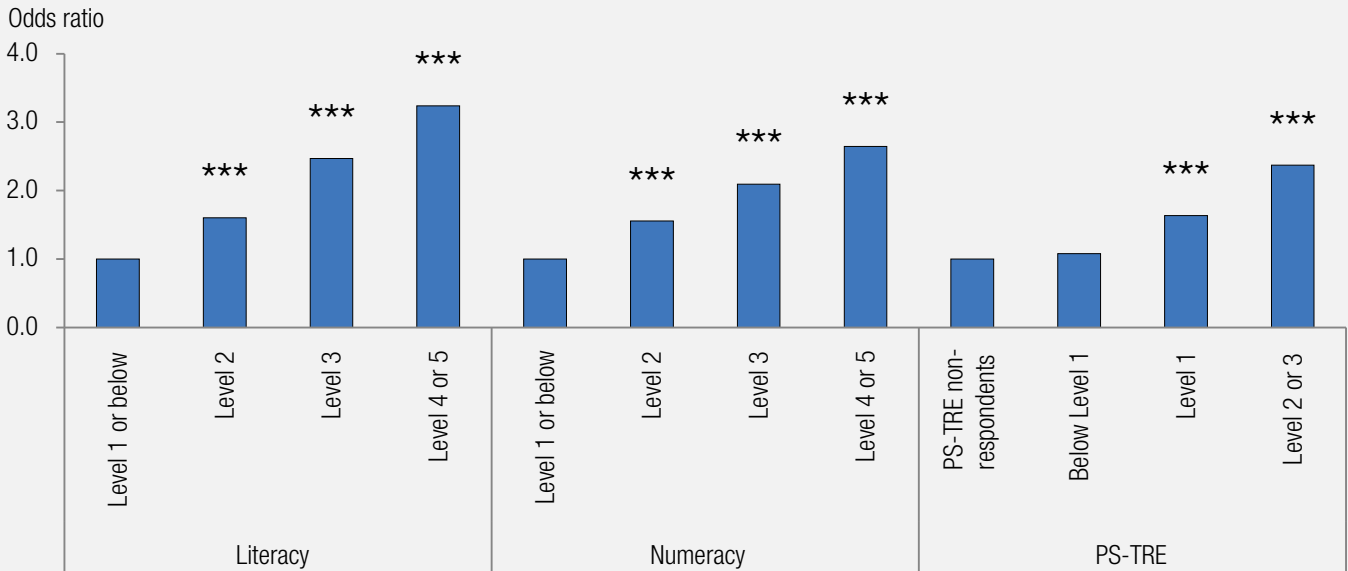
In Canada, people increasingly use the Internet to search for and perform many volunteer activities. The 2013 GSS reported that 17 per cent of all volunteers, and 26 per cent of volunteers under age 35, used the Internet to find volunteer opportunities. Similar proportions of older and younger volunteers used the Internet to perform volunteer tasks. These findings underscore the importance of further research to understand the role of PS-TRE proficiency in civic and social engagement for all age groups (Sinha, 2015).

**Figure 2.22 Numeracy – Proportion of population aged 16 to 65 who volunteer, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.10c

**Figure 2.23 Literacy, numeracy and PS-TRE – Adjusted likelihood of population aged 16 to 65 volunteering, by proficiency level, Canada, 2012**



Source: Table 2.11a

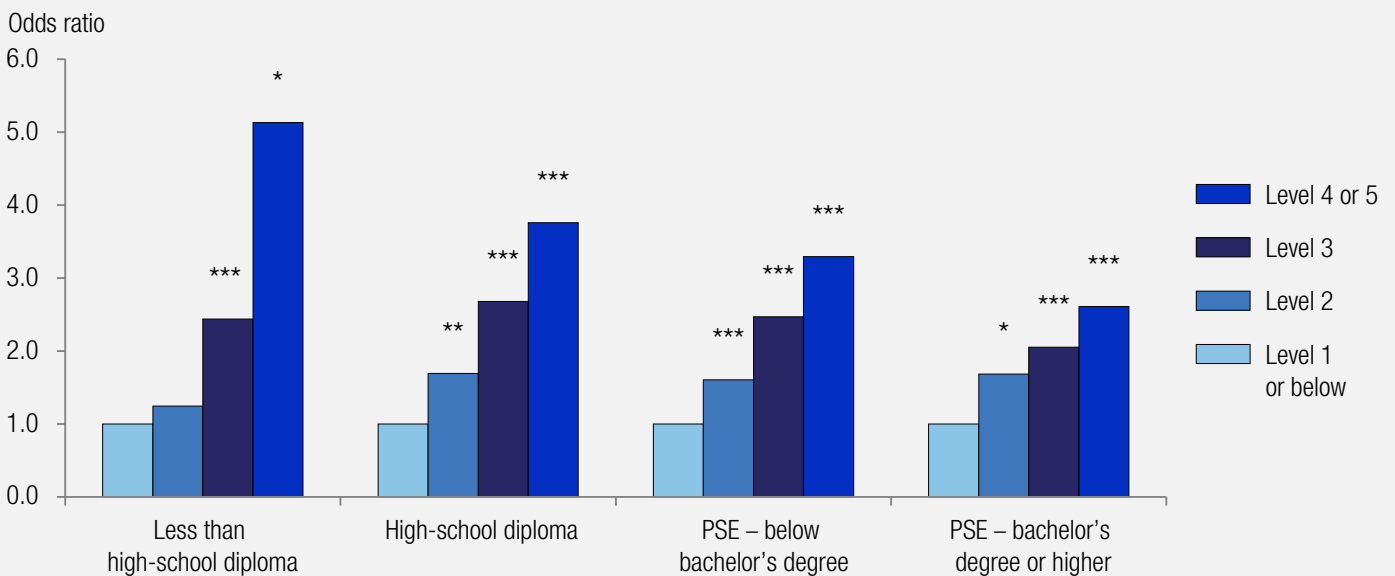
Note: Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.24 Literacy – Adjusted likelihood of population aged 16 to 65 volunteering, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.11b

Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

## Political efficacy

As Chapter 1 discussed, slightly more Canadians reported positive political efficacy (44 per cent) compared to the OECD average (42 per cent). Figure 2.25 presents results by key sociodemographic and socioeconomic variables.

### Gender

Slightly more women (46 per cent) than men (43 per cent) think they have some influence on government (Figure 2.25). This is also the case in all provinces and territories except Nunavut, where 46 per cent of men report positive political efficacy compared to 41 per cent of women. The proportion of the population reporting high political efficacy increases as literacy, numeracy, and PS-TRE skills improve. For example, 31 per cent of men and 33 per cent of women at Level 1 or below in numeracy report positive political efficacy, compared to 58 per cent of men and 64 per cent of women at Level 4 or 5 (although differences between men and women are not statistically significant at all levels of skill).

### Age

The proportion of Canadians reporting high political efficacy varies little by age group (Figure 2.25). Older

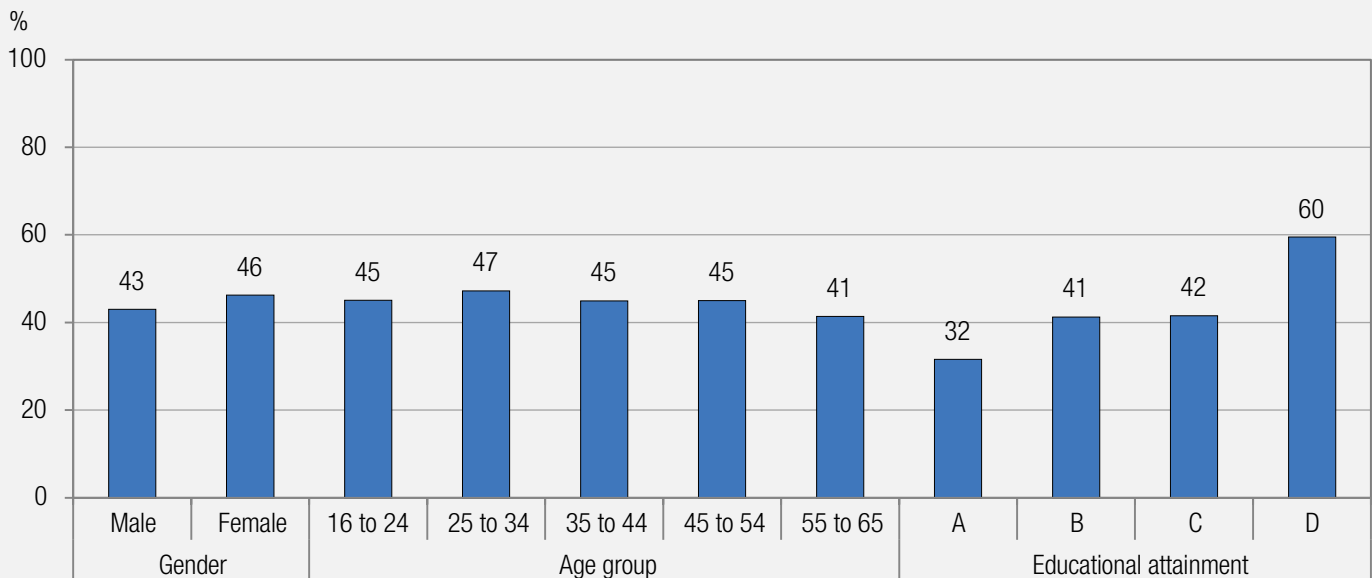
Canadians tend to feel they have less influence on government than younger Canadians, but differences are small (45 per cent for 16 to 24 year olds compared to 41 per cent of 55 to 65 year olds).

For all skill domains and age groups, the percentage of Canadians reporting positive political efficacy tends to increase as proficiency levels rise. For older Canadians, attaining at least Level 1 in PS-TRE is associated with a significant increase in political efficacy (Figure 2.26). Just over 60 per cent of individuals aged 45 to 65 report high political efficacy at Level 2 or 3.

### Educational attainment

Political efficacy tends to rise with education attainment (Figure 2.25). Among those with less than a high-school diploma, 32 per cent report positive political efficacy, compared to 60 per cent of those who have obtained a postsecondary education – bachelor's degree or higher. Particularly for those with less than a high-school diploma, greater political efficacy is reported as literacy and numeracy skills improve (Figure 2.27). At Level 4 or 5 in literacy, 67 per cent of those with less than a high-school diploma report positive political efficacy—a result comparable to those at Level 4 or 5 and with postsecondary education – bachelor's degree or higher (68 per cent). Trends for numeracy are similar.

**Figure 2.25 Proportion of population aged 16 to 65 who report positive political efficacy, by gender, age group and educational attainment, Canada, 2012**

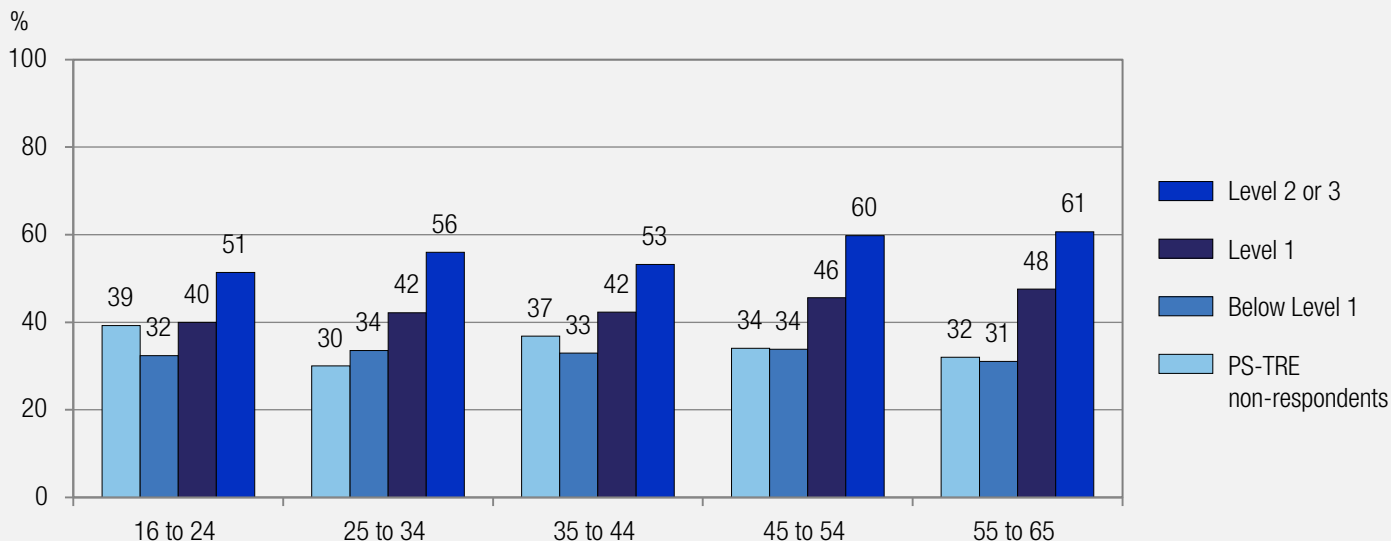


**Source:** Tables 2.2, 2.3 and 2.4

**Note:** A. Less than high-school diploma  
C. PSE – below bachelor's degree

B. High-school diploma  
D. PSE – bachelor's degree or higher

**Figure 2.26 PS-TRE – Proportion of population aged 16 to 65 who report positive political efficacy, by age group and proficiency level, Canada, 2012**



Source: Table 2.12b

Unadjusted results suggest that PS-TRE skills do not modify the relationship between education attainment and political efficacy. At all skill levels, a higher percentage of those with a postsecondary education – bachelor’s degree or higher report positive political efficacy compared to all other Canadians. However, a more complex picture emerges from the results of regression analyses.

### Effects of skills on political efficacy

Skills are positively associated with positive political efficacy. Attaining at least Level 2 in literacy or numeracy, or at least Level 1 in PS-TRE, is associated with higher odds of reporting positive political efficacy, compared to those at the lowest proficiency levels (Figure 2.28).

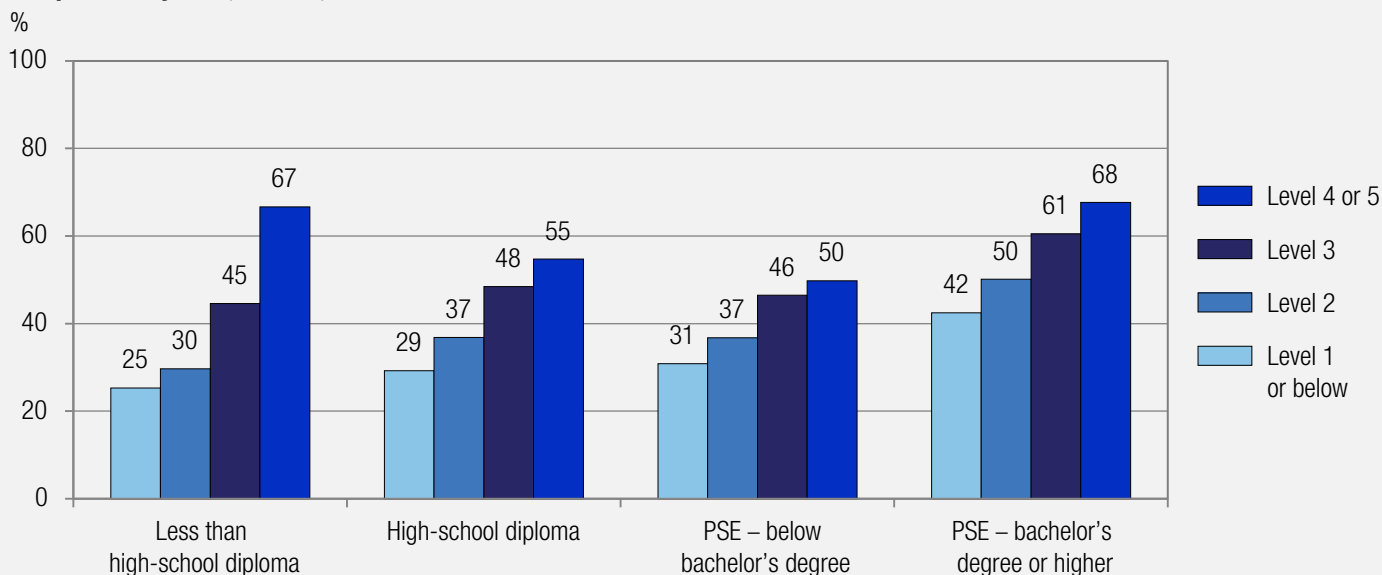
Within each level of educational attainment, increases in skills proficiency are positively associated with the likelihood of reporting positive political efficacy (Figure 2.29). This relationship is stronger for those who have less than a high-school diploma and those with a high-school diploma. For example, at Level 3 in literacy, people with less than a high-school diploma and those who have a high-school diploma are more likely to believe they can influence government than those at Level 1 or below (Odds ratios of 2.2 and 2.4 respectively).

For those with postsecondary education – below bachelor’s degree, attaining at least Level 2 in literacy is associated with significantly higher odds of reporting high political efficacy. Those with postsecondary education – bachelor’s degree or higher are more likely to report high political efficacy at Level 3 or above (Figure 2.29).

For PS-TRE (Figure 2.30), results from regression analyses suggest that relationships between skills and political efficacy vary. Obtaining the highest levels in PS-TRE is associated with a greater likelihood of reporting positive political efficacy at all levels of education. Among those with a high-school diploma or postsecondary education – below bachelor’s degree, those who score at least at Level 1 are more likely to report high political efficacy. These results may suggest that PS-TRE skills moderate the relationship between education and political efficacy—lower level of educational attainment does not necessarily prevent individuals from feeling that they have an influence on government actions and participating in political activities.

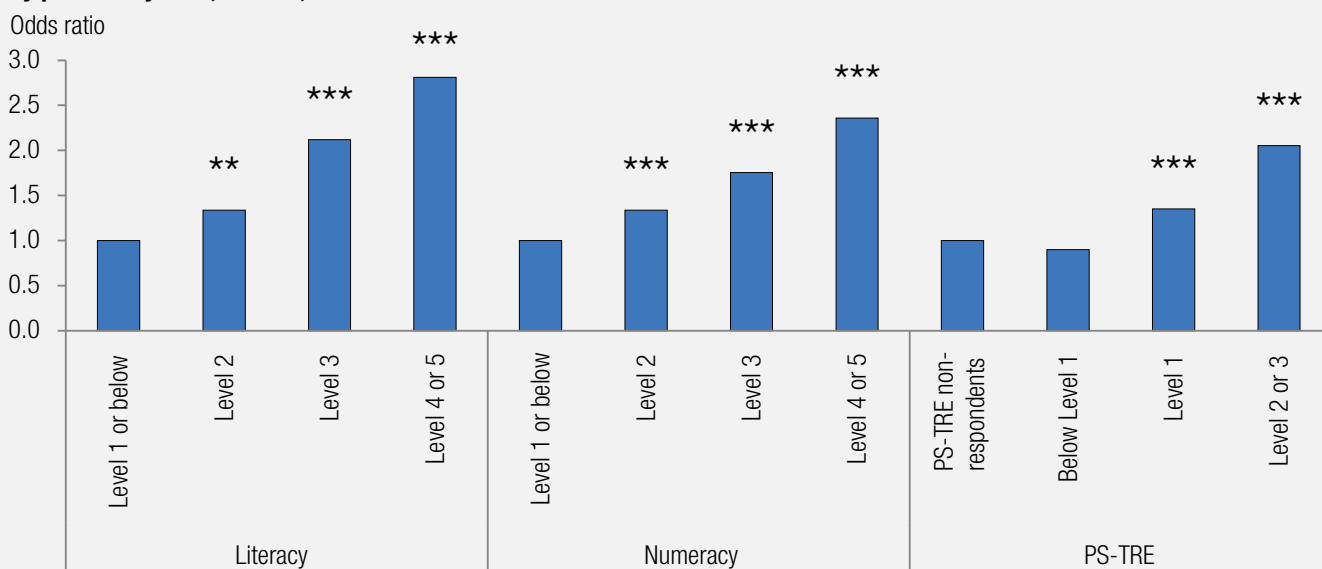


**Figure 2.27 Literacy – Proportion of population aged 16 to 65 who report positive political efficacy, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.12c

**Figure 2.28 Literacy, numeracy and PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting positive political efficacy, by proficiency level, Canada, 2012**



Source: Table 2.13a

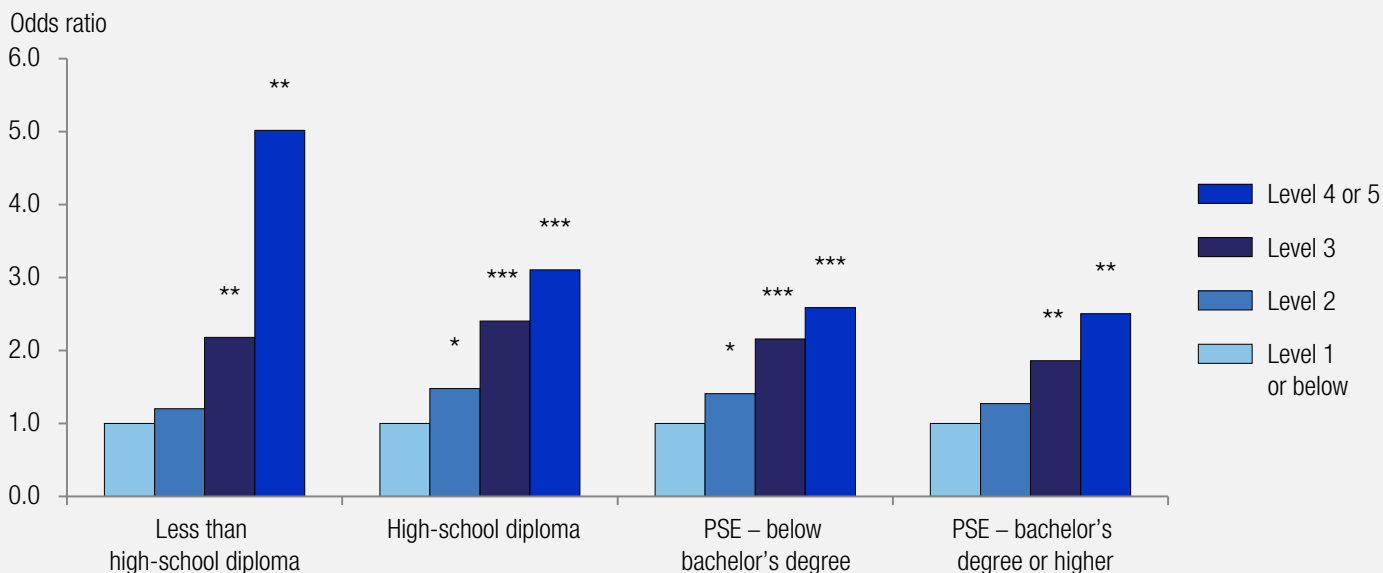
**Note:** Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.29 Literacy – Adjusted likelihood of population aged 16 to 65 reporting positive political efficacy, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.13b

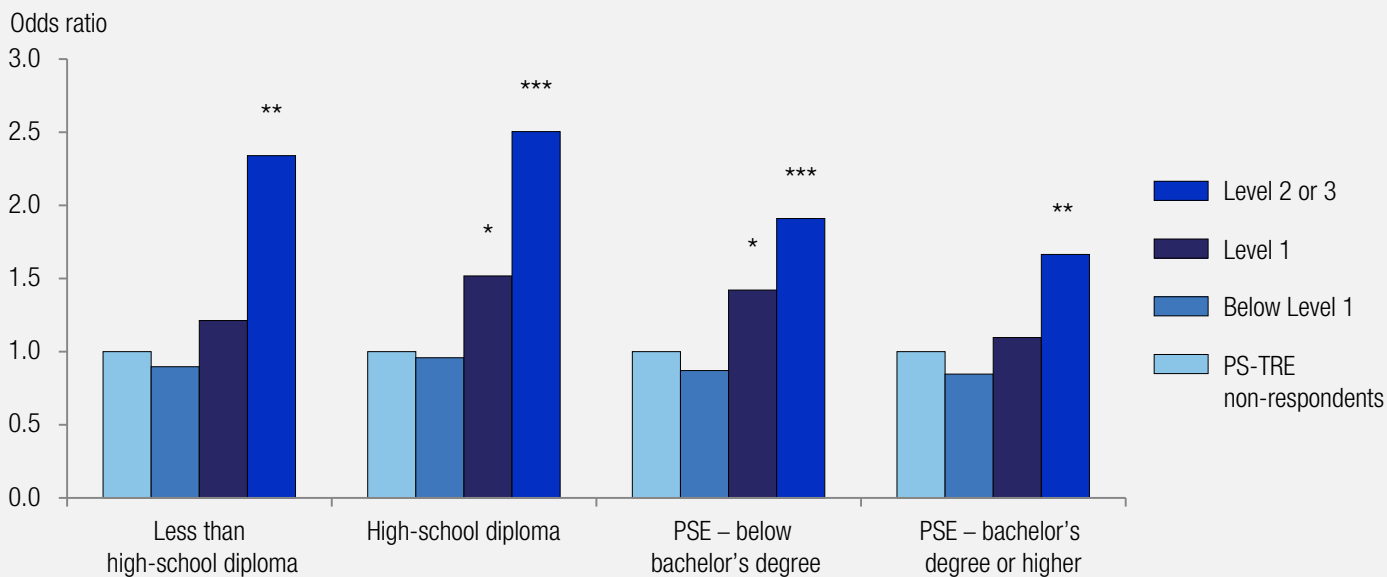
Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 2.30 PS-TRE – Adjusted likelihood of population aged 16 to 65 reporting positive political efficacy, by educational attainment and proficiency level, Canada, 2012**



Source: Table 2.13b

Note: Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

## Summary

PIAAC data demonstrate that people with strong information-processing skills are more likely to report positive health, trust, volunteering, and political efficacy than those with lower skills. These relationships hold even after controlling for age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and language of the test.

Within each of the four levels of educational attainment considered: less than high-school diploma; high-school diploma; postsecondary education – below bachelor’s degree; and postsecondary education – bachelor’s degree or higher, having better skills is associated with greater odds of reporting positive health and social outcomes. Although health and social outcomes generally improve as educational attainment increases, skills modify these relationships. Higher educational attainment is not strongly associated with positive health and social outcomes when proficiency in information-processing skills is low. Conversely, when proficiency levels are high, there is a strong likelihood of reporting positive health and social outcomes, even for those who have less than a high-school diploma. While there are many contextual factors beyond skills that likely influence health and social outcomes, these results suggest that stronger literacy, numeracy, and PS-TRE skills could help to narrow gaps in outcomes between certain populations and help older Canadians maintain good health and participate more fully in their communities.





## CHAPTER 3

# HEALTH AND SOCIAL OUTCOMES OF INDIGENOUS PEOPLES AND IMMIGRANTS TO CANADA

PIAAC provides information on the skills and health and social outcomes of certain population groups that are of particular interest in the Canadian context. This chapter explores results for two of these groups: Indigenous peoples and immigrants to Canada.

## Indigenous peoples

In the 2011 National Household Survey (NHS), about 3 per cent of the Canadian population aged 16 to 65 reported an Indigenous identity, not including First Nations peoples living on reserve. Most Indigenous peoples reside in Ontario and the western provinces, but it is in the territories that their proportion of the population between ages 16 and 65 is highest—81 per cent in Nunavut, 46 per cent in the Northwest Territories, and 21 per cent in Yukon (Statistics Canada et al., 2013).

The word *Indigenous* groups together the diverse people who inhabited North America prior to the arrival of Europeans, and includes First Nations, Inuit, and Métis. Indigenous respondents sampled in PIAAC include First Nations people living off-reserve (48 per cent of Indigenous respondents), Métis (44 per cent), and Inuit (5 per cent).<sup>18</sup> Given the geographic distribution of Indigenous peoples across Canada, oversampling of these respondents was undertaken in Ontario, Manitoba, Saskatchewan, and British Columbia for those living in large urban centres. Additional sampling was also completed in the Yukon, Northwest Territories, and Nunavut—jurisdictions with the largest proportions of Indigenous peoples.

Indigenous peoples in Canada have distinct histories, cultures, and languages and reside in a broad range of remote, rural, and urban settings. There are a number of important sociodemographic and socioeconomic differences among Indigenous peoples, and between Indigenous peoples and the non-Indigenous population in Canada, some of which are associated with skills proficiency. For example, Indigenous populations are younger, and both educational attainment and employment rates tend to be lower in these populations compared to non-Indigenous populations (Statistics Canada et al., 2013). In combination with historical experiences—including the ongoing implications of colonization—these factors are closely connected to the health and social outcomes reported by Indigenous peoples in Canada.

<sup>18</sup> An additional 1 per cent reported multiple Indigenous identities, and 2 per cent reported Indigenous identities not included elsewhere (Statistics Canada, 2013, p. 42). This report does not disaggregate data on Indigenous respondents because of limitations created by sample sizes within these populations.

According to the Pan-Canadian PIAAC Report, results show that at the national level, Indigenous peoples score lower in literacy and numeracy than the non-Indigenous population.<sup>19</sup> However, preliminary results suggest that at higher levels of education, differences in proficiency between Indigenous and non-Indigenous populations are “all but eliminated” (Statistics Canada et al., 2013, p. 46). A larger proportion of Indigenous peoples score at Level 1 and below for literacy and numeracy, and a smaller proportion score at Level 4 or 5. Differences in PS-TRE proficiency are varied. At the pan-Canadian level, a smaller proportion of Indigenous peoples score at Level 2 or 3 in PS-TRE compared to the non-Indigenous population (Statistics Canada et al., 2013).

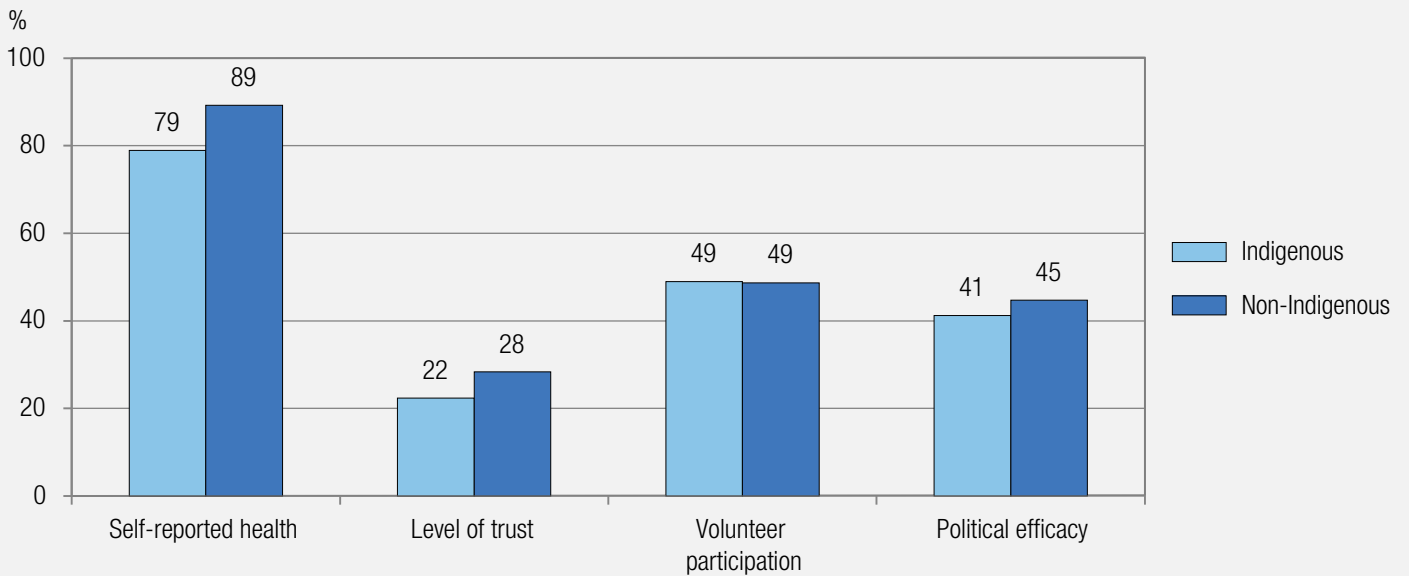
PIAAC results also indicate that a smaller proportion of Indigenous peoples report positive outcomes for self-reported health, trust, and political efficacy, compared to the non-Indigenous population (Figure 3.1). Almost 79 per cent of Indigenous peoples report excellent to good health, compared to 89 per cent of the non-Indigenous population. Twenty-two percent of those who identify as Indigenous report trusting more people, compared to 28 per cent of the non-Indigenous population. Comparable figures for political efficacy are 41 per cent versus 45 per cent. There is no difference in the proportion of Indigenous versus non-Indigenous populations reporting participation in volunteer activities (49 per cent). The results for volunteering may reflect a tradition of social responsibility inherent in Indigenous cultures and values, even though the term *volunteer* does not exist in most Indigenous languages (NWAC, 2011, p. 4). These results should be interpreted in the context of historical and contemporary experiences of colonization and social and economic exclusion, as confronted by Indigenous peoples.

### Self-reported health

As Figure 3.2 indicates, Indigenous peoples generally do not enjoy as good health as the non-Indigenous population, although there have been improvements in recent decades (PHAC, 2008). The poorer health outcomes experienced by Indigenous peoples compared to pan-Canadian averages can be largely attributed to “the social, economic, cultural and political factors that have shaped, and continue to shape, their lives ... They also face considerable barriers in addressing their health issues, such as geographic, educational, and economic barriers” (NCCA, 2012, p. 29).

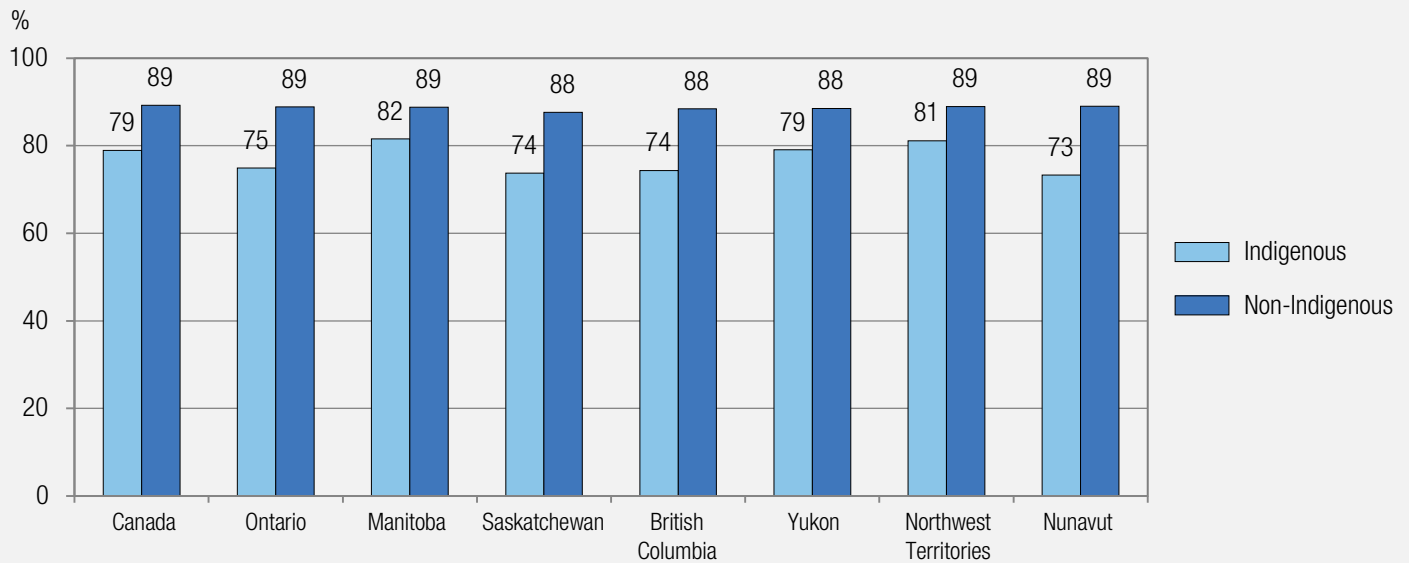
<sup>19</sup> A general overview of Indigenous skills can be found in the pan-Canadian report, “Skills in Canada: First Results from the Programme for the International Assessment of Adult Competencies (PIAAC)” at <http://www.cmec.ca/Publications/Lists/Publications/Attachments/315/Canadian-PIAAC-Report.EN.pdf>.

**Figure 3.1 Proportion of population aged 16 to 65 who report positive health and social outcomes, by Indigenous identification, Canada, 2012**



Source: Table 3.1

**Figure 3.2 Proportion of population aged 16 to 65 who report excellent, very good or good health, by Indigenous identification, Canada and oversampled populations, 2012**



Source: Table 3.1

As is the case for the non-Indigenous population, higher skills are associated with better self-reported health for Indigenous peoples (Figure 3.3). As literacy, numeracy, and PS-TRE skills improve, so do the proportions of Indigenous peoples reporting excellent, very good or good health. The gap in self-reported health between Indigenous and non-Indigenous populations narrows as skills improve. At Level 4 or 5 in literacy and numeracy, there is no statistically significant difference in outcomes between the two populations (Figure 3.3). For PS-TRE, the gap narrows as proficiency increases, but not to the same degree.

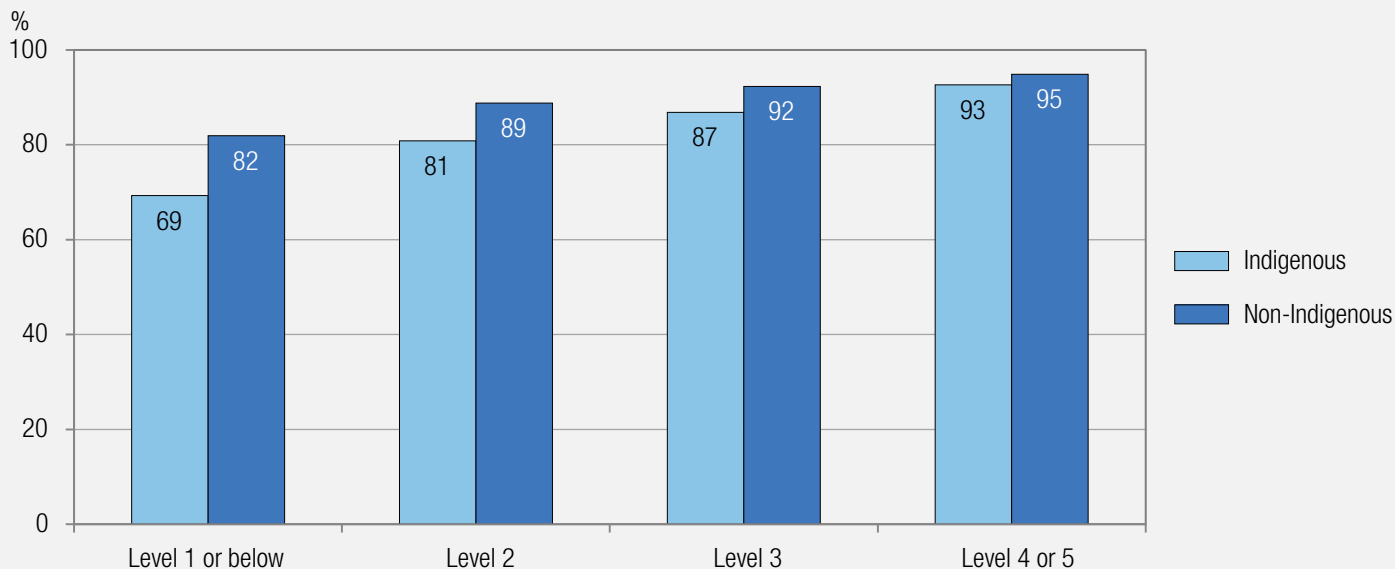
### Trust

Indigenous peoples generally report lower levels of trust than the non-Indigenous population, but there is significant variation across provinces and territories (Figure 3.4). Levels of trust among Indigenous peoples in Manitoba and the three territories are especially low, both compared to other provinces, and compared to levels of trust displayed by the non-Indigenous population within these provinces and territories. In

Nunavut, for example, only 16 per cent of Indigenous peoples report positive trust, compared to 40 per cent of the non-Indigenous population. Lower levels of trust among Indigenous peoples may be driven by cultural, historical, and socioeconomic factors that influence the ways in which trust is interpreted, defined, and experienced—including the social and economic exclusion and discrimination that is part of the legacy of Canada’s history of colonization. Further research to assess the factors that affect trust would help to build our understanding of the experiences of both Indigenous and non-Indigenous populations.

Differences in trust between Indigenous and non-Indigenous populations are small when assessed by literacy and numeracy proficiency. However, there is a widening gap across PS-TRE levels, with differences between the two populations reaching statistical significance at Level 1 and Level 2 or 3 (28 per cent for Indigenous populations, 35 per cent for the non-Indigenous population) [Figure 3.5].

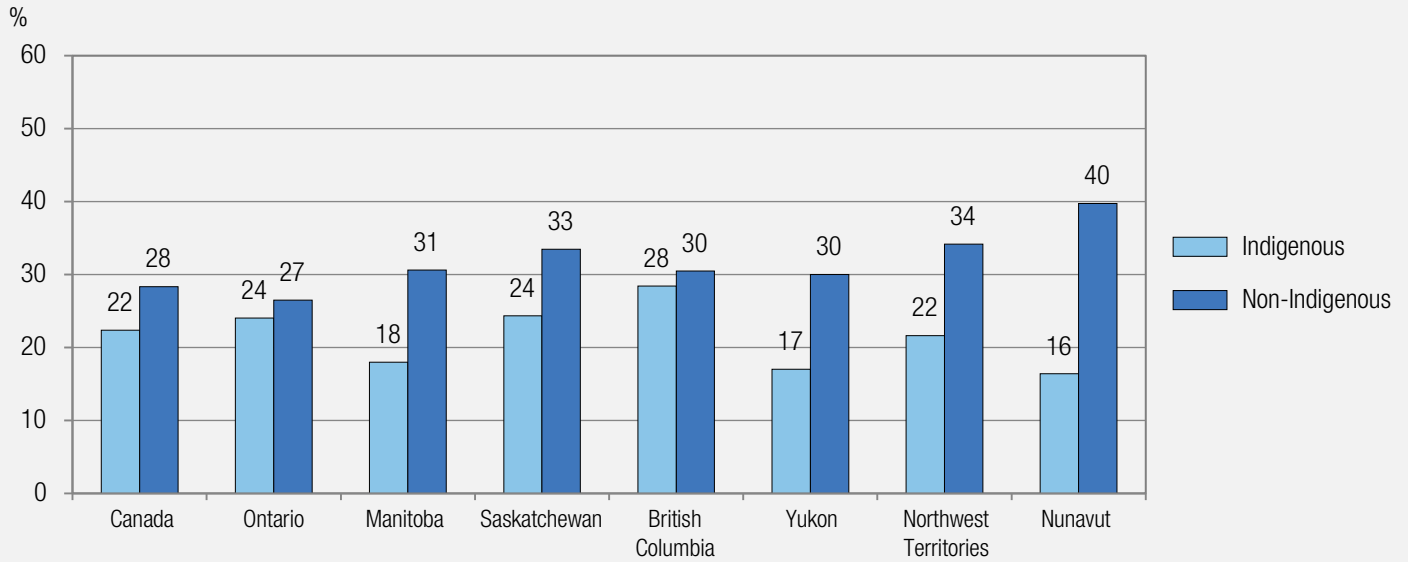
**Figure 3.3 Numeracy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by Indigenous identification and proficiency level, Canada, 2012**



Source: Table 3.2a

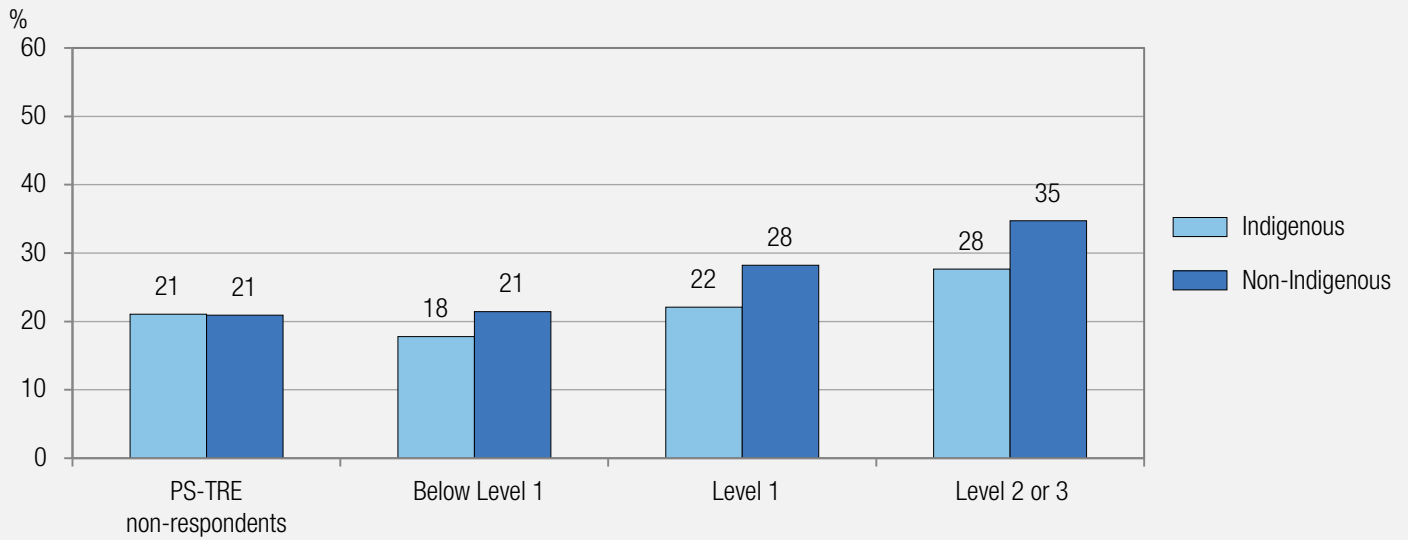


**Figure 3.4 Proportion of population aged 16 to 65 who report positive level of trust, by Indigenous identification, Canada and oversampled populations, 2012**



Source: Table 3.1

**Figure 3.5 PS-TRE – Proportion of population aged 16 to 65 who report positive level of trust, by Indigenous identification and proficiency level, Canada, 2012**



Source: Table 3.2b

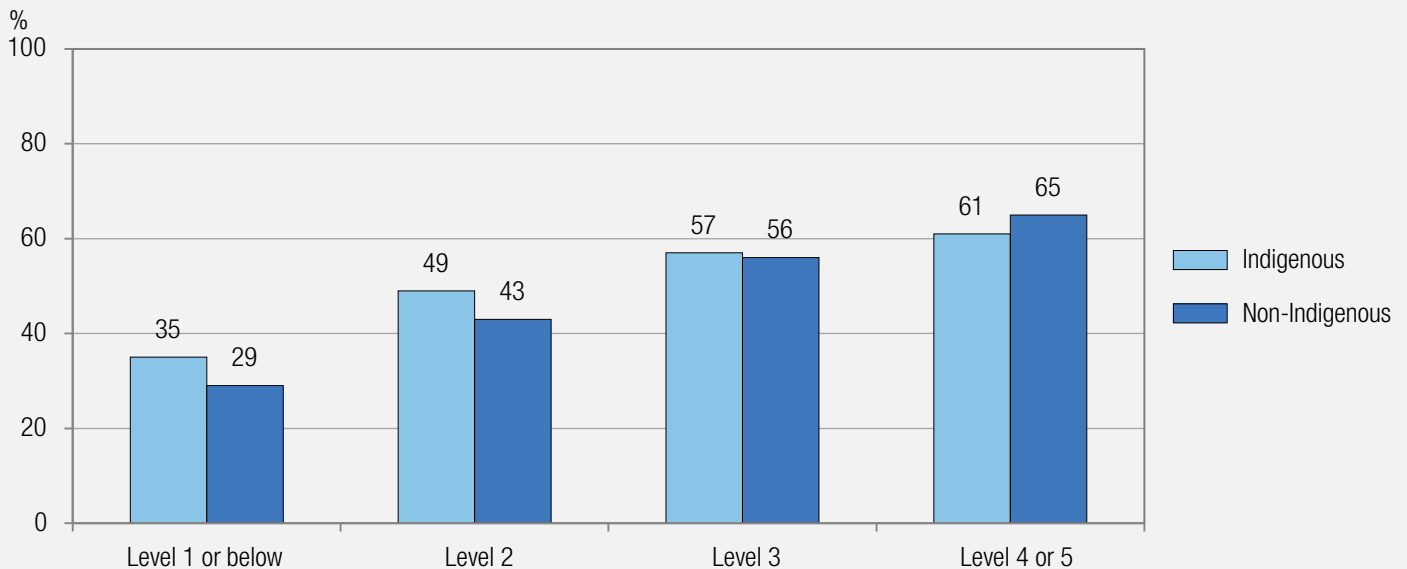
## Volunteering

Differences in volunteerism among Indigenous and non-Indigenous peoples vary somewhat across provinces and territories, mostly as a result of rates of volunteering by the non-Indigenous population. Across all jurisdictions, 48 to 58 per cent of Indigenous peoples volunteer, whereas the proportions of the non-Indigenous population who volunteer range from 50 per cent in Ontario to 71 per cent in Nunavut. The size of the gap in volunteering between Indigenous and non-Indigenous populations varies accordingly, with the largest differences found in Yukon (48 per cent of

Indigenous populations versus 69 per cent of the non-Indigenous population), the Northwest Territories (58 per cent versus 69 per cent), and Nunavut (49 per cent versus 71 per cent).

As skills improve, participation in volunteer activities increases for both Indigenous peoples and the non-Indigenous population. Thirty-five per cent of Indigenous peoples at Level 1 or below in literacy volunteer, increasing to 61 per cent at Level 4 or 5 (Figure 3.6).

**Figure 3.6 Literacy – Proportion of population aged 16 to 65 who volunteer, by Indigenous identification and proficiency level, Canada, 2012**



Source: Table 3.2c

## Political efficacy

It is important to ground any discussion of Indigenous political engagement in Canada's historical and social context, and the continuing limitations placed on First Nations people by the *Indian Act*. At the federal level, Status Indians were not extended an unconditional right to vote until 1960; at the provincial level, jurisdictions granted voting rights between 1949 and 1969. The process and outcomes of experiences like treaty negotiations and residential schools left Indigenous peoples both "stigmatised by, and alienated from ... [the Canadian] political apparatus" (CRIC, 2005, p. 9). Along with ongoing social and economic disparities between Indigenous peoples and the overall population, these experiences may contribute to "attitudes that include negativity, cynicism, and detachment" (ibid.).

Historically, voter turnout in federal and provincial/territorial elections has been lower among Indigenous peoples than in the overall population, though trends do vary considerably across jurisdictions and locations (Fournier & Loewen, 2011). Turnout for elections in Indigenous communities can be much higher, exceeding 95 per cent in some First Nations communities (Ladner & McCrossan, 2007). Membership in political parties is at historically low levels in Canada overall, and tends to be even lower among Indigenous populations. Research that seeks to explain these trends is limited, and requires further development.

Civic or political engagement can also include a range of informal political activities outside of formal government processes, such as protests and demonstrations, organizing meetings, signing petitions, and engaging in activism, boycotts, and dialogue. These activities are more common among younger demographics, as well as among people who do not see themselves as connected to government. This demographic includes Canada's disproportionately youthful Indigenous populations (O'Neill, 2007).

PIAAC results indicate that Indigenous peoples are somewhat less likely to report positive political efficacy (41 per cent) compared to the non-Indigenous population (45 per cent). Results are similar across all provincial and territorial jurisdictions. As noted earlier, there is little Canadian context that can be provided for these findings because the specific concept of political efficacy is not measured in other surveys.

As skills improve, proportions of both Indigenous and non-Indigenous populations who believe that they have an influence on government increase. Notably,

differences between the two populations at each skill level are not statistically significant. When literacy proficiency rises to Level 3, for example, half of both Indigenous and non-Indigenous populations think that they have an influence on government.

## The effect of skills on health and social outcomes for Indigenous populations

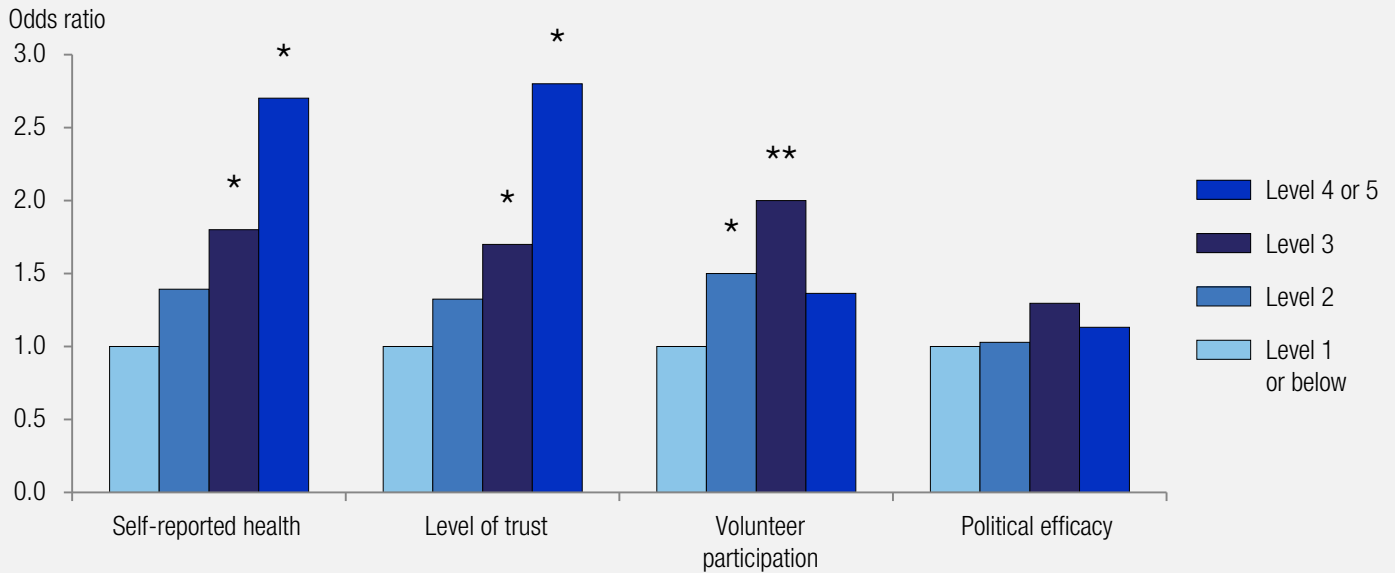
Skills have an independent effect on the health and social outcomes of Indigenous peoples in Canada. Higher proficiency levels are associated with a greater likelihood of positive self-reported health, trust, and volunteering after controlling for age, gender, educational attainment, employment status, and language of the test. Regression analyses find no significant effect on political efficacy.

The positive effect of skills is most notable for numeracy (Figure 3.7). As numeracy skills increase, Indigenous peoples are more likely to report positive health, trust, and volunteering. Indigenous peoples at Level 4 or 5 in numeracy are more likely to report excellent, very good or good health compared to those at Level 1 or below (Odds ratio of 2.7). The same is true for trust. For volunteering, the effect of skills is significant at Level 2 (Odds ratio of 1.5), and Level 3 (Odds ratio of 2.0).

Literacy skills also appear to have an important effect on trust and volunteering for Indigenous peoples (Figure 3.8). Significant effects on the likelihood of reporting positive trust were apparent for those with higher levels in literacy (Levels 3 and Level 4 or 5). For volunteering, Indigenous peoples at Level 2 or above in literacy were more likely to volunteer than those at Level 1 or below.

Higher levels of PS-TRE skills did not make a significant difference on the likelihood of reporting positive health and social outcomes for Indigenous peoples, except for volunteering. Indigenous peoples at Level 1 and Level 2 or 3 in PS-TRE were more likely to participate in volunteer activities as PS-TRE non-respondents (Odds ratio of 2.1 and 2.2 respectively).

**Figure 3.7 Numeracy – Adjusted likelihood of Indigenous populations aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



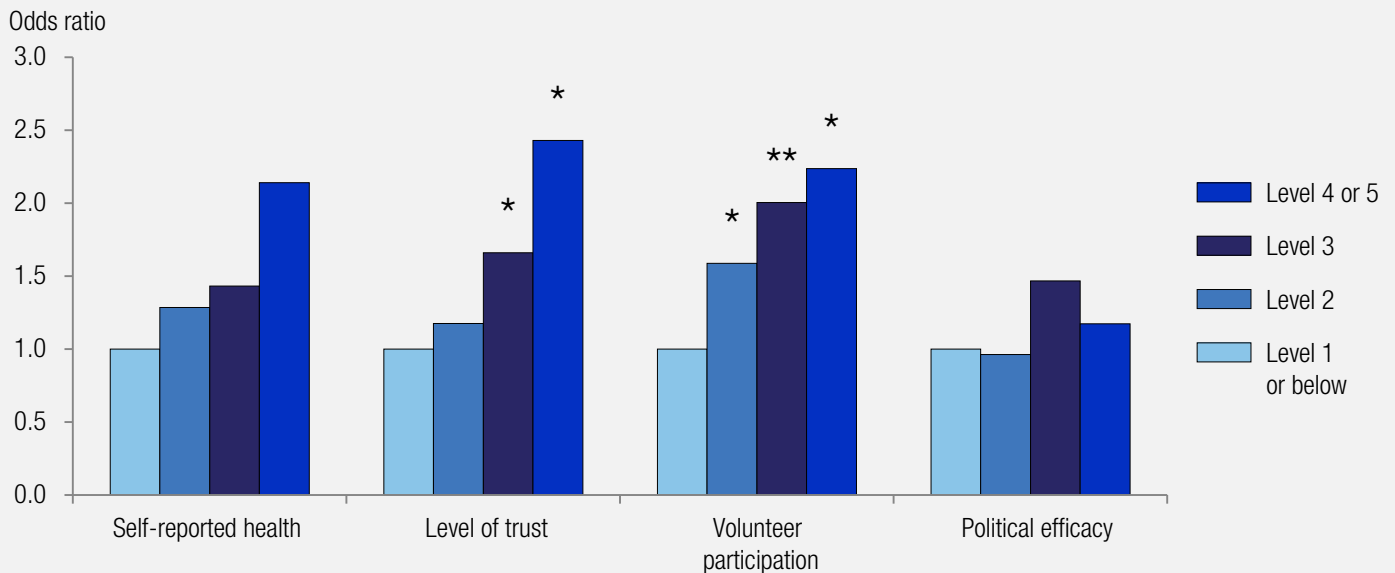
**Source:** Table 3.3

**Note:** Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

**Figure 3.8 Literacy – Adjusted likelihood of Indigenous populations aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 3.3

**Note:** Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

## ***Immigrants to Canada***

According to the 2011 NHS, foreign-born individuals accounted for 22 per cent of the Canadian population aged 16 to 65 (Statistics Canada et al., 2013), and 21 per cent of the total population—the highest proportion among the G8 countries (Statistics Canada et al., 2013). A majority of Canada's foreign-born population live in four provinces: Ontario, British Columbia, Quebec, and Alberta. Most live in the largest urban centres.

This study defines immigrants as people who are, or have been at some point, landed immigrants or permanent residents in Canada (including people who have come to Canada as refugees). Those who landed in Canada as permanent residents between 2002 and 2012 are considered recent immigrants, while those who landed before 2002 are referred to as established immigrants. PIAAC sampled immigrants across the country, and oversampled for immigrants in Ontario, British Columbia, and Quebec—the provinces that account for 85 per cent of Canada's immigrant population.

Recent and established immigrants differ in a number of respects—and both groups differ from the Canadian-born. Many of these sociodemographic and socioeconomic differences tend to be associated with skills proficiency, including age, education, and language skills. For example, although most immigrants have a mother tongue other than English or French, recent immigrants are less likely to be able to speak an official language than established immigrants (Statistics Canada et al., 2013). Results from the Pan-Canadian PIAAC report show that immigrants also tend to be more educated than their Canadian-born counterparts. Recent immigrants in particular are much more likely to have completed postsecondary education, and much less likely to have a high-school diploma or less than a high-school diploma (Statistics Canada et al., 2013). Established immigrants tend to be older than the Canadian-born, and recent immigrants tend to be younger (Statistics Canada et al., 2013).

The fact that significant proportions of immigrants may not have English or French as a mother tongue likely influences the results that PIAAC obtained, given that the survey was administered in only these languages. For many immigrants whose mother tongue is neither English nor French, test results may therefore be more indicative of low proficiency in the official language rather than low proficiency in literacy, numeracy, and PS-TRE. However, it is important to assess proficiency in English or French because these are the languages

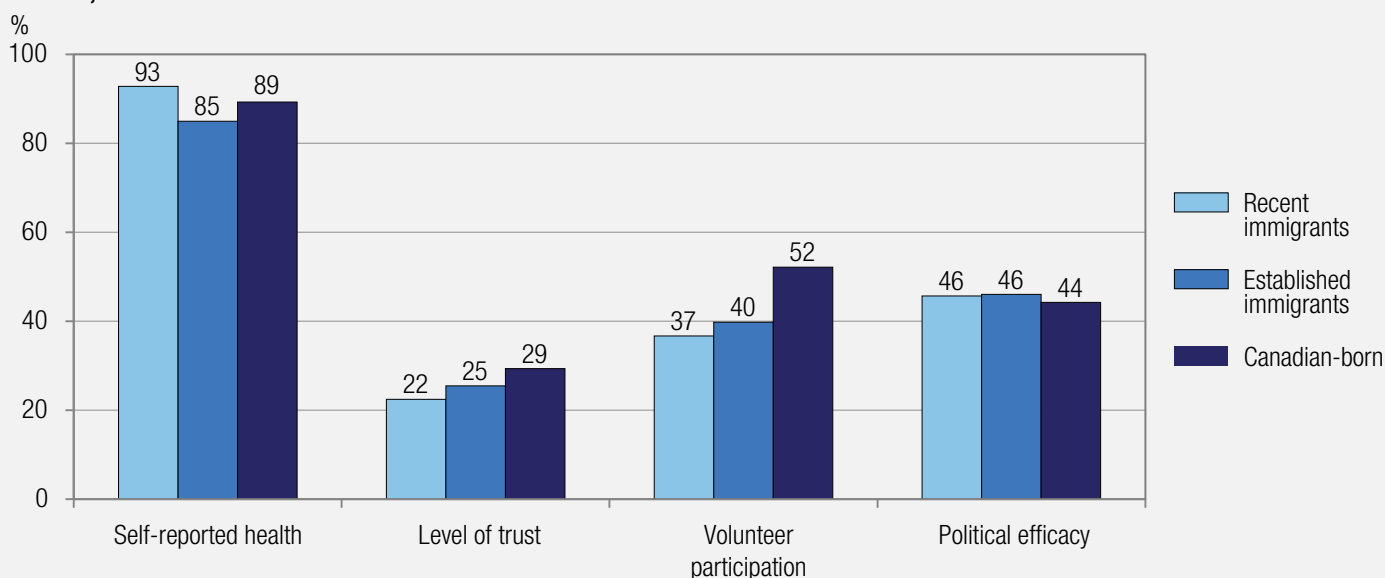
most commonly used in Canada. According to the 2011 NHS, almost 99 per cent of Canadian workers use either one or both official language in the workplace (Statistics Canada et al., 2013). English and/or French language proficiency is therefore important from the standpoint of supporting full participation in the Canadian economy and society.

On average, recent and established immigrants have similar proficiency levels in all three information-processing skills. However, both tend to score below the Canadian-born. For example, more than one-quarter of recent and established immigrants have literacy proficiency at Level 1 or below, almost double the corresponding percentage for those born in Canada. Smaller proportions of immigrants than the Canadian-born obtain Level 4 or 5 in literacy and numeracy (Statistics Canada et al., 2013).

PS-TRE results for immigrants to Canada are complicated by relatively high rates of nonparticipation in this portion of the assessment. Compared to 14 per cent of the Canadian-born, 23 per cent of recent immigrants and 27 per cent of established immigrants did not complete the computer-based PS-TRE assessment. This may be because of challenges with English or French, or the older age profile of established immigrants. For immigrants who did complete the PS-TRE assessment, only 26 per cent scored at the highest level of PS-TRE proficiency, compared with 41 per cent of the Canadian-born.

Health and social outcomes vary not only between immigrants and the Canadian-born but also between recent and established immigrants (Figure 3.9).

**Figure 3.9 Proportion of population aged 16 to 65 who report positive health and social outcomes, by immigrant status, Canada, 2012**



Source: Table 3.4

### Self-reported health

Almost 93 per cent of recent immigrants report positive health, compared to 89 per cent of the Canadian-born, and 85 per cent of established immigrants. Results are similar across all provincial and territorial jurisdictions. It is well documented in Canada that recent immigrants benefit from a “healthy immigrant effect.” This health advantage is believed to stem from the selective nature of the international migration processes. Healthy individuals are more likely to pursue migration, and immigrant-receiving states like Canada tend to create admission policies with criteria that correlate to better health—for example, more education or work experience, or specific skills that contribute to labour market success following migration (Vang et al., 2015).

The percentage of recent immigrants, established immigrants, and the Canadian-born reporting positive health rises with each increase in skills proficiency. For example, there are significant increases in positive health for both established and recent immigrants when they move from Level 1 to Level 2 in literacy (Figure 3.10). Among all three groups, self-reported health tends to be worse for those below Level 3 in literacy.

PIAAC data suggest that the influence of the “healthy immigrant effect” is not as apparent at higher skill levels. As Figure 3.10 indicates, differences in the proportion

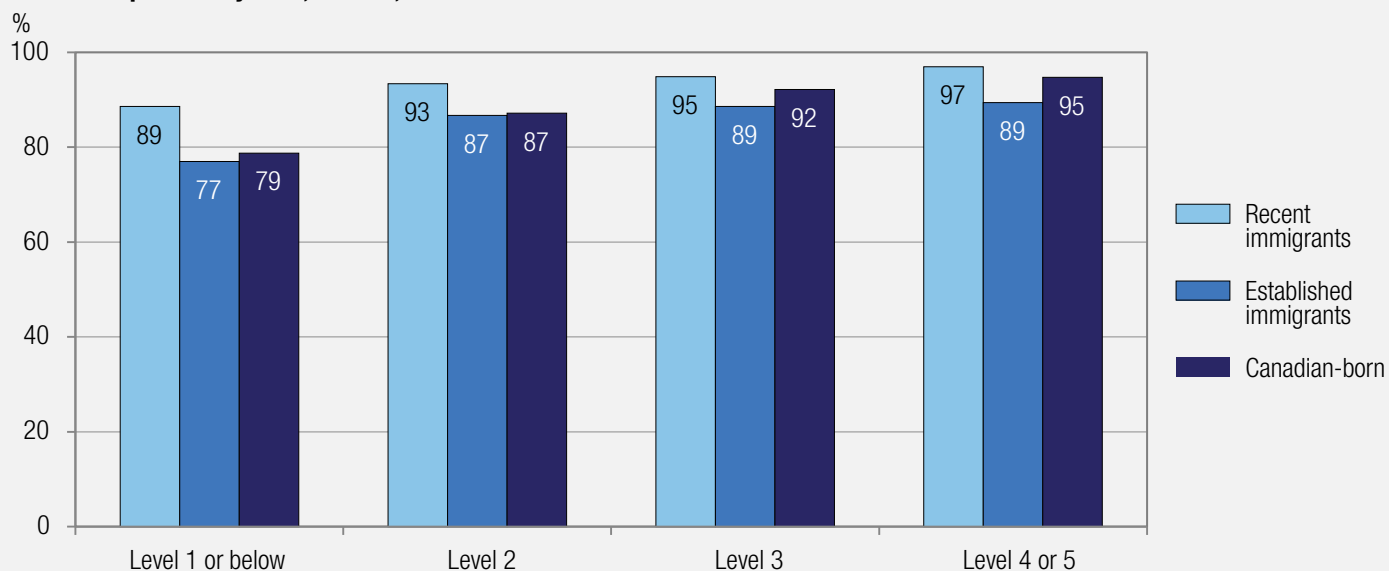
of recent immigrants compared to the Canadian-born reporting excellent, very good or good health narrow at Level 3 and Level 4 or 5 in literacy.

### Trust

PIAAC data indicate that people born in Canada have higher levels of trust than both recent and established immigrants. Just over 29 per cent of the Canadian-born report trusting more than a few people, compared to 22 per cent of recent immigrants and 25 per cent of established immigrants. (Differences between the two immigrant populations are not statistically significant.) Results are similar in Ontario. Some other studies also reach similar conclusions about trust levels among immigrant populations in Canada (Kazemipur, 2006).

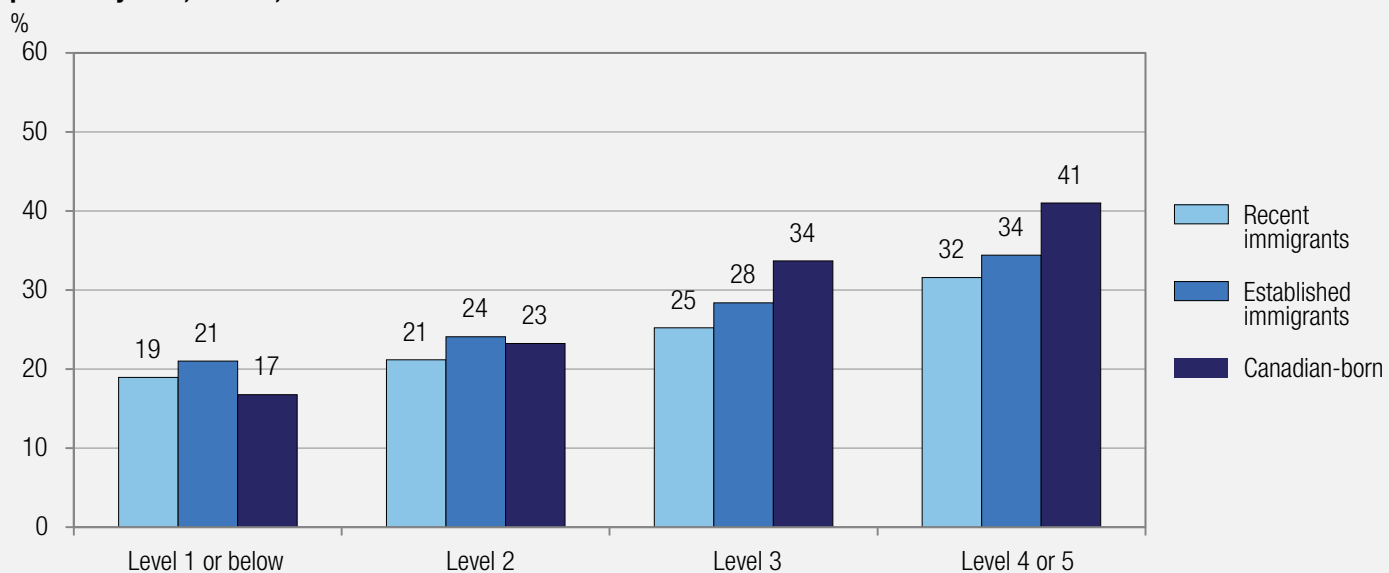
As Figure 3.11 shows, levels of trust tend to increase among immigrants and the Canadian-born as literacy, numeracy, and PS-TRE skills improve. Differences between the two immigrant populations and the Canadian-born are minimal (and not statistically significant) at lower skill levels, but tend to widen as literacy skills improve.

**Figure 3.10 Literacy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by immigrant status and proficiency level, Canada, 2012**



Source: Table 3.5a

**Figure 3.11 Literacy – Proportion of population aged 16 to 65 who report positive level of trust, by immigrant status and proficiency level, Canada, 2012**



Source: Table 3.5b

## Volunteering

A higher proportion of the Canadian-born (52 per cent) volunteer compared to established immigrants (40 per cent) and recent immigrants (37 per cent). Results are similar across all oversampled provinces, except in Quebec where an equal proportion of established immigrants volunteer compared to the Canadian-born. These findings are consistent with other research (Thomas, 2012). They may be a result of the fact that immigrants come from diverse cultural and social traditions that include different attitudes and norms about volunteering. There are also barriers to volunteering for immigrant populations that can include limited proficiency in official languages, a lack of Canadian experience, and limited social networks. Although both immigrant populations and the Canadian-born identify a lack of time as a key barrier to volunteerism, immigrants are slightly more likely to cite time constraints. Recent immigrants adjusting to a new community, culture, and labour market may face additional time pressures (Thomas, 2012).

As literacy proficiency improves for both immigrant populations and the Canadian-born, volunteering also tends to increase (Figure 3.12). The same pattern is observed for numeracy and PS-TRE. At all levels in numeracy, a significantly greater proportion of the

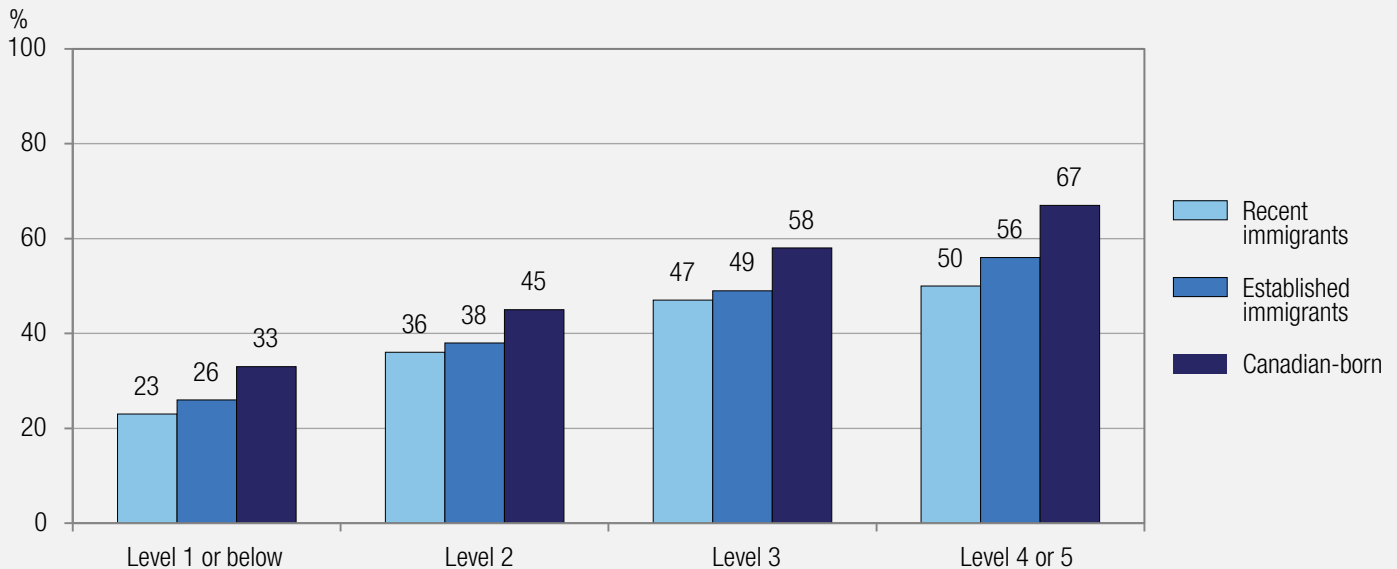
Canadian-born volunteer (67 per cent at Level 4 or 5), compared to both recent and established immigrants (50 per cent and 56 per cent, respectively, at Level 4 or 5).

## Political efficacy

At the pan-Canadian level, there is little variation in proportions of recent immigrants, established immigrants, and the Canadian-born who believe they can influence government. However, there are notable differences across provinces and territories. Figure 3.13 presents results for Canada as a whole, as well as for the three oversampled jurisdictions (Quebec, Ontario, and British Columbia).

It is difficult to compare these findings to other research using different measures of political engagement. Voter turnout is lower among recent immigrants compared to the Canadian-born (Turcotte, 2015c). Immigrant women are also less likely to engage in conventional political activities (e.g., voting, membership in a political party or interest group) than women born in Canada, particularly immigrant women from ethnic minority groups. However, these differences are less consistent for participation in unconventional political activities (e.g., participating in protests/demonstrations, boycotts/buycotts) (O'Neill, Gidengil, & Young, 2012).

**Figure 3.12 Literacy – Proportion of population aged 16 to 65 who volunteer, by immigrant status and proficiency level, Canada, 2012**



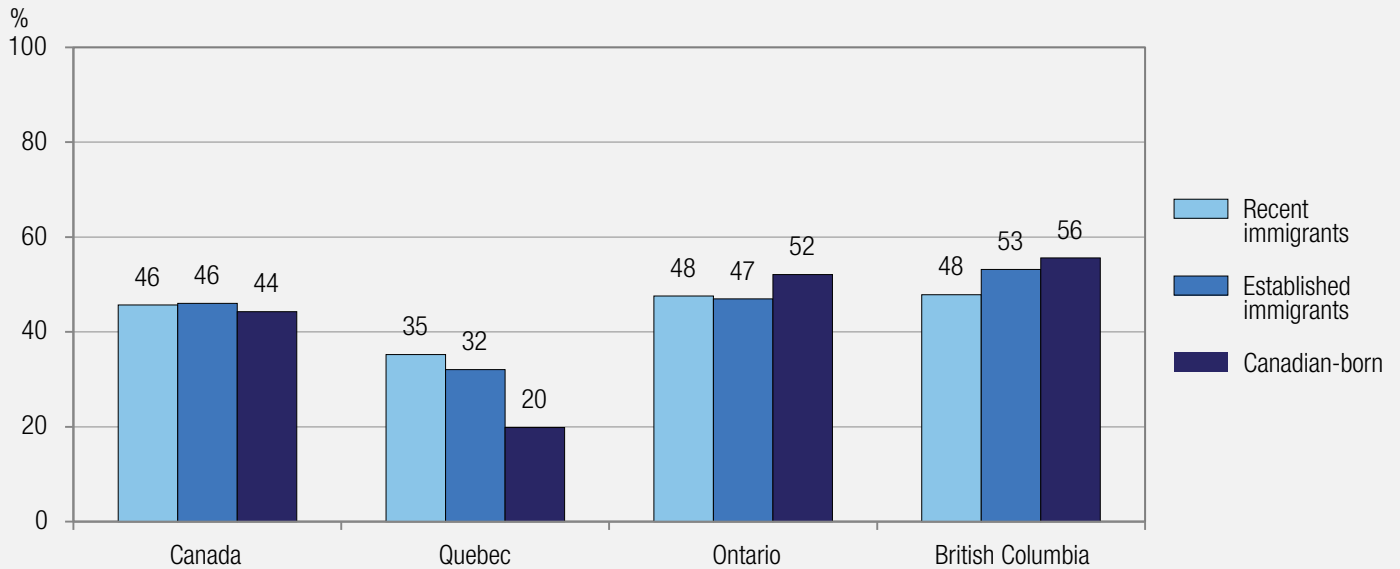
Source: Table 3.5c



As literacy, numeracy, and PS-TRE skills improve, larger proportions of both immigrant populations and the Canadian-born report greater political efficacy. As well, the already small differences between recent immigrants,

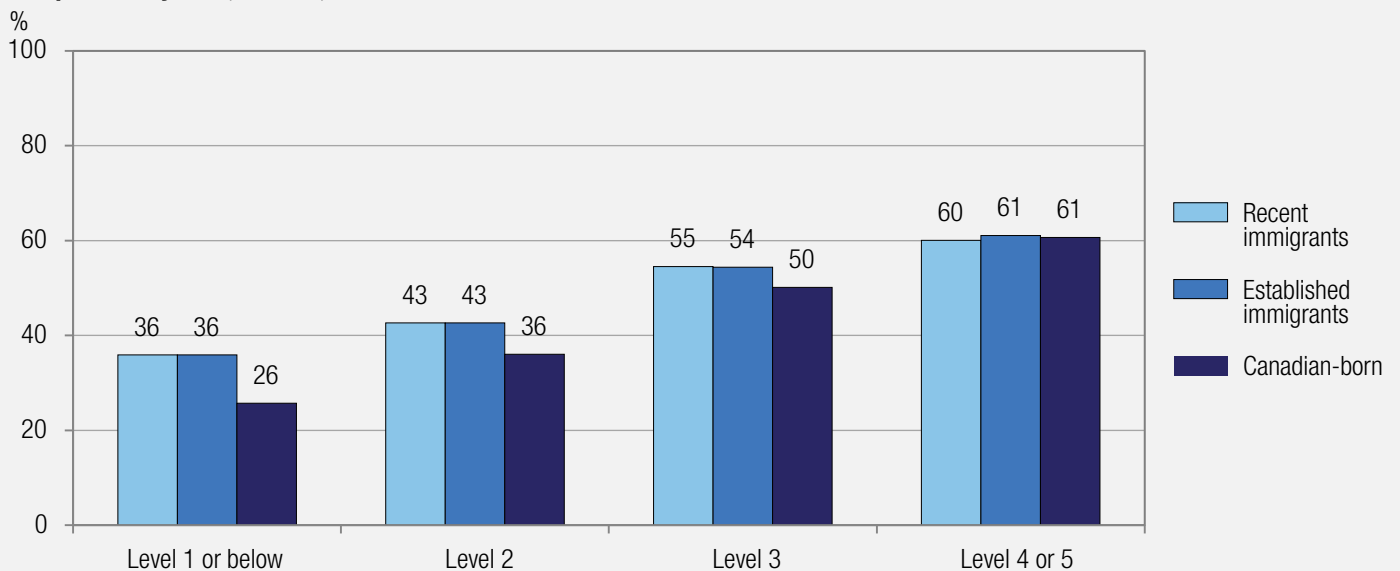
established immigrants, and the Canadian-born diminish even further as proficiency improves. Results for literacy appear in Figure 3.14.

**Figure 3.13 Proportion of population aged 16 to 65 who report positive political efficacy, by immigrant status, Canada and oversampled populations, 2012**



Source: Table 3.4

**Figure 3.14 Literacy – Proportion of population aged 16 to 65 who report positive political efficacy, by immigrant status and proficiency level, Canada, 2012**



Source: Table 3.5d

## The effect of skills on the health and social outcomes of recent immigrants

Skills have a significant positive effect on the social outcomes of recent immigrants after controlling for age, gender, educational attainment, employment status, and test language. Results vary across skill domain and outcome, with the strongest effects observed for volunteering and political efficacy. The likelihood of recent immigrants participating in volunteer activities increases with levels in literacy, numeracy, and PS-TRE. All levels in literacy above Level 2 are significantly associated with volunteering (Figure 3.15). Recent immigrants with Level 3 in literacy are more likely to volunteer than those at Level 1 or below (Odds ratio of 2.5). Those at Level 4 or 5 are also more likely to volunteer than those at Level 1 or below (Odds ratio of 3.0). Similarly, attaining Level 2 or above in numeracy is associated with increased volunteerism, as is Level 1 in PS-TRE.

Relatively high levels in literacy (Level 3 or above) are also associated with an increased likelihood of reporting positive political efficacy among recent immigrants. Results are similar for numeracy, with those at the highest levels (Level 4 or 5) reporting a stronger sense of political efficacy. Recent immigrants who attain the highest levels in PS-TRE are more likely to report positive political efficacy than PS-TRE non-respondents (Odds ratio of 1.6) [Figure 3.16].

Literacy and numeracy skills are not significantly associated with self-reported health for recent immigrants. However, those with Level 2 or 3 in PS-TRE are more likely than PS-TRE non-respondents to report excellent, very good or good health (Odds ratio of 2.3) (Figure 3.16). Few significant results emerged for trust across any of the skill domains.

These results are likely influenced by other factors that affect the health and social outcomes of recent immigrants, such as mother tongue, age at immigration, and amount of education or training received in Canada. Further research is needed to explore the impact of these factors on the health and social outcomes of recent immigrants, and connections between these factors and information-processing skills.

## The effect of skills on the health and social outcomes of established immigrants

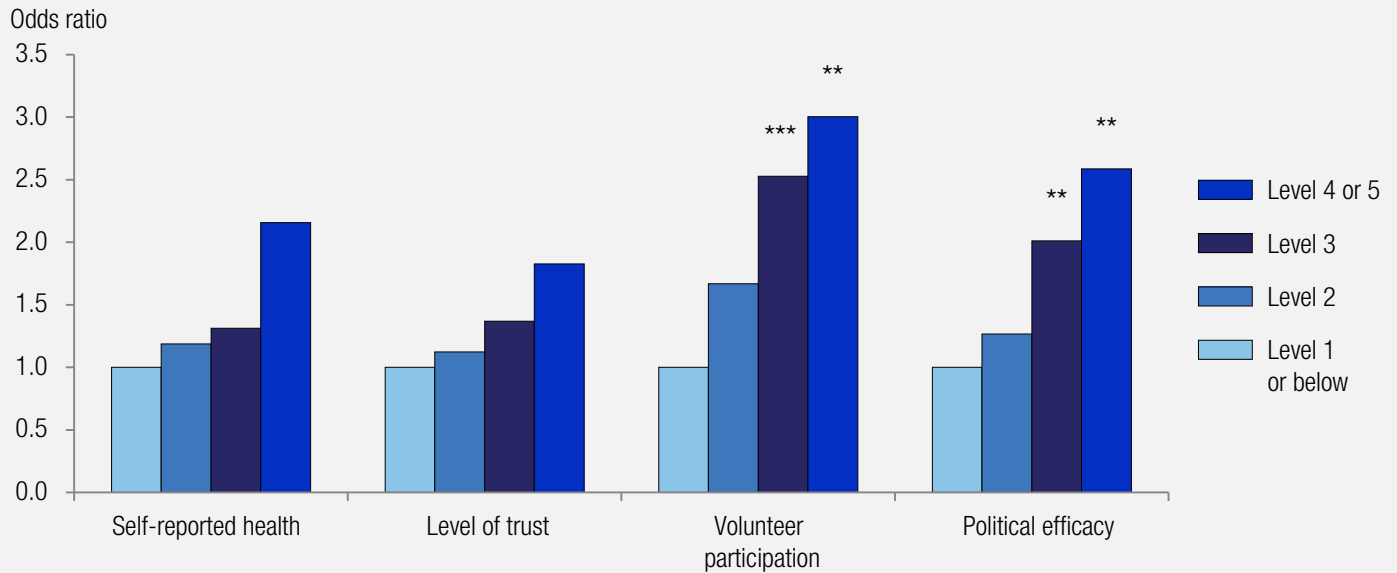
The effect of skills on health and social outcomes is weaker for established immigrants than it is for recent immigrants. High levels in literacy, numeracy, and PS-

TRE are associated with some positive health and social outcomes after controlling for gender, age, educational attainment, employment status, and language of the test, though there are few clear and significant patterns.

Similar to recent immigrants, effects are most notable for volunteering and political efficacy. Established immigrants at Level 3 and above in literacy are more likely to participate in volunteer activities, compared to those at Level 1 or below. This is also the case for established immigrants at Level 1 in PS-TRE compared to PS-TRE non-respondents (Figure 3.17). Attaining Level 4 or 5 in numeracy is significantly associated with an increased sense of political efficacy among established immigrants. Similarly, established immigrants at Level 2 or 3 in PS-TRE are more likely than PS-TRE non-respondents to report positive political efficacy (Odds ratio of 2.1) [Figure 3.17].

As with recent immigrants, strong PS-TRE skills are positively associated with self-reported health. Those at Level 2 or 3 are more likely to report excellent, very good or good health as non-respondents (Odds ratio of 2.1).

**Figure 3.15 Literacy – Adjusted likelihood of recent immigrants aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 3.6a

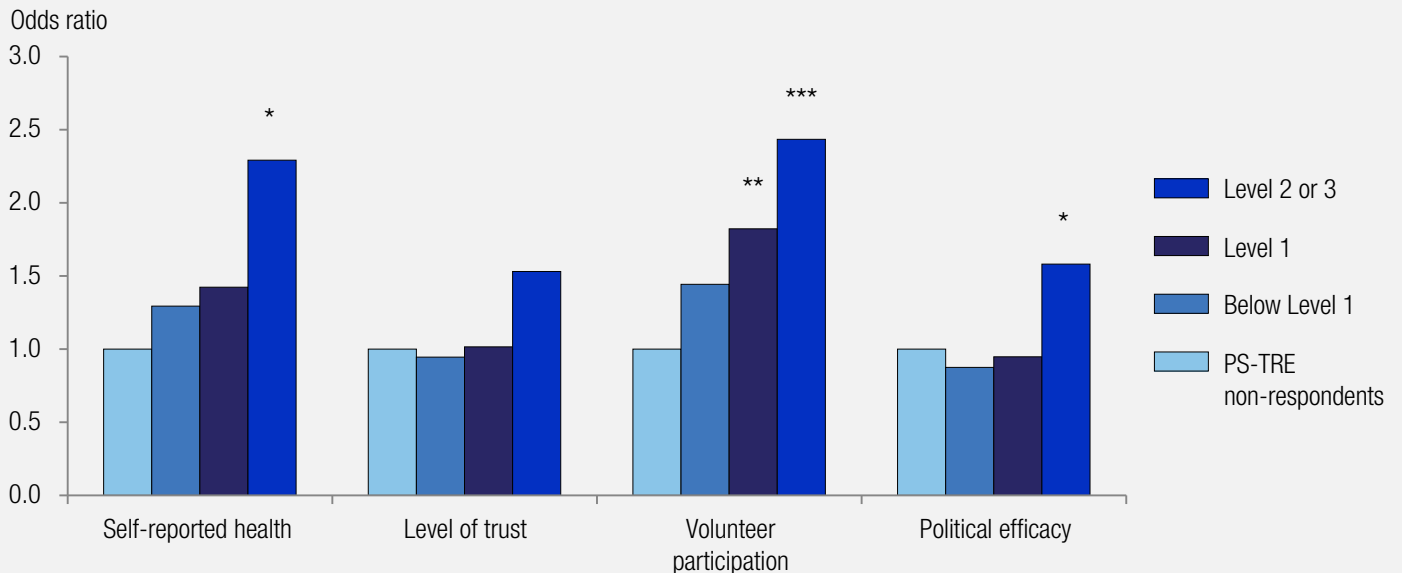
**Note:** Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 3.16 PS-TRE – Adjusted likelihood of recent immigrants aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 3.6a

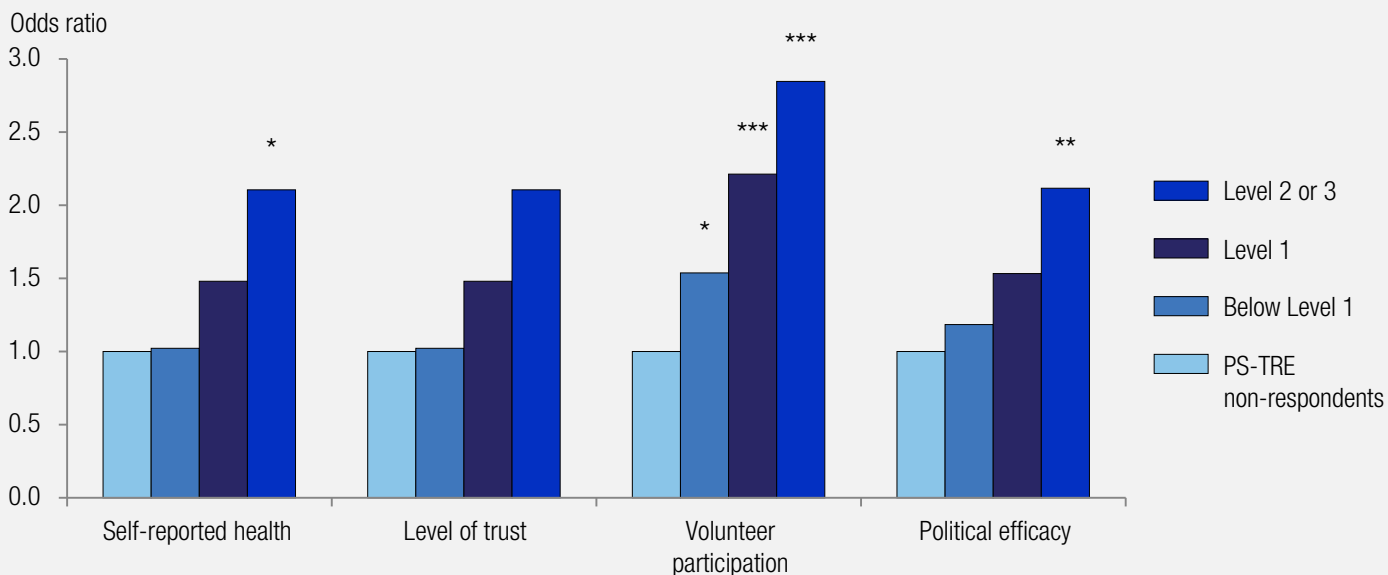
**Note:** Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 3.17 PS-TRE – Adjusted likelihood of established immigrants aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 3.6b

**Note:** Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

## Summary

PIAAC data reveal that Indigenous peoples and immigrants to Canada have different health and social outcomes compared to the non-Indigenous population and the Canadian-born population, respectively, and that skills can influence these outcomes in a variety of ways. These differences are important to understand when considering appropriate policy and program responses.

For both Indigenous and non-Indigenous peoples, higher levels of information-processing skills are associated with a greater likelihood of positive self-reported health, trust, and volunteering. Among Indigenous peoples, attaining at least Level 3 in numeracy and literacy appears to be associated with the greatest likelihood of positive health and social outcomes. Higher levels in numeracy appear to most strongly predict positive outcomes.

Although Indigenous peoples tend to have poorer health and are less likely to believe they can influence government compared to the non-Indigenous population, their skills appear to be a potentially important lever to close these gaps. The fact that differences between these two groups are not statistically significant at higher proficiency levels suggests that access to opportunities for Indigenous adults to build and maintain skills through lifelong and life-wide learning may yield benefits outside of labour market or economic returns. This is underscored by the fact that the relationship between skills and health and social outcomes persists after controlling for age, gender, educational attainment, employment status, and the test language.

For immigrants to Canada, results vary between recent and established immigrants, and for all immigrants compared to the Canadian-born. As with other population groups, immigrants' health and social outcomes improve as proficiency in skills increases. For recent immigrants, this relationship persists even after controlling for age, gender, educational attainment, employment status, and language of the test. Literacy skills tend to be the strongest predictor of positive outcomes for these individuals, particularly with respect to volunteering and political efficacy. However, PS-TRE skills are also importantly connected to the likelihood of recent immigrants reporting excellent, very good or good health, positive political efficacy, and participation in volunteer activities.

For established immigrants, the connections between skills and health and social outcomes are less clear

than for recent immigrants after adjusting for age, gender, educational attainment, employment status, and language of the test. PS-TRE skills in particular appear to have some significant influence on self-reported health, volunteering, and political efficacy.





## CHAPTER 4

# THE IMPACT OF SKILLS ON HEALTH AND SOCIAL OUTCOMES AND LABOUR MARKET PARTICIPATION

Although formal education is one of the primary means through which skills proficiency is built, other paths are critical for maintaining skills. Skills translate into better economic, health, and social outcomes only when they are continuously used and developed through family, community, and work contexts. This chapter focuses on the connections among labour market participation, skills, and health and social outcomes for two groups of Canadians: those who are unemployed and those who are employed in precarious jobs.

Previous research has shown that skill level has a significant effect on a wide range of labour market outcomes, including the incidence of unemployment, number of weeks worked, average duration of unemployment, number of hours worked, wage rates, and the probability of receiving employer-funded training (CLLN, 2012). Individuals with low skills are increasingly at risk when labour markets demand stronger information-management and communication skills and more sophisticated and technologically driven tasks. Poor proficiency in information-processing skills can therefore limit access to better-paying, more rewarding, and less risky jobs. It also affects the possibility of participating in further education and training, which is crucial for skill development and maintenance over the working life and beyond (OECD, 2013b).

Lifelong learning is important for workers in both high- and low-skilled jobs. Higher levels in literacy and numeracy facilitate learning. Workers with stronger skills are more likely to be employed in positions that require ongoing training, and are more likely to have employers who support continuous learning. This can create a virtuous cycle for high-proficiency adults—and conversely, a vicious cycle for those with lower proficiency. When low-skilled adults lack access to learning or training opportunities, their skills remain weak or even deteriorate over time, compromising further their ability to participate in learning activities (OECD, 2013a).

Well-remunerated, secure, and satisfying work is also connected to health and social well-being. It contributes to financial security, to the formation of social capital and a sense of inclusion, and to the development of personal identity. Employment is also widely recognized as a social determinant of health. It is directly connected to health by (potential) exposure to hazardous conditions in the workplace, and by providing an income with which to purchase health-promoting goods and services. Employment is also indirectly linked to health via demands and rewards associated with different types of work, such as social networks, stress, and level of control over work conditions (Block, 2010; EMCONET, 2007; PHAC, 2008).

## Unemployment

Numerous studies have documented the impact of unemployment on mental and physical health, as well as on other social outcomes. Compared to employed people, unemployed individuals report poorer physical and mental health, lower tangible social support, lower levels of organizational membership, and lower social and institutional trust. They are also less likely to vote. Unemployment results in exclusion from both work and social capital, creating an additive effect (Åslund, Starrin, & Nilsson, 2014). Unemployed people also tend to have significantly higher odds of reporting low generalized trust compared to people employed in “relaxed” psychosocial work conditions (Lindström, 2009).

Employment status in PIAAC is divided into three categories: employed, unemployed,<sup>20</sup> and not in the labour force.<sup>21</sup> The proportions of Canadians who are employed (76 per cent), unemployed (4 per cent), and not in the labour force (20 per cent) are similar to those reported in the 2012 Labour Force Survey (Statistics Canada et al., 2013).

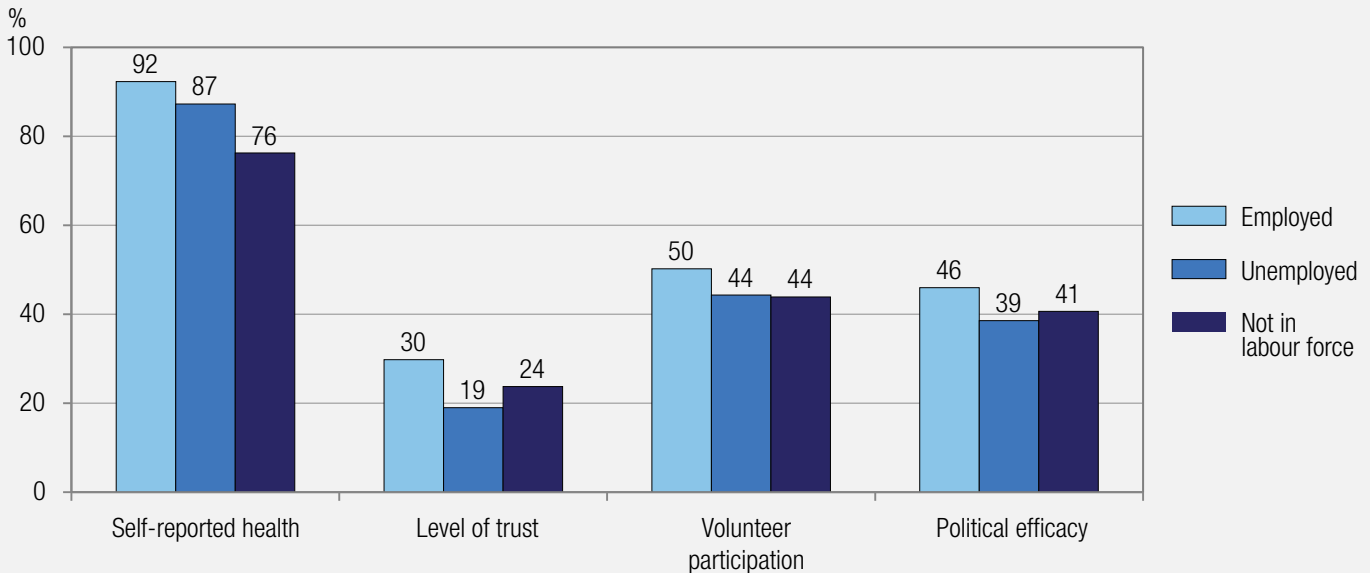
Those who are employed enjoy better health and social outcomes than both the unemployed and those not in the labour force (Figure 4.1). Only 76 per cent of those not in the labour force report excellent, very good or good health, compared to 87 per cent of the unemployed, and 92 per cent of people who are employed. Nineteen percent of unemployed Canadians trust more than a few people, compared to 30 per cent of employed Canadians. Fifty per cent of employed Canadians volunteer, versus 44 per cent of both the unemployed and those not in the labour force. Positive political efficacy is reported by 39 per cent of the unemployed, compared to 46 per cent of employed Canadians.

<sup>20</sup> The “unemployed” in PIAAC consist of those who were neither working nor self-employed in the month prior to PIAAC, were able to work, and were actively seeking work or expecting to begin a job for which they had been previously hired (Statistics Canada et al., 2013, p. 61).

<sup>21</sup> In PIAAC, those “not in labour force” were respondents who met none of the employment conditions and did not actively look for work in the four weeks prior to PIAAC, or who would not begin work for more than three months. The not in the labour force population also consists of respondents who did not take active steps to find a job and were not looking for work or available to begin work within two weeks of the survey (Statistics Canada et al., 2013). This may include retired people, students, or those with health conditions that prevent them from working.



**Figure 4.1 Proportion of population aged 16 to 65 who report positive health and social outcomes, by employment status, Canada, 2012**

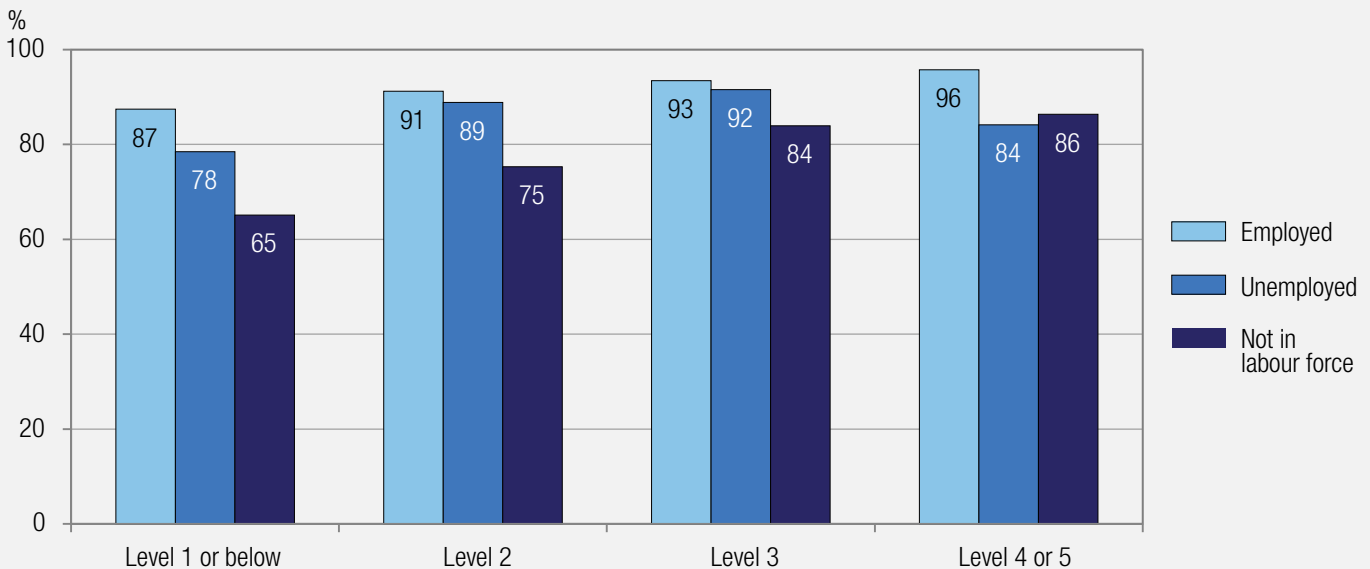


Source: Table 4.1

The proportions of the population who are employed or not in the labour force and reporting excellent, very good or good health generally rise with improvements in information-processing skills. The same pattern does not appear for unemployed Canadians. The health of the unemployed does not improve as levels in literacy, numeracy, or PS-TRE increase. In fact, self-reported

health actually declines at the highest levels in literacy (Figure 4.2). While explanations for this relationship require further investigation, it may reflect that some highly literate Canadians are (in the short term) unable to work because of significant health conditions, or that highly skilled workers without jobs tend to perceive their health more negatively.

**Figure 4.2 Literacy – Proportion of population aged 16 to 65 who report excellent, very good or good health, by employment status and proficiency level, Canada, 2012**



Source: Table 4.2a

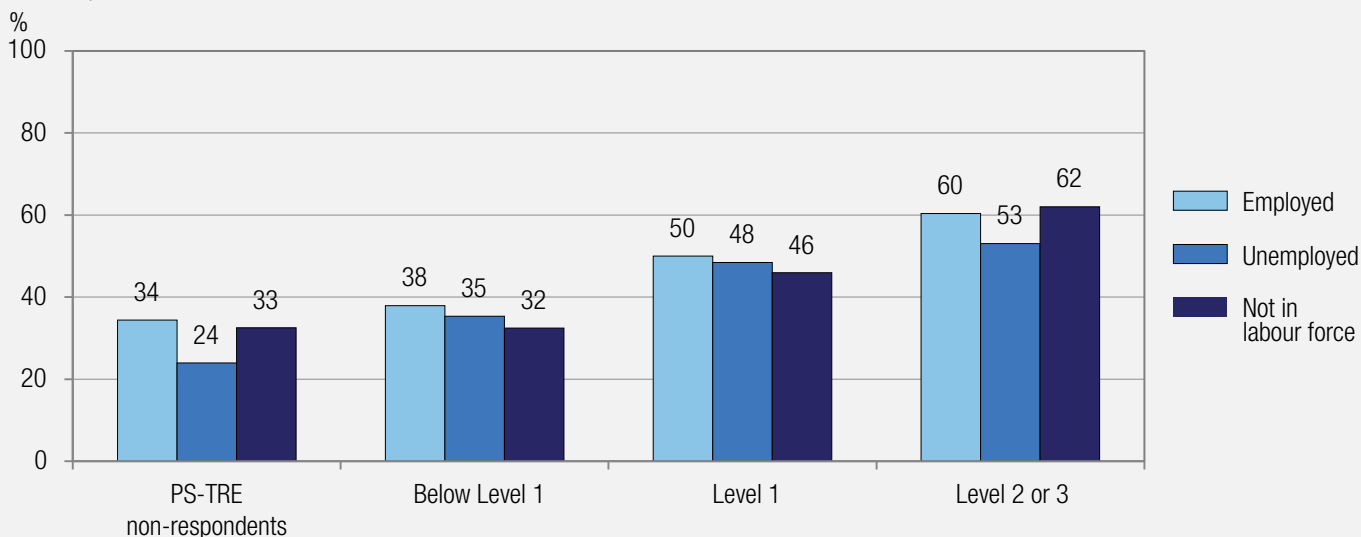
As noted earlier, unemployed people tend to be less trusting than those who are employed. Improvements in literacy, numeracy, and PS-TRE skills are generally accompanied by increasing levels of trust among both the employed and those not in the labour force. Similar to self-reported health, this is not the case for unemployed people.

In contrast to self-reported health and trust, results for volunteering are consistent regardless of employment status. The proportions of Canadians reporting volunteering activities tend to rise with each increase in literacy, numeracy, and PS-TRE skill across all employment types (Figure 4.3). Positive political efficacy also generally increases as literacy, numeracy, and

PS-TRE skills improve, but differences between the employed, unemployed, and those not in the labour force are not statistically significant.

Overall, skills do not appear to be strongly associated with health and social outcomes for unemployed Canadians. After controlling for the effects of age, gender, educational attainment, immigrant status, Indigenous identity, and test language, skills do not appear to exert an important influence (Figure 4.4).<sup>22</sup> These results may reflect the combined impact of exclusion from paid work, and the absence of opportunities to build and maintain social networks/ social capital in the workplace—magnifying negative outcomes even for highly skilled unemployed Canadians.

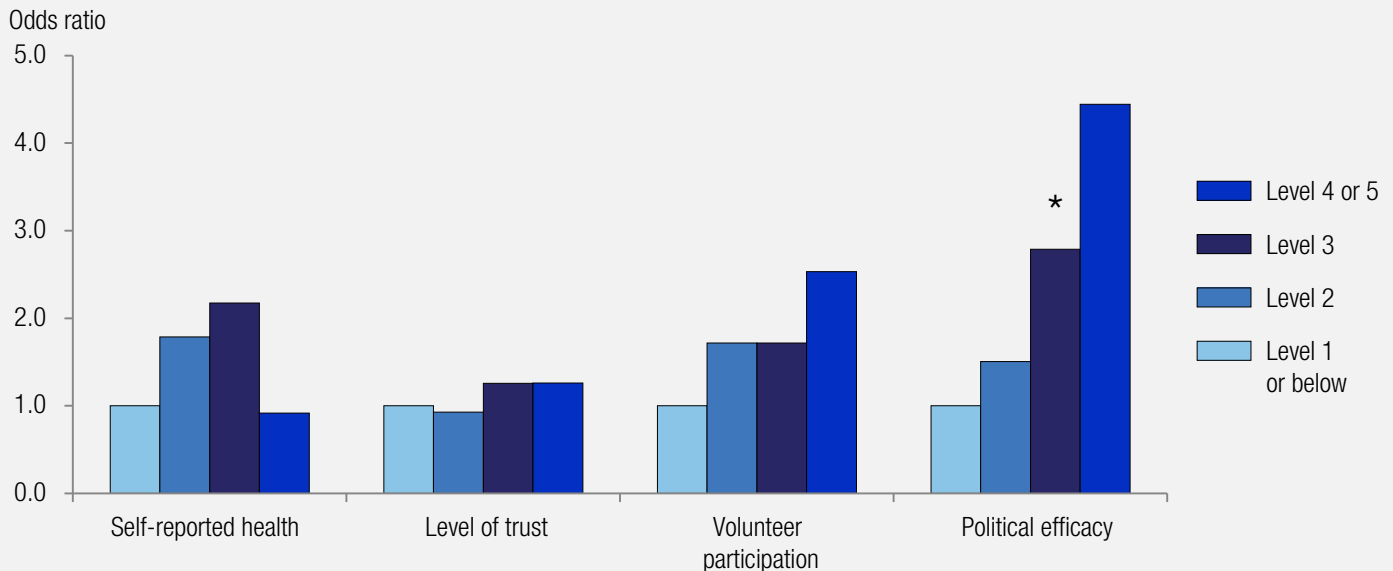
**Figure 4.3 PS-TRE – Proportion of population aged 16 to 65 who volunteer, by employment status and proficiency level, Canada, 2012**



Source: Table 4.2c

<sup>22</sup> The only significant relationship identified in Figure 4.4 is that unemployed Canadians at Level 3 in literacy are more likely to believe that they have some influence on government than those with skills at Level 1 or below (Odds ratio of 2.8).

**Figure 4.4 Literacy – Adjusted likelihood of unemployed population aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 4.3

**Note:** Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and testing language.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

## Precarious work

Precarious employment is generally understood to encompass “nonstandard” work arrangements, such as short-term or fixed-term contract work, casual work, temporary work (including jobs supplied by temporary agencies), certain forms of part-time work, own-account self-employment, telework, home-based work, and seasonal work. Precarious work may also be characterized by specific employment attributes, such as uncertainty of ongoing employment, unpredictability of hours, or a lack of employment protections and benefits. In contrast, “standard” work is typically understood to represent full-time, full-year, permanent employment with regular hours—and more often with employer-provided benefits such as paid vacation or extended health care (Tompa & Buettgen, 2015).

Recent research has demonstrated a range of adverse effects for individuals in precarious employment, including impacts on health and social outcomes (Lewchuk et al., 2015, Tompa & Buettgen, 2015). Precarious work is associated with reduced income security, limited capacity to balance work and family life, social exclusion, reduced trust, and a reduced

likelihood of voting or participating in political meetings (Lewchuck et al., 2015). It can also contribute to poor self-reported health, poor mental health, and worse outcomes for specific health conditions such as cardiovascular disease. By acting as a chronic work-related stressor, job precarity may be as harmful to health as unemployment (Kim & von dem Knesebeck, 2015). Adverse impacts from this type of employment may be exacerbated for more vulnerable workers such as women, visible minorities, and older workers (Tompa & Buettgen, 2015). In general, workers with lower socioeconomic status are overrepresented in insecure employment.

According to the International Labour Organization (ILO, 2015), precarious employment is increasing in many advanced economies, including Canada. Approximately 55 per cent of the world’s wage and salaried employees are in either part-time or temporary forms of employment. An estimated 20 per cent of Canada’s workforce are in nonpermanent work arrangements. However, estimates of the proportion of Canadians in precarious work arrangements vary widely, from a low of 15 per cent (DePratto & Bartlett, 2015), to a high of 44 per cent in a study of workers in southern Ontario (Lewchuk et al., 2015).

While the rise of precarious employment has affected all groups of workers, women, visible minorities, recent immigrants, Indigenous peoples, youth, and people with disabilities are more likely to be engaged in precarious work. In turn, these groups of workers may be more likely to experience poorer physical and mental health, as well as negative social outcomes.

### PIAAC's insights into precarious work

PIAAC permits some initial inquiry into relationships between precarious work, skills, and health and social outcomes, using data on the type of employment that respondents reported. For the purposes of this report, respondents reporting permanent jobs are considered to be in standard (more secure) employment. Respondents reporting seasonal, term, contract, casual, or other temporary jobs are considered to be in nonstandard (or precarious) employment. Employed respondents who report not having an employment contract are retained in a separate “no contract” category because of the absence of additional information about the employment circumstances of this group.<sup>23</sup> Based on these employment categories, approximately 15 per cent of the employed could be considered as precariously employed, while a further 9 per cent report that they do not have an employment contract. Sixty-one per cent report working in a permanent job (Statistics Canada, 2012).

It is important to acknowledge that PIAAC employment categories have limitations in terms of identifying those working in precarious employment. For example, these data do not identify whether employees are in part-time or temporary work arrangements by choice, or whether they would prefer an alternate form of employment. PIAAC does not distinguish between different types of part-time work arrangements, some of which have greater security, predictability, and remuneration. The data also do not adequately identify different forms of self-employment, a category that can include a wide range of both positive and negative work types and conditions.

As a result of these and other limitations, as well as the well-documented challenges associated with defining the concept of precarious work (Tompá & Buettgen, 2015), the analyses presented here should be understood as partial and preliminary. To more deeply and reliably evaluate connections between precarious work, skills, and health and social outcomes, researchers

<sup>23</sup> The question in the PIAAC background questionnaire concerning the type of employment contract does not include a response for self-employment. People who are self-employed may have responded under “other.” See Statistics Canada, 2012.

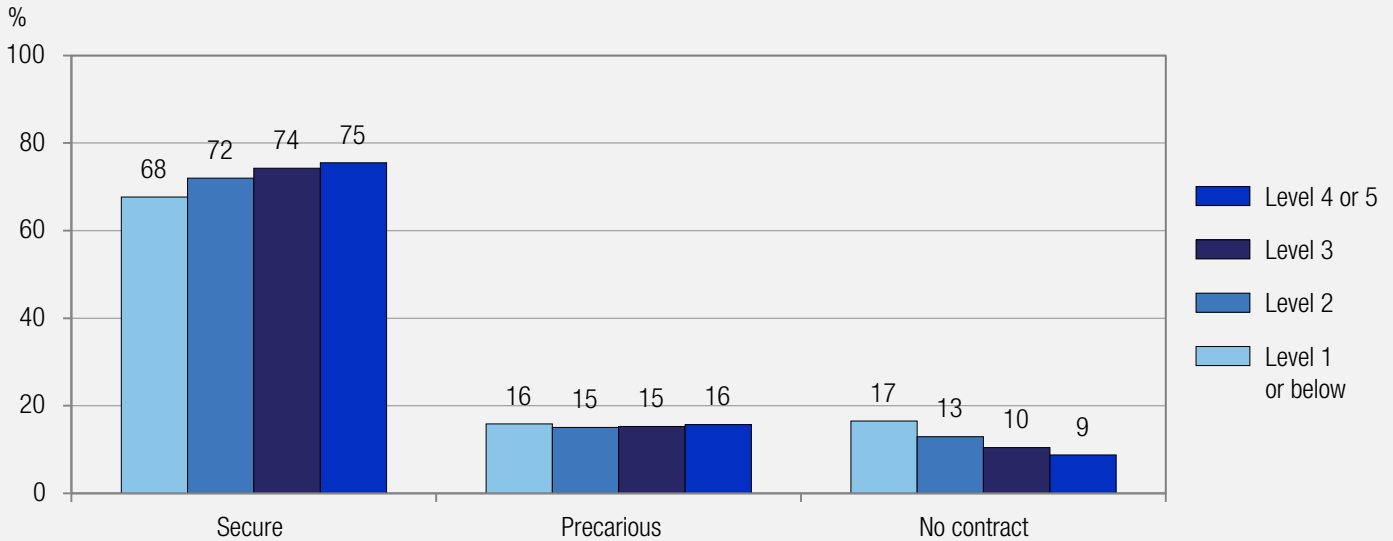
may need new survey elements concerning employment types and characteristics to be developed for future rounds of PIAAC.

### The distribution of precarious work by sociodemographic and socioeconomic characteristics

Some differences in the distribution of precarious work by skill domain and sociodemographic or socioeconomic characteristics emerge in PIAAC data, but patterns are not always clear or consistent. There is little variation in the proportion of women versus men employed in precarious work. The exception is those at the higher levels in literacy and PS-TRE: more women tend to be in precarious or “no contract” employment. At lower levels in literacy and numeracy, Indigenous peoples are more likely to have precarious jobs than the non-Indigenous population, but these differences diminish at higher levels. At Level 3 or above in literacy and numeracy, and Level 1 or above in PS-TRE, the proportions of Indigenous and non-Indigenous peoples in secure work are similar. This is important because it points to the potential importance of skills in shaping economic and other outcomes.

As skills improve, the proportion of Canadians in secure employment increases, the proportion in “no contract” work decreases, and the proportion in precarious work remains the same. For example, 68 per cent of those at Level 1 or below in numeracy have secure employment, compared to 75 per cent at Level 4 or 5. At the lowest numeracy levels, 17 per cent report having no employment contract, dropping to 9 per cent at the highest levels. The proportion of Canadians in precarious employment tends to hold steady at approximately 15 per cent of the employed population at each level of numeracy proficiency (Figure 4.5). Patterns are similar for literacy and PS-TRE.

**Figure 4.5 Numeracy – Proportion of population aged 16 to 65 employed in secure, precarious or “no contract” employment, by proficiency level, Canada, 2012**



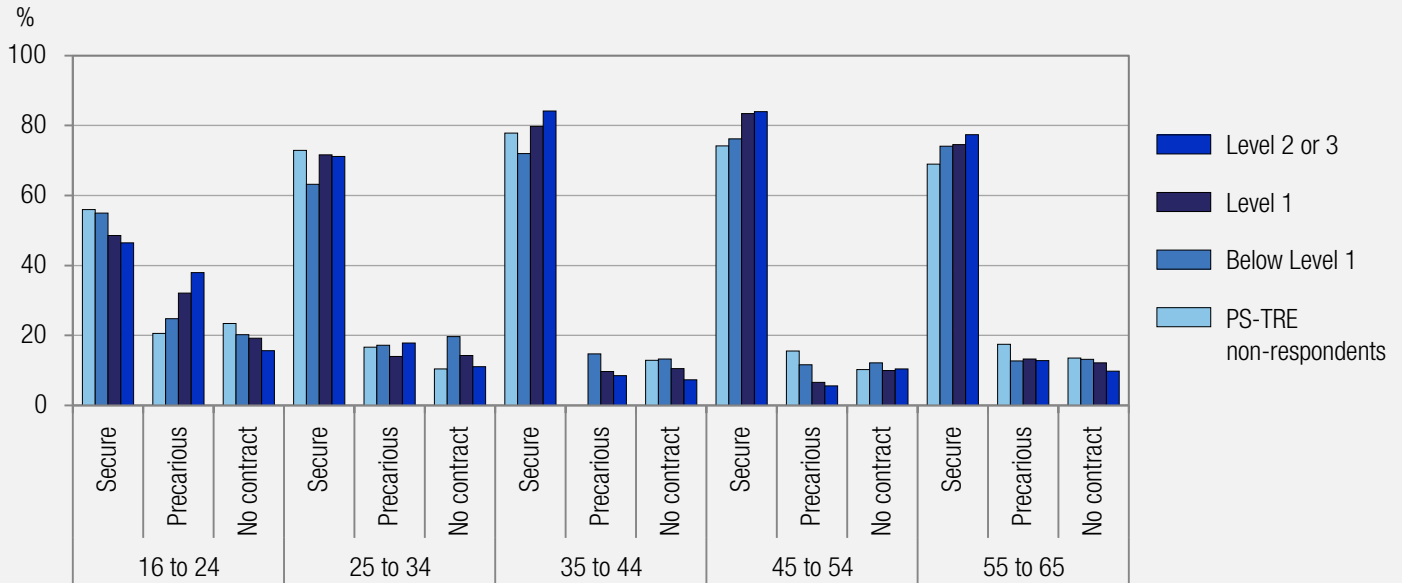
Source: Table 4.5

For all skill domains and skills levels, Canadians in precarious or “no contract” work are more likely to be young adults (Figure 4.6), which is a finding echoed in other research (OECD, 2015). This may reflect how transitions from school to work can involve a series of temporary or casual work assignments. However, some recent research also suggests that labour market conditions are shifting more generally for younger Canadians who not only tend to earn less when starting out but who also do not catch up over their careers. Precarious work can become a “trap” with low earnings limiting housing options and compromising one’s ability to form relationships and start a family (Lewchuk et al., 2015). The OECD also finds that younger workers—particularly those with only temporary work contracts—have less chance of moving on to more stable positions (OECD, 2015). These trends may help to explain the finding that the proportion of precarious employment among younger workers actually increases as their PS-TRE skills improve (Figure 4.6). This pattern is similar for literacy and numeracy.

PIAAC found that approximately 45 per cent of Canadians in precarious or “no contract” work have not attained an educational credential beyond a high-school diploma. This finding for Canada is consistent with data from other developed countries (OECD, 2015). For each skill domain, the proportion of the population who are

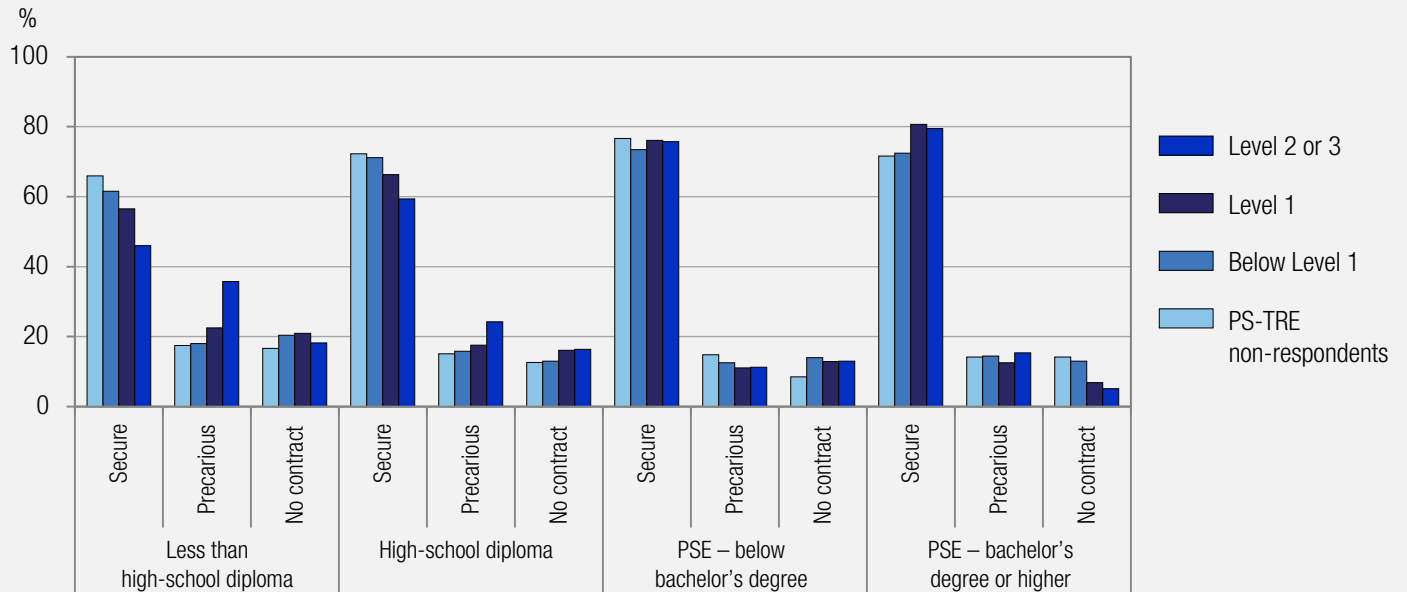
employed in precarious work decreases as educational attainment increases (Figure 4.7). However, the benefits of postsecondary education are most apparent for those at Level 3 or above in literacy and numeracy, or above Level 1 in PS-TRE. For all skill domains, the benefits of higher-level proficiency are most apparent for those who have postsecondary education – bachelor’s degree or higher. For those with a high-school diploma or less than a high-school diploma, the proportion of precarious or “no contract” work tends to increase at higher levels of proficiency.

**Figure 4.6 PS-TRE – Proportion of population aged 16 to 65 employed in secure, precarious or “no contract” employment, by proficiency level and age group, Canada, 2012**



Source: Table 4.7

**Figure 4.7 PS-TRE – Proportion of population aged 16 to 65 employed in secure, precarious or “no contract” employment, by proficiency level and educational attainment, Canada, 2012**



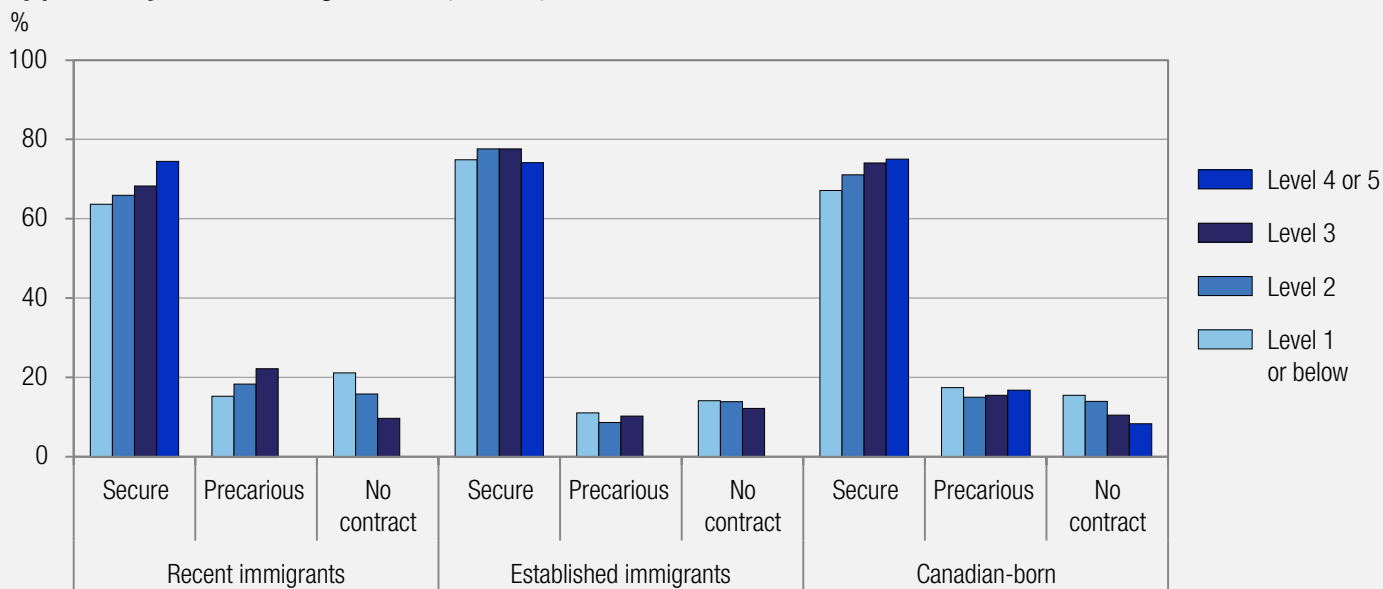
Source: Table 4.8

Patterns in precarious work among recent and established immigrants are more variable (Figure 4.8). A proportion of precarious work is somewhat greater among recent immigrants than for the Canadian-born, except at the lowest skill levels, and is lowest among established immigrants. This finding is consistent with other research on newcomers to Canada (LCO, 2012). Limited official-language proficiency, a lack of Canadian education or work experience, and foreign credentials unrecognized by employers may contribute to a greater likelihood of working in a precarious job. At the same time, becoming a citizen and length of time in Canada tend to mitigate employment precarity (Goldring & Joly, 2014).

For all skill domains, Canadians earning hourly wages that place them in the bottom earnings quintile are more often found in precarious or “no contract” employment (Figure 4.9). For example, 51 per cent of workers in the lowest earnings quintile at Level 3 in numeracy are in precarious or “no contract” jobs. For low-wage work, there appears to be no advantage to possessing higher-level skills as a means to obtaining secure work in these types of occupations. Patterns for literacy and PS-TRE are similar. This finding suggests that economic returns on higher-level skills may be fully realized for only those employed in higher-paying, secure jobs.

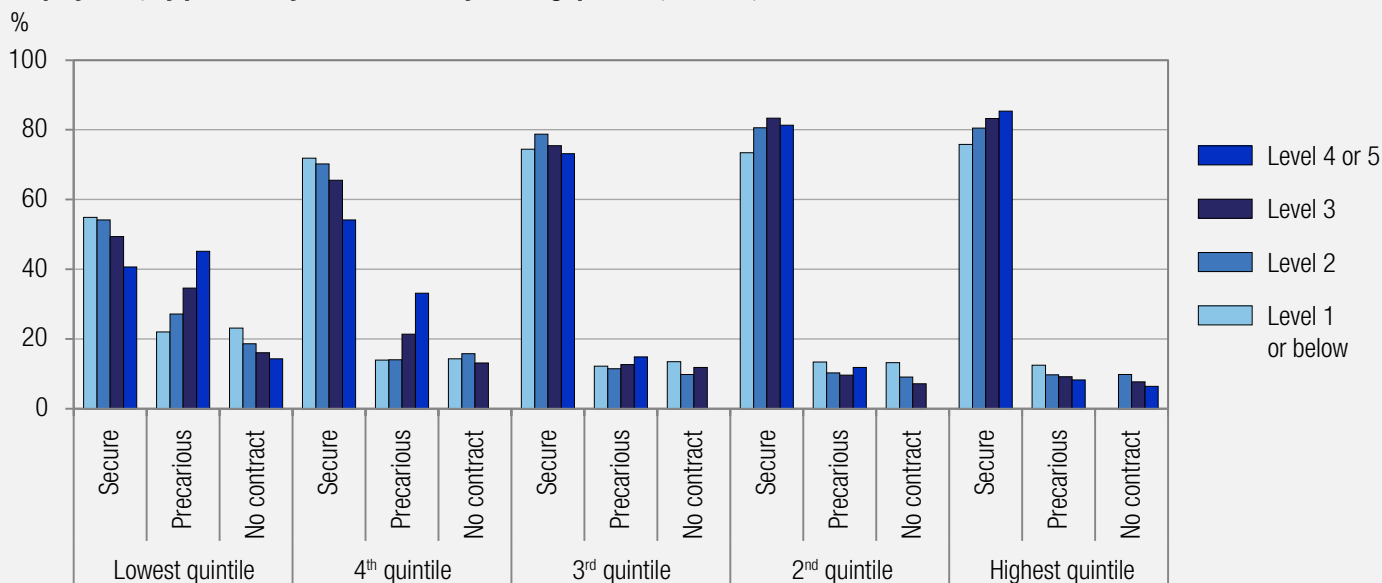
Workers employed in precarious or “no contract” jobs fall into lower wage quintiles more frequently than those in stable employment. This is consistent with other research on precarious work that shows job types frequently associated with precarious conditions typically pay lower wages (DePratto & Bartlett, 2015).

**Figure 4.8 Literacy – Proportion of population aged 16 to 65 employed in secure, precarious or “no contract” employment, by proficiency level and immigrant status, Canada, 2012**



Source: Table 4.10

**Figure 4.9 Numeracy – Proportion of population aged 16 to 65 employed in secure, precarious or “no contract” employment, by proficiency level and hourly earning quintiles, Canada, 2012**



Source: Table 4.11

### Precarious work, skills, and health and social outcomes

To isolate the effect of skills on health and social outcomes for those in different types of employment, additional analyses were undertaken to control for the potential influence of age, gender, educational attainment, immigrant status, Indigenous identification, and wages. Few clear and significant patterns emerged to describe these relationships.

For all skill domains and employment types, the effect of skills on self-reported health tended not to be statistically significant. The only exception is that workers employed in precarious jobs at Level 1 or above in PS-TRE were more likely to report positive health compared to PS-TRE non-respondents. This could be linked to the role that problem-solving skills play in both navigating complex health systems and deciphering and applying health information.

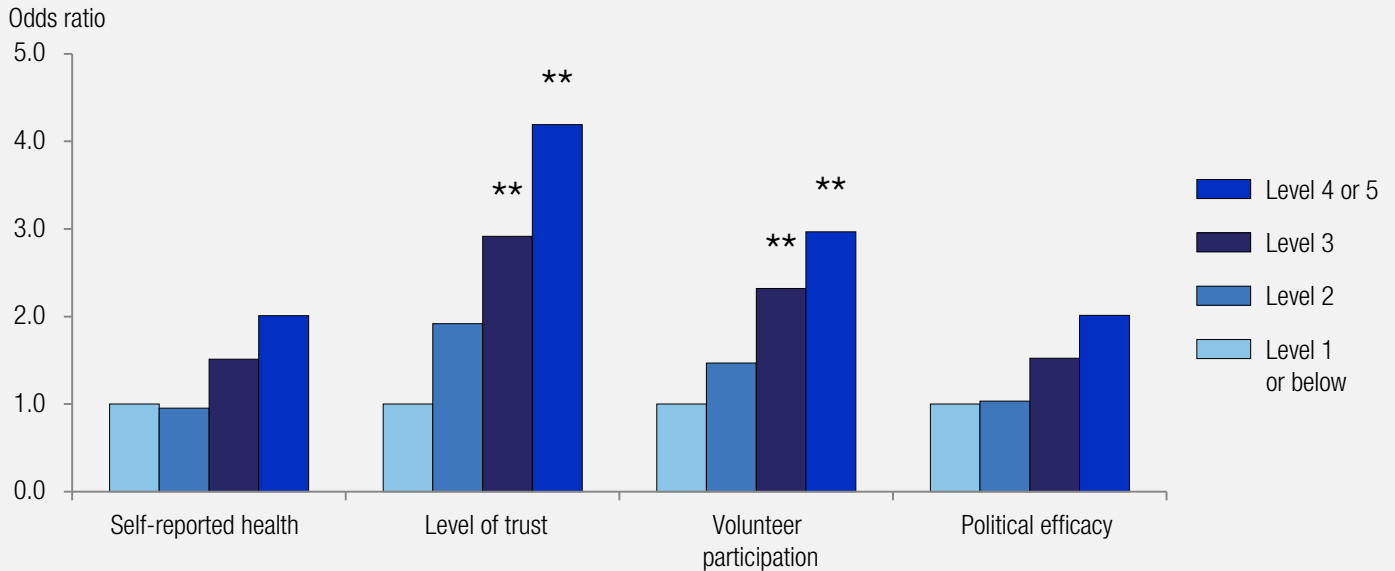
Skills have an important effect on social outcomes for those in precarious or “no contract” work arrangements. For literacy, Canadians employed in precarious jobs at Level 4 or 5 are more likely to trust more than a few people (Odds ratio of 4.2), and more likely to volunteer, compared to those at the lowest skill level. Significantly

higher levels of trust and volunteerism are also apparent at Level 3 in literacy (Figure 4.10). Results for numeracy are similar.

The effect of PS-TRE skills on health and social outcomes for workers in precarious employment is positive and statistically significant for those at higher proficiency levels (Figure 4.11). Compared to PS-TRE non-respondents, those at Level 2 or 3 are more likely to report positive health (Odds ratio of 3.0), to volunteer (Odds ratio of 2.4), to report higher levels of trust (Odds ratios of 2.8), and to report positive political efficacy (Odds ratio of 2.0). Results are also statistically significant for those at Level 1 in PS-TRE, who are more likely to report positive health compared to PS-TRE non-respondents (Odds ratio of 2.1).



**Figure 4.10 Literacy – Adjusted likelihood of population aged 16 to 65 in precarious employment reporting positive health and social outcomes, by proficiency level, Canada, 2012**



Source: Table 4.12a

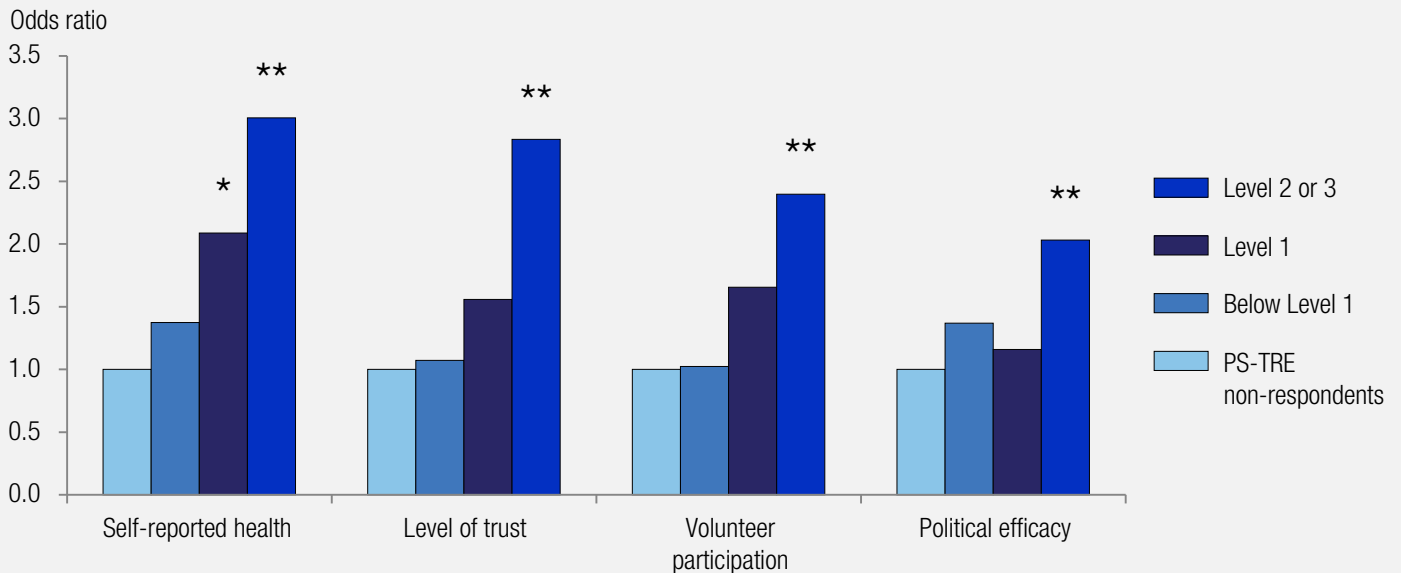
Note: Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and wages.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

**Figure 4.11 PS-TRE – Adjusted likelihood of population aged 16 to 65 in precarious employment reporting positive health and social outcomes, by proficiency level, Canada, 2012**



Source: Table 4.12a

Note: Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and wages.

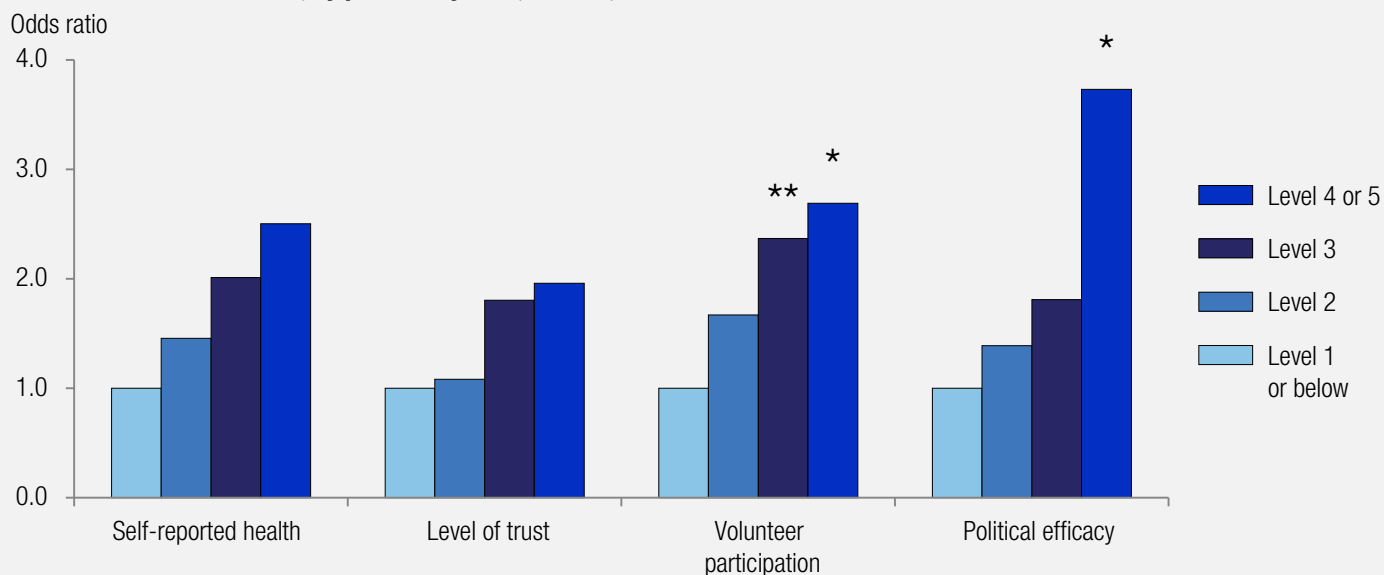
\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

Skills have a positive effect on social outcomes for those with no employment contract, particularly volunteerism and political efficacy. For example, “no contract” workers at the highest numeracy levels are more likely to volunteer (Odds ratio of 2.7), and more likely to report positive political efficacy than those at the lowest levels (Odds ratio of 3.7) [Figure 4.12]. Patterns are similar for literacy and PS-TRE.

**Figure 4.12 Numeracy – Adjusted likelihood of population aged 16 to 65 in “no contract” employment reporting positive health and social outcomes, by proficiency level, Canada, 2012**



**Source:** Table 4.12b

**Note:** Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and wages.

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

### *Reasons for leaving or not looking for work*

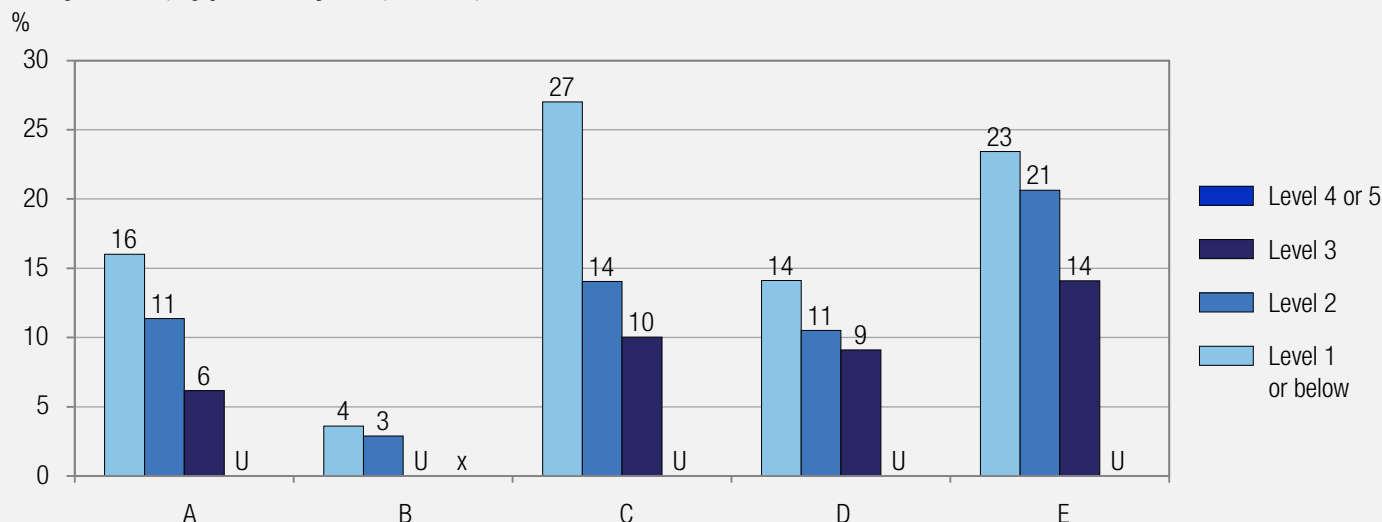
Being outside of, or weakly attached to, the labour market can have important financial, health, and social implications. It can also have repercussions for using and developing skills and for opportunities to pursue training. For these reasons, this report briefly analyzes the distribution of skills and health and social outcomes for Canadians who report that they have left work or stopped looking for work as a result of health or family-related issues. The response options considered in this analysis include:

- Reasons for stopping work: (i) health reasons and (ii) family responsibilities or child care
- Reasons for not looking for work: (i) being temporarily sick or injured, (ii) long-term illness or disability, and (iii) looking after family or home.

A small proportion of Canadians who are unemployed or not in the labour force report that they left a job or did not look for work for health- or family-related reasons. Those with lower skills tend to report leaving or ceasing to pursue paid employment more often than those with higher skills. For example, as numeracy skills improve, there is a decline in the proportion of people who report stopping work for health-related reasons, or not looking for work because of temporary or long-term illness.

Long-term ill health and disability are more frequently cited reasons for leaving or not looking for work for those with the lowest levels of skills. In contrast, Canadians at higher skill levels leave the workforce or stop looking for work more frequently as a result of child care or family responsibilities (Figure 4.13). This may reflect how higher-skilled Canadians have greater resources with which to elect to exit or remain outside the labour force, whether in terms of financial remuneration from better-paying and more secure jobs, or stronger social connectedness and networks. However, it is important to keep in mind that these results do not control for other factors that can influence decisions about paid work and family life, such as marital status or the local labour market context.

**Figure 4.13 Numeracy – Proportion of population aged 16 to 65 who report leaving or not seeking employment for health or family reasons, by proficiency level, Canada, 2012**



**Source:** Table 4.13

- Notes:**
1. A. Stopping work for health reasons  
 B. Not looking for work due to being temporarily sick or injured  
 C. Not looking for work due long-term illness/disability  
 D. Stopping work for family responsibilities or childcare  
 E. Not looking for work due to looking after family or home
  2. U Too unreliable to be published  
 x Suppressed to meet the confidentiality requirements of the *Statistics Act*

## Summary

The relationships between unemployment, health, and social well-being are well documented in research. These trends are confirmed in PIAAC data, which demonstrate that unemployed Canadians tend to have worse health and social outcomes than those who are employed. In contrast to employed Canadians, however, outcomes for the unemployed do not consistently improve as proficiency levels increase—a finding that is underscored by the fact that statistically significant relationships are not apparent after controlling for the effect of age, gender, educational attainment, immigrant status, Indigenous identification, and language of the test. The fact that health and social outcomes do not improve even for highly skilled unemployed Canadians may suggest that exclusion from opportunities to build social capital and networks in the workplace can further compound the instability and economic vulnerability created by a lack of earned income.

Certain populations within Canada are more likely to be employed in precarious jobs, notably young adults, those with low levels of formal education, recent

immigrants, Indigenous peoples (at lower skill levels), and women (at higher skill levels). While the proportion of the population engaged in precarious work does not change as skills improve, more Canadians at higher skill levels report having permanent jobs, and fewer are employed in “no contract” work. After controlling for the effects of age, gender, educational attainment, immigrant status, Indigenous identity, and wages, there are few clear trends in the relationships among employment type, skills, and health and social outcomes. The effect of rising skill levels on self-reported health is generally not statistically significant for all employment types. However, higher-level skills tend to modify the negative impact of precarious employment on social outcomes. Given that precarious work is a growing part of the labour market in Canada and is known to have negative impacts on a wide range of health and social factors, further research may be warranted to expand on the preliminary assessment of relationships among precarious work, skills, and health and social outcomes that is currently possible using PIAAC data.



## CHAPTER 5

## IMPLICATIONS

This chapter reviews key messages from the findings presented in this report and briefly discusses some of their implications for policy and program development and evaluation, and for further research and data collection on the health and social outcomes of adult skills.

### **Canada generally has a positive health and social profile.**

Canadians generally report levels of health, trust, volunteering, and political efficacy that are above the average for OECD countries that participated in PIAAC. This is also the case for almost all provincial and territorial jurisdictions in Canada.

### **Skills matter for health and social well-being.**

The health and social outcomes achieved by Canadians are modified by skill level. PIAAC results confirm that Canadians with higher skills are more likely to enjoy better health, trust more people, participate in volunteer activities, and think they can influence government, compared to those with lower skills. This is the case even after controlling for other factors that may influence the relationship among skills and health and social outcomes, including age, gender, educational attainment, employment status, Indigenous identity, immigrant status, and the language in which the PIAAC survey is administered.

Compared to other OECD countries, Canada exhibits a stronger relationship between skills and health and social outcomes. For volunteer activities in particular, Canadians at the highest levels of literacy proficiency are more likely to volunteer than those at the lowest skill levels, compared to the OECD average. Differences in results for Canada compared to the OECD reflect specific health, education, and labour market contexts and requirements, as well as cultural and social variation in attitudes toward civic and social engagement and political participation. These factors underscore the complexity of the links among education, skills, and health and social outcomes.

These findings suggest that information-processing skills do more than facilitate access to good jobs, higher wages, or macro-economic outcomes like productivity. Skills are also important resources to help people locate and use the information and services needed to attain and maintain good health and to participate fully in society and its institutions. Social inclusion is itself recognized as being important for health, particularly for groups of Canadians who are more likely to experience marginalization, including Indigenous peoples, recent

immigrants, women, and people with disabilities (Mikkonen & Raphael, 2010).

At the individual level, higher levels of skills proficiency may also support increased control over one's life by helping to build the capabilities needed to gain access to and pursue different life chances. In social-determinants-of-health research, control is considered important in part because of the role that predictability and choice play in reducing stress. Prolonged exposure to stress—for example, from coping with low income, poor-quality housing, food insecurity, or precarious employment—can contribute to adverse physical and mental health outcomes (Mikkonen & Raphael, 2010).

At the societal level, community members who acquire and maintain higher levels of skills proficiency also are more likely to develop greater understanding of local, regional, and national norms, practices, and institutions; have access to opportunities to participate in these processes; and cultivate greater appreciation and tolerance for the beliefs, motivations, and behaviour of others. This can have positive implications for sustaining healthy and well-functioning democracies, as well as for reducing the need for—and cost of—health and social services. For example, having less knowledge about health is associated with poorer health status and greater use of health services (Weiss, 2005). Inadequate levels in literacy and problem-solving may be a contributing factor to inequities in health outcomes and associated health-care-system expenditures. Similarly, research suggests that improved skills can reduce the cost of social assistance, employment insurance, and workers' compensation (Murray & Shillington, 2012).

These observations are supported by this report's finding that, according to PIAAC, Canadians who score above 335 in literacy (Level 4) self-report only positive levels of health, trust, volunteering, and political efficacy. In effect, PIAAC data suggest that a highly literate population is also more likely to be characterized by good health, stronger social cohesion and connectedness, and greater civic participation. While it may not be possible for everyone to achieve Level 4, each improvement in literacy skills is associated with improved well-being.

### **Skills are more than a corollary of education.**

In today's information society, text-based information on Web sites, in newspapers, and from other sources is an important way in which people learn about the world. Primary and secondary education are critical for acquiring the skills to understand and interpret this information, while postsecondary education and subsequent training and professional development

opportunities support ongoing skill use, development, and maintenance. PIAAC data for Canada and internationally confirm that health and social outcomes generally improve as education increases. However, these data also confirm that skills have an independent effect on health and social outcomes in Canada that persists even when controlling for level of educational attainment. *Within* each level of education, those with stronger skills are more likely to have positive health and social outcomes.

When proficiency levels are high, there is a strong likelihood of reporting positive health and social outcomes, even for those who have only low levels of formal education (less than a high-school diploma). This finding suggests that skills may help to mitigate some of the negative outcomes that often accompany lower educational attainment, such as increased mortality, increased health care service use and costs, decreased earnings potential, and increased food and housing insecurity (Mackenbach, Meerding, & Kunst, 2007; McGrail et al., 2009; Tjepkema, Wilkins, & Long, 2012). Conversely, a higher level of educational attainment is not strongly associated with positive health and social outcomes when information-processing skill proficiency is low. This finding points to the importance of efforts to use and maintain skills at work and in everyday life—even for adults who begin with a high level of formal education.

Interventions that help adults to build and retain skills could be an important policy approach across the skills spectrum, even when these interventions are not linked to a formal course of education or study. This may be particularly the case for adults who completed formal education some years ago—and whose skills are likely to have declined accordingly. Although education is well-documented as a critical social determinant of health (PHAC, 2008), educational credentials may not be the only way to acquire the skills that can advance health and social well-being.

### **Some groups are less likely to enjoy positive health and social outcomes.**

Although Canada's results are fairly strong compared to many other developed countries, disparities persist with respect to the health and social profile of different groups of Canadians. Women tend to report positive social outcomes more frequently than men. Older Canadians tend to be more trusting, while younger Canadians have higher rates of volunteering. Age makes little difference in perceptions of influence on government, but unsurprisingly, self-reported health declines among older Canadians. Those with lower educational attainment and

unemployed Canadians generally have poorer health and social outcomes than other populations in Canada. Indigenous peoples also tend to report poorer health and lower levels of trust and political efficacy, a finding that is connected to colonialism's legacy in Canada.

There is a range of existing interventions at the national, provincial/territorial, and local levels that support these groups to improve their health and social well-being, such as access to primary health services, health-promotion and disease-prevention programs, income supports, and community-based and local development initiatives. PIAAC findings suggest that skill-based interventions could be an additional avenue through which governments and other organizations can support Canadians to achieve better health and social outcomes. For Indigenous peoples, attaining higher levels in numeracy in particular appears to be a predictor of positive outcomes, whereas both literacy and PS-TRE skills seem to predict positive outcomes for recent immigrants.

Although skills training tends not to directly target goals like improved health status or social engagement, increased collaboration across sectors may facilitate assessment of the multiple and diverse benefits that could flow from these programs—from improved skills, to greater labour market attachment, to better health, and stronger civic and social engagement.

### **Skills as an equalizer.**

The results presented in this report indicate that stronger literacy, numeracy, and PS-TRE skills may help to narrow gaps in outcomes between certain populations. Skills have the potential to assist older Canadians to maintain good health, and to more fully participate in their communities. Skills generally decline with age, as do health and social outcomes, but gaps between older and younger Canadians are much narrower for older Canadians with high skill levels. Skills also appear to be potentially important to close gaps in the health and social outcomes achieved by Indigenous and non-Indigenous peoples.

The fact that gaps in health and social outcomes diminish at higher proficiency levels suggests that access to opportunities for older Canadians and Indigenous adults to build and maintain skills through lifelong and life-wide learning may have the potential to support health and social well-being. Particularly in the face of persistent inequities in the health status and outcomes of Indigenous peoples in Canada, the potential for other intervention strategies to yield health benefits is an important consideration. For example,

current investments in Indigenous employment and skills training could incorporate health and social outcome measurement into program evaluation, as a starting point to better understand how strengthened skills—as well as other contextual factors—can support health and social well-being.

**Skills may not be enough to overcome cumulative disadvantage.**

Although information-processing skills are associated with positive health and social outcomes independently of other factors, for some groups of Canadians attaining higher levels in literacy, numeracy, and PS-TRE is not enough to mitigate other disadvantages. In particular, the health and social outcomes of unemployed Canadians generally do not improve as skills proficiency increases. This may be a result of the compounding nature of the economic and social vulnerability and exclusion associated with unemployment. More research is needed to better understand the relationships among skills, health, social well-being, and unemployment to consider whether education and/or skills development can serve as a pathway toward greater health and social well-being for unemployed Canadians.

**The growing trend of precarious work—A new issue to explore.**

Similarly, the preliminary analysis of precarious work that is currently possible using PIAAC data suggests that it could be an important area for future research. Although results for health are inconclusive, stronger skills proficiency appears to be connected to higher levels of trust, volunteering, and political efficacy for those employed in precarious jobs. Given the growing size of the precarious workforce in Canada and internationally, and the well-documented negative economic, health, and social impacts of this type of employment, better understanding the role of skills is important in research. More nuanced data are needed to better assess the employment status of Canadians. This includes data on whether a person has chosen their particular type of employment based on personal preference, economic necessity, or other factors.



## Conclusion

The data collected in PIAAC on the health and social outcomes of adult skills provide an opportunity to reflect on the broader question of the extent to which proficiency in literacy, numeracy, and PS-TRE make a difference to the well-being of individuals and societies. Existing theoretical and empirical evidence confirms that there is a connection between education and health. This report builds on that literature by confirming that skills are associated with the health and social outcomes measured in PIAAC independently of other factors, and that skills may help ameliorate health and social outcomes for certain groups of Canadians. Based on these findings, it appears that opportunities to improve information-processing skills may provide considerable health, social, and economic returns.

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## **APPENDIX I**

### **METHODS OF ANALYSIS**

This overview of proficiency in literacy, numeracy, and problem solving in technology-rich environments (PS-TRE) of Canadians aged 16 to 65 examined the relationships between these three skill domains and some key sociodemographic factors—age, gender, educational attainment, immigrant status, Indigenous identity, and employment status.

Skills profile distributions in health and social outcomes (trust, volunteerism, and political efficacy), longstanding illness, activity limitation, reasons for leaving work/not looking for work, and precarious work were calculated and stratified by sociodemographic factors—age, gender, educational attainment, employment status, immigrant status, Indigenous status, and wages—where sample size was adequate for reliable estimation (i.e., not all skills profile distributions were stratified by sociodemographics).

Several multivariable analyses explored the associations between skills proficiency and health and social outcomes (HSO). First, the association between skills proficiency and HSO was examined while controlling for sociodemographic factors: age, gender, educational attainment, employment status, Indigenous status, and testing language. Second, educational attainment was examined as a modifier of the association between skills proficiency and HSO while controlling for sociodemographic factors—age, gender, immigrant status, employment status, and testing language. Third, the association between skills proficiency and HSO was explored in three employment categories (secure, precarious, and “no contract”) while controlling for sociodemographic traits—this time, age, gender, educational attainment, immigrant status, Indigenous identity, and wages.

### Limitations

While the analyses in this report make an important contribution to our understanding of the independent effects of skills with respect to health and social outcomes, the PIAAC survey is cross-sectional. Because it captures data at only a single point in time the analyses make no claims about the causal nature of these relationships. Longitudinal surveys, such as the Longitudinal and International Study of Adults (LISA), could add to our understanding of impacts over time.

Income and income inequality have been extensively studied with respect to their role in influencing a range of health and social outcomes in Canada (for example, Tjepkema, Wilkins, & Long, 2013). Heisz, Notten, and Situ (2016) further explore relationships between literacy

skills proficiency and household income for Canadians using data from the first wave of the Longitudinal and International Study of Adults (LISA). LISA combines skill data from PIAAC with information on household income. They found that after controlling for other characteristics known to increase the risk of low income, individuals at Level 1 or below in literacy were more likely to be in a low-income household compared to individuals at Level 4 or 5. Because this thematic report on health and social outcomes in PIAAC did not have access to household income data it cannot explore the links among skills, health, social outcomes, and income. The wage variable available in PIAAC captures individual hourly earnings, excluding bonuses, in deciles. While this is useful for exploring returns on investments in skills with respect to wages or precarious work, it does not reflect household earnings—the measure often used to assess low income and income distribution in Canada. As a result, this report does not draw any conclusions with respect to trends or interactions between skills, income, and health and social outcomes.

Precarious work is increasingly prevalent in labour markets in Canada and around the world and has potential adverse effects on workers and society in general (Lewchuk et al., 2015). Although PIAAC captures some data on employment type, there are a number of very significant limitations, including how (1) it is not possible to assess the characteristics of various forms of “precarious” employment, despite potentially large differences in the nature of work and associated benefits across jobs and/or sectors; (2) it is not possible to determine whether someone is working in a precarious position by choice or by necessity; and (3) it is not possible to assess whether a respondent’s hourly earnings are equivalent to household earnings, which is critical to determining wage adequacy. The discussion on precarious work should be read with these cautions in mind.

### Foundational skills: Definitions and descriptions of proficiency levels

The skills assessed by PIAAC are defined in terms of three parameters: content, cognitive strategies, and context. The context defines the different situations in which each of these skills is used, including professional, educational, personal, and societal. The content and cognitive strategies—summarized in the following tables for each skill and each proficiency level—are defined by a specific framework that describes what is being measured and guides the interpretation of results (OECD, 2012).

## Literacy

Literacy is defined as “understanding, evaluating, using and engaging with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential” (OECD, 2012, p. 19).

The population of adults aged 16 to 65 was assessed over a continuum of ability in literacy using a measurement scale ranging from 0 to 500. Proficiency levels are used to help interpret the findings. OECD has divided reporting scales for literacy into five proficiency levels (with an additional category, “below Level 1”), defined by a particular score-point range, where each level corresponds to a description of what adults with particular scores can do.

<b>Literacy — Description of proficiency levels</b>		
<b>Level</b>	<b>Score range</b>	<b>Descriptors of the characteristics of literacy tasks</b>
5	376–500	At this level, tasks may require the respondent to search for and integrate information across multiple, dense texts; construct syntheses of similar and contrasting ideas or points of view; or evaluate evidenced-based arguments. Application and evaluation of logical and conceptual models of ideas may be required to accomplish tasks. Evaluating reliability of evidentiary sources and selecting key information is frequently a key requirement. Tasks often require respondents to be aware of subtle, rhetorical cues and to make high-level inferences or use specialized background knowledge.
4	326–375	Tasks at this level often require respondents to perform multiple-step operations to integrate, interpret, or synthesize information from complex or lengthy continuous, noncontinuous, mixed, or multiple-type texts. Complex inferences and application of background knowledge may be needed to perform successfully. Many tasks require identifying and understanding one or more specific, noncentral ideas in the text to interpret or evaluate subtle evidence-claim or persuasive discourse relationships. Conditional information is frequently present in tasks at this level and must be taken into consideration by the respondent. Competing information is present and sometimes seemingly as prominent as correct information.
3	276–325	Texts at this level are often dense or lengthy, and include continuous, noncontinuous, mixed, or multiple pages of text. Understanding text and rhetorical structures becomes more central to successfully completing tasks, especially navigating complex digital texts. Tasks require the respondent to identify, interpret, or evaluate one or more pieces of information, and often require varying levels of inference. Many tasks require the respondent to construct meaning across larger chunks of text or perform multi-step operations in order to identify and formulate responses. Often tasks also demand that the respondent disregard irrelevant or inappropriate content to answer accurately. Competing information is often present, but it is not more prominent than the correct information.
2	226–275	At this level the medium of texts may be digital or printed and texts may include continuous, noncontinuous, or mixed types. Tasks at this level require respondents to make matches between the text and information and may require paraphrasing or low-level inferences. Some competing pieces of information may be present. Some tasks require the respondent to: <ul style="list-style-type: none"> <li>▪ cycle through or integrate two or more pieces of information based on criteria</li> <li>▪ compare and contrast or reason about information requested in the question</li> <li>▪ navigate within digital texts to access and identify information from various parts of a document.</li> </ul>
1	176–225	Most of the tasks at this level require the respondent to read relatively short digital or print continuous, noncontinuous, or mixed texts to locate a single piece of information that is identical to or synonymous with the information given in the question or directive. Some tasks, such as those involving noncontinuous texts, may require the respondent to enter personal information onto a document. Little, if any, competing information is present. Some tasks may require simple cycling through more than one piece of information. Knowledge and skill in recognizing basic vocabulary, determining the meaning of sentences, and reading paragraphs of text is expected.
Below 1	0–175	The tasks at this level require the respondent to read brief texts on familiar topics to locate a single piece of specific information. There is seldom any competing information in the text and the requested information is identical in form to information in the question or directive. The respondent may be required to locate information in short continuous texts. However, in this case, the information can be located as if the text were noncontinuous in format. Only basic vocabulary knowledge is required and the reader is not required to understand the structure of sentences or paragraphs or make use of other text features. Tasks below Level 1 do not make use of any features specific to digital texts.

## Numeracy

PIAAC defines numeracy as “the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life” (OECD, 2012, p. 33).

The population of adults aged 16 to 65 was assessed over a continuum of ability in numeracy using a measurement scale ranging from 0 to 500. As is the case for literacy, the results for numeracy are presented either as an average score or as a distribution across proficiency levels.

<b>Numeracy — Description of proficiency levels</b>		
<b>Level</b>	<b>Score range</b>	<b>Descriptors of the characteristics of numeracy tasks</b>
5	376–500	Tasks at this level require the respondent to understand complex representations and abstract and formal mathematical and statistical ideas, possibly embedded in complex texts. Respondents may have to integrate multiple types of mathematical information where considerable translation or interpretation is required; draw inferences; develop or work with mathematical arguments or models; and justify, evaluate, and critically reflect upon solutions or choices.
4	326–375	Tasks at this level require the respondent to understand a broad range of mathematical information that may be complex, abstract, or embedded in unfamiliar contexts. These tasks involve undertaking multiple steps and choosing relevant problem-solving strategies and processes. Tasks tend to require analysis and more complex reasoning about quantities and data; statistics and chance; spatial relationships; and change, proportions, and formulas. Tasks at this level may also require understanding arguments or communicating well-reasoned explanations for answers or choices.
3	276–325	Tasks at this level require the respondent to understand mathematical information that may be less explicit, embedded in contexts that are not always familiar, and represented in more complex ways. Tasks require several steps and may involve the choice of problem-solving strategies and relevant processes. Tasks tend to require the application of number sense and spatial sense; recognizing and working with mathematical relationships, patterns, and proportions expressed in verbal or numerical form; and interpretation and basic analysis of data and statistics in texts, tables, and graphs.
2	226–275	Tasks at this level require the respondent to identify and act on mathematical information and ideas embedded in a range of common contexts where the mathematical content is fairly explicit or visual with relatively few distractors. Tasks tend to require the application of two or more steps or processes involving calculation with whole numbers and common decimals, per cents, and fractions; simple measurement and spatial representation; estimation; and interpretation of relatively simple data and statistics in texts, tables, and graphs.
1	176–225	Tasks at this level require the respondent to carry out basic mathematical processes in common, concrete contexts where the mathematical content is explicit with little text and minimal distractors. Tasks usually require simple one-step or simple processes involving counting; sorting; performing basic arithmetic operations; understanding simple per cents such as 50 per cent; or locating, identifying, and using elements of simple or common graphical or spatial representations.
Below 1	0–175	Tasks at this level require the respondents to carry out simple processes such as counting, sorting, performing basic arithmetic operations with whole numbers or money, or recognizing common spatial representations in concrete, familiar contexts where the mathematical content is explicit with little or no text or distractors.

## PS-TRE

For the PS-TRE domain, respondents are measured for their ability to use “digital technology, communications tools, and networks to acquire and evaluate information, communicate with others, and perform practical tasks” (OECD, 2012, p. 45). The PS-TRE proficiency scale was divided into four levels, as described below.

<b>PS-TRE — Description of Proficiency levels</b>		
<b>Level</b>	<b>Score range</b>	<b>Descriptors of the characteristics of PS-TRE tasks.</b>
3	341-500	At this level, tasks typically require the use of both generic and more specific technology applications. Some navigation across pages and applications is required to solve the problem. The use of tools (e.g., a sort function) is needed to make progress towards the solution. The task may involve multiple steps and operators. The goal of the problem may have to be defined by the respondent, and the criteria to be met may or may not be explicit. There are typically high monitoring demands. Unexpected outcomes and impasses are likely to occur. The task may require evaluating the relevance and reliability of information in order to discard distractors. Integration and inferential reasoning may be needed to a large extent.
2	291-340	At this level, tasks typically require the use of both generic and specific technology applications. For instance, respondents may have to make use of a novel online form. Some navigation across pages and applications is required to solve the problem. The use of tools (e.g., a sort function) can facilitate resolution of the problem. The task may involve multiple steps and operators. The goal of the problem may have to be defined by the respondent, though the criteria to be met are explicit. There are higher monitoring demands. Some unexpected outcomes or impasses may appear. The task may require evaluating the relevance of a set of items to discard distractors. Some integration and inferential reasoning may be needed.
1	241-290	At this level, tasks typically require the use of widely available and familiar technology applications, such as e-mail software or a web browser. There is little or no navigation required to access to the information or commands required to solve the problem. The problem may be solved regardless of respondents' awareness and use of specific tools and functions (e.g., a sort function). The tasks involve few steps and a minimal number of operators. At the cognitive level, the respondent can readily infer the goal from the task statement; problem resolution requires the respondent to apply explicit criteria; and there are few monitoring demands (e.g. the respondent does not have to check whether he or she has used the appropriate procedure or made progress towards the solution). Identifying contents and operators can be done through simple match. Only simple forms of reasoning, such as assigning items to categories, are required; there is no need to contrast or integrate information.
Below 1	0-240	Tasks are based on well-defined problems involving the use of only one function within a generic interface to meet one explicit criterion without any categorical, inferential reasoning or transforming of information. Few steps are required and no sub-goal has to be generated.
PS-TRE non-respondents		This category includes those individuals who did not report previous computer experience, did not pass the ICT core test, or opted not to be assessed by a computer-based test.

## Definitions of terms used in this report

### Population groups

An **immigrant** is a person who is, or has ever been, a landed immigrant/permanent resident. **Recent immigrants** are those who landed in Canada as permanent residents between 2002 and 2012 (i.e., they've been in Canada 10 years or less). **Established immigrants** are those who landed in Canada as permanent residents before 2002 (more than 10 years ago).

**Indigenous** respondents in PIAAC include First Nations people living off-reserve (48 per cent of Indigenous respondents), Métis (44 per cent), and Inuit (5 per cent). An additional 1 per cent reported multiple Indigenous identities, and 2 per cent reported Indigenous identities not included elsewhere (Statistics Canada, 2013, p. 42). This report does not disaggregate data on Indigenous respondents because of limitations created by sample sizes within these populations.

### Employment status

**Employed respondents** were those who in the week prior to PIAAC did at least one hour of paid work as an employee or self-employed, or were away from a job they plan to return to, or did at least one hour of unpaid work in a business that either they or a relative own (Statistics Canada et al., 2013, p. 61).

**Not in the labour force** refers to those “out of the labour force” respondents who met none of the employment conditions and did not actively look for work in the four weeks prior to PIAAC, or would not begin work for more than three months. The “out of the labour force” population also consists of respondents who did not take active steps to find a job and were not looking for work or available to begin work within two weeks of the survey (Statistics Canada et al., 2013, p. 61). This may include retired people, students, or those with health conditions that prevent them from working.

**Unemployed respondents** did not identify themselves in any of the “employed” categories, or indicate they were actively looking for work in the four weeks prior to PIAAC and were able to begin work within two weeks. The unemployed population also included respondents who were waiting to begin a job for which they had been hired (Statistics Canada et al., 2013, p. 61).

### Employment types

**Precarious employment** refers to “nonstandard” work arrangements, such as short-term or fixed-term contract work, casual work, temporary work (including jobs supplied by temporary agencies), certain forms of part-time work, own-account self-employment, telework, home-based work, and seasonal work. It may also be characterized by specific employment attributes, such as uncertainty of ongoing employment, unpredictability of hours, or a lack of employment protections and benefits.

**Secure employment** refers to “standard” work arrangement, typically full-time, full-year, permanent employment with regular hours—and more often with employer-provided benefits such as paid vacation or extended health care.

### Highest level of educational attainment

The highest level of education ever completed. Education is defined as formal education provided in the system of schools, colleges, universities and other formal educational institutions. Educational attainment is based on the 1997 International Standard Classification of Education (ISCED) coding developed by UNESCO. Includes every type of education associated with obtaining a certificate or diploma the respondent has ever successfully completed.

- Less than high-school diploma: no formal education or Elementary school, or Jr High/Middle School. In terms of ISCED classification, this category includes no formal qualification or below ISCED 1, ISCED 1, and ISCED 2.
- High-school diploma: Senior High-School, Adult secondary school, or Upgrading programs or courses. In terms of ISCED classification, this category includes ISCED 3C- shorter than 2 years, ISCED 3C-2 years or more, ISCED 3A-B, and ISCED 3 (without distinction A-B-C, 2 years or more).
- Postsecondary education – below bachelor's degree: non-university certificate or diploma from a college, school of nursing, or technical institute; trade/vocational certificates; apprenticeship certificates; CEGEP diploma or certificates; university transfer programs; and university certificate or diploma programs below bachelor's degree. In terms of ISCED classification, this category includes: ISCED 4C, ISCED 4A-B, ISCED 4 (without distinction A-B-C), and ISCED 5B.
- Postsecondary education – bachelor's degree or higher: bachelor's degree and university

certificate above bachelor level. In terms of ISCED classification, this category includes ISCED 5A-bachelor's degree.

- Postsecondary education-first professional degree, master's degree, or Ph.D.: first professional degree (medical, veterinary medicine, dental, optometry, law, and divinity), master's and Ph.D. In terms of ISCED classification, this category includes ISCED 5A- master's degree and ISCED 6.

### ***Social determinants of health***

The WHO Commission on Social Determinants of Health (2008) defines social determinants of health as “the conditions in which people are born, grow, live, work and age” (p. 26). Differences in the distribution of resources for healthy living, or conversely, exposures to health risks, coupled with structural drivers (such as social and economic policies, governance, and cultural norms), contribute to inequalities in health outcomes and prevent many people from achieving “the good health that is biologically possible.” ([http://www.who.int/social\\_determinants/thecommission/finalreport/key\\_concepts/en/](http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/)).

### ***Social gradient in health***

According to the World Health Organization, there is a “social gradient in health.” In other words, “the poorest of the poor, around the world, have the worst health. Within countries, the evidence shows that in general the lower an individual's socioeconomic position, the worse their health. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries. The social gradient in health means that health inequities affect everyone.” (*Social determinants of health*, Key concepts, [http://www.who.int/social\\_determinants/thecommission/finalreport/key\\_concepts/en](http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en)).

Measurable differences in health between individuals, groups, or countries are generally referred to as **health inequalities**, while **health inequities** are those unfair differences in health associated with social disadvantages that are modifiable (NCCDH Glossary, (<http://nccdh.ca/resources/glossary>)).







## APPENDIX II

### STATISTICAL TABLES

**Table 1.1a**

**Percentage distributions of population aged 16 to 65, by self-reported health, OECD average, Canada, provinces and territories, 2012**

	Self-reported health			
	Positive		Negative	
	%	SE	%	SE
<b>OECD average</b>	81	(0.1)	19	(0.1)
<b>Canada</b>	89	(0.3)	11	(0.3)
<b>Newfoundland and Labrador</b>	85	(1.0)	15	(1.0)
<b>Prince Edward Island</b>	86	(1.2)	14	(1.2)
<b>Nova Scotia</b>	85	(1.1)	15	(1.1)
<b>New Brunswick</b>	86	(1.1)	14	(1.1)
<b>Quebec</b>	91	(0.4)	9	(0.4)
<b>Ontario</b>	89	(0.6)	11	(0.6)
<b>Manitoba</b>	88	(0.9)	12	(0.9)
<b>Saskatchewan</b>	86	(1.1)	14	(1.1)
<b>Alberta</b>	90	(1.2)	10	(1.2)
<b>British Columbia</b>	88	(1.0)	12	(1.0)
<b>Yukon</b>	86	(4.4)	14 <sup>M</sup>	(4.4)
<b>Northwest Territories</b>	85	(1.3)	15	(1.3)
<b>Nunavut</b>	76	(1.9)	24	(1.9)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

SE Standard error

**Table 1.1b**

**Literacy — Average scores and score at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by self-reported health, Canada, 2012**

Self-reported health	5 <sup>th</sup> percentile		25 <sup>th</sup> percentile		Average score	SE	75 <sup>th</sup> percentile		95 <sup>th</sup> percentile	
	Scores	SE	Scores	SE			Scores	SE	Scores	SE
Excellent	192	(3.5)	250	(2.3)	280	(1.1)	314	(1.3)	352	(2.8)
Very good	200	(3.4)	251	(1.6)	280	(1.0)	313	(1.3)	351	(2.4)
Good	179	(4.5)	237	(1.6)	268	(1.0)	304	(1.5)	345	(2.6)
Fair	160	(7.8)	222	(3.4)	255	(2.0)	294	(2.7)	335	(6.0)
Poor	132	(16.1)	207	(9.0)	241	(4.3)	280	(7.1)	330	(12.6)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

SE Standard error

Table 1.2a

## Percentage distributions of population aged 16 to 65, by level of trust, OECD average, Canada, provinces and territories, 2012

	Level of trust			
	Positive		Negative	
	%	SE	%	SE
<b>OECD average</b>	22	(0.1)	78	(0.1)
<b>Canada</b>	28	(0.5)	72	(0.5)
<b>Newfoundland and Labrador</b>	22	(1.1)	78	(1.1)
<b>Prince Edward Island</b>	30	(1.6)	70	(1.6)
<b>Nova Scotia</b>	26	(1.4)	74	(1.4)
<b>New Brunswick</b>	28	(1.3)	72	(1.3)
<b>Quebec</b>	31	(0.7)	69	(0.7)
<b>Ontario</b>	26	(0.9)	74	(0.9)
<b>Manitoba</b>	29	(1.7)	71	(1.7)
<b>Saskatchewan</b>	32	(1.6)	68	(1.6)
<b>Alberta</b>	26	(1.6)	74	(1.6)
<b>British Columbia</b>	30	(1.4)	70	(1.4)
<b>Yukon</b>	28 <sup>m</sup>	(5.6)	72	(5.6)
<b>Northwest Territories</b>	28	(1.5)	72	(1.5)
<b>Nunavut</b>	20	(1.3)	80	(1.3)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>m</sup> Use with caution

SE Standard error

Table 1.2b

Literacy — Average scores and score at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by level of trust, Canada, 2012

Level of trust	5 <sup>th</sup> percentile		25 <sup>th</sup> percentile		Average score	SE	75 <sup>th</sup> percentile		95 <sup>th</sup> percentile	
	Scores	SE	Scores	SE			Scores	SE	Scores	SE
Strongly agree	180	(3.9)	235	(2.4)	265	(1.4)	300	(1.7)	339	(3.0)
Agree	180	(3.2)	238	(1.5)	270	(1.0)	305	(1.3)	345	(2.3)
Disagree	202	(4.6)	259	(1.7)	287	(1.2)	319	(1.7)	356	(3.0)
Strongly disagree	199	(8.7)	256	(4.9)	282	(2.7)	314	(4.5)	352	(6.3)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

SE Standard error

Table 1.3a

## Percentage distributions of population aged 16 to 65, by volunteer participation, OECD average, Canada, provinces and territories, 2012

	Volunteer participation			
	Volunteered		Did not volunteer	
	%	SE	%	SE
<b>OECD average</b>	34	(0.1)	66	(0.1)
<b>Canada</b>	49	(0.5)	51	(0.5)
<b>Newfoundland and Labrador</b>	51	(1.5)	49	(1.5)
<b>Prince Edward Island</b>	59	(1.6)	41	(1.6)
<b>Nova Scotia</b>	54	(1.4)	46	(1.4)
<b>New Brunswick</b>	53	(1.6)	47	(1.6)
<b>Quebec</b>	36	(0.7)	64	(0.7)
<b>Ontario</b>	50	(1.1)	50	(1.1)
<b>Manitoba</b>	55	(1.7)	45	(1.7)
<b>Saskatchewan</b>	59	(2.0)	41	(2.0)
<b>Alberta</b>	55	(1.7)	45	(1.7)
<b>British Columbia</b>	55	(1.5)	45	(1.5)
<b>Yukon</b>	65	(5.9)	35 <sup>M</sup>	(5.9)
<b>Northwest Territories</b>	63	(1.6)	37	(1.6)
<b>Nunavut</b>	52	(2.3)	48	(2.3)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>M</sup> Use with caution

SE Standard error

Table 1.3b

Literacy — Average scores and score at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by frequency of volunteer participation, Canada, 2012

Volunteer participation	5 <sup>th</sup> percentile		25 <sup>th</sup> percentile		Average score	SE	75 <sup>th</sup> percentile		95 <sup>th</sup> percentile	
	Scores	SE	Scores	SE			Scores	SE	Scores	SE
Never	172	(2.8)	230	(1.4)	262	(0.8)	298	(1.3)	341	(2.2)
Less than once a month	206	(4.1)	258	(1.9)	285	(1.3)	316	(1.7)	352	(2.3)
Less than once a week but at least once a month	211	(5.4)	261	(2.5)	289	(1.6)	320	(2.5)	355	(4.1)
At least once a week but not every day	203	(5.1)	257	(3.2)	286	(1.7)	319	(2.8)	355	(3.1)
Every day	190	(12.4)	248	(5.7)	274	(3.6)	304	(4.4)	344	(10.9)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

SE Standard error

Table 1.4a

## Percentage distributions of population aged 16 to 65, by political efficacy, OECD average, Canada, provinces and territories, 2012

	Political efficacy			
	Positive		Negative	
	%	SE	%	SE
OECD average	42	(0.2)	58	(0.2)
Canada	45	(0.5)	55	(0.5)
Newfoundland and Labrador	44	(1.6)	56	(1.6)
Prince Edward Island	44	(1.6)	56	(1.6)
Nova Scotia	49	(1.5)	51	(1.5)
New Brunswick	37	(1.6)	63	(1.6)
Quebec	22	(0.7)	78	(0.7)
Ontario	50	(1.1)	50	(1.1)
Manitoba	54	(1.7)	46	(1.7)
Saskatchewan	54	(1.9)	46	(1.9)
Alberta	54	(1.7)	46	(1.7)
British Columbia	54	(1.9)	46	(1.9)
Yukon	65	(4.1)	35	(4.1)
Northwest Territories	57	(2.3)	43	(2.3)
Nunavut	44	(2.3)	56	(2.3)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

SE Standard error

Table 1.4b

Literacy — Average scores and score at the 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of population aged 16 to 65, by political efficacy, Canada, 2012

Political efficacy	5 <sup>th</sup> percentile		25 <sup>th</sup> percentile		Average score	SE	75 <sup>th</sup> percentile		95 <sup>th</sup> percentile	
	Scores	SE	Scores	SE			Scores	SE	Scores	SE
	Strongly agree	176	(5.6)	229			(2.4)	259	(1.5)	292
Agree	176	(5.4)	236	(1.6)	267	(1.1)	304	(1.7)	343	(3.3)
Disagree	201	(3.9)	258	(1.9)	285	(1.0)	318	(1.3)	355	(1.8)
Strongly disagree	206	(6.6)	257	(3.9)	286	(2.4)	318	(3.0)	354	(6.5)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

SE Standard error

Table 2.1a

**Literacy — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012**

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Level 1 or below	80	(1.1)	20	(1.1)	18	(1.1)	82	(1.1)	30	(1.3)	70	(1.3)	29	(1.3)	71	(1.3)
	Level 2	88	(0.7)	12	(0.7)	23	(0.9)	77	(0.9)	43	(1.0)	57	(1.0)	38	(1.1)	62	(1.1)
	Level 3	92	(0.5)	8	(0.5)	33	(0.9)	67	(0.9)	56	(0.9)	44	(0.9)	51	(1.0)	49	(1.0)
	Level 4 or 5	94	(0.9)	6	(0.9)	40	(1.9)	60	(1.9)	65	(1.9)	35	(1.9)	61	(1.8)	39	(1.8)
<b>Newfoundland and Labrador</b>	Level 1 or below	76	(2.8)	24	(2.8)	12 <sup>M</sup>	(2.4)	88	(2.4)	36	(3.7)	64	(3.7)	29	(3.7)	71	(3.7)
	Level 2	82	(2.0)	18	(2.0)	19	(2.0)	81	(2.0)	47	(3.1)	53	(3.1)	36	(2.9)	64	(2.9)
	Level 3	92	(1.5)	8 <sup>M</sup>	(1.5)	25	(2.3)	75	(2.3)	59	(2.9)	41	(2.9)	55	(3.1)	45	(3.1)
	Level 4 or 5	95	(2.5)	U	(2.5)	44	(6.6)	56	(6.6)	69	(4.9)	31	(4.9)	76	(5.7)	24 <sup>M</sup>	(5.7)
<b>Prince Edward Island</b>	Level 1 or below	72	(4.7)	28 <sup>M</sup>	(4.7)	18 <sup>M</sup>	(4.2)	82	(4.2)	35	(5.6)	65	(5.6)	19 <sup>M</sup>	(4.2)	81	(4.2)
	Level 2	82	(2.9)	18	(2.9)	27	(3.3)	73	(3.3)	55	(3.9)	45	(3.9)	39	(3.6)	61	(3.6)
	Level 3	91	(1.8)	9 <sup>M</sup>	(1.8)	34	(3.5)	66	(3.5)	66	(3.2)	34	(3.2)	51	(3.9)	49	(3.9)
	Level 4 or 5	94	(2.6)	U	(2.6)	37	(6.2)	63	(6.2)	74	(5.2)	26 <sup>M</sup>	(5.2)	63	(6.3)	37 <sup>M</sup>	(6.3)
<b>Nova Scotia</b>	Level 1 or below	74	(3.7)	26	(3.7)	20 <sup>M</sup>	(3.7)	80	(3.7)	36	(4.6)	64	(4.6)	31	(4.7)	69	(4.7)
	Level 2	83	(2.3)	17	(2.3)	22	(2.4)	78	(2.4)	49	(3.2)	51	(3.2)	40	(3.3)	60	(3.3)
	Level 3	89	(1.7)	11	(1.7)	30	(2.7)	70	(2.7)	62	(2.7)	38	(2.7)	58	(2.9)	42	(2.9)
	Level 4 or 5	93	(2.2)	7 <sup>M</sup>	(2.2)	33	(4.6)	67	(4.6)	68	(3.8)	32	(3.8)	71	(4.5)	29	(4.5)
<b>New Brunswick</b>	Level 1 or below	74	(2.9)	26	(2.9)	16 <sup>M</sup>	(2.8)	84	(2.8)	35	(3.7)	65	(3.7)	16 <sup>M</sup>	(3.0)	84	(3.0)
	Level 2	85	(2.0)	15	(2.0)	25	(2.4)	75	(2.4)	50	(2.7)	50	(2.7)	31	(2.6)	69	(2.6)
	Level 3	90	(1.7)	10	(1.7)	33	(2.8)	67	(2.8)	60	(2.7)	40	(2.7)	48	(3.2)	52	(3.2)
	Level 4 or 5	95	(2.8)	U	(2.8)	41	(6.7)	59	(6.7)	74	(5.0)	26 <sup>M</sup>	(5.0)	59	(6.1)	41	(6.1)
<b>Quebec</b>	Level 1 or below	82	(1.4)	18	(1.4)	18	(1.4)	82	(1.4)	23	(1.6)	77	(1.6)	21	(1.8)	79	(1.8)
	Level 2	90	(0.8)	10	(0.8)	27	(1.3)	73	(1.3)	32	(1.2)	68	(1.2)	19	(1.2)	81	(1.2)
	Level 3	94	(0.7)	6	(0.7)	38	(1.4)	62	(1.4)	43	(1.1)	57	(1.1)	23	(1.4)	77	(1.4)
	Level 4 or 5	96	(0.9)	4 <sup>M</sup>	(0.9)	47	(2.5)	53	(2.5)	51	(2.3)	49	(2.3)	29	(3.0)	71	(3.0)
<b>Ontario</b>	Level 1 or below	77	(2.1)	23	(2.1)	18	(2.3)	82	(2.3)	28	(2.9)	72	(2.9)	32	(2.8)	68	(2.8)
	Level 2	88	(1.2)	12	(1.2)	21	(1.6)	79	(1.6)	44	(2.2)	56	(2.2)	43	(2.2)	57	(2.2)
	Level 3	92	(1.0)	8	(1.0)	31	(1.7)	69	(1.7)	57	(1.9)	43	(1.9)	56	(2.1)	44	(2.1)
	Level 4 or 5	93	(1.5)	7 <sup>M</sup>	(1.5)	36	(3.4)	64	(3.4)	65	(3.2)	35	(3.2)	67	(2.7)	33	(2.7)
<b>Manitoba</b>	Level 1 or below	80	(3.3)	20 <sup>M</sup>	(3.3)	26 <sup>M</sup>	(4.3)	74	(4.3)	33	(4.0)	67	(4.0)	35	(4.7)	65	(4.7)
	Level 2	87	(2.1)	13	(2.1)	23	(3.2)	77	(3.2)	50	(3.6)	50	(3.6)	48	(4.1)	52	(4.1)
	Level 3	90	(1.8)	10 <sup>M</sup>	(1.8)	33	(3.4)	67	(3.4)	63	(3.2)	37	(3.2)	61	(3.7)	39	(3.7)
	Level 4 or 5	94	(3.0)	U	(3.0)	37	(5.7)	63	(5.7)	71	(4.9)	29 <sup>M</sup>	(4.9)	69	(6.2)	31 <sup>M</sup>	(6.2)
<b>Saskatchewan</b>	Level 1 or below	77	(3.8)	23 <sup>M</sup>	(3.8)	20 <sup>M</sup>	(4.1)	80	(4.1)	36	(5.1)	64	(5.1)	33	(5.1)	67	(5.1)
	Level 2	84	(2.2)	16	(2.2)	29	(3.0)	71	(3.0)	56	(4.3)	44	(4.3)	46	(4.0)	54	(4.0)
	Level 3	89	(2.0)	11 <sup>M</sup>	(2.0)	38	(2.5)	62	(2.5)	66	(3.4)	34	(3.4)	63	(3.1)	37	(3.1)
	Level 4 or 5	93	(3.2)	U	(3.2)	44	(6.0)	56	(6.0)	80	(5.0)	20 <sup>M</sup>	(5.0)	75	(5.2)	25 <sup>M</sup>	(5.2)

**Table 2.1a (cont'd)**

**Literacy — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012**

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Alberta</b>	Level 1 or below	84	(4.0)	16 <sup>M</sup>	(4.0)	17 <sup>M</sup>	(4.1)	83	(4.1)	38	(4.8)	62	(4.8)	32 <sup>M</sup>	(5.9)	68	(5.9)
	Level 2	88	(2.4)	12 <sup>M</sup>	(2.4)	22	(3.5)	78	(3.5)	47	(3.7)	53	(3.7)	48	(4.1)	52	(4.1)
	Level 3	93	(1.9)	7 <sup>M</sup>	(1.9)	26	(3.0)	74	(3.0)	61	(3.3)	39	(3.3)	62	(3.3)	38	(3.3)
	Level 4 or 5	95	(2.1)	U	(2.1)	43	(5.5)	57	(5.5)	68	(4.3)	32	(4.3)	66	(5.7)	34 <sup>M</sup>	(5.7)
<b>British Columbia</b>	Level 1 or below	84	(3.3)	16 <sup>M</sup>	(3.3)	20 <sup>M</sup>	(4.8)	80	(4.8)	33	(4.5)	67	(4.5)	38	(4.9)	62	(4.9)
	Level 2	86	(2.2)	14	(2.2)	24	(2.9)	76	(2.9)	48	(3.6)	52	(3.6)	45	(4.0)	55	(4.0)
	Level 3	89	(1.7)	11	(1.7)	36	(2.9)	64	(2.9)	63	(3.0)	37	(3.0)	61	(3.3)	39	(3.3)
	Level 4 or 5	93	(2.6)	U	(2.6)	41	(4.8)	59	(4.8)	72	(4.6)	28 <sup>M</sup>	(4.6)	66	(6.0)	34 <sup>M</sup>	(6.0)
<b>Yukon</b>	Level 1 or below	84	(8.1)	U	(8.1)	U	(6.0)	88	(6.0)	U	(12.8)	67 <sup>M</sup>	(12.8)	U	(16.6)	69 <sup>M</sup>	(16.6)
	Level 2	87	(5.8)	U	(5.8)	U	(10.3)	75	(10.3)	51 <sup>M</sup>	(14.1)	49 <sup>M</sup>	(14.1)	61 <sup>M</sup>	(13.9)	U	(13.9)
	Level 3	84	(7.8)	U	(7.8)	U	(11.4)	67 <sup>M</sup>	(11.4)	77	(7.8)	U	(7.8)	76	(5.7)	24 <sup>M</sup>	(5.7)
	Level 4 or 5	95	(6.6)	U	(6.6)	U	(15.5)	65 <sup>M</sup>	(15.5)	90	(6.4)	U	(6.4)	81	(10.6)	U	(10.6)
<b>Northwest Territories</b>	Level 1 or below	78	(3.2)	22	(3.2)	18 <sup>M</sup>	(3.6)	82	(3.6)	48	(4.5)	52	(4.5)	40	(4.7)	60	(4.7)
	Level 2	86	(2.7)	14 <sup>M</sup>	(2.7)	26	(3.9)	74	(3.9)	64	(5.0)	36	(5.0)	55	(5.3)	45	(5.3)
	Level 3	89	(2.3)	11 <sup>M</sup>	(2.3)	37	(3.5)	63	(3.5)	76	(3.4)	24	(3.4)	71	(4.8)	29 <sup>M</sup>	(4.8)
	Level 4 or 5	92	(4.1)	U	(4.1)	38 <sup>M</sup>	(8.2)	62	(8.2)	79	(6.0)	21 <sup>M</sup>	(6.0)	77	(7.3)	23 <sup>M</sup>	(7.3)
<b>Nunavut</b>	Level 1 or below	72	(3.5)	28	(3.5)	12 <sup>M</sup>	(2.4)	88	(2.4)	44	(3.6)	56	(3.6)	34	(3.4)	66	(3.4)
	Level 2	79	(5.2)	21 <sup>M</sup>	(5.2)	25 <sup>M</sup>	(4.6)	75	(4.6)	56	(6.0)	44	(6.0)	50	(5.0)	50	(5.0)
	Level 3	81	(5.3)	19 <sup>M</sup>	(5.3)	34 <sup>M</sup>	(6.3)	66	(6.3)	72	(6.0)	28 <sup>M</sup>	(6.0)	62	(7.3)	38 <sup>M</sup>	(7.3)
	Level 4 or 5	x	x	x	x	50 <sup>M</sup>	(11.6)	50 <sup>M</sup>	(11.6)	88	(7.9)	U	(7.9)	72 <sup>M</sup>	(12.8)	U	(12.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

Table 2.1b

**Numeracy — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012**

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Level 1 or below	81	(0.9)	19	(0.9)	19	(0.9)	81	(0.9)	33	(1.3)	67	(1.3)	32	(1.1)	68	(1.1)
	Level 2	89	(0.6)	11	(0.6)	26	(1.1)	74	(1.1)	47	(1.1)	53	(1.1)	41	(1.0)	59	(1.0)
	Level 3	92	(0.6)	8	(0.6)	33	(1.0)	67	(1.0)	56	(1.0)	44	(1.0)	50	(1.3)	50	(1.3)
	Level 4 or 5	95	(0.7)	5	(0.7)	37	(1.8)	63	(1.8)	63	(1.8)	37	(1.8)	60	(2.1)	40	(2.1)
<b>Newfoundland and Labrador</b>	Level 1 or below	76	(2.3)	24	(2.3)	14	(2.0)	86	(2.0)	38	(2.7)	62	(2.7)	29	(3.1)	71	(3.1)
	Level 2	85	(2.1)	15	(2.1)	21	(2.6)	79	(2.6)	50	(2.6)	50	(2.6)	43	(3.4)	57	(3.4)
	Level 3	94	(1.5)	6 <sup>M</sup>	(1.5)	28	(3.1)	72	(3.1)	62	(3.0)	38	(3.0)	58	(3.6)	42	(3.6)
	Level 4 or 5	x	x	x	x	42	(5.7)	58	(5.7)	68	(5.0)	32	(5.0)	70	(6.3)	30 <sup>M</sup>	(6.3)
<b>Prince Edward Island</b>	Level 1 or below	74	(3.7)	26	(3.7)	20 <sup>M</sup>	(3.6)	80	(3.6)	38	(3.8)	62	(3.8)	25 <sup>M</sup>	(4.2)	75	(4.2)
	Level 2	84	(2.7)	16 <sup>M</sup>	(2.7)	28	(3.1)	72	(3.1)	58	(4.0)	42	(4.0)	42	(3.7)	58	(3.7)
	Level 3	92	(2.1)	8 <sup>M</sup>	(2.1)	36	(3.5)	64	(3.5)	70	(3.9)	30	(3.9)	55	(3.6)	45	(3.6)
	Level 4 or 5	x	x	x	x	38 <sup>M</sup>	(7.0)	62	(7.0)	73	(6.0)	27 <sup>M</sup>	(6.0)	59	(6.7)	41	(6.7)
<b>Nova Scotia</b>	Level 1 or below	74	(3.3)	26	(3.3)	20	(2.9)	80	(2.9)	39	(3.5)	61	(3.5)	32	(3.4)	68	(3.4)
	Level 2	86	(2.7)	14 <sup>M</sup>	(2.7)	26	(2.5)	74	(2.5)	53	(3.2)	47	(3.2)	45	(3.5)	55	(3.5)
	Level 3	89	(1.9)	11 <sup>M</sup>	(1.9)	28	(2.7)	72	(2.7)	63	(2.7)	37	(2.7)	60	(3.9)	40	(3.9)
	Level 4 or 5	95	(2.6)	U	(2.6)	33	(5.4)	67	(5.4)	69	(4.2)	31	(4.2)	70	(5.3)	30 <sup>M</sup>	(5.3)
<b>New Brunswick</b>	Level 1 or below	76	(2.4)	24	(2.4)	17	(2.2)	83	(2.2)	38	(2.8)	62	(2.8)	21	(2.4)	79	(2.4)
	Level 2	87	(2.1)	13	(2.1)	28	(2.8)	72	(2.8)	54	(2.7)	46	(2.7)	36	(3.0)	64	(3.0)
	Level 3	92	(1.7)	8 <sup>M</sup>	(1.7)	34	(3.2)	66	(3.2)	62	(3.0)	38	(3.0)	48	(3.4)	52	(3.4)
	Level 4 or 5	x	x	x	x	43 <sup>M</sup>	(7.3)	57	(7.3)	74	(6.7)	26 <sup>M</sup>	(6.7)	62	(7.5)	38 <sup>M</sup>	(7.5)
<b>Quebec</b>	Level 1 or below	83	(1.3)	17	(1.3)	19	(1.5)	81	(1.5)	24	(1.5)	76	(1.5)	22	(1.6)	78	(1.6)
	Level 2	91	(0.7)	9	(0.7)	28	(1.4)	72	(1.4)	34	(1.1)	66	(1.1)	20	(1.2)	80	(1.2)
	Level 3	94	(0.6)	6	(0.6)	37	(1.5)	63	(1.5)	43	(1.5)	57	(1.5)	22	(1.5)	78	(1.5)
	Level 4 or 5	95	(1.3)	5 <sup>M</sup>	(1.3)	46	(3.0)	54	(3.0)	51	(2.7)	49	(2.7)	31	(2.8)	69	(2.8)
<b>Ontario</b>	Level 1 or below	80	(1.7)	20	(1.7)	18	(1.7)	82	(1.7)	34	(2.4)	66	(2.4)	35	(2.3)	65	(2.3)
	Level 2	88	(1.4)	12	(1.4)	25	(1.8)	75	(1.8)	49	(2.2)	51	(2.2)	47	(2.3)	53	(2.3)
	Level 3	92	(1.1)	8	(1.1)	31	(1.9)	69	(1.9)	57	(2.0)	43	(2.0)	57	(2.6)	43	(2.6)
	Level 4 or 5	94	(1.4)	6 <sup>M</sup>	(1.4)	34	(3.4)	66	(3.4)	61	(3.3)	39	(3.3)	66	(3.5)	34	(3.5)
<b>Manitoba</b>	Level 1 or below	81	(2.8)	19	(2.8)	25 <sup>M</sup>	(4.2)	75	(4.2)	36	(3.4)	64	(3.4)	38	(4.0)	62	(4.0)
	Level 2	88	(1.9)	12	(1.9)	26	(3.3)	74	(3.3)	53	(3.5)	47	(3.5)	53	(4.1)	47	(4.1)
	Level 3	91	(1.9)	9 <sup>M</sup>	(1.9)	34	(3.5)	66	(3.5)	66	(3.0)	34	(3.0)	61	(3.8)	39	(3.8)
	Level 4 or 5	93	(3.1)	U	(3.1)	32 <sup>M</sup>	(6.6)	68	(6.6)	67	(5.9)	33 <sup>M</sup>	(5.9)	64	(6.0)	36	(6.0)
<b>Saskatchewan</b>	Level 1 or below	77	(3.1)	23	(3.1)	22	(3.2)	78	(3.2)	40	(3.6)	60	(3.6)	34	(4.9)	66	(4.9)
	Level 2	88	(2.3)	12 <sup>M</sup>	(2.3)	32	(3.3)	68	(3.3)	58	(3.8)	42	(3.8)	50	(4.5)	50	(4.5)
	Level 3	89	(2.1)	11 <sup>M</sup>	(2.1)	37	(3.5)	63	(3.5)	68	(3.3)	32	(3.3)	65	(3.6)	35	(3.6)
	Level 4 or 5	94	(3.5)	U	(3.5)	43 <sup>M</sup>	(7.5)	57	(7.5)	76	(5.6)	24 <sup>M</sup>	(5.6)	76	(5.4)	24 <sup>M</sup>	(5.4)



**Table 2.1b (cont'd)**

**Numeracy — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012**

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Alberta</b>	Level 1 or below	85	(3.1)	15 <sup>M</sup>	(3.1)	18 <sup>M</sup>	(3.5)	82	(3.5)	41	(4.6)	59	(4.6)	35	(4.5)	65	(4.5)
	Level 2	89	(2.1)	11 <sup>M</sup>	(2.1)	24	(3.4)	76	(3.4)	51	(4.2)	49	(4.2)	53	(4.7)	47	(4.7)
	Level 3	92	(2.3)	8 <sup>M</sup>	(2.3)	29	(3.4)	71	(3.4)	61	(3.9)	39	(3.9)	61	(4.6)	39	(4.6)
	Level 4 or 5	97	(1.7)	U	(1.7)	38	(5.3)	62	(5.3)	67	(5.0)	33	(5.0)	68	(5.7)	32 <sup>M</sup>	(5.7)
<b>British Columbia</b>	Level 1 or below	85	(2.9)	15 <sup>M</sup>	(2.9)	21	(3.0)	79	(3.0)	35	(3.5)	65	(3.5)	40	(4.1)	60	(4.1)
	Level 2	86	(2.5)	14 <sup>M</sup>	(2.5)	28	(3.4)	72	(3.4)	54	(3.3)	46	(3.3)	51	(3.9)	49	(3.9)
	Level 3	89	(1.9)	11 <sup>M</sup>	(1.9)	36	(3.1)	64	(3.1)	61	(3.1)	39	(3.1)	59	(3.6)	41	(3.6)
	Level 4 or 5	95	(2.3)	U	(2.3)	38	(4.6)	62	(4.6)	74	(4.5)	26 <sup>M</sup>	(4.5)	66	(5.7)	34 <sup>M</sup>	(5.7)
<b>Yukon</b>	Level 1 or below	82	(8.3)	U	(8.3)	U	(5.8)	87	(5.8)	U	(11.7)	68 <sup>M</sup>	(11.7)	U	(13.0)	64 <sup>M</sup>	(13.0)
	Level 2	84	(7.6)	U	(7.6)	27 <sup>M</sup>	(8.7)	73	(8.7)	65	(10.4)	35 <sup>M</sup>	(10.4)	70	(9.2)	30 <sup>M</sup>	(9.2)
	Level 3	88	(7.7)	U	(7.7)	U	(13.1)	61 <sup>M</sup>	(13.1)	79	(7.9)	U	(7.9)	74	(6.7)	26 <sup>M</sup>	(6.7)
	Level 4 or 5	98	(1.9)	U	(1.9)	U	(17.4)	67 <sup>M</sup>	(17.4)	90	(6.0)	U	(6.0)	85	(12.9)	U	(12.9)
<b>Northwest Territories</b>	Level 1 or below	78	(2.8)	22	(2.8)	19	(3.1)	81	(3.1)	50	(3.8)	50	(3.8)	43	(3.9)	57	(3.9)
	Level 2	86	(2.8)	14 <sup>M</sup>	(2.8)	33	(4.7)	67	(4.7)	69	(4.3)	31	(4.3)	61	(5.1)	39	(5.1)
	Level 3	92	(2.4)	8 <sup>M</sup>	(2.4)	34	(4.7)	66	(4.7)	76	(4.2)	24 <sup>M</sup>	(4.2)	69	(5.2)	31 <sup>M</sup>	(5.2)
	Level 4 or 5	x	x	x	x	37 <sup>M</sup>	(8.0)	63	(8.0)	77	(6.4)	23 <sup>M</sup>	(6.4)	82	(8.2)	U	(8.2)
<b>Nunavut</b>	Level 1 or below	72	(2.7)	28	(2.7)	14	(1.9)	86	(1.9)	45	(3.1)	55	(3.1)	37	(3.0)	63	(3.0)
	Level 2	81	(4.5)	19 <sup>M</sup>	(4.5)	29 <sup>M</sup>	(6.0)	71	(6.0)	62	(6.0)	38	(6.0)	49	(6.9)	51	(6.9)
	Level 3	84	(5.1)	16 <sup>M</sup>	(5.1)	36 <sup>M</sup>	(7.6)	64	(7.6)	71	(6.9)	29 <sup>M</sup>	(6.9)	67	(8.8)	33 <sup>M</sup>	(8.8)
	Level 4 or 5	x	x	x	x	U	(17.7)	59 <sup>M</sup>	(17.7)	x	x	x	x	x	x	x	x

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

Table 2.1c

## PS-TRE — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	PS-TRE non-respondents	79	(1.1)	21	(1.1)	21	(1.1)	79	(1.1)	33	(1.3)	67	(1.3)	34	(1.4)	66	(1.4)
	Below Level 1	85	(1.0)	15	(1.0)	21	(1.3)	79	(1.3)	37	(1.6)	63	(1.6)	33	(1.7)	67	(1.7)
	Level 1	91	(0.5)	9	(0.5)	28	(1.1)	72	(1.1)	49	(1.1)	51	(1.1)	44	(1.3)	56	(1.3)
	Level 2 or 3	94	(0.4)	6	(0.4)	35	(1.1)	65	(1.1)	60	(1.0)	40	(1.0)	56	(1.3)	44	(1.3)
<b>Newfoundland and Labrador</b>	PS-TRE non-respondents	75	(2.1)	25	(2.1)	15	(1.9)	85	(1.9)	35	(2.5)	65	(2.5)	30	(2.6)	70	(2.6)
	Below Level 1	82	(2.6)	18	(2.6)	18	(2.9)	82	(2.9)	43	(4.2)	57	(4.2)	36	(4.1)	64	(4.1)
	Level 1	89	(2.1)	11 <sup>M</sup>	(2.1)	23	(2.5)	77	(2.5)	56	(3.2)	44	(3.2)	46	(3.2)	54	(3.2)
	Level 2 or 3	94	(1.4)	6 <sup>M</sup>	(1.4)	31	(2.8)	69	(2.8)	66	(2.6)	34	(2.6)	65	(3.3)	35	(3.3)
<b>Prince Edward Island</b>	PS-TRE non-respondents	71	(3.4)	29	(3.4)	22	(3.6)	78	(3.6)	42	(4.3)	58	(4.3)	34	(3.3)	66	(3.3)
	Below Level 1	84	(4.1)	16 <sup>M</sup>	(4.1)	27 <sup>M</sup>	(4.7)	73	(4.7)	52	(4.7)	48	(4.7)	32 <sup>M</sup>	(6.1)	68	(6.1)
	Level 1	89	(2.1)	11 <sup>M</sup>	(2.1)	31	(3.8)	69	(3.8)	65	(3.4)	35	(3.4)	47	(4.7)	53	(4.7)
	Level 2 or 3	93	(1.7)	7 <sup>M</sup>	(1.7)	36	(4.2)	64	(4.2)	68	(3.5)	32	(3.5)	55	(4.1)	45	(4.1)
<b>Nova Scotia</b>	PS-TRE non-respondents	69	(3.8)	31	(3.8)	18	(3.0)	82	(3.0)	39	(3.6)	61	(3.6)	31	(3.4)	69	(3.4)
	Below Level 1	79	(3.4)	21 <sup>M</sup>	(3.4)	23 <sup>M</sup>	(4.0)	77	(4.0)	41	(3.9)	59	(3.9)	35	(4.5)	65	(4.5)
	Level 1	87	(2.2)	13 <sup>M</sup>	(2.2)	25	(2.8)	75	(2.8)	56	(3.2)	44	(3.2)	49	(3.5)	51	(3.5)
	Level 2 or 3	92	(1.3)	8 <sup>M</sup>	(1.3)	31	(2.7)	69	(2.7)	65	(2.2)	35	(2.2)	63	(3.3)	37	(3.3)
<b>New Brunswick</b>	PS-TRE non-respondents	76	(2.3)	24	(2.3)	18	(1.9)	82	(1.9)	39	(2.9)	61	(2.9)	20	(2.4)	80	(2.4)
	Below Level 1	81	(3.3)	19 <sup>M</sup>	(3.3)	21	(3.2)	79	(3.2)	42	(4.4)	58	(4.4)	23 <sup>M</sup>	(3.9)	77	(3.9)
	Level 1	87	(2.0)	13	(2.0)	32	(3.4)	68	(3.4)	58	(3.4)	42	(3.4)	40	(3.5)	60	(3.5)
	Level 2 or 3	93	(1.8)	7 <sup>M</sup>	(1.8)	35	(3.4)	65	(3.4)	65	(2.8)	35	(2.8)	52	(3.6)	48	(3.6)
<b>Quebec</b>	PS-TRE non-respondents	83	(1.4)	17	(1.4)	21	(1.3)	79	(1.3)	27	(1.6)	73	(1.6)	22	(1.6)	78	(1.6)
	Below Level 1	88	(1.2)	12	(1.2)	24	(1.6)	76	(1.6)	27	(1.7)	73	(1.7)	19	(1.6)	81	(1.6)
	Level 1	92	(0.8)	8	(0.8)	32	(1.5)	68	(1.5)	37	(1.3)	63	(1.3)	19	(1.2)	81	(1.2)
	Level 2 or 3	95	(0.7)	5	(0.7)	40	(1.6)	60	(1.6)	46	(1.2)	54	(1.2)	27	(1.4)	73	(1.4)
<b>Ontario</b>	PS-TRE non-respondents	76	(2.1)	24	(2.1)	21	(1.8)	79	(1.8)	31	(2.6)	69	(2.6)	39	(2.6)	61	(2.6)
	Below Level 1	85	(2.0)	15	(2.0)	19	(2.5)	81	(2.5)	38	(3.2)	62	(3.2)	37	(3.8)	63	(3.8)
	Level 1	92	(1.0)	8	(1.0)	25	(1.8)	75	(1.8)	50	(2.0)	50	(2.0)	50	(2.3)	50	(2.3)
	Level 2 or 3	93	(0.9)	7	(0.9)	32	(1.8)	68	(1.8)	61	(1.8)	39	(1.8)	60	(2.2)	40	(2.2)
<b>Manitoba</b>	PS-TRE non-respondents	84	(2.2)	16	(2.2)	31	(3.3)	69	(3.3)	45	(4.1)	55	(4.1)	45	(3.5)	55	(3.5)
	Below Level 1	84	(3.7)	16 <sup>M</sup>	(3.7)	25 <sup>M</sup>	(5.6)	75	(5.6)	40	(4.5)	60	(4.5)	43	(5.9)	57	(5.9)
	Level 1	90	(2.0)	10 <sup>M</sup>	(2.0)	28	(4.1)	72	(4.1)	58	(3.3)	42	(3.3)	56	(4.0)	44	(4.0)
	Level 2 or 3	91	(1.7)	9 <sup>M</sup>	(1.7)	33	(3.5)	67	(3.5)	66	(3.0)	34	(3.0)	64	(3.6)	36	(3.6)
<b>Saskatchewan</b>	PS-TRE non-respondents	70	(4.1)	30	(4.1)	20 <sup>M</sup>	(3.7)	80	(3.7)	41	(4.9)	59	(4.9)	36	(5.6)	64	(5.6)
	Below Level 1	85	(2.9)	15 <sup>M</sup>	(2.9)	28	(3.9)	72	(3.9)	45	(5.0)	55	(5.0)	40	(4.8)	60	(4.8)
	Level 1	87	(2.5)	13 <sup>M</sup>	(2.5)	35	(3.0)	65	(3.0)	63	(3.4)	37	(3.4)	54	(3.7)	46	(3.7)
	Level 2 or 3	93	(2.0)	7 <sup>M</sup>	(2.0)	38	(3.3)	62	(3.3)	69	(3.1)	31	(3.1)	70	(3.3)	30	(3.3)

**Table 2.1c (cont'd)**

**PS-TRE — Percentage distributions of population aged 16 to 65, by health and social outcomes and proficiency level, Canada, provinces and territories, 2012**

	Proficiency level	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Alberta</b>	PS-TRE non-respondents	83	(3.4)	17 <sup>M</sup>	(3.4)	18 <sup>M</sup>	(4.0)	82	(4.0)	47	(4.2)	53	(4.2)	32 <sup>M</sup>	(5.8)	68	(5.8)
	Below Level 1	85	(3.9)	15 <sup>M</sup>	(3.9)	18 <sup>M</sup>	(4.2)	82	(4.2)	41	(5.6)	59	(5.6)	40 <sup>M</sup>	(6.8)	60	(6.8)
	Level 1	90	(2.3)	10 <sup>M</sup>	(2.3)	24	(3.8)	76	(3.8)	53	(3.6)	47	(3.6)	57	(3.9)	43	(3.9)
	Level 2 or 3	95	(1.4)	5 <sup>M</sup>	(1.4)	32	(3.1)	68	(3.1)	64	(2.8)	36	(2.8)	65	(3.1)	35	(3.1)
<b>British Columbia</b>	PS-TRE non-respondents	85	(3.1)	15 <sup>M</sup>	(3.1)	21	(3.2)	79	(3.2)	33	(3.7)	67	(3.7)	39	(4.6)	61	(4.6)
	Below Level 1	82	(3.6)	18 <sup>M</sup>	(3.6)	23 <sup>M</sup>	(4.1)	77	(4.1)	43	(5.2)	57	(5.2)	43	(5.0)	57	(5.0)
	Level 1	87	(2.2)	13 <sup>M</sup>	(2.2)	32	(3.1)	68	(3.1)	56	(3.4)	44	(3.4)	52	(4.2)	48	(4.2)
	Level 2 or 3	92	(1.4)	8 <sup>M</sup>	(1.4)	37	(2.7)	63	(2.7)	69	(2.7)	31	(2.7)	65	(2.9)	35	(2.9)
<b>Yukon</b>	PS-TRE non-respondents	78	(10.3)	U	(10.3)	U	(5.6)	90	(5.6)	U	(12.9)	69 <sup>M</sup>	(12.9)	U	(13.0)	73 <sup>M</sup>	(13.0)
	Below Level 1	83	(9.9)	U	(9.9)	U	(7.9)	83	(7.9)	56 <sup>M</sup>	(11.7)	44 <sup>M</sup>	(11.7)	51 <sup>M</sup>	(12.7)	49 <sup>M</sup>	(12.7)
	Level 1	89	(6.4)	U	(6.4)	U	(11.5)	72	(11.5)	67 <sup>M</sup>	(12.6)	U	(12.6)	73	(6.1)	27 <sup>M</sup>	(6.1)
	Level 2 or 3	88	(5.9)	U	(5.9)	41 <sup>M</sup>	(8.5)	59	(8.5)	84	(5.6)	U	(5.6)	79	(6.2)	21 <sup>M</sup>	(6.2)
<b>Northwest Territories</b>	PS-TRE non-respondents	75	(3.3)	25	(3.3)	22 <sup>M</sup>	(3.8)	78	(3.8)	48	(4.9)	52	(4.9)	38	(4.9)	62	(4.9)
	Below Level 1	84	(3.2)	16 <sup>M</sup>	(3.2)	21 <sup>M</sup>	(5.6)	79	(5.6)	57	(5.0)	43	(5.0)	46	(6.3)	54	(6.3)
	Level 1	87	(2.8)	13 <sup>M</sup>	(2.8)	30	(4.3)	70	(4.3)	67	(5.0)	33	(5.0)	64	(5.5)	36	(5.5)
	Level 2 or 3	91	(2.4)	9 <sup>M</sup>	(2.4)	35	(4.5)	65	(4.5)	77	(3.3)	23	(3.3)	74	(4.8)	26 <sup>M</sup>	(4.8)
<b>Nunavut</b>	PS-TRE non-respondents	70	(2.9)	30	(2.9)	17	(2.2)	83	(2.2)	44	(3.2)	56	(3.2)	38	(3.3)	62	(3.3)
	Below Level 1	80	(4.7)	20 <sup>M</sup>	(4.7)	14 <sup>M</sup>	(4.2)	86	(4.2)	50	(5.4)	50	(5.4)	39	(5.2)	61	(5.2)
	Level 1	82	(4.3)	18 <sup>M</sup>	(4.3)	25 <sup>M</sup>	(4.6)	75	(4.6)	63	(5.4)	37	(5.4)	52	(6.1)	48	(6.1)
	Level 2 or 3	86	(4.8)	U	(4.8)	35 <sup>M</sup>	(8.0)	65	(8.0)	74	(5.6)	26 <sup>M</sup>	(5.6)	65	(8.2)	35 <sup>M</sup>	(8.2)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 2.2

## Percentage distributions of population aged 16 to 65, by health and social outcomes and gender, Canada, provinces and territories, 2012

	Gender	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Canada	Male	89	(0.5)	11	(0.5)	26	(0.7)	74	(0.7)	46	(0.8)	54	(0.8)	43	(0.8)	57	(0.8)
	Female	89	(0.4)	11	(0.4)	30	(0.7)	70	(0.7)	52	(0.7)	48	(0.7)	46	(0.8)	54	(0.8)
Newfoundland and Labrador	Male	85	(1.4)	15	(1.4)	22	(1.5)	78	(1.5)	47	(1.9)	53	(1.9)	44	(2.0)	56	(2.0)
	Female	86	(1.2)	14	(1.2)	22	(1.6)	78	(1.6)	55	(2.2)	45	(2.2)	45	(2.3)	55	(2.3)
Prince Edward Island	Male	86	(1.7)	14	(1.7)	30	(2.6)	70	(2.6)	56	(2.6)	44	(2.6)	42	(2.6)	58	(2.6)
	Female	85	(1.7)	15	(1.7)	31	(2.3)	69	(2.3)	62	(2.1)	38	(2.1)	47	(2.3)	53	(2.3)
Nova Scotia	Male	85	(1.8)	15	(1.8)	24	(1.9)	76	(1.9)	52	(2.2)	48	(2.2)	46	(2.2)	54	(2.2)
	Female	85	(1.5)	15	(1.5)	27	(1.9)	73	(1.9)	56	(1.9)	44	(1.9)	52	(2.2)	48	(2.2)
New Brunswick	Male	86	(1.5)	14	(1.5)	25	(1.9)	75	(1.9)	50	(2.2)	50	(2.2)	36	(2.2)	64	(2.2)
	Female	85	(1.5)	15	(1.5)	31	(1.9)	69	(1.9)	56	(1.9)	44	(1.9)	38	(2.2)	62	(2.2)
Quebec	Male	91	(0.5)	9	(0.5)	30	(1.0)	70	(1.0)	34	(1.0)	66	(1.0)	22	(1.0)	78	(1.0)
	Female	91	(0.6)	9	(0.6)	32	(1.1)	68	(1.1)	39	(1.0)	61	(1.0)	22	(1.0)	78	(1.0)
Ontario	Male	89	(0.9)	11	(0.9)	24	(1.1)	76	(1.1)	46	(1.5)	54	(1.5)	49	(1.6)	51	(1.6)
	Female	88	(0.8)	12	(0.8)	29	(1.4)	71	(1.4)	54	(1.4)	46	(1.4)	51	(1.5)	49	(1.5)
Manitoba	Male	88	(1.4)	12	(1.4)	27	(2.2)	73	(2.2)	50	(2.3)	50	(2.3)	50	(2.8)	50	(2.8)
	Female	88	(1.4)	12	(1.4)	31	(2.4)	69	(2.4)	61	(2.5)	39	(2.5)	58	(2.3)	42	(2.3)
Saskatchewan	Male	86	(1.8)	14	(1.8)	31	(2.4)	69	(2.4)	54	(2.6)	46	(2.6)	53	(2.8)	47	(2.8)
	Female	87	(1.5)	13	(1.5)	34	(2.1)	66	(2.1)	64	(2.5)	36	(2.5)	55	(2.7)	45	(2.7)
Alberta	Male	91	(1.3)	9	(1.3)	22	(2.3)	78	(2.3)	52	(2.4)	48	(2.4)	50	(2.6)	50	(2.6)
	Female	90	(1.9)	10 <sup>M</sup>	(1.9)	30	(2.2)	70	(2.2)	58	(2.3)	42	(2.3)	58	(2.3)	42	(2.3)
British Columbia	Male	87	(1.7)	13	(1.7)	29	(2.1)	71	(2.1)	52	(2.4)	48	(2.4)	51	(2.7)	49	(2.7)
	Female	88	(1.2)	12	(1.2)	31	(2.0)	69	(2.0)	58	(2.1)	42	(2.1)	57	(2.5)	43	(2.5)
Yukon	Male	88	(4.8)	U	(4.8)	27 <sup>M</sup>	(5.6)	73	(5.6)	61	(6.9)	39 <sup>M</sup>	(6.9)	58	(7.5)	42 <sup>M</sup>	(7.5)
	Female	85	(5.2)	U	(5.2)	28 <sup>M</sup>	(7.5)	72	(7.5)	68	(6.2)	32 <sup>M</sup>	(6.2)	74	(4.5)	26 <sup>M</sup>	(4.5)
Northwest Territories	Male	87	(1.9)	13	(1.9)	29	(3.4)	71	(3.4)	59	(2.4)	41	(2.4)	55	(3.5)	45	(3.5)
	Female	83	(1.7)	17	(1.7)	26	(2.4)	74	(2.4)	69	(2.7)	31	(2.7)	60	(3.0)	40	(3.0)
Nunavut	Male	74	(3.0)	26	(3.0)	21	(2.6)	79	(2.6)	53	(2.8)	47	(2.8)	46	(3.7)	54	(3.7)
	Female	77	(2.5)	23	(2.5)	19	(2.1)	81	(2.1)	51	(3.6)	49	(3.6)	41	(3.1)	59	(3.1)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

## Notes:

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 2.3

## Percentage distributions of population aged 16 to 65, by health and social outcomes and age group, Canada, provinces and territories, 2012

	Age group	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	16 to 24	92	(0.7)	8	(0.7)	25	(1.1)	75	(1.1)	55	(1.2)	45	(1.2)	45	(1.2)	55	(1.2)
	25 to 34	94	(0.6)	6	(0.6)	28	(1.3)	72	(1.3)	46	(1.1)	54	(1.1)	47	(1.3)	53	(1.3)
	35 to 44	92	(0.6)	8	(0.6)	28	(0.9)	72	(0.9)	51	(1.3)	49	(1.3)	45	(1.4)	55	(1.4)
	45 to 54	87	(0.7)	13	(0.7)	30	(1.1)	70	(1.1)	49	(1.0)	51	(1.0)	45	(1.2)	55	(1.2)
	55 to 65	81	(1.0)	19	(1.0)	29	(1.1)	71	(1.1)	43	(1.2)	57	(1.2)	41	(1.0)	59	(1.0)
<b>Newfoundland and Labrador</b>	16 to 24	92	(2.1)	8 <sup>M</sup>	(2.1)	18 <sup>M</sup>	(3.0)	82	(3.0)	62	(3.6)	38	(3.6)	51	(4.1)	49	(4.1)
	25 to 34	90	(2.3)	10 <sup>M</sup>	(2.3)	25	(3.4)	75	(3.4)	51	(4.0)	49	(4.0)	48	(4.3)	52	(4.3)
	35 to 44	89	(1.8)	11	(1.8)	26	(3.4)	74	(3.4)	54	(3.8)	46	(3.8)	50	(3.5)	50	(3.5)
	45 to 54	84	(2.0)	16	(2.0)	20	(2.3)	80	(2.3)	47	(2.6)	53	(2.6)	43	(2.9)	57	(2.9)
	55 to 65	78	(1.8)	22	(1.8)	21	(2.2)	79	(2.2)	45	(2.7)	55	(2.7)	37	(2.3)	63	(2.3)
<b>Prince Edward Island</b>	16 to 24	91	(2.5)	9 <sup>M</sup>	(2.5)	24 <sup>M</sup>	(4.5)	76	(4.5)	62	(4.1)	38	(4.1)	40	(4.9)	60	(4.9)
	25 to 34	92	(2.7)	8 <sup>M</sup>	(2.7)	33	(4.5)	67	(4.5)	54	(4.7)	46	(4.7)	39	(6.0)	61	(6.0)
	35 to 44	93	(1.6)	7 <sup>M</sup>	(1.6)	26	(3.6)	74	(3.6)	59	(3.8)	41	(3.8)	43	(4.6)	57	(4.6)
	45 to 54	80	(3.1)	20	(3.1)	31	(3.5)	69	(3.5)	63	(3.2)	37	(3.2)	46	(3.5)	54	(3.5)
	55 to 65	79	(2.5)	21	(2.5)	35	(3.7)	65	(3.7)	57	(2.9)	43	(2.9)	49	(3.3)	51	(3.3)
<b>Nova Scotia</b>	16 to 24	89	(2.7)	11 <sup>M</sup>	(2.7)	18 <sup>M</sup>	(3.5)	82	(3.5)	55	(3.9)	45	(3.9)	46	(5.6)	54	(5.6)
	25 to 34	90	(2.4)	10 <sup>M</sup>	(2.4)	24	(3.3)	76	(3.3)	47	(3.7)	53	(3.7)	49	(4.1)	51	(4.1)
	35 to 44	88	(2.6)	12 <sup>M</sup>	(2.6)	27	(3.3)	73	(3.3)	61	(3.3)	39	(3.3)	48	(3.3)	52	(3.3)
	45 to 54	87	(2.4)	13 <sup>M</sup>	(2.4)	31	(2.9)	69	(2.9)	57	(2.9)	43	(2.9)	53	(3.2)	47	(3.2)
	55 to 65	74	(2.2)	26	(2.2)	27	(2.3)	73	(2.3)	51	(2.7)	49	(2.7)	48	(2.6)	52	(2.6)
<b>New Brunswick</b>	16 to 24	92	(2.3)	8 <sup>M</sup>	(2.3)	28	(3.8)	72	(3.8)	62	(3.9)	38	(3.9)	32 <sup>M</sup>	(5.4)	68	(5.4)
	25 to 34	92	(2.2)	8 <sup>M</sup>	(2.2)	28	(3.8)	72	(3.8)	54	(4.1)	46	(4.1)	41	(5.2)	59	(5.2)
	35 to 44	88	(1.8)	12	(1.8)	28	(3.4)	72	(3.4)	55	(3.2)	45	(3.2)	40	(3.6)	60	(3.6)
	45 to 54	85	(2.0)	15	(2.0)	28	(2.6)	72	(2.6)	50	(3.2)	50	(3.2)	38	(3.1)	62	(3.1)
	55 to 65	76	(2.2)	24	(2.2)	28	(2.6)	72	(2.6)	49	(2.8)	51	(2.8)	34	(2.4)	66	(2.4)
<b>Quebec</b>	16 to 24	95	(0.8)	5	(0.8)	32	(2.2)	68	(2.2)	41	(1.7)	59	(1.7)	30	(2.1)	70	(2.1)
	25 to 34	94	(0.9)	6	(0.9)	36	(1.9)	64	(1.9)	32	(1.6)	68	(1.6)	23	(1.6)	77	(1.6)
	35 to 44	94	(0.7)	6	(0.7)	31	(1.5)	69	(1.5)	41	(1.7)	59	(1.7)	22	(1.7)	78	(1.7)
	45 to 54	88	(1.0)	12	(1.0)	30	(1.4)	70	(1.4)	36	(1.5)	64	(1.5)	20	(1.2)	80	(1.2)
	55 to 65	85	(1.0)	15	(1.0)	27	(1.4)	73	(1.4)	33	(1.3)	67	(1.3)	19	(1.3)	81	(1.3)
<b>Ontario</b>	16 to 24	92	(1.4)	8 <sup>M</sup>	(1.4)	20	(2.1)	80	(2.1)	60	(2.2)	40	(2.2)	44	(2.5)	56	(2.5)
	25 to 34	94	(1.2)	6 <sup>M</sup>	(1.2)	24	(2.3)	76	(2.3)	46	(2.3)	54	(2.3)	54	(2.7)	46	(2.7)
	35 to 44	92	(1.1)	8	(1.1)	27	(1.7)	73	(1.7)	50	(2.4)	50	(2.4)	54	(2.7)	46	(2.7)
	45 to 54	88	(1.3)	12	(1.3)	31	(2.0)	69	(2.0)	51	(2.0)	49	(2.0)	53	(2.4)	47	(2.4)
	55 to 65	78	(1.8)	22	(1.8)	29	(2.1)	71	(2.1)	43	(2.3)	57	(2.3)	46	(2.0)	54	(2.0)
<b>Manitoba</b>	16 to 24	91	(2.0)	9 <sup>M</sup>	(2.0)	29	(4.5)	71	(4.5)	58	(4.6)	42	(4.6)	55	(4.9)	45	(4.9)
	25 to 34	90	(2.1)	10 <sup>M</sup>	(2.1)	24	(3.7)	76	(3.7)	51	(4.0)	49	(4.0)	52	(4.1)	48	(4.1)
	35 to 44	89	(2.9)	11 <sup>M</sup>	(2.9)	27	(3.5)	73	(3.5)	59	(3.9)	41	(3.9)	55	(4.3)	45	(4.3)
	45 to 54	89	(1.9)	11 <sup>M</sup>	(1.9)	36	(3.4)	64	(3.4)	57	(3.0)	43	(3.0)	56	(3.6)	44	(3.6)
	55 to 65	81	(2.4)	19	(2.4)	30	(3.4)	70	(3.4)	51	(2.8)	49	(2.8)	51	(3.8)	49	(3.8)

Table 2.3 (cont'd)

## Percentage distributions of population aged 16 to 65, by health and social outcomes and age group, Canada, provinces and territories, 2012

	Age group	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Saskatchewan</b>	16 to 24	91	(2.1)	9 <sup>M</sup>	(2.1)	26	(3.3)	74	(3.3)	57	(3.5)	43	(3.5)	48	(5.3)	52	(5.3)
	25 to 34	93	(2.1)	7 <sup>M</sup>	(2.1)	35	(4.3)	65	(4.3)	58	(3.3)	42	(3.3)	53	(4.3)	47	(4.3)
	35 to 44	88	(3.1)	12 <sup>M</sup>	(3.1)	29	(3.8)	71	(3.8)	63	(4.1)	37	(4.1)	60	(4.1)	40	(4.1)
	45 to 54	82	(2.2)	18	(2.2)	35	(3.2)	65	(3.2)	61	(3.4)	39	(3.4)	53	(3.6)	47	(3.6)
	55 to 65	78	(3.1)	22	(3.1)	36	(3.7)	64	(3.7)	56	(4.4)	44	(4.4)	55	(4.3)	45	(4.3)
<b>Alberta</b>	16 to 24	91	(2.5)	9 <sup>M</sup>	(2.5)	26	(4.3)	74	(4.3)	53	(4.3)	47	(4.3)	62	(4.4)	38	(4.4)
	25 to 34	94	(2.1)	U	(2.1)	24	(3.6)	76	(3.6)	54	(4.1)	46	(4.1)	57	(3.8)	43	(3.8)
	35 to 44	92	(2.0)	8 <sup>M</sup>	(2.0)	28	(3.4)	72	(3.4)	53	(2.9)	47	(2.9)	46	(3.6)	54	(3.6)
	45 to 54	87	(2.5)	13 <sup>M</sup>	(2.5)	28	(3.6)	72	(3.6)	59	(3.1)	41	(3.1)	53	(3.8)	47	(3.8)
	55 to 65	87	(2.7)	13 <sup>M</sup>	(2.7)	25	(3.3)	75	(3.3)	53	(3.8)	47	(3.8)	53	(3.6)	47	(3.6)
<b>British Columbia</b>	16 to 24	92	(1.2)	8	(1.2)	27	(2.2)	73	(2.2)	63	(2.8)	37	(2.8)	54	(3.0)	46	(3.0)
	25 to 34	93	(1.7)	7 <sup>M</sup>	(1.7)	32	(3.6)	68	(3.6)	53	(4.0)	47	(4.0)	56	(4.8)	44	(4.8)
	35 to 44	90	(2.2)	10 <sup>M</sup>	(2.2)	27	(3.4)	73	(3.4)	62	(3.9)	38	(3.9)	48	(4.5)	52	(4.5)
	45 to 54	85	(2.3)	15	(2.3)	31	(3.3)	69	(3.3)	52	(3.2)	48	(3.2)	53	(4.1)	47	(4.1)
	55 to 65	81	(3.0)	19	(3.0)	34	(3.4)	66	(3.4)	48	(3.5)	52	(3.5)	56	(4.1)	44	(4.1)
<b>Yukon</b>	16 to 24	95	(3.0)	U	(3.0)	U	(14.1)	64 <sup>M</sup>	(14.1)	49 <sup>M</sup>	(13.1)	51 <sup>M</sup>	(13.1)	75 <sup>M</sup>	(13.0)	U	(13.0)
	25 to 34	79 <sup>M</sup>	(15.1)	U	(15.1)	U	(10.0)	74	(10.0)	66 <sup>M</sup>	(17.6)	U	(17.6)	62 <sup>M</sup>	(19.1)	U	(19.1)
	35 to 44	91	(3.3)	U	(3.3)	31 <sup>M</sup>	(8.1)	69	(8.1)	63 <sup>M</sup>	(11.8)	37 <sup>M</sup>	(11.8)	60	(9.1)	40 <sup>M</sup>	(9.1)
	45 to 54	87	(3.7)	13 <sup>M</sup>	(3.7)	26 <sup>M</sup>	(8.2)	74	(8.2)	73	(7.8)	27 <sup>M</sup>	(7.8)	70	(6.6)	30 <sup>M</sup>	(6.6)
	55 to 65	81	(9.2)	U	(9.2)	U	(8.2)	80	(8.2)	67	(7.5)	33 <sup>M</sup>	(7.5)	62	(6.2)	38	(6.2)
<b>Northwest Territories</b>	16 to 24	88	(2.7)	12 <sup>M</sup>	(2.7)	25 <sup>M</sup>	(4.2)	75	(4.2)	59	(4.2)	41	(4.2)	61	(6.4)	39	(6.4)
	25 to 34	90	(2.9)	10 <sup>M</sup>	(2.9)	29 <sup>M</sup>	(5.0)	71	(5.0)	65	(4.0)	35	(4.0)	59	(4.1)	41	(4.1)
	35 to 44	89	(2.6)	11 <sup>M</sup>	(2.6)	27	(3.8)	73	(3.8)	66	(5.9)	34 <sup>M</sup>	(5.9)	58	(6.4)	42	(6.4)
	45 to 54	78	(3.6)	22	(3.6)	28 <sup>M</sup>	(5.8)	72	(5.8)	61	(4.1)	39	(4.1)	52	(3.9)	48	(3.9)
	55 to 65	75	(4.7)	25 <sup>M</sup>	(4.7)	30 <sup>M</sup>	(5.6)	70	(5.6)	68	(4.8)	32	(4.8)	56	(4.8)	44	(4.8)
<b>Nunavut</b>	16 to 24	81	(3.0)	19	(3.0)	20	(3.2)	80	(3.2)	52	(4.5)	48	(4.5)	42	(4.9)	58	(4.9)
	25 to 34	84	(3.2)	16 <sup>M</sup>	(3.2)	21	(3.2)	79	(3.2)	56	(4.4)	44	(4.4)	44	(6.4)	56	(6.4)
	35 to 44	71	(4.1)	29	(4.1)	16 <sup>M</sup>	(2.9)	84	(2.9)	52	(5.1)	48	(5.1)	40	(4.1)	60	(4.1)
	45 to 54	69	(4.6)	31	(4.6)	18 <sup>M</sup>	(4.2)	82	(4.2)	48	(5.1)	52	(5.1)	43	(5.5)	57	(5.5)
	55 to 65	63	(6.2)	37 <sup>M</sup>	(6.2)	31 <sup>M</sup>	(6.6)	69	(6.6)	54	(5.6)	46	(5.6)	57	(6.6)	43	(6.6)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

## Notes:

- PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard Error

Table 2.4

**Percentage distributions of population aged 16 to 65, by health and social outcomes and educational attainment, Canada, provinces and territories, 2012**

	Educational attainment	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Less than high-school diploma	81	(1.1)	19	(1.1)	20	(1.2)	80	(1.2)	42	(1.3)	58	(1.3)	32	(1.4)	68	(1.4)
	High-school diploma	88	(0.7)	12	(0.7)	23	(1.0)	77	(1.0)	44	(1.0)	56	(1.0)	41	(1.2)	59	(1.2)
	Postsecondary education – below bachelor's degree	89	(0.6)	11	(0.6)	27	(0.9)	73	(0.9)	48	(0.8)	52	(0.8)	42	(1.1)	58	(1.1)
	Postsecondary education – bachelor's degree or higher	94	(0.4)	6	(0.4)	39	(1.1)	61	(1.1)	59	(0.9)	41	(0.9)	60	(1.2)	40	(1.2)
<b>Newfoundland and Labrador</b>	Less than high-school diploma	75	(2.7)	25	(2.7)	13 <sup>M</sup>	(2.1)	87	(2.1)	43	(3.1)	57	(3.1)	32	(3.2)	68	(3.2)
	High-school diploma	86	(2.1)	14	(2.1)	17	(2.0)	83	(2.0)	46	(2.9)	54	(2.9)	40	(3.7)	60	(3.7)
	Postsecondary education – below bachelor's degree	88	(1.4)	12	(1.4)	21	(1.9)	79	(1.9)	48	(2.3)	52	(2.3)	43	(2.2)	57	(2.2)
	Postsecondary education – bachelor's degree or higher	94	(1.6)	6 <sup>M</sup>	(1.6)	43	(3.7)	57	(3.7)	75	(3.1)	25	(3.1)	72	(3.4)	28	(3.4)
<b>Prince Edward Island</b>	Less than high-school diploma	74	(3.9)	26	(3.9)	22 <sup>M</sup>	(4.7)	78	(4.7)	50	(4.2)	50	(4.2)	26 <sup>M</sup>	(4.6)	74	(4.6)
	High-school diploma	84	(2.6)	16	(2.6)	22	(2.8)	78	(2.8)	53	(3.4)	47	(3.4)	35	(3.8)	65	(3.8)
	Postsecondary education – below bachelor's degree	88	(1.8)	12	(1.8)	31	(3.3)	69	(3.3)	61	(2.6)	39	(2.6)	47	(3.0)	53	(3.0)
	Postsecondary education – bachelor's degree or higher	95	(1.5)	5 <sup>M</sup>	(1.5)	47	(3.8)	53	(3.8)	72	(3.7)	28	(3.7)	67	(4.2)	33	(4.2)
<b>Nova Scotia</b>	Less than high-school diploma	72	(3.4)	28	(3.4)	19 <sup>M</sup>	(3.4)	81	(3.4)	48	(3.8)	52	(3.8)	38	(4.6)	62	(4.6)
	High-school diploma	84	(2.5)	16	(2.5)	21	(2.7)	79	(2.7)	46	(2.8)	54	(2.8)	44	(3.8)	56	(3.8)
	Postsecondary education – below bachelor's degree	86	(1.9)	14	(1.9)	23	(2.1)	77	(2.1)	52	(2.4)	48	(2.4)	45	(2.6)	55	(2.6)
	Postsecondary education – bachelor's degree or higher	94	(1.6)	6 <sup>M</sup>	(1.6)	41	(3.1)	59	(3.1)	71	(2.5)	29	(2.5)	68	(3.1)	32	(3.1)
<b>New Brunswick</b>	Less than high-school diploma	77	(2.6)	23	(2.6)	20	(2.8)	80	(2.8)	41	(3.1)	59	(3.1)	16	(2.5)	84	(2.5)
	High-school diploma	84	(2.0)	16	(2.0)	21	(2.2)	79	(2.2)	47	(2.2)	53	(2.2)	31	(3.1)	69	(3.1)
	Postsecondary education – below bachelor's degree	87	(1.6)	13	(1.6)	28	(2.7)	72	(2.7)	53	(2.5)	47	(2.5)	41	(2.6)	59	(2.6)
	Postsecondary education – bachelor's degree or higher	95	(1.2)	5 <sup>M</sup>	(1.2)	45	(3.4)	55	(3.4)	75	(3.4)	25	(3.4)	60	(3.6)	40	(3.6)

**Table 2.4 (cont'd)**

**Percentage distributions of population aged 16 to 65, by health and social outcomes and educational attainment, Canada, provinces and territories, 2012**

	Educational attainment	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Quebec</b>	Less than high-school diploma	83	(1.3)	17	(1.3)	21	(1.5)	79	(1.5)	27	(1.5)	73	(1.5)	23	(2.0)	77	(2.0)
	High-school diploma	91	(0.9)	9	(0.9)	24	(1.4)	76	(1.4)	34	(1.4)	66	(1.4)	20	(1.3)	80	(1.3)
	Postsecondary education – below bachelor's degree	92	(0.6)	8	(0.6)	29	(1.3)	71	(1.3)	36	(1.1)	64	(1.1)	18	(1.1)	82	(1.1)
	Postsecondary education – bachelor's degree or higher	94	(0.7)	6	(0.7)	47	(1.5)	53	(1.5)	46	(1.3)	54	(1.3)	31	(1.6)	69	(1.6)
<b>Ontario</b>	Less than high-school diploma	79	(2.3)	21	(2.3)	18	(2.4)	82	(2.4)	48	(3.1)	52	(3.1)	34	(2.4)	66	(2.4)
	High-school diploma	87	(1.2)	13	(1.2)	22	(1.6)	78	(1.6)	45	(1.9)	55	(1.9)	42	(2.5)	58	(2.5)
	Postsecondary education – below bachelor's degree	89	(1.1)	11	(1.1)	25	(1.6)	75	(1.6)	49	(1.6)	51	(1.6)	48	(2.2)	52	(2.2)
	Postsecondary education – bachelor's degree or higher	94	(0.7)	6	(0.7)	35	(1.9)	65	(1.9)	57	(1.8)	43	(1.8)	68	(1.8)	32	(1.8)
<b>Manitoba</b>	Less than high-school diploma	83	(2.4)	17	(2.4)	28	(3.9)	72	(3.9)	46	(3.7)	54	(3.7)	34	(3.3)	66	(3.3)
	High-school diploma	88	(1.6)	12	(1.6)	25	(3.1)	75	(3.1)	47	(3.4)	53	(3.4)	53	(3.7)	47	(3.7)
	Postsecondary education – below bachelor's degree	87	(1.9)	13	(1.9)	26	(2.7)	74	(2.7)	59	(2.9)	41	(2.9)	54	(3.1)	46	(3.1)
	Postsecondary education – bachelor's degree or higher	94	(2.2)	U	(2.2)	40	(3.4)	60	(3.4)	67	(3.5)	33	(3.5)	71	(3.4)	29	(3.4)
<b>Saskatchewan</b>	Less than high-school diploma	76	(3.2)	24	(3.2)	18 <sup>M</sup>	(3.8)	82	(3.8)	47	(4.7)	53	(4.7)	38	(4.9)	62	(4.9)
	High-school diploma	87	(2.0)	13	(2.0)	33	(3.2)	67	(3.2)	57	(3.4)	43	(3.4)	47	(3.2)	53	(3.2)
	Postsecondary education – below bachelor's degree	89	(1.7)	11	(1.7)	33	(3.0)	67	(3.0)	59	(3.6)	41	(3.6)	57	(3.5)	43	(3.5)
	Postsecondary education – bachelor's degree or higher	90	(2.0)	10 <sup>M</sup>	(2.0)	43	(3.8)	57	(3.8)	72	(3.3)	28	(3.3)	71	(3.4)	29	(3.4)
<b>Alberta</b>	Less than high-school diploma	86	(3.2)	14 <sup>M</sup>	(3.2)	20 <sup>M</sup>	(3.7)	80	(3.7)	48	(4.5)	52	(4.5)	37	(4.7)	63	(4.7)
	High-school diploma	92	(2.0)	8 <sup>M</sup>	(2.0)	19	(3.0)	81	(3.0)	45	(4.0)	55	(4.0)	50	(3.5)	50	(3.5)
	Postsecondary education – below bachelor's degree	88	(2.1)	12 <sup>M</sup>	(2.1)	25	(3.2)	75	(3.2)	54	(3.0)	46	(3.0)	55	(3.4)	45	(3.4)
	Postsecondary education – bachelor's degree or higher	96	(1.3)	4 <sup>M</sup>	(1.3)	39	(3.5)	61	(3.5)	70	(3.1)	30	(3.1)	67	(3.1)	33	(3.1)



**Table 2.4 (cont'd)**

**Percentage distributions of population aged 16 to 65, by health and social outcomes and educational attainment, Canada, provinces and territories, 2012**

	Educational attainment	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>British Columbia</b>	Less than high-school diploma	79	(4.5)	21 <sup>M</sup>	(4.5)	26	(3.8)	74	(3.8)	48	(4.2)	52	(4.2)	37	(5.4)	63	(5.4)
	High-school diploma	89	(1.8)	11	(1.8)	24	(2.7)	76	(2.7)	49	(2.4)	51	(2.4)	57	(3.4)	43	(3.4)
	Postsecondary education – below bachelor's degree	89	(1.6)	11	(1.6)	31	(2.6)	69	(2.6)	56	(2.8)	44	(2.8)	50	(3.5)	50	(3.5)
	Postsecondary education – bachelor's degree or higher	90	(1.7)	10	(1.7)	37	(3.1)	63	(3.1)	64	(3.0)	36	(3.0)	63	(3.5)	37	(3.5)
<b>Yukon</b>	Less than high-school diploma	86	(8.1)	U	(8.1)	U	(12.8)	67 <sup>M</sup>	(12.8)	56 <sup>M</sup>	(10.7)	44 <sup>M</sup>	(10.7)	47 <sup>M</sup>	(12.2)	53 <sup>M</sup>	(12.2)
	High-school diploma	90	(5.1)	U	(5.1)	U	(5.5)	89	(5.5)	50 <sup>M</sup>	(11.3)	50 <sup>M</sup>	(11.3)	U	(14.7)	57 <sup>M</sup>	(14.7)
	Postsecondary education – below bachelor's degree	82	(8.4)	U	(8.4)	U	(11.3)	68	(11.3)	67	(8.5)	33 <sup>M</sup>	(8.5)	72	(4.7)	28 <sup>M</sup>	(4.7)
	Postsecondary education – bachelor's degree or higher	91	(7.3)	U	(7.3)	U	(13.6)	67 <sup>M</sup>	(13.6)	81	(8.8)	U	(8.8)	83	(8.1)	U	(8.1)
<b>Northwest Territories</b>	Less than high-school diploma	78	(2.9)	22	(2.9)	18 <sup>M</sup>	(3.1)	82	(3.1)	58	(4.2)	42	(4.2)	42	(4.8)	58	(4.8)
	High-school diploma	87	(3.1)	13 <sup>M</sup>	(3.1)	30	(4.6)	70	(4.6)	63	(3.7)	37	(3.7)	64	(5.1)	36	(5.1)
	Postsecondary education – below bachelor's degree	85	(2.4)	15	(2.4)	26	(2.7)	74	(2.7)	63	(2.9)	37	(2.9)	53	(4.5)	47	(4.5)
	Postsecondary education – bachelor's degree or higher	93	(2.7)	U	(2.7)	46	(4.9)	54	(4.9)	76	(3.8)	24	(3.8)	79	(5.3)	21 <sup>M</sup>	(5.3)
<b>Nunavut</b>	Less than high-school diploma	73	(2.6)	27	(2.6)	13	(1.7)	87	(1.7)	43	(2.7)	57	(2.7)	32	(3.2)	68	(3.2)
	High-school diploma	85	(3.9)	15 <sup>M</sup>	(3.9)	25 <sup>M</sup>	(5.4)	75	(5.4)	58	(5.3)	42	(5.3)	59	(6.9)	41 <sup>M</sup>	(6.9)
	Postsecondary education – below bachelor's degree	72	(4.3)	28	(4.3)	26	(3.9)	74	(3.9)	61	(4.5)	39	(4.5)	55	(4.4)	45	(4.4)
	Postsecondary education – bachelor's degree or higher	92	(3.1)	U	(3.1)	41 <sup>M</sup>	(8.1)	59	(8.1)	82	(4.6)	18 <sup>M</sup>	(4.6)	67	(5.7)	33 <sup>M</sup>	(5.7)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 2.5a

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, gender and proficiency level, Canada, 2012**

Literacy	Gender							
	Male				Female			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	79	(1.7)	21	(1.7)	81	(1.3)	19	(1.3)
Level 2	87	(1.0)	13	(1.0)	88	(0.8)	12	(0.8)
Level 3	92	(0.8)	8	(0.8)	91	(0.7)	9	(0.7)
Level 4 or 5	95	(1.2)	5 <sup>M</sup>	(1.2)	93	(1.5)	7 <sup>M</sup>	(1.5)
Numeracy	Gender							
	Male				Female			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	79	(1.6)	21	(1.6)	83	(1.0)	17	(1.0)
Level 2	88	(1.1)	12	(1.1)	89	(0.8)	11	(0.8)
Level 3	93	(0.8)	7	(0.8)	92	(0.8)	8	(0.8)
Level 4 or 5	95	(1.0)	5 <sup>M</sup>	(1.0)	94	(1.4)	6 <sup>M</sup>	(1.4)
PS-TRE	Gender							
	Male				Female			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	79	(1.6)	21	(1.6)	80	(1.4)	20	(1.4)
Below Level 1	84	(1.4)	16	(1.4)	85	(1.2)	15	(1.2)
Level 1	91	(0.8)	9	(0.8)	90	(0.7)	10	(0.7)
Level 2 or 3	94	(0.6)	6	(0.6)	93	(0.7)	7	(0.7)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

SE Standard error

Table 2.5b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, age group and proficiency level, Canada, 2012**

Literacy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	90	(2.2)	10 <sup>M</sup>	(2.2)	92	(1.8)	8 <sup>M</sup>	(1.8)	85	(2.5)	15 <sup>M</sup>	(2.5)	77	(2.4)	23	(2.4)	69	(2.2)	31	(2.2)
Level 2	92	(1.5)	8 <sup>M</sup>	(1.5)	92	(1.6)	8 <sup>M</sup>	(1.6)	91	(1.4)	9	(1.4)	86	(1.6)	14	(1.6)	80	(1.6)	20	(1.6)
Level 3	93	(1.1)	7	(1.1)	94	(1.0)	6 <sup>M</sup>	(1.0)	93	(0.9)	7	(0.9)	91	(1.2)	9	(1.2)	88	(1.4)	12	(1.4)
Level 4 or 5	92	(3.1)	U	(3.1)	96	(1.2)	4 <sup>M</sup>	(1.2)	95	(1.3)	5 <sup>M</sup>	(1.3)	94	(2.0)	6 <sup>M</sup>	(2.0)	92	(2.5)	8 <sup>M</sup>	(2.5)
Numeracy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	91	(1.7)	9 <sup>M</sup>	(1.7)	92	(1.6)	8 <sup>M</sup>	(1.6)	86	(2.0)	14	(2.0)	78	(2.0)	22	(2.0)	71	(2.0)	29	(2.0)
Level 2	92	(1.3)	8	(1.3)	92	(1.4)	8 <sup>M</sup>	(1.4)	91	(1.4)	9	(1.4)	88	(1.3)	12	(1.3)	82	(1.7)	18	(1.7)
Level 3	93	(1.4)	7 <sup>M</sup>	(1.4)	95	(1.0)	5 <sup>M</sup>	(1.0)	93	(1.2)	7 <sup>M</sup>	(1.2)	91	(1.3)	9	(1.3)	88	(1.8)	12	(1.8)
Level 4 or 5	92	(2.3)	8 <sup>M</sup>	(2.3)	96	(1.2)	4 <sup>M</sup>	(1.2)	97	(1.3)	U	(1.3)	95	(1.7)	U	(1.7)	92	(3.1)	U	(3.1)
PS-TRE	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	92	(2.5)	8 <sup>M</sup>	(2.5)	94	(1.6)	6 <sup>M</sup>	(1.6)	87	(2.4)	13 <sup>M</sup>	(2.4)	79	(2.1)	21	(2.1)	71	(2.0)	29	(2.0)
Below Level 1	90	(2.6)	10 <sup>M</sup>	(2.6)	91	(2.4)	9 <sup>M</sup>	(2.4)	88	(2.1)	12 <sup>M</sup>	(2.1)	81	(2.0)	19	(2.0)	81	(1.9)	19	(1.9)
Level 1	92	(1.5)	8 <sup>M</sup>	(1.5)	92	(1.5)	8 <sup>M</sup>	(1.5)	92	(1.1)	8	(1.1)	90	(1.3)	10	(1.3)	87	(1.5)	13	(1.5)
Level 2 or 3	93	(1.0)	7	(1.0)	95	(0.8)	5	(0.8)	94	(0.9)	6	(0.9)	93	(1.3)	7 <sup>M</sup>	(1.3)	90	(1.9)	10 <sup>M</sup>	(1.9)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 2.5c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, educational attainment and proficiency level, Canada, 2012**

Literacy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	74	(1.8)	26	(1.8)	84	(1.9)	16	(1.9)	82	(2.2)	18	(2.2)	88	(3.3)	12 <sup>M</sup>	(3.3)
Level 2	82	(1.9)	18	(1.9)	88	(1.4)	12	(1.4)	88	(1.1)	12	(1.1)	92	(1.5)	8 <sup>M</sup>	(1.5)
Level 3	91	(1.9)	9 <sup>M</sup>	(1.9)	90	(1.2)	10	(1.2)	92	(1.0)	8	(1.0)	94	(0.7)	6	(0.7)
Level 4 or 5	92	(7.8)	U	(7.8)	90	(3.1)	10 <sup>M</sup>	(3.1)	93	(1.7)	7 <sup>M</sup>	(1.7)	96	(0.8)	4 <sup>M</sup>	(0.8)
Numeracy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	74	(1.8)	26	(1.8)	84	(1.6)	16	(1.6)	84	(1.7)	16	(1.7)	91	(2.3)	9 <sup>M</sup>	(2.3)
Level 2	85	(1.7)	15	(1.7)	88	(1.4)	12	(1.4)	88	(1.1)	12	(1.1)	92	(1.5)	8 <sup>M</sup>	(1.5)
Level 3	91	(2.6)	9 <sup>M</sup>	(2.6)	92	(1.4)	8	(1.4)	92	(0.9)	8	(0.9)	93	(0.9)	7	(0.9)
Level 4 or 5	93	(6.1)	U	(6.1)	89	(3.2)	11 <sup>M</sup>	(3.2)	95	(1.5)	5 <sup>M</sup>	(1.5)	97	(0.9)	3 <sup>M</sup>	(0.9)
PS-TRE	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative		Self-reported health Positive		Self-reported health Negative	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	69	(2.3)	31	(2.3)	85	(1.6)	15	(1.6)	81	(2.0)	19	(2.0)	88	(2.1)	12 <sup>M</sup>	(2.1)
Below Level 1	80	(2.3)	20	(2.3)	85	(1.9)	15	(1.9)	86	(1.5)	14	(1.5)	90	(2.3)	10 <sup>M</sup>	(2.3)
Level 1	88	(1.8)	12	(1.8)	89	(1.4)	11	(1.4)	91	(0.8)	9	(0.8)	93	(1.1)	7	(1.1)
Level 2 or 3	92	(1.7)	8 <sup>M</sup>	(1.7)	91	(1.4)	9	(1.4)	93	(0.8)	7	(0.8)	96	(0.5)	4	(0.5)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

**Table 2.6a**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting excellent, very good or good health, by proficiency level, Canada, 2012**

Literacy	Self-reported health		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.4	(0.1)	**
Level 3	1.8	(0.1)	***
Level 4 or 5	2.1	(0.2)	**
Numeracy	Self-reported health		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.3	(0.1)	**
Level 3	1.7	(0.1)	***
Level 4 or 5	2.4	(0.2)	***
PS-TRE	Self-reported health		
	Positive		
	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0		
Below Level 1	1.1	(0.1)	–
Level 1	1.6	(0.1)	***
Level 2 or 3	1.9	(0.1)	***

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 2.6b

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting excellent, very good or good health, by educational attainment and proficiency level, Canada, 2012**

Literacy	Self-reported health Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.3	(0.2)	–	1.5	(0.2)	–	1.4	(0.2)	–	1.1	(0.5)	–
Level 3	2.0	(0.3)	**	1.8	(0.2)	**	1.8	(0.2)	**	1.2	(0.4)	–
Level 4 or 5	8.6	(7.4)	–	1.7	(0.4)	–	2.2	(0.3)	*	1.6	(0.5)	–
Numeracy	Self-reported health Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.5	(0.2)	*	1.4	(0.2)	–	1.3	(0.2)	–	0.9	(0.4)	–
Level 3	2.0	(0.3)	*	1.9	(0.2)	**	1.6	(0.2)	*	1.0	(0.4)	–
Level 4 or 5	2.4	(1.4)	–	1.5	(0.4)	–	2.9	(0.4)	*	1.7	(0.5)	–
PS-TRE	Self-reported health Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.2	(0.2)	–	0.9	(0.2)	–	1.2	(0.2)	–	1.3	(0.3)	–
Level 1	1.5	(0.2)	–	1.2	(0.2)	–	1.7	(0.2)	**	1.6	(0.3)	–
Level 2 or 3	1.7	(0.3)	–	1.4	(0.2)	–	2.0	(0.2)	***	2.3	(0.2)	**

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

**Table 2.7a**

**Percentage distributions of population aged 16 to 65, by longstanding illness or activity limitation due to longstanding illness, Canada, provinces and territories, 2012**

	Longstanding illness				Activity limitation			
	Yes		No		Severely limited/Limited but not severely		Not limited at all	
	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	30	(0.5)	70	(0.5)	59	(0.8)	41	(0.8)
<b>Newfoundland and Labrador</b>	36	(1.3)	64	(1.3)	58	(2.3)	42	(2.3)
<b>Prince Edward Island</b>	36	(1.5)	64	(1.5)	57	(2.6)	43	(2.6)
<b>Nova Scotia</b>	41	(1.3)	59	(1.3)	63	(2.1)	37	(2.1)
<b>New Brunswick</b>	36	(1.4)	64	(1.4)	57	(2.2)	43	(2.2)
<b>Quebec</b>	28	(0.7)	72	(0.7)	51	(1.3)	49	(1.3)
<b>Ontario</b>	31	(0.8)	69	(0.8)	63	(1.4)	37	(1.4)
<b>Manitoba</b>	31	(1.4)	69	(1.4)	59	(3.6)	41	(3.6)
<b>Saskatchewan</b>	33	(1.8)	67	(1.8)	62	(3.2)	38	(3.2)
<b>Alberta</b>	29	(1.7)	71	(1.7)	56	(3.6)	44	(3.6)
<b>British Columbia</b>	29	(1.5)	71	(1.5)	64	(2.7)	36	(2.7)
<b>Yukon</b>	33	(4.1)	67	(4.1)	68	(10.4)	32 <sup>M</sup>	(10.4)
<b>Northwest Territories</b>	29	(1.9)	71	(1.9)	64	(3.5)	36	(3.5)
<b>Nunavut</b>	25	(1.9)	75	(1.9)	72	(3.6)	28	(3.6)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** Self-reported longstanding illnesses or health problems that have lasted, or are expected to last, for 6 months or more.

<sup>M</sup> Use with caution

SE Standard error

Table 2.7b

Percentage distributions of population aged 16 to 65, by longstanding illness or activity limitation due to longstanding illness and proficiency level or socio-demographic characteristics, Canada, 2012

	Longstanding illness				Activity limitation			
	Yes		No		Severely limited/ Limited but not severely		Not limited at all	
	%	SE	%	SE	%	SE	%	SE
<b>Literacy proficiency level</b>								
Level 1 or below	33	(1.4)	67	(1.4)	71	(2.1)	29	(2.1)
Level 2	32	(0.9)	68	(0.9)	59	(1.5)	41	(1.5)
Level 3	29	(1.0)	71	(1.0)	56	(1.6)	44	(1.6)
Level 4 or 5	29	(1.5)	71	(1.5)	55	(3.1)	45	(3.1)
<b>Numeracy proficiency level</b>								
Level 1 or below	33	(1.1)	67	(1.1)	70	(2.2)	30	(2.2)
Level 2	31	(1.0)	69	(1.0)	59	(1.8)	41	(1.8)
Level 3	30	(1.0)	70	(1.0)	55	(1.8)	45	(1.8)
Level 4 or 5	28	(1.8)	72	(1.8)	51	(3.0)	49	(3.0)
<b>PS-TRE proficiency level</b>								
PS-TRE non-respondents	38	(1.2)	62	(1.2)	68	(1.7)	32	(1.7)
Below Level 1	33	(1.5)	67	(1.5)	64	(2.4)	36	(2.4)
Level 1	30	(1.0)	70	(1.0)	56	(1.8)	44	(1.8)
Level 2 or 3	26	(1.0)	74	(1.0)	54	(1.7)	46	(1.7)
<b>Age group</b>								
16 to 24	16	(0.9)	84	(0.9)	64	(2.9)	36	(2.9)
25 to 34	21	(1.1)	79	(1.1)	60	(3.2)	40	(3.2)
35 to 44	27	(1.0)	73	(1.0)	58	(2.2)	42	(2.2)
45 to 54	35	(0.8)	65	(0.8)	61	(1.6)	39	(1.6)
55 to 65	49	(1.2)	51	(1.2)	57	(1.4)	43	(1.4)
<b>Gender</b>								
Male	29	(0.7)	71	(0.7)	58	(1.2)	42	(1.2)
Female	32	(0.7)	68	(0.7)	61	(1.2)	39	(1.2)
<b>Educational attainment</b>								
Less than high-school diploma	35	(1.2)	65	(1.2)	69	(1.9)	31	(1.9)
High-school diploma	29	(1.0)	71	(1.0)	61	(1.8)	39	(1.8)
Postsecondary education – below bachelor's degree	33	(0.9)	67	(0.9)	59	(1.7)	41	(1.7)
Postsecondary education – bachelor's degree or higher	26	(1.0)	74	(1.0)	51	(1.7)	49	(1.7)
<b>Immigrant status</b>								
Recent immigrants	16	(1.1)	84	(1.1)	58	(3.2)	42	(3.2)
Established immigrants	30	(1.5)	70	(1.5)	57	(2.5)	43	(2.5)
Canadian-born	32	(0.6)	68	(0.6)	60	(0.9)	40	(0.9)
<b>Indigenous identification</b>								
Indigenous	40	(1.4)	60	(1.4)	66	(2.1)	34	(2.1)
Non-Indigenous	30	(0.6)	70	(0.6)	59	(0.9)	41	(0.9)



**Table 2.7b (cont'd)**

**Percentage distributions of population aged 16 to 65, by longstanding illness or activity limitation due to longstanding illness and proficiency level or socio-demographic characteristics, Canada, 2012**

	Longstanding illness				Activity limitation			
	Yes		No		Severely limited/ Limited but not severely		Not limited at all	
	%	SE	%	SE	%	SE	%	SE
<b>Employment status</b>								
Employed	28	(0.6)	72	(0.6)	53	(1.0)	47	(1.0)
Unemployed	24	(2.1)	76	(2.1)	73	(4.1)	27	(4.1)
Not in labour force	43	(1.2)	57	(1.2)	74	(1.5)	26	(1.5)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** Self-reported longstanding illnesses or health problems that have lasted, or are expected to last, for 6 months or more.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

**Table 2.7c**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting a longstanding illness or activity limitation due to longstanding illness, by proficiency level, Canada, 2012**

Literacy	Longstanding illness			Activity limitation		
	Yes			Severely limited/Limited but not severely		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	0.9	(0.2)	–	1.5	(0.2)	*
Level 2	1.0	(0.1)	–	1.0	(0.2)	–
Level 3	0.9	(0.1)	–	1.0	(0.2)	–
Level 4 or 5	1.0			1.0		
Numeracy	Longstanding illness			Activity limitation		
	Yes			Severely limited/Limited but not severely		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	0.8	(0.2)	–	1.6	(0.2)	*
Level 2	0.9	(0.1)	–	1.2	(0.2)	–
Level 3	1.0	(0.1)	–	1.1	(0.2)	–
Level 4 or 5	1.0			1.0		
PS-TRE	Longstanding illness			Activity limitation		
	Yes			Severely limited/Limited but not severely		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	0.9	(0.1)	–	1.6	(0.1)	***
Below Level 1	0.9	(0.1)	–	1.4	(0.1)	*
Level 1	1.0	(0.1)	–	1.1	(0.1)	–
Level 2 or 3	1.0			1.0		

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> Self-reported longstanding illnesses or health problems that have lasted, or are expected to last, for 6 months or more.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

**Table 2.8a**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, gender and proficiency level, Canada, 2012**

Literacy	Gender							
	Male				Female			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	19	(1.6)	81	(1.6)	17	(1.5)	83	(1.5)
Level 2	23	(1.3)	77	(1.3)	23	(1.2)	77	(1.2)
Level 3	28	(1.4)	72	(1.4)	37	(1.4)	63	(1.4)
Level 4 or 5	36	(2.4)	64	(2.4)	45	(2.6)	55	(2.6)
Numeracy	Gender							
	Male				Female			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	20	(1.7)	80	(1.7)	19	(1.3)	81	(1.3)
Level 2	24	(1.6)	76	(1.6)	28	(1.5)	72	(1.5)
Level 3	28	(1.5)	72	(1.5)	38	(1.4)	62	(1.4)
Level 4 or 5	33	(2.1)	67	(2.1)	45	(3.2)	55	(3.2)
PS-TRE	Gender							
	Male				Female			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	18	(1.5)	82	(1.5)	23	(1.5)	77	(1.5)
Below Level 1	22	(2.2)	78	(2.2)	20	(1.7)	80	(1.7)
Level 1	27	(1.4)	73	(1.4)	29	(1.6)	71	(1.6)
Level 2 or 3	31	(1.4)	69	(1.4)	39	(1.4)	61	(1.4)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

SE Standard error

Table 2.8b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, age group and proficiency level, Canada, 2012**

Literacy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	16 <sup>M</sup>	(2.8)	84	(2.8)	18 <sup>M</sup>	(3.0)	82	(3.0)	20	(2.6)	80	(2.6)	18	(2.2)	82	(2.2)	18	(2.0)	82	(2.0)
Level 2	22	(2.1)	78	(2.1)	20	(2.2)	80	(2.2)	22	(2.1)	78	(2.1)	25	(1.7)	75	(1.7)	26	(1.7)	74	(1.7)
Level 3	27	(1.8)	73	(1.8)	31	(2.2)	69	(2.2)	31	(1.9)	69	(1.9)	38	(1.9)	62	(1.9)	36	(2.4)	64	(2.4)
Level 4 or 5	35	(4.0)	65	(4.0)	41	(4.1)	59	(4.1)	37	(3.1)	63	(3.1)	42	(3.6)	58	(3.6)	46	(5.1)	54	(5.1)
Numeracy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	17 <sup>M</sup>	(2.9)	83	(2.9)	19	(2.9)	81	(2.9)	18	(2.3)	82	(2.3)	19	(1.9)	81	(1.9)	20	(1.7)	80	(1.7)
Level 2	24	(2.3)	76	(2.3)	23	(3.0)	77	(3.0)	26	(2.3)	74	(2.3)	28	(2.3)	72	(2.3)	28	(1.8)	72	(1.8)
Level 3	28	(2.2)	72	(2.2)	32	(2.7)	68	(2.7)	32	(2.5)	68	(2.5)	37	(2.3)	63	(2.3)	35	(3.0)	65	(3.0)
Level 4 or 5	31	(4.8)	69	(4.8)	40	(3.9)	60	(3.9)	33	(3.9)	67	(3.9)	41	(3.6)	59	(3.6)	44	(5.5)	56	(5.5)
PS-TRE	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	25 <sup>M</sup>	(4.4)	75	(4.4)	21 <sup>M</sup>	(4.5)	79	(4.5)	20	(2.3)	80	(2.3)	20	(2.2)	80	(2.2)	21	(1.5)	79	(1.5)
Below Level 1	17 <sup>M</sup>	(3.6)	83	(3.6)	17 <sup>M</sup>	(3.2)	83	(3.2)	21	(3.3)	79	(3.3)	22	(2.3)	78	(2.3)	25	(2.2)	75	(2.2)
Level 1	23	(2.4)	77	(2.4)	23	(2.3)	77	(2.3)	27	(2.5)	73	(2.5)	33	(1.9)	67	(1.9)	33	(2.2)	67	(2.2)
Level 2 or 3	27	(1.8)	73	(1.8)	35	(2.2)	65	(2.2)	34	(1.9)	66	(1.9)	41	(2.2)	59	(2.2)	42	(3.4)	58	(3.4)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>M</sup> Use with caution

SE Standard error

Table 2.8c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, educational attainment and proficiency level, Canada, 2012**

Literacy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust			
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	15	(1.6)	85	(1.6)	18	(2.1)	82	(2.1)	21	(2.4)	79	(2.4)	22 <sup>M</sup>	(4.1)	78	(4.1)
Level 2	21	(1.9)	79	(1.9)	20	(1.6)	80	(1.6)	23	(1.4)	77	(1.4)	31	(2.7)	69	(2.7)
Level 3	27	(3.6)	73	(3.6)	26	(1.9)	74	(1.9)	30	(1.5)	70	(1.5)	42	(1.7)	58	(1.7)
Level 4 or 5	U	(13.7)	60 <sup>M</sup>	(13.7)	30	(4.4)	70	(4.4)	36	(3.6)	64	(3.6)	45	(2.2)	55	(2.2)
Numeracy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust			
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	16	(1.6)	84	(1.6)	19	(1.8)	81	(1.8)	21	(2.0)	79	(2.0)	22	(3.2)	78	(3.2)
Level 2	23	(2.3)	77	(2.3)	23	(1.9)	77	(1.9)	24	(1.5)	76	(1.5)	37	(2.8)	63	(2.8)
Level 3	26	(3.6)	74	(3.6)	25	(2.1)	75	(2.1)	31	(1.6)	69	(1.6)	43	(2.0)	57	(2.0)
Level 4 or 5	U	(12.3)	67 <sup>M</sup>	(12.3)	28 <sup>M</sup>	(5.5)	72	(5.5)	36	(3.6)	64	(3.6)	41	(2.2)	59	(2.2)
PS-TRE	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust			
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	18	(1.8)	82	(1.8)	21	(2.1)	79	(2.1)	19	(1.8)	81	(1.8)	32	(3.4)	68	(3.4)
Below Level 1	17	(2.2)	83	(2.2)	19	(2.1)	81	(2.1)	23	(2.2)	77	(2.2)	28	(3.2)	72	(3.2)
Level 1	22	(2.8)	78	(2.8)	21	(1.8)	79	(1.8)	28	(1.7)	72	(1.7)	38	(2.2)	62	(2.2)
Level 2 or 3	25	(3.6)	75	(3.6)	27	(1.8)	73	(1.8)	32	(2.1)	68	(2.1)	43	(1.6)	57	(1.6)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>M</sup> Use with caution

SE Standard error

**Table 2.9a**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting positive level of trust, by proficiency level, Canada, 2012**

Literacy	Level of trust		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.2	(0.1)	—
Level 3	1.8	(0.1)	***
Level 4 or 5	2.1	(0.1)	***
Numeracy	Level of trust		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.3	(0.1)	**
Level 3	1.7	(0.1)	***
Level 4 or 5	1.9	(0.1)	***
PS-TRE	Level of trust		
	Positive		
	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0		
Below Level 1	1.0	(0.1)	—
Level 1	1.3	(0.1)	**
Level 2 or 3	1.7	(0.1)	***

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: “there are only a few people you can trust completely.” Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

— represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 2.9b

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting positive level of trust, by educational attainment and proficiency level, Canada, 2012**

Literacy	Level of trust											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.5	(0.2)	*	1.2	(0.2)	–	1.1	(0.2)	–	1.3	(0.3)	–
Level 3	2.2	(0.3)	**	1.6	(0.2)	**	1.6	(0.2)	**	1.8	(0.3)	*
Level 4 or 5	3.9	(0.6)	*	2.1	(0.3)	*	2.0	(0.2)	**	2.0	(0.3)	*
Numeracy	Level of trust											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.5	(0.2)	*	1.3	(0.2)	–	1.2	(0.1)	–	1.7	(0.2)	*
Level 3	1.7	(0.3)	*	1.4	(0.2)	*	1.6	(0.2)	–	1.9	(0.2)	**
Level 4 or 5	2.3	(0.6)	–	1.8	(0.3)	–	2.1	(0.1)	**	1.9	(0.2)	**
PS-TRE	Level of trust											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.1	(0.2)	–	0.9	(0.2)	–	1.2	(0.2)	–	0.9	(0.2)	–
Level 1	1.5	(0.3)	–	1.1	(0.2)	–	1.6	(0.2)	**	1.2	(0.2)	–
Level 2 or 3	1.8	(0.3)	*	1.7	(0.2)	**	2.0	(0.2)	***	1.4	(0.2)	–

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 2.10a

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, gender and proficiency level, Canada, 2012**

Literacy	Gender							
	Male				Female			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	28	(1.8)	72	(1.8)	31	(1.9)	69	(1.9)
Level 2	39	(1.5)	61	(1.5)	47	(1.3)	53	(1.3)
Level 3	52	(1.5)	48	(1.5)	60	(1.1)	40	(1.1)
Level 4 or 5	63	(2.6)	37	(2.6)	67	(2.2)	33	(2.2)
Numeracy	Gender							
	Male				Female			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	30	(1.8)	70	(1.8)	36	(1.7)	64	(1.7)
Level 2	41	(1.7)	59	(1.7)	51	(1.5)	49	(1.5)
Level 3	51	(1.5)	49	(1.5)	62	(1.3)	38	(1.3)
Level 4 or 5	61	(2.2)	39	(2.2)	66	(2.9)	34	(2.9)
PS-TRE	Gender							
	Male				Female			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	32	(1.9)	68	(1.9)	35	(1.8)	65	(1.8)
Below Level 1	34	(2.1)	66	(2.1)	39	(2.1)	61	(2.1)
Level 1	45	(1.6)	55	(1.6)	54	(1.5)	46	(1.5)
Level 2 or 3	57	(1.4)	43	(1.4)	63	(1.3)	37	(1.3)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

SE: Standard error



Table 2.10b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, age group and proficiency level, Canada, 2012**

Literacy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation	
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	39	(3.8)	61	(3.8)	28	(3.9)	72	(3.9)	32	(3.6)	68	(3.6)	27	(2.3)	73	(2.3)	27	(2.0)	73	(2.0)
Level 2	52	(2.6)	48	(2.6)	38	(2.2)	62	(2.2)	43	(2.3)	57	(2.3)	43	(2.2)	57	(2.2)	40	(2.3)	60	(2.3)
Level 3	60	(2.2)	40	(2.2)	51	(2.2)	49	(2.2)	57	(2.1)	43	(2.1)	59	(1.9)	41	(1.9)	53	(2.9)	47	(2.9)
Level 4 or 5	66	(4.1)	34	(4.1)	55	(3.6)	45	(3.6)	68	(3.2)	32	(3.2)	72	(3.8)	28	(3.8)	69	(4.7)	31	(4.7)
Numeracy	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation	
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	45	(3.0)	55	(3.0)	32	(3.3)	68	(3.3)	34	(3.1)	66	(3.1)	30	(2.5)	70	(2.5)	30	(1.9)	70	(1.9)
Level 2	54	(2.3)	46	(2.3)	42	(2.4)	58	(2.4)	47	(2.3)	53	(2.3)	48	(2.2)	52	(2.2)	43	(2.1)	57	(2.1)
Level 3	60	(2.8)	40	(2.8)	51	(2.2)	49	(2.2)	57	(2.2)	43	(2.2)	58	(2.1)	42	(2.1)	52	(2.4)	48	(2.4)
Level 4 or 5	62	(4.7)	38	(4.7)	53	(3.8)	47	(3.8)	67	(3.2)	33	(3.2)	70	(3.0)	30	(3.0)	66	(4.6)	34	(4.6)
PS-TRE	Age group																			
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation	
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	49	(4.7)	51	(4.7)	30	(4.3)	70	(4.3)	33	(3.0)	67	(3.0)	31	(2.2)	69	(2.2)	33	(1.9)	67	(1.9)
Below Level 1	39	(4.5)	61	(4.5)	35	(3.9)	65	(3.9)	36	(3.6)	64	(3.6)	38	(2.4)	62	(2.4)	36	(2.6)	64	(2.6)
Level 1	53	(2.6)	47	(2.6)	43	(2.6)	57	(2.6)	49	(2.4)	51	(2.4)	53	(2.0)	47	(2.0)	49	(2.4)	51	(2.4)
Level 2 or 3	61	(1.9)	39	(1.9)	52	(2.1)	48	(2.1)	63	(2.1)	37	(2.1)	67	(2.0)	33	(2.0)	63	(3.0)	37	(3.0)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

SE Standard error

Table 2.10c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, educational attainment and proficiency level, Canada, 2012**

Literacy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation			
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	31	(2.2)	69	(2.2)	26	(2.5)	74	(2.5)	30	(2.3)	70	(2.3)	34	(4.1)	66	(4.1)
Level 2	42	(2.6)	58	(2.6)	40	(2.0)	60	(2.0)	43	(1.5)	57	(1.5)	51	(2.3)	49	(2.3)
Level 3	64	(3.5)	36	(3.5)	53	(1.6)	47	(1.6)	54	(1.6)	46	(1.6)	60	(1.5)	40	(1.5)
Level 4 or 5	81	(10.7)	U	(10.7)	61	(4.6)	39	(4.6)	61	(3.6)	39	(3.6)	67	(2.3)	33	(2.3)
Numeracy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation			
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	32	(1.9)	68	(1.9)	30	(2.5)	70	(2.5)	35	(2.2)	65	(2.2)	42	(3.7)	58	(3.7)
Level 2	44	(3.0)	56	(3.0)	44	(2.6)	56	(2.6)	47	(1.6)	53	(1.6)	53	(2.3)	47	(2.3)
Level 3	66	(4.1)	34	(4.1)	52	(2.3)	48	(2.3)	52	(1.8)	48	(1.8)	61	(1.7)	39	(1.7)
Level 4 or 5	79	(9.2)	U	(9.2)	59	(5.0)	41	(5.0)	59	(3.1)	41	(3.1)	65	(2.3)	35	(2.3)
PS-TRE	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation		Volunteer participation			
	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer	Volunteered	Did not volunteer		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	28	(1.9)	72	(1.9)	29	(2.2)	71	(2.2)	40	(2.2)	60	(2.2)	42	(3.5)	58	(3.5)
Below Level 1	34	(3.1)	66	(3.1)	34	(3.1)	66	(3.1)	36	(2.4)	64	(2.4)	46	(3.8)	54	(3.8)
Level 1	50	(3.5)	50	(3.5)	44	(2.0)	56	(2.0)	48	(1.6)	52	(1.6)	56	(2.5)	44	(2.5)
Level 2 or 3	71	(3.3)	29	(3.3)	56	(2.0)	44	(2.0)	56	(1.6)	44	(1.6)	65	(1.5)	35	(1.5)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

U Too unreliable to be published

SE Standard error

**Table 2.11a**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 volunteering, by proficiency level, Canada, 2012**

Literacy	Volunteer participation		
	Volunteered		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.6	(0.1)	***
Level 3	2.5	(0.1)	***
Level 4 or 5	3.2	(0.1)	***
Numeracy	Volunteer participation		
	Volunteered		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.6	(0.1)	***
Level 3	2.1	(0.1)	***
Level 4 or 5	2.6	(0.1)	***
PS-TRE	Volunteer participation		
	Volunteered		
	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0		
Below Level 1	1.1	(0.1)	—
Level 1	1.6	(0.1)	***
Level 2 or 3	2.4	(0.1)	***

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work “in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization.”

— represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 2.11b

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 volunteering, by educational attainment and proficiency level, Canada, 2012**

Literacy	Volunteer participation											
	Volunteered											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.2	(0.2)	–	1.7	(0.2)	**	1.6	(0.1)	***	1.7	(0.2)	*
Level 3	2.4	(0.2)	***	2.7	(0.2)	***	2.5	(0.1)	***	2.1	(0.2)	***
Level 4 or 5	5.1	(0.7)	*	3.8	(0.3)	***	3.3	(0.2)	***	2.6	(0.2)	***
Numeracy	Volunteer participation											
	Volunteered											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.3	(0.2)	–	1.7	(0.2)	**	1.5	(0.1)	**	1.3	(0.2)	–
Level 3	2.8	(0.2)	–	2.4	(0.2)	***	1.9	(0.1)	***	1.5	(0.2)	*
Level 4 or 5	4.8	(0.2)	***	3.1	(0.3)	***	2.5	(0.2)	***	1.9	(0.2)	**
PS-TRE	Volunteer participation											
	Volunteered											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.1	(0.2)	–	1.2	(0.2)	–	0.9	(0.1)	–	1.3	(0.2)	–
Level 1	1.6	(0.2)	*	1.6	(0.1)	***	1.3	(0.1)	*	1.7	(0.2)	**
Level 2 or 3	3.1	(0.2)	***	2.6	(0.2)	***	1.8	(0.1)	***	2.3	(0.2)	–

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 2.12a

Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, gender and proficiency level, Canada, 2012

Literacy	Gender							
	Male				Female			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	29	(2.0)	71	(2.0)	30	(1.8)	70	(1.8)
Level 2	36	(1.5)	64	(1.5)	40	(1.6)	60	(1.6)
Level 3	49	(1.6)	51	(1.6)	53	(1.4)	47	(1.4)
Level 4 or 5	59	(2.4)	41	(2.4)	63	(2.6)	37	(2.6)
Numeracy	Gender							
	Male				Female			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	31	(1.9)	69	(1.9)	33	(1.6)	67	(1.6)
Level 2	38	(1.8)	62	(1.8)	45	(1.5)	55	(1.5)
Level 3	47	(1.7)	53	(1.7)	54	(1.8)	46	(1.8)
Level 4 or 5	58	(2.6)	42	(2.6)	64	(3.3)	36	(3.3)
PS-TRE	Gender							
	Male				Female			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	32	(2.1)	68	(2.1)	35	(2.1)	65	(2.1)
Below Level 1	32	(2.4)	68	(2.4)	33	(2.2)	67	(2.2)
Level 1	42	(1.8)	58	(1.8)	45	(1.7)	55	(1.7)
Level 2 or 3	53	(1.7)	47	(1.7)	58	(1.8)	42	(1.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

SE: Standard error

Table 2.12b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, age group and proficiency level, Canada, 2012**

Literacy	Age group																				
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65				
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	29	(3.6)	71	(3.6)	32	(4.3)	68	(4.3)	32	(3.5)	68	(3.5)	30	(2.8)	70	(2.8)	27	(2.5)	73	(2.5)	
Level 2	40	(2.7)	60	(2.7)	39	(2.9)	61	(2.9)	37	(2.7)	63	(2.7)	39	(2.2)	61	(2.2)	36	(1.7)	64	(1.7)	
Level 3	49	(2.4)	51	(2.4)	52	(2.6)	48	(2.6)	49	(2.3)	51	(2.3)	53	(2.1)	47	(2.1)	52	(2.6)	48	(2.6)	
Level 4 or 5	63	(4.1)	37	(4.1)	58	(3.6)	42	(3.6)	59	(3.4)	41	(3.4)	62	(4.0)	38	(4.0)	65	(5.2)	35	(5.2)	
Numeracy	Age group																				
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65				
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	33	(3.5)	67	(3.5)	37	(3.5)	63	(3.5)	32	(3.1)	68	(3.1)	32	(2.7)	68	(2.7)	29	(1.9)	71	(1.9)	
Level 2	43	(3.0)	57	(3.0)	42	(2.9)	58	(2.9)	42	(2.9)	58	(2.9)	41	(2.4)	59	(2.4)	40	(2.0)	60	(2.0)	
Level 3	48	(3.0)	52	(3.0)	50	(3.0)	50	(3.0)	48	(2.5)	52	(2.5)	54	(2.4)	46	(2.4)	50	(2.7)	50	(2.7)	
Level 4 or 5	58	(4.8)	42	(4.8)	60	(3.8)	40	(3.8)	60	(3.9)	40	(3.9)	60	(3.9)	40	(3.9)	62	(5.1)	38	(5.1)	
PS-TRE	Age group																				
	16 to 24				25 to 34				35 to 44				45 to 54				55 to 65				
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	39	(5.2)	61	(5.2)	30	(4.5)	70	(4.5)	37	(3.6)	63	(3.6)	34	(2.8)	66	(2.8)	32	(1.8)	68	(1.8)	
Below Level 1	32	(4.6)	68	(4.6)	34	(4.8)	66	(4.8)	33	(4.3)	67	(4.3)	34	(3.3)	66	(3.3)	31	(2.8)	69	(2.8)	
Level 1	40	(3.0)	60	(3.0)	42	(3.6)	58	(3.6)	42	(2.5)	58	(2.5)	46	(2.5)	54	(2.5)	48	(2.3)	52	(2.3)	
Level 2 or 3	51	(2.3)	49	(2.3)	56	(2.2)	44	(2.2)	53	(2.2)	47	(2.2)	60	(2.2)	40	(2.2)	61	(3.3)	39	(3.3)	

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

SE Standard error

Table 2.12c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, educational attainment and proficiency level, Canada, 2012**

Literacy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	25	(2.3)	75	(2.3)	29	(2.7)	71	(2.7)	31	(2.8)	69	(2.8)	42	(5.1)	58	(5.1)
Level 2	30	(2.7)	70	(2.7)	37	(2.0)	63	(2.0)	37	(2.0)	63	(2.0)	50	(2.9)	50	(2.9)
Level 3	45	(4.2)	55	(4.2)	48	(2.4)	52	(2.4)	46	(1.9)	54	(1.9)	61	(1.9)	39	(1.9)
Level 4 or 5	67 <sup>M</sup>	(11.3)	U	(11.3)	55	(6.0)	45	(6.0)	50	(3.7)	50	(3.7)	68	(2.1)	32	(2.1)
Numeracy	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	26	(2.0)	74	(2.0)	33	(2.4)	67	(2.4)	34	(2.7)	66	(2.7)	46	(4.4)	54	(4.4)
Level 2	33	(2.9)	67	(2.9)	40	(2.0)	60	(2.0)	39	(1.8)	61	(1.8)	55	(2.6)	45	(2.6)
Level 3	44	(4.6)	56	(4.6)	47	(2.5)	53	(2.5)	45	(2.0)	55	(2.0)	60	(2.0)	40	(2.0)
Level 4 or 5	58 <sup>M</sup>	(14.3)	U	(14.3)	52	(5.8)	48	(5.8)	51	(3.7)	49	(3.7)	67	(2.0)	33	(2.0)
PS-TRE	Educational attainment															
	Less than high-school diploma				High-school diploma				Postsecondary education – below bachelor's degree				Postsecondary education – bachelor's degree or higher			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	27	(2.2)	73	(2.2)	33	(2.9)	67	(2.9)	35	(2.5)	65	(2.5)	50	(4.2)	50	(4.2)
Below Level 1	25	(2.8)	75	(2.8)	31	(3.4)	69	(3.4)	32	(3.0)	68	(3.0)	48	(4.4)	52	(4.4)
Level 1	32	(3.1)	68	(3.1)	41	(2.5)	59	(2.5)	42	(2.1)	58	(2.1)	55	(2.5)	45	(2.5)
Level 2 or 3	49	(4.3)	51	(4.3)	52	(2.5)	48	(2.5)	48	(2.3)	52	(2.3)	65	(1.7)	35	(1.7)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

**Table 2.13a**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting positive political efficacy, by proficiency level, Canada, 2012**

Literacy	Political efficacy		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.3	(0.1)	**
Level 3	2.1	(0.1)	***
Level 4 or 5	2.8	(0.1)	***
Numeracy	Political efficacy		
	Positive		
	Odds ratio	SE	p-value
Level 1 or below	1.0		
Level 2	1.3	(0.1)	***
Level 3	1.8	(0.1)	***
Level 4 or 5	2.4	(0.1)	***
PS-TRE	Political efficacy		
	Positive		
	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0		
Below Level 1	0.9	(0.1)	—
Level 1	1.4	(0.1)	***
Level 2 or 3	2.1	(0.1)	***

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

— represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error



Table 2.13b

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 reporting positive political efficacy, by educational attainment and proficiency level, Canada, 2012**

Literacy	Political efficacy											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.2	(0.2)	–	1.5	(0.2)	*	1.4	(0.2)	*	1.3	(0.3)	–
Level 3	2.2	(0.2)	**	2.4	(0.2)	***	2.2	(0.2)	***	1.9	(0.2)	**
Level 4 or 5	5.0	(0.5)	**	3.1	(0.3)	***	2.6	(0.2)	***	2.5	(0.3)	**
Numeracy	Political efficacy											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.3	(0.2)	–	1.4	(0.1)	*	1.3	(0.2)	–	1.4	(0.2)	–
Level 3	2.1	(0.2)	**	1.8	(0.2)	***	1.7	(0.2)	***	1.6	(0.2)	*
Level 4 or 5	3.4	(0.6)	–	2.2	(0.3)	**	2.3	(0.2)	*	2.2	(0.2)	**
PS-TRE	Political efficacy											
	Positive											
	Educational attainment											
	Less than high-school diploma			High-school diploma			Postsecondary education – below bachelor's degree			Postsecondary education – bachelor's degree or higher		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	0.9	(0.2)	–	1.0	(0.2)	–	0.9	(0.2)	–	0.8	(0.3)	–
Level 1	1.2	(0.2)	–	1.5	(0.2)	*	1.4	(0.1)	*	1.1	(0.2)	–
Level 2 or 3	2.3	(0.3)	**	2.5	(0.2)	***	1.9	(0.2)	***	1.7	(0.2)	**

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, Indigenous identification, immigrant status, employment status and testing language.

<sup>2</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 3.1

**Percentage distributions of population aged 16 to 65, by health and social outcomes and Indigenous identification, Canada and oversampled populations, 2012**

	Indigenous identification	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Indigenous	79	(1.1)	21	(1.1)	22	(1.3)	78	(1.3)	49	(1.2)	51	(1.2)	41	(1.4)	59	(1.4)
	Non-Indigenous	89	(0.3)	11	(0.3)	28	(0.5)	72	(0.5)	49	(0.5)	51	(0.5)	45	(0.5)	55	(0.5)
<b>Ontario</b>	Indigenous	75	(2.5)	25	(2.5)	24	(2.3)	76	(2.3)	50	(2.5)	50	(2.5)	45	(2.9)	55	(2.9)
	Non-Indigenous	89	(0.6)	11	(0.6)	27	(0.9)	73	(0.9)	50	(1.1)	50	(1.1)	50	(1.1)	50	(1.1)
<b>Manitoba</b>	Indigenous	82	(2.2)	18	(2.2)	18 <sup>M</sup>	(3.0)	82	(3.0)	52	(3.1)	48	(3.1)	41	(3.2)	59	(3.2)
	Non-Indigenous	89	(1.0)	11	(1.0)	31	(1.8)	69	(1.8)	56	(1.9)	44	(1.9)	55	(1.9)	45	(1.9)
<b>Saskatchewan</b>	Indigenous	74	(2.5)	26	(2.5)	24	(3.2)	76	(3.2)	52	(3.5)	48	(3.5)	41	(3.6)	59	(3.6)
	Non-Indigenous	88	(1.2)	12	(1.2)	33	(1.7)	67	(1.7)	60	(2.2)	40	(2.2)	55	(2.1)	45	(2.1)
<b>British Columbia</b>	Indigenous	74	(3.4)	26	(3.4)	28	(3.4)	72	(3.4)	49	(3.9)	51	(3.9)	47	(3.9)	53	(3.9)
	Non-Indigenous	88	(1.1)	12	(1.1)	30	(1.5)	70	(1.5)	55	(1.5)	45	(1.5)	54	(2.0)	46	(2.0)
<b>Yukon</b>	Indigenous	79	(9.6)	U	(9.6)	17 <sup>M</sup>	(4.6)	83	(4.6)	48 <sup>M</sup>	(9.5)	52 <sup>M</sup>	(9.5)	41 <sup>M</sup>	(9.6)	59	(9.6)
	Non-Indigenous	88	(5.0)	U	(5.0)	30 <sup>M</sup>	(7.0)	70	(7.0)	69	(7.1)	31 <sup>M</sup>	(7.1)	72	(4.4)	28	(4.4)
<b>Northwest Territories</b>	Indigenous	81	(2.2)	19	(2.2)	22	(2.1)	78	(2.1)	58	(3.0)	42	(3.0)	50	(3.1)	50	(3.1)
	Non-Indigenous	89	(1.4)	11	(1.4)	34	(2.0)	66	(2.0)	69	(2.2)	31	(2.2)	63	(3.3)	37	(3.3)
<b>Nunavut</b>	Indigenous	73	(2.1)	27	(2.1)	16	(1.4)	84	(1.4)	49	(2.7)	51	(2.7)	40	(2.6)	60	(2.6)
	Non-Indigenous	89	(3.1)	11 <sup>M</sup>	(3.1)	40	(3.0)	60	(3.0)	71	(3.8)	29	(3.8)	61	(5.0)	39	(5.0)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 3.2a

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, Indigenous identification and proficiency level, Canada, 2012**

Literacy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	69	(3.0)	31	(3.0)	80	(1.1)	20	(1.1)
Level 2	78	(2.3)	22	(2.3)	88	(0.7)	12	(0.7)
Level 3	84	(2.1)	16	(2.1)	92	(0.5)	8	(0.5)
Level 4 or 5	91	(3.4)	U	(3.4)	94	(0.9)	6	(0.9)
Numeracy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	69	(2.3)	31	(2.3)	82	(1.0)	18	(1.0)
Level 2	81	(2.2)	19	(2.2)	89	(0.7)	11	(0.7)
Level 3	87	(2.5)	13 <sup>M</sup>	(2.5)	92	(0.6)	8	(0.6)
Level 4 or 5	93	(2.9)	U	(2.9)	95	(0.8)	5	(0.8)
PS-TRE	Indigenous identification							
	Indigenous				Non-Indigenous			
	Self-reported health				Self-reported health			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	67	(2.8)	33	(2.8)	80	(1.1)	20	(1.1)
Below Level 1	75	(3.3)	25	(3.3)	85	(1.0)	15	(1.0)
Level 1	82	(2.4)	18	(2.4)	91	(0.5)	9	(0.5)
Level 2 or 3	87	(2.3)	13 <sup>M</sup>	(2.3)	94	(0.5)	6	(0.5)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 3.2b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, Indigenous identification and proficiency level, Canada, 2012**

Literacy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	17	(2.4)	83	(2.4)	18	(1.1)	82	(1.1)
Level 2	20	(2.5)	80	(2.5)	23	(0.9)	77	(0.9)
Level 3	26	(3.0)	74	(3.0)	33	(0.9)	67	(0.9)
Level 4 or 5	36 <sup>M</sup>	(7.3)	64	(7.3)	40	(2.0)	60	(2.0)
Numeracy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	17	(1.8)	83	(1.8)	19	(0.9)	81	(0.9)
Level 2	22	(2.4)	78	(2.4)	26	(1.1)	74	(1.1)
Level 3	27	(3.1)	73	(3.1)	33	(1.1)	67	(1.1)
Level 4 or 5	40 <sup>M</sup>	(7.9)	60	(7.9)	37	(1.9)	63	(1.9)
PS-TRE	Indigenous identification							
	Indigenous				Non-Indigenous			
	Level of trust				Level of trust			
	Positive		Negative		Positive		Negative	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	21	(2.6)	79	(2.6)	21	(1.1)	79	(1.1)
Below Level 1	18	(2.9)	82	(2.9)	21	(1.3)	79	(1.3)
Level 1	22	(2.4)	78	(2.4)	28	(1.1)	72	(1.1)
Level 2 or 3	28	(2.7)	72	(2.7)	35	(1.1)	65	(1.1)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>M</sup> Use with caution

SE Standard error

Table 3.2c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, Indigenous identification and proficiency level, Canada, 2012**

Literacy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	35	(2.8)	65	(2.8)	29	(1.4)	71	(1.4)
Level 2	49	(2.7)	51	(2.7)	43	(1.1)	57	(1.1)
Level 3	57	(3.1)	43	(3.1)	56	(0.9)	44	(0.9)
Level 4 or 5	61	(6.9)	39 <sup>M</sup>	(6.9)	65	(1.9)	35	(1.9)
Numeracy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	38	(2.5)	62	(2.5)	33	(1.4)	67	(1.4)
Level 2	52	(3.1)	48	(3.1)	47	(1.1)	53	(1.1)
Level 3	59	(3.5)	41	(3.5)	56	(1.0)	44	(1.0)
Level 4 or 5	52	(7.7)	48	(7.7)	63	(1.8)	37	(1.8)
PS-TRE	Indigenous identification							
	Indigenous				Non-Indigenous			
	Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	34	(2.7)	66	(2.7)	33	(1.3)	67	(1.3)
Below Level 1	40	(3.8)	60	(3.8)	36	(1.6)	64	(1.6)
Level 1	55	(2.8)	45	(2.8)	49	(1.1)	51	(1.1)
Level 2 or 3	58	(2.8)	42	(2.8)	60	(1.0)	40	(1.0)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>M</sup> Use with caution

SE Standard error

Table 3.2d

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, Indigenous identification and proficiency level, Canada, 2012**

Literacy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	33	(3.4)	67	(3.4)	29	(1.4)	71	(1.4)
Level 2	37	(2.9)	63	(2.9)	38	(1.1)	62	(1.1)
Level 3	50	(3.6)	50	(3.6)	51	(1.1)	49	(1.1)
Level 4 or 5	49	(7.8)	51	(7.8)	61	(1.8)	39	(1.8)
Numeracy	Indigenous identification							
	Indigenous				Non-Indigenous			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
Level 1 or below	35	(2.7)	65	(2.7)	32	(1.2)	68	(1.2)
Level 2	41	(3.0)	59	(3.0)	41	(1.0)	59	(1.0)
Level 3	49	(4.0)	51	(4.0)	50	(1.3)	50	(1.3)
Level 4 or 5	48 <sup>M</sup>	(8.8)	52 <sup>M</sup>	(8.8)	60	(2.1)	40	(2.1)
PS-TRE	Indigenous identification							
	Indigenous				Non-Indigenous			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	36	(2.9)	64	(2.9)	34	(1.5)	66	(1.5)
Below Level 1	35	(4.5)	65	(4.5)	33	(1.8)	67	(1.8)
Level 1	41	(3.4)	59	(3.4)	44	(1.3)	56	(1.3)
Level 2 or 3	51	(3.4)	49	(3.4)	56	(1.3)	44	(1.3)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

SE Standard error

**Table 3.3**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of Indigenous populations aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**

Literacy	Indigenous populations											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.3	(0.2)	–	1.2	(0.3)	–	1.6	(0.2)	*	1.0	(0.2)	–
Level 3	1.4	(0.2)	–	1.7	(0.2)	*	2.0	(0.2)	**	1.5	(0.2)	–
Level 4 or 5	2.1	(0.5)	–	2.4	(0.4)	*	2.2	(0.3)	*	1.2	(0.3)	–
Numeracy	Indigenous populations											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.4	(0.2)	–	1.3	(0.2)	–	1.5	(0.2)	*	1.0	(0.2)	–
Level 3	1.8	(0.3)	*	1.7	(0.2)	*	2.0	(0.2)	**	1.3	(0.3)	–
Level 4 or 5	2.7	(0.5)	*	2.8	(0.4)	*	1.4	(0.3)	–	1.1	(0.4)	–
PS-TRE	Indigenous populations											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.1	(0.2)	–	0.9	(0.3)	–	1.3	(0.2)	–	1.0	(0.3)	–
Level 1	1.3	(0.2)	–	1.1	(0.2)	–	2.1	(0.2)	***	1.1	(0.2)	–
Level 2 or 3	1.4	(0.3)	–	1.5	(0.3)	–	2.2	(0.2)	***	1.4	(0.2)	–

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.
- <sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>3</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>4</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>5</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 3.4

**Percentage distributions of population aged 16 to 65, by health and social outcomes and immigrant status, Canada and oversampled populations, 2012**

	Immigrant status	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Recent immigrants	93	(0.6)	7	(0.6)	22	(1.2)	78	(1.2)	37	(1.3)	63	(1.3)	46	(1.6)	54	(1.6)
	Established immigrants	85	(1.0)	15	(1.0)	25	(1.4)	75	(1.4)	40	(1.5)	60	(1.5)	46	(1.7)	54	(1.7)
	Canadian-born	89	(0.4)	11	(0.4)	29	(0.6)	71	(0.6)	52	(0.6)	48	(0.6)	44	(0.6)	56	(0.6)
<b>Quebec</b>	Recent immigrants	95	(1.2)	5 <sup>M</sup>	(1.2)	27	(2.5)	73	(2.5)	28	(2.4)	72	(2.4)	35	(2.9)	65	(2.9)
	Established immigrants	86	(2.0)	14	(2.0)	28	(2.1)	72	(2.1)	36	(2.6)	64	(2.6)	32	(2.7)	68	(2.7)
	Canadian-born	91	(0.5)	9	(0.5)	32	(0.8)	68	(0.8)	37	(0.7)	63	(0.7)	20	(0.7)	80	(0.7)
<b>Ontario</b>	Recent immigrants	93	(1.2)	7	(1.2)	19	(1.9)	81	(1.9)	34	(2.2)	66	(2.2)	48	(2.4)	52	(2.4)
	Established immigrants	85	(1.3)	15	(1.3)	24	(1.9)	76	(1.9)	37	(2.2)	63	(2.2)	47	(2.7)	53	(2.7)
	Canadian-born	89	(0.8)	11	(0.8)	28	(1.1)	72	(1.1)	57	(1.4)	43	(1.4)	52	(1.4)	48	(1.4)
<b>British Columbia</b>	Recent immigrants	90	(1.9)	10 <sup>M</sup>	(1.9)	27	(3.1)	73	(3.1)	44	(3.0)	56	(3.0)	48	(3.8)	52	(3.8)
	Established immigrants	85	(2.8)	15 <sup>M</sup>	(2.8)	29	(3.9)	71	(3.9)	44	(4.1)	56	(4.1)	53	(4.8)	47	(4.8)
	Canadian-born	88	(1.2)	12	(1.2)	32	(1.8)	68	(1.8)	61	(1.9)	39	(1.9)	56	(2.2)	44	(2.2)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

SE Standard error



Table 3.5a

Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, immigrant status and and proficiency level, Canada, 2012

Literacy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	89	(1.7)	11	(1.7)	77	(2.5)	23	(2.5)	79	(1.4)	21	(1.4)
Level 2	93	(1.3)	7 <sup>M</sup>	(1.3)	87	(1.9)	13	(1.9)	87	(0.8)	13	(0.8)
Level 3	95	(1.2)	5 <sup>M</sup>	(1.2)	89	(2.1)	11 <sup>M</sup>	(2.1)	92	(0.5)	8	(0.5)
Level 4 or 5	97	(1.6)	U	(1.6)	89	(4.0)	U	(4.0)	95	(0.9)	5 <sup>M</sup>	(0.9)
Numeracy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	90	(1.3)	10	(1.3)	79	(2.2)	21	(2.2)	80	(1.2)	20	(1.2)
Level 2	93	(1.5)	7 <sup>M</sup>	(1.5)	85	(2.1)	15	(2.1)	89	(0.8)	11	(0.8)
Level 3	94	(1.4)	6 <sup>M</sup>	(1.4)	89	(2.3)	11 <sup>M</sup>	(2.3)	92	(0.7)	8	(0.7)
Level 4 or 5	97	(1.5)	U	(1.5)	92	(3.3)	U	(3.3)	95	(0.8)	5 <sup>M</sup>	(0.8)
PS-TRE	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	87	(2.1)	13	(2.1)	77	(2.6)	23	(2.6)	78	(1.3)	22	(1.3)
Below Level 1	93	(1.7)	7 <sup>M</sup>	(1.7)	82	(2.5)	18	(2.5)	84	(1.2)	16	(1.2)
Level 1	94	(1.1)	6 <sup>M</sup>	(1.1)	88	(2.2)	12 <sup>M</sup>	(2.2)	91	(0.6)	9	(0.6)
Level 2 or 3	97	(0.7)	3 <sup>M</sup>	(0.7)	92	(1.7)	8 <sup>M</sup>	(1.7)	93	(0.5)	7	(0.5)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

Note: PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 3.5b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, immigrant status and proficiency level, Canada, 2012**

Literacy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	19	(2.5)	81	(2.5)	21	(3.0)	79	(3.0)	17	(1.3)	83	(1.3)
Level 2	21	(2.6)	79	(2.6)	24	(2.6)	76	(2.6)	23	(1.1)	77	(1.1)
Level 3	25	(2.4)	75	(2.4)	28	(2.9)	72	(2.9)	34	(1.1)	66	(1.1)
Level 4 or 5	32 <sup>M</sup>	(5.8)	68	(5.8)	34 <sup>M</sup>	(6.2)	66	(6.2)	41	(2.2)	59	(2.2)
Numeracy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	18	(2.1)	82	(2.1)	21	(2.3)	79	(2.3)	18	(1.2)	82	(1.2)
Level 2	22	(2.4)	78	(2.4)	26	(2.9)	74	(2.9)	27	(1.3)	73	(1.3)
Level 3	27	(2.4)	73	(2.4)	27	(3.4)	73	(3.4)	34	(1.1)	66	(1.1)
Level 4 or 5	30 <sup>M</sup>	(5.1)	70	(5.1)	33 <sup>M</sup>	(5.8)	67	(5.8)	39	(2.2)	61	(2.2)
PS-TRE	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	21	(3.1)	79	(3.1)	22	(2.3)	78	(2.3)	20	(1.2)	80	(1.2)
Below Level 1	20	(2.5)	80	(2.5)	20	(3.1)	80	(3.1)	22	(1.5)	78	(1.5)
Level 1	21	(1.9)	79	(1.9)	30	(3.0)	70	(3.0)	28	(1.2)	72	(1.2)
Level 2 or 3	28	(2.8)	72	(2.8)	27	(3.2)	73	(3.2)	36	(1.2)	64	(1.2)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>M</sup> Use with caution

SE Standard error

Table 3.5c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, immigrant status and proficiency level, Canada, 2012**

Literacy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	23	(2.8)	77	(2.8)	26	(3.0)	74	(3.0)	33	(1.8)	67	(1.8)
Level 2	36	(2.7)	64	(2.7)	38	(2.9)	62	(2.9)	45	(1.3)	55	(1.3)
Level 3	47	(3.2)	53	(3.2)	49	(3.1)	51	(3.1)	58	(1.0)	42	(1.0)
Level 4 or 5	50	(6.7)	50	(6.7)	56	(5.3)	44	(5.3)	67	(2.1)	33	(2.1)
Numeracy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	25	(2.2)	75	(2.2)	29	(2.8)	71	(2.8)	37	(1.7)	63	(1.7)
Level 2	39	(2.9)	61	(2.9)	42	(2.9)	58	(2.9)	49	(1.2)	51	(1.2)
Level 3	45	(2.8)	55	(2.8)	46	(3.3)	54	(3.3)	58	(1.1)	42	(1.1)
Level 4 or 5	47	(4.5)	53	(4.5)	53	(5.6)	47	(5.6)	66	(1.9)	34	(1.9)
PS-TRE	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	24	(2.3)	76	(2.3)	24	(2.5)	76	(2.5)	40	(1.6)	60	(1.6)
Below Level 1	33	(3.3)	67	(3.3)	35	(3.4)	65	(3.4)	38	(2.1)	62	(2.1)
Level 1	39	(3.0)	61	(3.0)	46	(3.1)	54	(3.1)	51	(1.2)	49	(1.2)
Level 2 or 3	48	(3.0)	52	(3.0)	53	(3.4)	47	(3.4)	62	(1.1)	38	(1.1)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

SE Standard error

Table 3.5d

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, immigrant status and proficiency level, Canada, 2012**

Literacy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	36	(3.4)	64	(3.4)	36	(3.7)	64	(3.7)	26	(1.6)	74	(1.6)
Level 2	43	(2.8)	57	(2.8)	43	(3.2)	57	(3.2)	36	(1.4)	64	(1.4)
Level 3	55	(3.4)	45	(3.4)	54	(3.9)	46	(3.9)	50	(1.1)	50	(1.1)
Level 4 or 5	60	(5.9)	40	(5.9)	61	(8.0)	39 <sup>M</sup>	(8.0)	61	(1.8)	39	(1.8)
Numeracy	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	38	(3.2)	62	(3.2)	38	(3.3)	62	(3.3)	29	(1.5)	71	(1.5)
Level 2	46	(3.4)	54	(3.4)	46	(3.6)	54	(3.6)	40	(1.3)	60	(1.3)
Level 3	51	(3.7)	49	(3.7)	50	(4.2)	50	(4.2)	50	(1.4)	50	(1.4)
Level 4 or 5	56	(5.9)	44	(5.9)	60	(6.1)	40	(6.1)	60	(2.3)	40	(2.3)
PS-TRE	Immigrant status											
	Recent immigrants				Established immigrants				Canadian-born			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative		
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	42	(3.8)	58	(3.8)	37	(3.4)	63	(3.4)	32	(1.6)	68	(1.6)
Below Level 1	41	(3.3)	59	(3.3)	42	(4.3)	58	(4.3)	29	(2.1)	71	(2.1)
Level 1	43	(3.1)	57	(3.1)	49	(3.8)	51	(3.8)	43	(1.4)	57	(1.4)
Level 2 or 3	56	(3.0)	44	(3.0)	56	(4.3)	44	(4.3)	56	(1.3)	44	(1.3)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

SE Standard error

Table 3.6a

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of recent immigrants aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**

Literacy	Recent immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.2	(0.3)	–	1.1	(0.3)	–	1.7	(0.3)	–	1.3	(0.2)	–
Level 3	1.3	(0.4)	–	1.4	(0.2)	–	2.5	(0.2)	***	2.0	(0.2)	**
Level 4 or 5	2.2	(0.7)	–	1.8	(0.3)	–	3.0	(0.3)	**	2.6	(0.3)	**
Numeracy	Recent immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.0	(0.3)	–	1.3	(0.2)	–	1.7	(0.2)	*	1.3	(0.2)	–
Level 3	1.0	(0.3)	–	1.6	(0.2)	*	2.1	(0.2)	***	1.5	(0.2)	*
Level 4 or 5	1.8	(0.6)	–	1.7	(0.3)	–	2.2	(0.3)	**	1.8	(0.3)	–
PS-TRE	Recent immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.3	(0.3)	–	0.9	(0.2)	–	1.4	(0.2)	–	0.9	(0.2)	–
Level 1	1.4	(0.3)	–	1.0	(0.2)	–	1.8	(0.2)	**	0.9	(0.2)	–
Level 2 or 3	2.3	(0.3)	*	1.5	(0.2)	–	2.4	(0.2)	***	1.6	(0.2)	*

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

<sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>3</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>4</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>5</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 3.6b

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of established immigrants aged 16 to 65 reporting positive health and social outcomes, by proficiency level, Canada, 2012**

Literacy	Established immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.5	(0.2)	–	1.2	(0.3)	–	1.5	(0.2)	–	1.2	(0.2)	–
Level 3	1.6	(0.3)	–	1.4	(0.3)	–	2.1	(0.2)	**	1.9	(0.3)	*
Level 4 or 5	1.5	(0.5)	–	1.8	(0.4)	–	2.6	(0.3)	**	2.6	(0.4)	*
Numeracy	Established immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.2	(0.2)	–	1.3	(0.2)	–	1.4	(0.2)	–	1.3	(0.2)	–
Level 3	1.6	(0.3)	–	1.3	(0.3)	–	1.5	(0.2)	–	1.5	(0.2)	–
Level 4 or 5	1.9	(0.5)	–	1.6	(0.3)	–	1.9	(0.3)	–	2.3	(0.3)	*
PS-TRE	Established immigrants											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.0	(0.2)	–	0.8	(0.3)	–	1.5	(0.2)	*	1.2	(0.2)	–
Level 1	1.5	(0.3)	–	1.4	(0.2)	–	2.2	(0.2)	***	1.5	(0.2)	–
Level 2 or 3	2.1	(0.3)	*	1.3	(0.3)	–	2.8	(0.3)	***	2.1	(0.3)	**

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, employment status and testing language.

<sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>3</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>4</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>5</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 4.1

Percentage distributions of population aged 16 to 65, by health and social outcomes and employment status, Canada, provinces and territories, 2012

	Employment status	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Employed	92	(0.3)	8	(0.3)	30	(0.6)	70	(0.6)	50	(0.6)	50	(0.6)	46	(0.6)	54	(0.6)
	Unemployed	87	(1.6)	13	(1.6)	19	(2.1)	81	(2.1)	44	(2.2)	56	(2.2)	39	(2.8)	61	(2.8)
	Not in labour force	76	(1.0)	24	(1.0)	24	(0.9)	76	(0.9)	44	(1.0)	56	(1.0)	41	(1.2)	59	(1.2)
<b>Newfoundland and Labrador</b>	Employed	91	(1.0)	9	(1.0)	25	(1.6)	75	(1.6)	54	(1.7)	46	(1.7)	47	(2.1)	53	(2.1)
	Unemployed	91	(3.2)	U	(3.2)	16 <sup>M</sup>	(4.1)	84	(4.1)	60	(5.3)	40	(5.3)	49	(7.0)	51	(7.0)
	Not in labour force	72	(2.4)	28	(2.4)	15	(1.9)	85	(1.9)	42	(2.2)	58	(2.2)	37	(2.6)	63	(2.6)
<b>Prince Edward Island</b>	Employed	91	(1.2)	9	(1.2)	33	(2.1)	67	(2.1)	62	(1.9)	38	(1.9)	45	(2.1)	55	(2.1)
	Unemployed	80	(5.7)	20 <sup>M</sup>	(5.7)	23 <sup>M</sup>	(6.0)	77	(6.0)	51	(6.8)	49	(6.8)	36 <sup>M</sup>	(8.6)	64	(8.6)
	Not in labour force	71	(3.6)	29	(3.6)	21	(3.2)	79	(3.2)	53	(4.3)	47	(4.3)	43	(4.0)	57	(4.0)
<b>Nova Scotia</b>	Employed	90	(1.4)	10	(1.4)	28	(1.7)	72	(1.7)	56	(1.6)	44	(1.6)	50	(1.6)	50	(1.6)
	Unemployed	80	(5.0)	20 <sup>M</sup>	(5.0)	14 <sup>M</sup>	(4.2)	86	(4.2)	45	(7.0)	55	(7.0)	41 <sup>M</sup>	(7.4)	59	(7.4)
	Not in labour force	69	(2.6)	31	(2.6)	22	(2.3)	78	(2.3)	52	(2.9)	48	(2.9)	48	(3.2)	52	(3.2)
<b>New Brunswick</b>	Employed	90	(1.2)	10	(1.2)	29	(1.7)	71	(1.7)	56	(1.9)	44	(1.9)	40	(1.8)	60	(1.8)
	Unemployed	81	(5.0)	19 <sup>M</sup>	(5.0)	30 <sup>M</sup>	(6.3)	70	(6.3)	40 <sup>M</sup>	(6.8)	60	(6.8)	26 <sup>M</sup>	(7.6)	74	(7.6)
	Not in labour force	74	(2.3)	26	(2.3)	24	(2.7)	76	(2.7)	50	(3.0)	50	(3.0)	30	(3.5)	70	(3.5)
<b>Quebec</b>	Employed	94	(0.4)	6	(0.4)	33	(0.8)	67	(0.8)	37	(0.8)	63	(0.8)	21	(0.8)	79	(0.8)
	Unemployed	95	(1.5)	5 <sup>M</sup>	(1.5)	20 <sup>M</sup>	(3.5)	80	(3.5)	37	(3.4)	63	(3.4)	25	(4.0)	75	(4.0)
	Not in labour force	80	(1.5)	20	(1.5)	27	(1.2)	73	(1.2)	33	(1.4)	67	(1.4)	26	(1.6)	74	(1.6)
<b>Ontario</b>	Employed	93	(0.6)	7	(0.6)	29	(1.1)	71	(1.1)	51	(1.3)	49	(1.3)	53	(1.3)	47	(1.3)
	Unemployed	86	(2.7)	14 <sup>M</sup>	(2.7)	14 <sup>M</sup>	(3.1)	86	(3.1)	47	(4.5)	53	(4.5)	42	(4.9)	58	(4.9)
	Not in labour force	73	(1.9)	27	(1.9)	21	(1.9)	79	(1.9)	46	(2.1)	54	(2.1)	42	(2.5)	58	(2.5)
<b>Manitoba</b>	Employed	91	(0.8)	9	(0.8)	30	(1.8)	70	(1.8)	57	(1.8)	43	(1.8)	55	(2.0)	45	(2.0)
	Unemployed	79	(7.8)	U	(7.8)	U	(8.2)	81	(8.2)	48 <sup>M</sup>	(10.3)	52 <sup>M</sup>	(10.3)	51 <sup>M</sup>	(10.3)	49 <sup>M</sup>	(10.3)
	Not in labour force	74	(2.8)	26	(2.8)	25 <sup>M</sup>	(4.3)	75	(4.3)	47	(3.9)	53	(3.9)	48	(4.4)	52	(4.4)
<b>Saskatchewan</b>	Employed	89	(1.3)	11	(1.3)	34	(2.0)	66	(2.0)	60	(2.2)	40	(2.2)	56	(2.0)	44	(2.0)
	Unemployed	82	(6.4)	U	(6.4)	U	(10.0)	71	(10.0)	54 <sup>M</sup>	(9.0)	46 <sup>M</sup>	(9.0)	37 <sup>M</sup>	(11.5)	63 <sup>M</sup>	(11.5)
	Not in labour force	71	(3.2)	29	(3.2)	27	(3.6)	73	(3.6)	54	(4.7)	46	(4.7)	48	(4.2)	52	(4.2)
<b>Alberta</b>	Employed	92	(1.2)	8	(1.2)	28	(1.9)	72	(1.9)	56	(1.8)	44	(1.8)	55	(2.2)	45	(2.2)
	Unemployed	75	(11.5)	U	(11.5)	x	x	x	x	U	(15.5)	65 <sup>M</sup>	(15.5)	U	(11.0)	70	(11.0)
	Not in labour force	84	(3.1)	16 <sup>M</sup>	(3.1)	21 <sup>M</sup>	(3.8)	79	(3.8)	51	(4.2)	49	(4.2)	52	(4.5)	48	(4.5)
<b>British Columbia</b>	Employed	91	(1.0)	9	(1.0)	30	(1.8)	70	(1.8)	57	(1.8)	43	(1.8)	53	(2.3)	47	(2.3)
	Unemployed	87	(4.7)	U	(4.7)	35 <sup>M</sup>	(7.9)	65	(7.9)	46	(7.1)	54	(7.1)	53	(7.5)	47	(7.5)
	Not in labour force	77	(2.9)	23	(2.9)	29	(2.7)	71	(2.7)	50	(3.1)	50	(3.1)	55	(3.8)	45	(3.8)
<b>Yukon</b>	Employed	89	(3.7)	U	(3.7)	26 <sup>M</sup>	(6.8)	74	(6.8)	65	(7.2)	35 <sup>M</sup>	(7.2)	67	(3.8)	33	(3.8)
	Unemployed	88	(9.1)	U	(9.1)	U	(32.6)	U	(32.6)	72 <sup>M</sup>	(17.4)	U	(17.4)	79 <sup>M</sup>	(18.0)	U	(18.0)
	Not in labour force	71	(9.8)	U	(9.8)	U	(10.8)	69	(10.8)	58 <sup>M</sup>	(15.3)	U	(15.3)	U	(18.6)	U	(18.6)
<b>Northwest Territories</b>	Employed	87	(1.2)	13	(1.2)	30	(2.0)	70	(2.0)	68	(2.0)	32	(2.0)	59	(2.9)	41	(2.9)
	Unemployed	84	(7.2)	U	(7.2)	U	(6.4)	86	(6.4)	61	(9.6)	39 <sup>M</sup>	(9.6)	38 <sup>M</sup>	(10.6)	62 <sup>M</sup>	(10.6)
	Not in labour force	78	(3.4)	22	(3.4)	23 <sup>M</sup>	(4.0)	77	(4.0)	49	(5.1)	51	(5.1)	55	(5.3)	45	(5.3)

**Table 4.1 (cont'd)**

**Percentage distributions of population aged 16 to 65, by health and social outcomes and employment status, Canada, provinces and territories, 2012**

	Employment status	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Nunavut</b>	Employed	80	(2.2)	20	(2.2)	22	(2.2)	78	(2.2)	60	(2.6)	40	(2.6)	47	(2.5)	53	(2.5)
	Unemployed	71	(5.6)	29 <sup>M</sup>	(5.6)	18 <sup>M</sup>	(5.5)	82	(5.5)	49	(7.6)	51	(7.6)	39 <sup>M</sup>	(7.7)	61	(7.7)
	Not in labour force	67	(4.6)	33	(4.6)	16 <sup>M</sup>	(3.2)	84	(3.2)	36	(4.4)	64	(4.4)	38	(4.3)	62	(4.3)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error



Table 4.2a

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by self-reported health, employment status and proficiency level, Canada, 2012**

Literacy	Employment status											
	Employed				Unemployed				Not in labour force			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	87	(1.4)	13	(1.4)	78	(5.6)	22 <sup>M</sup>	(5.6)	65	(2.1)	35	(2.1)
Level 2	91	(0.8)	9	(0.8)	89	(2.7)	11 <sup>M</sup>	(2.7)	75	(1.7)	25	(1.7)
Level 3	93	(0.5)	7	(0.5)	92	(2.8)	8 <sup>M</sup>	(2.8)	84	(1.8)	16	(1.8)
Level 4 or 5	96	(0.8)	4 <sup>M</sup>	(0.8)	84	(8.2)	U	(8.2)	86	(4.1)	14 <sup>M</sup>	(4.1)
Numeracy	Employment status											
	Employed				Unemployed				Not in labour force			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Level 1 or below	89	(1.0)	11	(1.0)	83	(3.5)	17 <sup>M</sup>	(3.5)	66	(1.8)	34	(1.8)
Level 2	91	(0.6)	9	(0.6)	89	(2.9)	11 <sup>M</sup>	(2.9)	78	(1.8)	22	(1.8)
Level 3	94	(0.6)	6	(0.6)	92	(3.3)	U	(3.3)	85	(1.9)	15	(1.9)
Level 4 or 5	96	(0.7)	4 <sup>M</sup>	(0.7)	84	(10.7)	U	(10.7)	89	(3.8)	U	(3.8)
PS-TRE	Employment status											
	Employed				Unemployed				Not in labour force			
	Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health		Self-reported health	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
PS-TRE non-respondents	87	(1.2)	13	(1.2)	77	(5.6)	23 <sup>M</sup>	(5.6)	65	(2.0)	35	(2.0)
Below Level 1	90	(0.9)	10	(0.9)	87	(5.3)	U	(5.3)	69	(2.4)	31	(2.4)
Level 1	93	(0.6)	7	(0.6)	88	(3.2)	12 <sup>M</sup>	(3.2)	81	(1.8)	19	(1.8)
Level 2 or 3	94	(0.5)	6	(0.5)	91	(2.6)	9 <sup>M</sup>	(2.6)	89	(1.7)	11	(1.7)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 4.2b

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by level of trust, employment status and proficiency level, Canada, 2012**

Literacy	Employment status											
	Employed				Unemployed				Not in labour force			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	19	(1.5)	81	(1.5)	U	(5.3)	85	(5.3)	17	(1.9)	83	(1.9)
Level 2	24	(1.0)	76	(1.0)	16 <sup>M</sup>	(3.5)	84	(3.5)	22	(1.9)	78	(1.9)
Level 3	34	(1.0)	66	(1.0)	22 <sup>M</sup>	(4.1)	78	(4.1)	28	(2.2)	72	(2.2)
Level 4 or 5	41	(2.1)	59	(2.1)	25 <sup>M</sup>	(8.1)	75	(8.1)	37	(4.8)	63	(4.8)
Numeracy	Employment status											
	Employed				Unemployed				Not in labour force			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	20	(1.2)	80	(1.2)	16 <sup>M</sup>	(3.9)	84	(3.9)	17	(1.6)	83	(1.6)
Level 2	27	(1.4)	73	(1.4)	17 <sup>M</sup>	(4.1)	83	(4.1)	24	(1.9)	76	(1.9)
Level 3	34	(1.1)	66	(1.1)	24 <sup>M</sup>	(5.6)	76	(5.6)	29	(2.6)	71	(2.6)
Level 4 or 5	38	(1.9)	62	(1.9)	U	(11.6)	75	(11.6)	36	(5.0)	64	(5.0)
PS-TRE	Employment status											
	Employed				Unemployed				Not in labour force			
	Level of trust		Level of trust		Level of trust		Level of trust		Level of trust		Level of trust	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	22	(1.3)	78	(1.3)	U	(6.3)	82	(6.3)	19	(1.6)	81	(1.6)
Below Level 1	22	(1.6)	78	(1.6)	U	(5.5)	85	(5.5)	21	(2.6)	79	(2.6)
Level 1	29	(1.3)	71	(1.3)	17 <sup>M</sup>	(3.6)	83	(3.6)	26	(2.7)	74	(2.7)
Level 2 or 3	36	(1.2)	64	(1.2)	22 <sup>M</sup>	(3.9)	78	(3.9)	29	(2.7)	71	(2.7)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 4.2c

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by volunteer participation, employment status and proficiency level, Canada, 2012**

Literacy	Employment status											
	Employed				Unemployed				Not in labour force			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	30	(1.8)	70	(1.8)	32 <sup>M</sup>	(6.0)	68	(6.0)	28	(2.1)	72	(2.1)
Level 2	44	(1.2)	56	(1.2)	46	(5.1)	54	(5.1)	39	(2.4)	61	(2.4)
Level 3	57	(1.1)	43	(1.1)	47	(5.0)	53	(5.0)	56	(2.6)	44	(2.6)
Level 4 or 5	65	(2.2)	35	(2.2)	56 <sup>M</sup>	(10.2)	44 <sup>M</sup>	(10.2)	67	(4.9)	33	(4.9)
Numeracy	Employment status											
	Employed				Unemployed				Not in labour force			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	34	(1.8)	66	(1.8)	38	(4.8)	62	(4.8)	30	(2.0)	70	(2.0)
Level 2	47	(1.4)	53	(1.4)	44	(4.7)	56	(4.7)	45	(2.7)	55	(2.7)
Level 3	56	(1.1)	44	(1.1)	48	(6.3)	52	(6.3)	56	(2.9)	44	(2.9)
Level 4 or 5	63	(1.9)	37	(1.9)	62 <sup>M</sup>	(15.2)	U	(15.2)	64	(5.3)	36	(5.3)
PS-TRE	Employment status											
	Employed				Unemployed				Not in labour force			
	Volunteer participation				Volunteer participation				Volunteer participation			
	Volunteered		Did not volunteer		Volunteered		Did not volunteer		Volunteered		Did not volunteer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	34	(1.6)	66	(1.6)	24 <sup>M</sup>	(4.3)	76	(4.3)	33	(1.8)	67	(1.8)
Below Level 1	38	(1.8)	62	(1.8)	35 <sup>M</sup>	(6.8)	65	(6.8)	32	(2.8)	68	(2.8)
Level 1	50	(1.3)	50	(1.3)	48	(5.0)	52	(5.0)	46	(2.4)	54	(2.4)
Level 2 or 3	60	(1.1)	40	(1.1)	53	(4.6)	47	(4.6)	62	(2.6)	38	(2.6)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 4.2d

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by political efficacy, employment status and proficiency level, Canada, 2012**

Literacy	Employment status											
	Employed				Unemployed				Not in labour force			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	30	(1.6)	70	(1.6)	27 <sup>M</sup>	(6.4)	73	(6.4)	28	(2.6)	72	(2.6)
Level 2	38	(1.3)	62	(1.3)	33	(5.4)	67	(5.4)	37	(2.4)	63	(2.4)
Level 3	52	(1.2)	48	(1.2)	46	(6.0)	54	(6.0)	50	(2.7)	50	(2.7)
Level 4 or 5	61	(1.9)	39	(1.9)	57 <sup>M</sup>	(10.9)	43 <sup>M</sup>	(10.9)	61	(5.0)	39	(5.0)
Numeracy	Employment status											
	Employed				Unemployed				Not in labour force			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	33	(1.5)	67	(1.5)	32 <sup>M</sup>	(5.8)	68	(5.8)	30	(2.2)	70	(2.2)
Level 2	42	(1.3)	58	(1.3)	37	(5.5)	63	(5.5)	40	(2.6)	60	(2.6)
Level 3	50	(1.3)	50	(1.3)	44	(6.8)	56	(6.8)	51	(3.3)	49	(3.3)
Level 4 or 5	60	(2.1)	40	(2.1)	56 <sup>M</sup>	(14.6)	U	(14.6)	60	(5.2)	40	(5.2)
PS-TRE	Employment status											
	Employed				Unemployed				Not in labour force			
	Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy		Political efficacy	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	33	(1.7)	67	(1.7)	35 <sup>M</sup>	(7.7)	65	(7.7)	34	(2.5)	66	(2.5)
Below Level 1	34	(2.1)	66	(2.1)	32 <sup>M</sup>	(8.2)	68	(8.2)	28	(2.5)	72	(2.5)
Level 1	45	(1.5)	55	(1.5)	36	(5.1)	64	(5.1)	43	(2.4)	57	(2.4)
Level 2 or 3	56	(1.4)	44	(1.4)	47	(5.6)	53	(5.6)	55	(3.0)	45	(3.0)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Note:** PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 4.3

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of the unemployed population aged 16 to 65 reporting positive health and social outcomes, by proficiency level, 2012**

Literacy	Unemployed population											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.8	(0.5)	–	0.9	(0.5)	–	1.7	(0.4)	–	1.5	(0.5)	–
Level 3	2.2	(0.5)	–	1.3	(0.6)	–	1.7	(0.4)	–	2.8	(0.5)	*
Level 4 or 5	0.9	(0.9)	–	1.3	(0.7)	–	2.5	(0.5)	–	4.4	(0.8)	–
Numeracy	Unemployed population											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.4	(0.4)	–	1.0	(0.5)	–	1.3	(0.3)	–	1.4	(0.4)	–
Level 3	2.1	(0.5)	–	1.5	(0.5)	–	1.6	(0.4)	–	2.1	(0.5)	–
Level 4 or 5	3.6	(0.8)	–	1.2	(0.9)	–	2.4	(0.8)	–	3.6	(0.8)	–
PS-TRE	Unemployed population											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.0	(0.5)	–	1.0	(0.5)	–	2.1	(0.6)	–	1.0	(0.5)	–
Level 1	1.4	(0.5)	–	1.5	(0.5)	–	1.6	(0.5)	–	1.4	(0.5)	–
Level 2 or 3	2.6	(0.5)	–	1.2	(0.9)	–	2.1	(0.5)	–	2.6	(0.5)	–

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and testing language.
- PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error

Table 4.4

Percentage distributions of population aged 16 to 65, by health and social outcomes and type of employment, Canada, provinces and territories, 2012

	Type of employment	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Canada</b>	Secure	93	(0.4)	7	(0.4)	31	(0.8)	69	(0.8)	48	(0.8)	52	(0.8)	46	(0.9)	54	(0.9)
	Precarious	91	(0.9)	9	(0.9)	32	(1.5)	68	(1.5)	54	(1.5)	46	(1.5)	47	(2.0)	53	(2.0)
	No contract	94	(0.8)	6	(0.8)	20	(1.9)	80	(1.9)	45	(2.0)	55	(2.0)	46	(2.6)	54	(2.6)
<b>Newfoundland and Labrador</b>	Secure	90	(1.3)	10	(1.3)	28	(2.2)	72	(2.2)	53	(2.4)	47	(2.4)	51	(2.8)	49	(2.8)
	Precarious	92	(1.8)	8 <sup>M</sup>	(1.8)	22	(3.2)	78	(3.2)	60	(3.7)	40	(3.7)	40	(4.5)	60	(4.5)
	No contract	x	x	x	x	U	(4.5)	87	(4.5)	41 <sup>M</sup>	(7.1)	59	(7.1)	27 <sup>M</sup>	(7.4)	73	(7.4)
<b>Prince Edward Island</b>	Secure	90	(1.7)	10	(1.7)	33	(3.1)	67	(3.1)	61	(2.5)	39	(2.5)	47	(2.8)	53	(2.8)
	Precarious	92	(2.5)	8 <sup>M</sup>	(2.5)	37	(4.2)	63	(4.2)	63	(4.3)	37	(4.3)	38	(5.0)	62	(5.0)
	No contract	x	x	x	x	28 <sup>M</sup>	(8.1)	72	(8.1)	43 <sup>M</sup>	(8.3)	57	(8.3)	52 <sup>M</sup>	(10.2)	48 <sup>M</sup>	(10.2)
<b>Nova Scotia</b>	Secure	94	(1.2)	6 <sup>M</sup>	(1.2)	27	(2.3)	73	(2.3)	57	(2.3)	43	(2.3)	51	(2.6)	49	(2.6)
	Precarious	84	(3.6)	16 <sup>M</sup>	(3.6)	25	(4.0)	75	(4.0)	53	(3.9)	47	(3.9)	49	(3.5)	51	(3.5)
	No contract	83	(5.1)	17 <sup>M</sup>	(5.1)	22 <sup>M</sup>	(4.9)	78	(4.9)	41	(5.6)	59	(5.6)	50	(6.0)	50	(6.0)
<b>New Brunswick</b>	Secure	90	(1.2)	10	(1.2)	31	(2.2)	69	(2.2)	55	(2.0)	45	(2.0)	42	(2.6)	58	(2.6)
	Precarious	88	(4.3)	U	(4.3)	28	(4.3)	72	(4.3)	58	(4.3)	42	(4.3)	40	(5.2)	60	(5.2)
	No contract	90	(3.4)	U	(3.4)	13 <sup>M</sup>	(4.0)	87	(4.0)	43 <sup>M</sup>	(7.4)	57	(7.4)	26 <sup>M</sup>	(7.5)	74	(7.5)
<b>Quebec</b>	Secure	94	(0.5)	6	(0.5)	34	(1.0)	66	(1.0)	36	(1.1)	64	(1.1)	20	(1.0)	80	(1.0)
	Precarious	95	(0.9)	5 <sup>M</sup>	(0.9)	38	(2.4)	62	(2.4)	42	(2.5)	58	(2.5)	26	(2.6)	74	(2.6)
	No contract	94	(1.7)	6 <sup>M</sup>	(1.7)	26	(3.2)	74	(3.2)	28	(2.8)	72	(2.8)	25	(2.9)	75	(2.9)
<b>Ontario</b>	Secure	94	(0.7)	6	(0.7)	29	(1.6)	71	(1.6)	49	(1.6)	51	(1.6)	54	(1.7)	46	(1.7)
	Precarious	87	(2.4)	13 <sup>M</sup>	(2.4)	26	(2.8)	74	(2.8)	55	(3.4)	45	(3.4)	53	(4.0)	47	(4.0)
	No contract	94	(1.4)	6 <sup>M</sup>	(1.4)	19	(2.8)	81	(2.8)	49	(3.3)	51	(3.3)	49	(3.7)	51	(3.7)
<b>Manitoba</b>	Secure	91	(1.0)	9	(1.0)	28	(2.0)	72	(2.0)	57	(2.2)	43	(2.2)	56	(2.8)	44	(2.8)
	Precarious	92	(3.0)	U	(3.0)	38	(5.4)	62	(5.4)	57	(5.1)	43	(5.1)	48	(6.9)	52	(6.9)
	No contract	87	(2.9)	13 <sup>M</sup>	(2.9)	26 <sup>M</sup>	(5.1)	74	(5.1)	46	(5.4)	54	(5.4)	56	(6.2)	44	(6.2)
<b>Saskatchewan</b>	Secure	90	(1.5)	10	(1.5)	37	(2.6)	63	(2.6)	60	(2.5)	40	(2.5)	56	(2.4)	44	(2.4)
	Precarious	88	(3.2)	12 <sup>M</sup>	(3.2)	24 <sup>M</sup>	(4.7)	76	(4.7)	61	(5.8)	39	(5.8)	45	(5.9)	55	(5.9)
	No contract	90	(3.2)	10 <sup>M</sup>	(3.2)	14 <sup>M</sup>	(4.4)	86	(4.4)	52 <sup>M</sup>	(10.4)	48 <sup>M</sup>	(10.4)	59	(8.1)	41 <sup>M</sup>	(8.1)
<b>Alberta</b>	Secure	92	(1.5)	8 <sup>M</sup>	(1.5)	29	(2.6)	71	(2.6)	55	(2.3)	45	(2.3)	60	(2.8)	40	(2.8)
	Precarious	90	(3.8)	U	(3.8)	31	(5.0)	69	(5.0)	55	(5.3)	45	(5.3)	57	(6.3)	43	(6.3)
	No contract	94	(2.9)	U	(2.9)	18 <sup>M</sup>	(4.7)	82	(4.7)	51	(5.1)	49	(5.1)	45 <sup>M</sup>	(9.1)	55	(9.1)
<b>British Columbia</b>	Secure	90	(1.4)	10	(1.4)	32	(2.6)	68	(2.6)	53	(2.4)	47	(2.4)	52	(2.9)	48	(2.9)
	Precarious	94	(1.8)	6 <sup>M</sup>	(1.8)	41	(5.4)	59	(5.4)	68	(3.5)	32	(3.5)	60	(4.3)	40	(4.3)
	No contract	95	(2.1)	U	(2.1)	21 <sup>M</sup>	(5.1)	79	(5.1)	43	(5.3)	57	(5.3)	56	(7.0)	44	(7.0)
<b>Yukon</b>	Secure	94	(2.1)	6 <sup>M</sup>	(2.1)	28 <sup>M</sup>	(6.6)	72	(6.6)	73	(6.1)	27 <sup>M</sup>	(6.1)	71	(4.6)	29	(4.6)
	Precarious	84	(11.6)	U	(11.6)	U	(12.5)	81	(12.5)	U	(24.2)	U	(24.2)	58 <sup>M</sup>	(13.8)	42 <sup>M</sup>	(13.8)
	No contract	78 <sup>M</sup>	(18.9)	U	(18.9)	U	(14.8)	75 <sup>M</sup>	(14.8)	U	(23.6)	U	(23.6)	72 <sup>M</sup>	(12.9)	U	(12.9)
<b>Northwest Territories</b>	Secure	86	(1.6)	14	(1.6)	31	(2.7)	69	(2.7)	69	(2.5)	31	(2.5)	61	(3.2)	39	(3.2)
	Precarious	87	(3.3)	13 <sup>M</sup>	(3.3)	30	(4.5)	70	(4.5)	65	(3.8)	35	(3.8)	58	(6.6)	42	(6.6)
	No contract	x	x	x	x	x	x	x	x	44 <sup>M</sup>	(8.5)	56	(8.5)	47 <sup>M</sup>	(15.1)	53 <sup>M</sup>	(15.1)

**Table 4.4 (cont'd)**

**Percentage distributions of population aged 16 to 65, by health and social outcomes and type of employment, Canada, provinces and territories, 2012**

	Type of employment	Self-reported health <sup>1</sup>				Level of trust <sup>2</sup>				Volunteer participation <sup>3</sup>				Political efficacy <sup>4</sup>			
		Positive		Negative		Positive		Negative		Volunteered		Did not volunteer		Positive		Negative	
		%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
<b>Nunavut</b>	Secure	85	(2.7)	15 <sup>M</sup>	(2.7)	24	(2.7)	76	(2.7)	65	(3.3)	35	(3.3)	51	(3.3)	49	(3.3)
	Precarious	81	(3.2)	19 <sup>M</sup>	(3.2)	19 <sup>M</sup>	(3.3)	81	(3.3)	54	(4.3)	46	(4.3)	42	(3.9)	58	(3.9)
	No contract	73	(10.5)	U	(10.5)	U	(9.2)	79	(9.2)	37 <sup>M</sup>	(11.5)	63 <sup>M</sup>	(11.5)	U	(12.3)	67 <sup>M</sup>	(12.3)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>2</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>3</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>4</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

**Table 4.5**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment and proficiency level, Canada, 2012**

Literacy	Type of employment					
	Secure		Precarious		No contract	
	%	SE	%	SE	%	SE
Level 1 or below	68	(1.7)	16	(1.4)	16	(1.4)
Level 2	71	(1.2)	14	(0.9)	14	(1.0)
Level 3	74	(1.1)	15	(0.9)	11	(0.8)
Level 4 or 5	75	(1.8)	17	(1.5)	9	(1.2)
Numeracy	Type of employment					
	Secure		Precarious		No contract	
	%	SE	%	SE	%	SE
Level 1 or below	68	(1.7)	16	(1.3)	17	(1.4)
Level 2	72	(1.4)	15	(1.1)	13	(0.9)
Level 3	74	(1.3)	15	(1.0)	10	(0.8)
Level 4 or 5	75	(1.7)	16	(1.6)	9	(1.3)
PS-TRE	Type of employment					
	Secure		Precarious		No contract	
	%	SE	%	SE	%	SE
PS-TRE non-respondents	72	(1.5)	15	(1.2)	12	(1.2)
Below Level 1	71	(1.9)	15	(1.4)	15	(1.5)
Level 1	73	(1.3)	14	(0.9)	13	(1.0)
Level 2 or 3	72	(1.1)	17	(0.9)	11	(0.8)

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

SE Standard error



**Table 4.6**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and gender, Canada, 2012**

Gender	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Male	68	(2.3)	16	(2.1)	16	(2.0)	71	(1.8)	15	(1.3)	14	(1.5)	74	(1.4)	14	(1.1)	12	(1.1)	76	(2.3)	14	(1.9)	10	(1.7)
Female	68	(2.6)	15	(2.0)	16	(2.0)	72	(1.6)	14	(1.3)	14	(1.2)	74	(1.5)	17	(1.3)	10	(0.9)	73	(2.7)	20	(2.4)	7 <sup>M</sup>	(1.5)
Gender	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Male	67	(2.1)	17	(1.8)	16	(1.7)	71	(2.0)	15	(1.7)	14	(1.6)	74	(1.7)	14	(1.3)	11	(1.3)	76	(2.2)	14	(1.9)	10 <sup>M</sup>	(1.7)
Female	68	(2.3)	15	(1.8)	17	(1.8)	73	(1.7)	15	(1.3)	12	(1.1)	74	(1.7)	17	(1.6)	9	(0.9)	74	(2.8)	20	(2.8)	6 <sup>M</sup>	(1.6)
Gender	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Male	72	(2.0)	16	(1.6)	12	(1.6)	70	(2.3)	15	(1.8)	15	(2.0)	73	(1.8)	14	(1.4)	13	(1.4)	73	(1.4)	15	(1.2)	12	(1.1)
Female	72	(2.1)	15	(1.8)	13	(1.7)	72	(2.7)	14	(2.0)	14	(2.1)	73	(1.7)	14	(1.2)	13	(1.3)	72	(1.5)	18	(1.2)	9	(1.0)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

SE Standard error

Table 4.7

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and age group, Canada, 2012**

Age group	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
16 to 24	49	(5.8)	25 <sup>M</sup>	(4.8)	26 <sup>M</sup>	(5.1)	49	(3.5)	32	(2.9)	19	(2.9)	50	(2.9)	36	(2.8)	14	(1.8)	42	(5.9)	43	(5.8)	15 <sup>M</sup>	(3.8)
25 to 34	66	(5.7)	16 <sup>M</sup>	(3.8)	18 <sup>M</sup>	(4.0)	70	(3.2)	13 <sup>M</sup>	(2.4)	17	(2.6)	72	(2.8)	16	(2.1)	11 <sup>M</sup>	(2.0)	70	(4.1)	22	(3.5)	8 <sup>M</sup>	(2.5)
35 to 44	70	(4.5)	15 <sup>M</sup>	(3.6)	16 <sup>M</sup>	(3.6)	78	(2.3)	9 <sup>M</sup>	(1.6)	13	(1.9)	82	(1.8)	10	(1.3)	8 <sup>M</sup>	(1.3)	86	(2.7)	8 <sup>M</sup>	(2.0)	U	(1.9)
45 to 54	75	(3.0)	14 <sup>M</sup>	(2.4)	12 <sup>M</sup>	(2.3)	80	(2.3)	9	(1.5)	11	(1.7)	83	(2.0)	7	(1.1)	9 <sup>M</sup>	(1.6)	84	(3.3)	6 <sup>M</sup>	(1.7)	10 <sup>M</sup>	(3.0)
55 to 65	69	(3.5)	15 <sup>M</sup>	(2.6)	16 <sup>M</sup>	(2.7)	74	(2.6)	14	(1.9)	12	(1.9)	75	(2.6)	13	(2.1)	11 <sup>M</sup>	(2.0)	74	(5.5)	17 <sup>M</sup>	(4.7)	U	(3.4)
Age group	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
16 to 24	49	(5.4)	25 <sup>M</sup>	(4.9)	26 <sup>M</sup>	(4.8)	49	(3.4)	33	(3.1)	18	(2.5)	50	(3.1)	36	(2.9)	14	(1.8)	43	(5.6)	44	(5.7)	13 <sup>M</sup>	(4.3)
25 to 34	67	(4.6)	15 <sup>M</sup>	(3.2)	18 <sup>M</sup>	(3.4)	69	(3.2)	15	(2.4)	16	(2.5)	72	(2.9)	17	(2.1)	11 <sup>M</sup>	(2.0)	73	(3.9)	18 <sup>M</sup>	(3.4)	9 <sup>M</sup>	(2.5)
35 to 44	70	(3.7)	15 <sup>M</sup>	(2.9)	16 <sup>M</sup>	(3.0)	80	(2.3)	9 <sup>M</sup>	(1.8)	11 <sup>M</sup>	(1.8)	83	(1.9)	9	(1.3)	8 <sup>M</sup>	(1.4)	85	(3.0)	9 <sup>M</sup>	(2.2)	U	(2.1)
45 to 54	74	(2.4)	14	(2.0)	13	(1.9)	81	(1.8)	9	(1.2)	10	(1.6)	84	(1.9)	7	(1.0)	9 <sup>M</sup>	(1.6)	84	(3.3)	U	(1.9)	10 <sup>M</sup>	(3.1)
55 to 65	70	(3.1)	15	(2.2)	16 <sup>M</sup>	(2.6)	75	(2.8)	14	(2.3)	11 <sup>M</sup>	(2.1)	74	(3.3)	14 <sup>M</sup>	(2.5)	12 <sup>M</sup>	(2.4)	78	(5.0)	14 <sup>M</sup>	(4.5)	U	(3.7)
Age group	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
16 to 24	56	(6.4)	21 <sup>M</sup>	(5.3)	23 <sup>M</sup>	(5.4)	55	(6.6)	25 <sup>M</sup>	(5.9)	20 <sup>M</sup>	(4.9)	49	(3.7)	32	(3.6)	19	(2.8)	46	(2.7)	38	(2.4)	16	(1.8)
25 to 34	73	(5.9)	17 <sup>M</sup>	(4.8)	10 <sup>M</sup>	(2.9)	63	(6.0)	17 <sup>M</sup>	(3.7)	20 <sup>M</sup>	(4.5)	72	(3.1)	14 <sup>M</sup>	(2.4)	14 <sup>M</sup>	(2.4)	71	(2.3)	18	(1.9)	11	(1.7)
35 to 44	78	(3.9)	U	(3.2)	13 <sup>M</sup>	(3.1)	72	(3.7)	15 <sup>M</sup>	(3.2)	13 <sup>M</sup>	(3.2)	80	(2.3)	10	(1.5)	11 <sup>M</sup>	(1.9)	84	(1.8)	9	(1.3)	7 <sup>M</sup>	(1.3)
45 to 54	74	(2.5)	16	(2.2)	10 <sup>M</sup>	(1.7)	76	(2.8)	12	(1.8)	12 <sup>M</sup>	(2.3)	83	(2.0)	7	(1.1)	10 <sup>M</sup>	(1.8)	84	(2.4)	6 <sup>M</sup>	(1.0)	10 <sup>M</sup>	(2.0)
55 to 65	69	(2.7)	17	(1.9)	14 <sup>M</sup>	(2.3)	74	(3.1)	13 <sup>M</sup>	(2.4)	13 <sup>M</sup>	(2.5)	75	(2.9)	13	(2.0)	12 <sup>M</sup>	(2.3)	77	(3.6)	13 <sup>M</sup>	(2.6)	10 <sup>M</sup>	(2.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

**Table 4.8**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and educational attainment, Canada, 2012**

Educational attainment	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Less than high-school diploma	61	(3.5)	19	(2.8)	20	(2.9)	60	(4.0)	21	(2.7)	19 <sup>M</sup>	(3.4)	55	(4.9)	28	(4.6)	16 <sup>M</sup>	(3.9)	U	(22.1)	U	(22.3)	x	x
High school diploma	69	(3.2)	18	(2.9)	13 <sup>M</sup>	(2.2)	67	(2.4)	17	(1.8)	15	(1.8)	65	(2.4)	20	(1.7)	16	(1.8)	54	(5.5)	30 <sup>M</sup>	(5.5)	16 <sup>M</sup>	(3.9)
Postsecondary education – below bachelor's degree	75	(3.2)	11	(1.8)	14 <sup>M</sup>	(2.9)	75	(2.0)	11	(1.3)	14	(1.7)	76	(1.6)	12	(1.3)	12	(1.3)	78	(3.3)	12 <sup>M</sup>	(2.8)	10 <sup>M</sup>	(2.3)
Postsecondary education – bachelor's degree or higher	64	(5.6)	17 <sup>M</sup>	(4.5)	20 <sup>M</sup>	(4.5)	79	(2.4)	12	(1.9)	9 <sup>M</sup>	(1.7)	81	(1.9)	15	(1.4)	5 <sup>M</sup>	(1.0)	78	(2.1)	15	(1.8)	6 <sup>M</sup>	(1.3)
Educational attainment	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Less than high-school diploma	60	(3.2)	19	(2.6)	21	(2.7)	60	(4.3)	23	(3.6)	17 <sup>M</sup>	(3.2)	54	(6.1)	29 <sup>M</sup>	(5.0)	17 <sup>M</sup>	(4.2)	U	(19.4)	U	(18.1)	x	x
High school diploma	69	(2.9)	17	(2.4)	14	(2.1)	67	(2.6)	17	(1.9)	16	(2.2)	65	(3.1)	20	(2.3)	14	(2.0)	51	(6.7)	33 <sup>M</sup>	(7.0)	16 <sup>M</sup>	(5.2)
Postsecondary education – below bachelor's degree	73	(2.7)	12	(1.8)	15 <sup>M</sup>	(2.5)	76	(1.9)	12	(1.6)	12	(1.6)	76	(1.7)	11	(1.4)	12	(1.4)	78	(3.7)	11 <sup>M</sup>	(2.6)	11 <sup>M</sup>	(2.7)
Postsecondary education – bachelor's degree or higher	66	(4.7)	17 <sup>M</sup>	(3.3)	17 <sup>M</sup>	(3.4)	78	(2.5)	14	(1.9)	8 <sup>M</sup>	(1.6)	80	(1.7)	15	(1.4)	5 <sup>M</sup>	(1.0)	80	(1.9)	14	(1.8)	6 <sup>M</sup>	(1.2)
Educational attainment	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Less than high-school diploma	66	(3.1)	17	(2.2)	17	(2.6)	62	(4.8)	18 <sup>M</sup>	(3.4)	20 <sup>M</sup>	(4.1)	57	(5.7)	23 <sup>M</sup>	(4.0)	21 <sup>M</sup>	(4.6)	46	(5.3)	36	(4.9)	18 <sup>M</sup>	(4.4)
High school diploma	72	(2.9)	15 <sup>M</sup>	(2.7)	13	(2.0)	71	(3.4)	16 <sup>M</sup>	(2.9)	13 <sup>M</sup>	(2.6)	66	(2.9)	18	(2.2)	16	(2.1)	59	(2.7)	24	(2.1)	16	(2.0)
Postsecondary education – below bachelor's degree	77	(2.7)	15	(2.3)	9 <sup>M</sup>	(1.9)	73	(2.5)	13	(1.8)	14	(2.2)	76	(1.7)	11	(1.2)	13	(1.5)	76	(1.6)	11	(1.4)	13	(1.5)
Postsecondary education – bachelor's degree or higher	72	(4.2)	14 <sup>M</sup>	(3.0)	14 <sup>M</sup>	(3.4)	72	(4.4)	14 <sup>M</sup>	(3.3)	13 <sup>M</sup>	(3.1)	81	(1.8)	13	(1.4)	7 <sup>M</sup>	(1.4)	79	(1.4)	15	(1.2)	5	(0.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Table 4.8 (cont'd)**

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<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

Table 4.9

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and Indigenous identification, Canada, 2012**

Indigenous identification	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Indigenous	58	(5.0)	26	(4.1)	16 <sup>M</sup>	(4.8)	67	(3.4)	21	(3.2)	13 <sup>M</sup>	(2.3)	72	(3.1)	19	(3.1)	9 <sup>M</sup>	(1.7)	70	(7.9)	U	(7.5)	U	(4.4)
Non-Indigenous	68	(1.8)	15	(1.5)	16	(1.5)	72	(1.2)	14	(0.9)	14	(1.0)	74	(1.1)	15	(0.9)	11	(0.8)	75	(1.8)	17	(1.6)	9	(1.2)
Indigenous identification	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Indigenous	59	(4.1)	26	(3.3)	15 <sup>M</sup>	(3.4)	71	(3.5)	18	(2.8)	11 <sup>M</sup>	(2.3)	70	(4.2)	19 <sup>M</sup>	(3.6)	11 <sup>M</sup>	(2.5)	68	(9.1)	U	(9.2)	U	(3.2)
Non-Indigenous	68	(1.7)	15	(1.3)	17	(1.4)	72	(1.4)	15	(1.1)	13	(0.9)	74	(1.3)	15	(1.0)	11	(0.9)	76	(1.8)	16	(1.7)	9	(1.4)
Indigenous identification	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Indigenous	66	(4.1)	25	(4.1)	9 <sup>M</sup>	(2.1)	63	(5.6)	21 <sup>M</sup>	(4.4)	16 <sup>M</sup>	(5.3)	69	(3.5)	19	(2.8)	12 <sup>M</sup>	(2.6)	69	(3.7)	22	(3.5)	10 <sup>M</sup>	(1.8)
Non-Indigenous	72	(1.6)	15	(1.2)	13	(1.3)	71	(1.9)	14	(1.4)	15	(1.5)	73	(1.3)	14	(1.0)	13	(1.0)	73	(1.1)	17	(0.9)	11	(0.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

Table 4.10

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and immigrant status, Canada, 2012**

Immigrant status	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Recent immigrants	64	(3.6)	15 <sup>M</sup>	(3.6)	21	(2.9)	66	(3.4)	18 <sup>M</sup>	(3.2)	16	(2.1)	68	(3.9)	22	(3.5)	10 <sup>M</sup>	(2.0)	74	(6.9)	U	(6.6)	U	(3.2)
Established immigrants	75	(3.6)	11 <sup>M</sup>	(3.1)	14 <sup>M</sup>	(3.2)	78	(3.2)	9 <sup>M</sup>	(2.4)	14 <sup>M</sup>	(2.7)	78	(3.6)	10 <sup>M</sup>	(2.1)	12 <sup>M</sup>	(3.0)	74	(6.3)	U	(4.8)	U	(5.8)
Canadian-born	67	(2.4)	17	(1.9)	15	(2.0)	71	(1.4)	15	(1.0)	14	(1.2)	74	(1.2)	15	(1.0)	10	(0.9)	75	(2.0)	17	(1.8)	8	(1.2)
Immigrant status	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Recent immigrants	61	(3.3)	17 <sup>M</sup>	(3.3)	22	(2.5)	67	(3.8)	20	(3.1)	13 <sup>M</sup>	(2.3)	71	(4.6)	20 <sup>M</sup>	(4.0)	9 <sup>M</sup>	(1.8)	71	(6.8)	20 <sup>M</sup>	(6.2)	U	(3.0)
Established immigrants	77	(3.6)	9 <sup>M</sup>	(2.7)	14 <sup>M</sup>	(2.6)	75	(4.0)	11 <sup>M</sup>	(2.6)	14 <sup>M</sup>	(3.1)	77	(4.3)	11 <sup>M</sup>	(2.8)	12 <sup>M</sup>	(2.9)	79	(6.0)	U	(3.2)	U	(5.9)
Canadian-born	66	(2.1)	17	(1.6)	16	(1.8)	72	(1.5)	15	(1.3)	13	(1.1)	75	(1.2)	15	(1.0)	10	(0.9)	75	(2.0)	17	(1.9)	8 <sup>M</sup>	(1.4)
Immigrant status	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Recent immigrants	64	(4.1)	18 <sup>M</sup>	(3.6)	18 <sup>M</sup>	(2.9)	64	(4.9)	16 <sup>M</sup>	(4.8)	20 <sup>M</sup>	(3.6)	68	(3.8)	19 <sup>M</sup>	(3.3)	13 <sup>M</sup>	(2.3)	69	(3.2)	21	(3.2)	10 <sup>M</sup>	(1.7)
Established immigrants	79	(3.7)	11 <sup>M</sup>	(3.0)	9 <sup>M</sup>	(2.1)	74	(4.1)	9 <sup>M</sup>	(2.6)	17 <sup>M</sup>	(3.6)	77	(3.8)	10 <sup>M</sup>	(2.1)	13 <sup>M</sup>	(3.2)	75	(4.2)	11 <sup>M</sup>	(2.2)	14 <sup>M</sup>	(3.4)
Canadian-born	71	(1.8)	17	(1.3)	12	(1.6)	71	(2.2)	15	(1.8)	13	(1.8)	73	(1.5)	14	(1.1)	13	(1.1)	73	(1.2)	17	(1.0)	10	(0.8)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

U Too unreliable to be published

SE Standard error

**Table 4.11**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65, by type of employment, proficiency level and hourly earnings quintiles, Canada, 2012**

Hourly earnings quintile	Literacy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Lowest quintile	55	(3.5)	21	(3.0)	25	(3.2)	54	(2.5)	26	(2.3)	20	(2.4)	51	(2.8)	35	(2.8)	14	(1.9)	44	(6.5)	38 <sup>M</sup>	(6.8)	18 <sup>M</sup>	(5.1)
4 <sup>th</sup> quintile	72	(3.3)	15 <sup>M</sup>	(2.7)	13 <sup>M</sup>	(2.7)	70	(2.4)	13	(2.0)	17	(2.1)	66	(2.6)	20	(2.2)	14	(2.0)	58	(6.0)	33	(5.2)	U	(3.1)
3 <sup>rd</sup> quintile	77	(3.6)	11 <sup>M</sup>	(2.5)	12 <sup>M</sup>	(2.7)	78	(2.5)	11	(1.7)	11 <sup>M</sup>	(2.0)	76	(2.3)	13	(1.7)	12 <sup>M</sup>	(2.0)	72	(4.9)	18 <sup>M</sup>	(3.7)	U	(3.9)
2 <sup>nd</sup> quintile	71	(5.3)	15 <sup>M</sup>	(4.3)	14 <sup>M</sup>	(4.3)	82	(2.7)	10 <sup>M</sup>	(2.1)	9 <sup>M</sup>	(2.3)	83	(2.0)	9 <sup>M</sup>	(1.6)	8 <sup>M</sup>	(1.5)	81	(2.9)	13 <sup>M</sup>	(2.5)	U	(2.3)
Highest quintile	77	(6.0)	12 <sup>M</sup>	(4.0)	U	(4.9)	80	(3.0)	9 <sup>M</sup>	(1.9)	11 <sup>M</sup>	(2.5)	84	(2.0)	9	(1.4)	7 <sup>M</sup>	(1.5)	84	(2.3)	9 <sup>M</sup>	(1.8)	7 <sup>M</sup>	(1.8)

Hourly earnings quintile	Numeracy																							
	Level 1 or below						Level 2						Level 3						Level 4 or 5					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Lowest quintile	55	(3.2)	22	(2.6)	23	(2.7)	54	(3.0)	27	(2.7)	19	(2.2)	49	(3.4)	35	(3.2)	16	(2.2)	41 <sup>M</sup>	(6.8)	45	(7.1)	14 <sup>M</sup>	(4.6)
4 <sup>th</sup> quintile	72	(2.8)	14	(2.2)	14	(2.3)	70	(2.7)	14	(2.0)	16	(2.3)	66	(3.0)	21	(2.3)	13 <sup>M</sup>	(2.4)	54	(6.6)	33 <sup>M</sup>	(5.6)	U	(4.3)
3 <sup>rd</sup> quintile	74	(3.3)	12 <sup>M</sup>	(2.1)	13 <sup>M</sup>	(2.8)	79	(2.5)	11 <sup>M</sup>	(2.0)	10 <sup>M</sup>	(2.0)	75	(2.5)	13	(1.7)	12 <sup>M</sup>	(2.2)	73	(5.5)	15 <sup>M</sup>	(4.0)	U	(4.7)
2 <sup>nd</sup> quintile	73	(5.1)	13 <sup>M</sup>	(3.8)	13 <sup>M</sup>	(3.7)	81	(2.8)	10 <sup>M</sup>	(1.8)	9 <sup>M</sup>	(2.2)	83	(2.3)	10 <sup>M</sup>	(1.6)	7 <sup>M</sup>	(1.7)	81	(3.3)	12 <sup>M</sup>	(2.5)	U	(2.8)
Highest quintile	76	(5.6)	12 <sup>M</sup>	(3.7)	U	(4.7)	80	(3.3)	10 <sup>M</sup>	(2.2)	10 <sup>M</sup>	(2.5)	83	(1.8)	9 <sup>M</sup>	(1.5)	8 <sup>M</sup>	(1.4)	85	(2.2)	8 <sup>M</sup>	(1.9)	6 <sup>M</sup>	(1.6)

Hourly earnings quintile	PS-TRE																							
	PS-TRE non-respondents						Below Level 1						Level 1						Level 2 or 3					
	Type of employment						Type of employment						Type of employment						Type of employment					
	Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract		Secure		Precarious		No contract	
%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	
Lowest quintile	59	(3.4)	21	(2.3)	20 <sup>M</sup>	(3.5)	56	(4.3)	23	(3.8)	21	(3.3)	52	(3.0)	28	(2.9)	20	(2.6)	47	(2.8)	37	(2.8)	16	(1.9)
4 <sup>th</sup> quintile	71	(3.2)	17	(2.7)	12	(2.0)	72	(3.5)	13 <sup>M</sup>	(2.6)	15 <sup>M</sup>	(3.1)	70	(2.8)	13	(2.0)	16	(2.5)	62	(2.7)	24	(2.2)	14 <sup>M</sup>	(2.4)
3 <sup>rd</sup> quintile	80	(3.4)	13 <sup>M</sup>	(3.2)	7 <sup>M</sup>	(1.6)	76	(3.6)	11 <sup>M</sup>	(2.2)	14 <sup>M</sup>	(2.9)	78	(2.5)	11	(1.5)	11 <sup>M</sup>	(2.1)	73	(2.4)	14	(1.7)	13	(2.1)
2 <sup>nd</sup> quintile	79	(4.3)	8 <sup>M</sup>	(2.3)	12 <sup>M</sup>	(3.6)	75	(4.1)	15 <sup>M</sup>	(3.7)	10 <sup>M</sup>	(3.0)	82	(2.5)	10 <sup>M</sup>	(2.0)	8 <sup>M</sup>	(1.8)	83	(1.7)	10	(1.4)	8 <sup>M</sup>	(1.4)
Highest quintile	77	(5.1)	13 <sup>M</sup>	(3.4)	U	(3.8)	81	(4.4)	11 <sup>M</sup>	(3.2)	U	(3.8)	82	(2.1)	8	(1.4)	10 <sup>M</sup>	(1.8)	84	(1.7)	9	(1.4)	7 <sup>M</sup>	(1.2)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error

Table 4.12a

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 in precarious employment reporting positive health and social outcomes, by proficiency level, 2012**

Literacy	Precarious employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.0	(0.6)	–	1.9	(0.4)	–	1.5	(0.3)	–	1.0	(0.3)	–
Level 3	1.5	(0.5)	–	2.9	(0.4)	**	2.3	(0.3)	**	1.5	(0.4)	–
Level 4 or 5	2.0	(0.8)	–	4.2	(0.5)	**	3.0	(0.3)	**	2.0	(0.4)	–
Numeracy	Precarious employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.2	(0.4)	–	1.7	(0.3)	–	1.7	(0.3)	*	1.2	(0.3)	–
Level 3	1.8	(0.4)	–	2.1	(0.3)	*	2.1	(0.2)	**	1.5	(0.3)	–
Level 4 or 5	2.4	(0.6)	–	3.4	(0.4)	**	2.7	(0.3)	**	1.9	(0.4)	–
PS-TRE	Precarious employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	1.4	(0.4)	–	1.1	(0.4)	–	1.0	(0.3)	–	1.4	(0.3)	–
Level 1	2.1	(0.4)	*	1.6	(0.3)	–	1.7	(0.3)	–	1.2	(0.3)	–
Level 2 or 3	3.0	(0.4)	**	2.8	(0.3)	**	2.4	(0.3)	**	2.0	(0.3)	**

Source: The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

<sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and wages.

<sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.

<sup>3</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.

<sup>4</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."

<sup>5</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

– represents a p-value that is not statistically significant

\* represents a statistically significant p-value of <0.05

\*\* represents a statistically substantially significant p-value of <0.01

\*\*\* represents a statistically highly significant p-value of <0.001

SE Standard error



**Table 4.12b**

**Literacy, numeracy and PS-TRE — Adjusted<sup>1</sup> likelihood of population aged 16 to 65 in “no contract” employment reporting positive health and social outcomes, by proficiency level, Canada, 2012**

Literacy	“No contract” employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.8	(0.5)	–	0.9	(0.4)	–	1.7	(0.4)	–	1.2	(0.4)	–
Level 3	2.2	(0.5)	–	1.6	(0.4)	–	2.6	(0.3)	**	2.0	(0.4)	–
Level 4 or 5	2.9	(1.5)	–	1.5	(0.6)	–	3.7	(0.5)	*	3.1	(0.5)	*
Numeracy	“No contract” employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
Level 1 or below	1.0			1.0			1.0			1.0		
Level 2	1.5	(0.4)	–	1.1	(0.4)	–	1.7	(0.3)	–	1.4	(0.4)	–
Level 3	2.0	(0.5)	–	1.8	(0.4)	–	2.4	(0.3)	**	1.8	(0.4)	–
Level 4 or 5	2.5	(1.9)	–	2.0	(0.5)	–	2.7	(0.4)	*	3.7	(0.6)	*
PS-TRE	“No contract” employment											
	Self-reported health <sup>2</sup>			Level of trust <sup>3</sup>			Volunteer participation <sup>4</sup>			Political efficacy <sup>5</sup>		
	Positive			Positive			Volunteered			Positive		
	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value	Odds ratio	SE	p-value
PS-TRE non-respondents	1.0			1.0			1.0			1.0		
Below Level 1	0.7	(0.5)	–	1.1	(0.4)	–	1.1	(0.3)	–	1.3	(0.4)	–
Level 1	1.3	(0.5)	–	1.4	(0.3)	–	2.2	(0.3)	**	1.7	(0.3)	–
Level 2 or 3	1.1	(0.5)	–	2.2	(0.4)	*	3.3	(0.3)	***	3.0	(0.4)	**

**Source:** The Programme for the International Assessment of Adult Competencies, 2012.

**Notes:**

- <sup>1</sup> Odds ratios are adjusted for age, gender, educational attainment, Indigenous identification, immigrant status and wages.
- <sup>2</sup> PIAAC measures self-reported health by having respondents respond to the following question: "In general, would you say your health is excellent, very good, good, fair or poor?" Responses of "excellent," "very good," or "good" are considered measures of positive health status, while responses of "fair" or "poor" are considered measures of negative health status.
- <sup>3</sup> PIAAC measures trust by the extent to which respondents agreed or disagreed with the statement: "there are only a few people you can trust completely." Those who disagreed or strongly disagreed with this statement are considered to have positive level of trust. Those who strongly agreed or agreed were considered to have negative level of trust.
- <sup>4</sup> PIAAC measures volunteer participation by whether respondents report doing any voluntary work "in the previous 12 months, including unpaid work for a charity, political party, trade union or other non-profit organization."
- <sup>5</sup> PIAAC measures political efficacy by whether respondents agreed or disagreed with the statement: "People like me don't have any say about what the government does." Respondents have high or positive political efficacy if they strongly disagreed or disagreed with this statement. Those who strongly agreed or agreed with the statement are considered to have low or negative political efficacy.

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SE Standard error

**Table 4.13**

**Literacy, numeracy and PS-TRE — Percentage distributions of population aged 16 to 65 who report leaving or not seeking employment for health or family reasons, by proficiency level, Canada, 2012**

Literacy	Stopping work for health reasons				Not looking for work due to being temporarily sick or injured				Not looking for work due long-term illness/disability				Stopping work for family responsibilities or childcare				Not looking for work due to looking after family or home			
	Yes		No		Yes		No		Yes		No		Yes		No		Yes		No	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	17	(2.7)	83	(2.7)	4 <sup>M</sup>	(0.9)	96	(0.9)	28	(2.4)	72	(2.4)	13 <sup>M</sup>	(2.4)	87	(2.4)	22	(2.0)	78	(2.0)
Level 2	12	(1.8)	88	(1.8)	3 <sup>M</sup>	(0.8)	97	(0.8)	16	(1.5)	84	(1.5)	11	(1.5)	89	(1.5)	21	(1.8)	79	(1.8)
Level 3	7 <sup>M</sup>	(1.4)	93	(1.4)	U	(0.5)	99	(0.5)	10	(1.4)	90	(1.4)	9 <sup>M</sup>	(1.7)	91	(1.7)	16	(1.8)	84	(1.8)
Level 4 or 5	U	(1.4)	97	(1.4)	x	x	100	(0.4)	U	(3.8)	90	(3.8)	U	(4.1)	89	(4.1)	16 <sup>M</sup>	(4.0)	84	(4.0)
Numeracy	Stopping work for health reasons				Not looking for work due to being temporarily sick or injured				Not looking for work due long-term illness/disability				Stopping work for family responsibilities or childcare				Not looking for work due to looking after family or home			
	Yes		No		Yes		No		Yes		No		Yes		No		Yes		No	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Level 1 or below	16	(2.1)	84	(2.1)	4 <sup>M</sup>	(0.9)	96	(0.9)	27	(2.1)	73	(2.1)	14	(2.1)	86	(2.1)	23	(1.7)	77	(1.7)
Level 2	11	(1.6)	89	(1.6)	3 <sup>M</sup>	(0.9)	97	(0.9)	14	(1.6)	86	(1.6)	11 <sup>M</sup>	(1.9)	89	(1.9)	21	(1.9)	79	(1.9)
Level 3	6 <sup>M</sup>	(1.7)	94	(1.7)	U	(0.4)	99	(0.4)	10 <sup>M</sup>	(1.8)	90	(1.8)	9 <sup>M</sup>	(2.2)	91	(2.2)	14	(2.0)	86	(2.0)
Level 4 or 5	U	(1.3)	98	(1.3)	x	x	100	(0.3)	U	(2.6)	94	(2.6)	U	(3.4)	94	(3.4)	U	(4.1)	90	(4.1)
PS-TRE	Stopping work for health reasons				Not looking for work due to being temporarily sick or injured				Not looking for work due long-term illness/disability				Stopping work for family responsibilities or childcare				Not looking for work due to looking after family or home			
	Yes		No		Yes		No		Yes		No		Yes		No		Yes		No	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
PS-TRE non-respondents	17	(2.5)	83	(2.5)	3 <sup>M</sup>	(0.7)	97	(0.7)	27	(1.9)	73	(1.9)	9 <sup>M</sup>	(1.9)	91	(1.9)	20	(1.8)	80	(1.8)
Below Level 1	18	(2.8)	82	(2.8)	5 <sup>M</sup>	(1.5)	95	(1.5)	23	(2.7)	77	(2.7)	13 <sup>M</sup>	(2.8)	87	(2.8)	19	(2.4)	81	(2.4)
Level 1	10 <sup>M</sup>	(2.1)	90	(2.1)	U	(1.0)	98	(1.0)	12	(1.8)	88	(1.8)	11 <sup>M</sup>	(2.1)	89	(2.1)	21	(2.1)	79	(2.1)
Level 2 or 3	U	(1.3)	97	(1.3)	U	(0.3)	99	(0.3)	6 <sup>M</sup>	(1.3)	94	(1.3)	10 <sup>M</sup>	(2.2)	90	(2.2)	17	(2.0)	83	(2.0)

Source: The Programme for the International Assessment of Adult Competencies, 2012.

<sup>M</sup> Use with caution

U Too unreliable to be published

x Suppressed to meet the confidentiality requirements of the *Statistics Act*

SE Standard error



## **APPENDIX III**

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The following dedicated professionals working in federal, provincial, and territorial departments and agencies across the country were instrumental in making this study a reality through analysis, collaboration, and provision of guidance and various other forms of support.

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